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OF INDIA

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INTRODUCTORY NOTES

NOTES ON TRANSLITERATION

Vowel-Sounds

- a has the sound of *a* in 'woman.'
- a has the sound of *a* in 'father.'
- e has the vowel-sound in 'grey.'
- i has the sound of *i* in 'pin.'
- I has the sound of *i* in 'police.'
- o has the sound of *o* in 'bone.'
- u has the sound of *u* in 'bull.'
- u has the sound of *u* in 'flute.'
- ai has the vowel-sound in 'mine.'
- au has the vowel-sound in 'house.'

It should be stated that no attempt has been made to distinguish between the long and short sounds of *e* and *o* in the Dravidian languages, which possess the vowel-sounds in 'bet' and 'hot' in addition to those given above. Nor has it been thought necessary to mark vowels as long in cases where mistakes in pronunciation were not likely to be made.

Consonants

Most Indian languages have different forms for a number of consonants, such as *d*, *t*, *r*, &c., marked in scientific works by the use of dots or italics. As the European ear distinguishes these with difficulty in ordinary pronunciation, it has been considered undesirable to embarrass the reader with them; and only two notes are required. In the first place, the Arabic *k*, a strong guttural, has been represented by *k* instead of *q* which is often used. Secondly, it should be remarked that aspirated consonants are common; and, in particular, *dh* and *th* (except in Burma) never have the sound of *th* in 'this' or 'thin,' but should be pronounced as in 'woodhouse' and 'boathook.'

Burmese Words

Burmese and some of the languages on the frontier of China have the following special sounds :—

aw has the vowel-sound in 'law.'

o and ii are pronounced as in German,

gy is pronounced almost like *j* in 'jewel.'

ky is pronounced almost like *ch* in 'church.'

th is pronounced in some cases as in 'this,' in some cases as in 'thin.'

w after a consonant has the force of *uw*. Thus, *ywa* and *pwe* are disyllables, pronounced as if written *ymva* and *puwe*.

It should also be noted that, whereas in Indian words the accent or stress is distributed almost equally on each syllable, in Burmese there is a tendency to throw special stress on the last syllable.

General

The names of some places—e.g. Calcutta, Bombay, Lucknow, Cawnpore—have obtained a popular fixity of spelling, while special forms have been officially prescribed for others. Names of persons are often spelt and pronounced differently in different parts of India ; but the variations have been made as few as possible by assimilating forms almost alike, especially where a particular spelling has been generally adopted in English books.

NOTES ON MONEY, PRICES, WEIGHTS AND MEASURES

As the currency of India is based upon the rupee, all statements with regard to money throughout the *Gazetteer* have necessarily been expressed in rupees, nor has it been found possible to add generally a conversion into sterling. Down to about 1873 the gold value of the rupee (containing 165 grains of pure silver) was approximately equal to 2s., or one-tenth of a £ ; and for that period it is easy to convert rupees into sterling by striking off the final cipher (Rs. 1,000 = £100). But after 1873, owing to the depreciation of silver as compared with gold throughout the world, there came a serious and progressive fall in the exchange, until at one time the gold value of the rupee dropped as low as 1s. In order to provide a remedy for the heavy loss caused to the Government of India in respect of its gold payments to be made in England, and also to relieve foreign trade and finance from the inconvenience due to constant and unforeseen fluctuations in exchange, it was resolved in 1893 to close the mints to the free coinage of silver, and thus force up the value of the rupee by restricting the circulation. The intention was to raise

the exchange value of the rupee to 1s. 4d., and then introduce a gold standard (though not necessarily a gold currency) at the rate of Rs. 15 = £1. This policy has been completely successful. From 1899 onwards the value of the rupee has been maintained, with insignificant fluctuations, at the proposed rate of u. 4d. ; and consequently since that date three rupees have been equivalent to two rupees before 1873. For the intermediate period, between 1873 and 1899, it is manifestly impossible to adopt any fixed sterling value for a constantly changing rupee. But since 1899, if it is desired to convert rupees into sterling, not only must the final cipher be struck off (as before 1873), but also one-third must be subtracted from the result. Thus Rs. 1,000 = £100 — $1/3$ = (about) £67.

Another matter in connexion with the expression of money statements in terms of rupees requires to be explained. The method of numerical notation in India differs from that which prevails throughout Europe. Large numbers are not punctuated in hundreds of thousands and millions, but in lakhs and crores. A lakh is one hundred thousand (written out as 1,00,000), and a crore is one hundred lakhs or ten millions (written out as 1,00,00,000). Consequently, according to the exchange value of the rupee, a lakh of rupees (Rs. 1,00,000) may be read as the equivalent of £10,000 before 1873, and as the equivalent of (about) £6,667 after 1899 ; while a crore of rupees (Rs. 1,00,00,000) may similarly be read as the equivalent of £1,000,000 before 1873, and as the equivalent of (about) £666,667 after 1899.

Finally, it should be mentioned that the rupee is divided into 16 annas, a fraction commonly used for many purposes by both natives and Europeans. The anna was formerly reckoned as $11/2$ d. : it may now be considered as exactly corresponding to *id*. The anna is again subdivided into 12 pies.

The various systems of weights used in India combine uniformity of scale with immense variations in the weight of units. The scale used generally throughout Northern India, and less commonly in Madras and Bombay; may be thus expressed : one maund = 40 seers; one seer = 16 chittaks or 80 tolas. The actual weight of a seer varies greatly from District to District, and even from village to village; but in the standard system the tola is 180 grains Troy (the exact weight of the rupee), and the seer thus weighs 2·057 lb., and the maund 82·28 lb. This standard is used in official reports and throughout the *Gazetteer*.

For calculating retail prices, the universal custom in India is to express them in terms of seers to the rupee. Thus, when prices change, what varies is not the amount of money to be paid for the

same quantity, but the quantity to be obtained for the same amount of money. In other words, prices in India are quantity prices, not money prices. When the figure of quantity goes up, this of course means that the price has gone down, which is at first sight perplexing to an English reader. It may, however, be mentioned that quantity prices are not altogether unknown in England, especially at small shops, where pennyworths of many groceries can be bought. Eggs, likewise, are commonly sold at a varying number for the shilling. If it be desired to convert quantity prices from Indian into English denominations without having recourse to money prices (which would often be misleading), the following scale may be adopted —based upon the assumptions that a seer is exactly 2 lb., and that the value of the rupee remains constant at 1s. 4d. : 1 seer per rupee = (about) 3 lb. for 2s. ; 2 seers per rupee = (about) 6 lb. for 2s. ; and so on.

The name of the unit for square measurement in India generally is the *bigha*, which varies greatly in different parts of the country. But areas have always been expressed throughout the *Gazetteer* either in square miles or in acres.

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Mahbubabad (or Maukota).— *Taluk* in Warangal District, Hyderabad State, with an area of 778 square miles. The population in 1901, including *jagirs*, was 98,552, compared with 80,071 in 1891. Some villages were transferred from the Warangal *taluk* in 1905. The *taluk* now contains 158 villages, of which 28 are *jagir*, and Mahbubabad (population, 2,769) is the head-quarters. The land revenue in 1901 was 2-3 lakhs. Rice is largely grown and irrigated from tanks. The Nizam's Guaranteed State Railway passes through the *taluk* from north-west to east. There are 3,817 Koyas (a jungle tribe).

Mahbubnagar District (formerly called Nagar Karnul).—District in the Medak-Gulshanabad Division, Hyderabad State, lying between 16° 2' and 17° 14' N. and 77° 12' and 79° 10' E., with a total area of 6,543 square miles, of which 3,586 square miles are *khalsa*, the rest being *jagir*¹. It is separated from the Madras Districts of Kurnool and Guntur by the Kistna river, which bounds it to the south : on the north lie the Districts of Medak and Atrai-balda ; on the east, Nalgonda ; on the north-west, Gulbarga : and on the west, Raichur. In the

south-east corner a range of hills extends from the north to the south of the Amrabad *taluk*, consisting of flat-topped hills, rising one above the other, the summits forming extensive plateaux. The surface of the District is highest in the north and west, and the general slope is from north-west to south-east.

Physical aspects

The two principal rivers, which flow along the westernmost part of the District, are the Kistna and the Bhima. The Dindi, which rises in the Jedcherla *taluk*, passes through the Kalvakurti and Amrabad *taluks*, and falls into the Kistna about 18 miles east of Chandragiri.

The District is occupied by Archaean gneiss, except along the banks of the Kistna, where the rocks belong to the Cuddapah and Kurnool series².

¹ The statistics in this article relate to the District as it stood before the rearrangements made in 1905, see paragraph 011 Population.

- *Memoirs, Geological Survey of India*, vol. viii, parts I. and xvii.

MAHBUBNAGAR DISTRICT

The famous Golconda diamonds were formerly obtained from the Cuddapahs and Kurnools, particularly the basement-beds of the latter.

The District is well wooded, having a large forest area. The timber trees are *bljasal* (*Pterocarpus Marsupium*), *nallamaddi* (*Terminia/tia tomentosa*), *cppa* (*Hankvickia bi/tata*), *ebon*), teak, *babul* (*Acacia arabica*), mango, and tamarind. The scrubby jungle consists of brush-wood, *tan'ar* (*Cassia auriculata*), and other plants used for fuel.

Antelope and spotted deer are found in the Ibrahimpatan, Makhtal, and Xarayanpet *taluks*; tigers, leopards, and bears are met with in the wooded hills of the rest of the District. In the Amrabad *taluk*, wild hog, *nilgai-sambar*, hyenas, porcupines, several species of monkeys, large red squirrels, and wild dogs are also found. Peafowl, jungle-fowl, red parrots and red *u/i/ias*, yellow and red bulbuls as large as pigeons, and many other rare birds are also met with.

Climatically the District may be divided into three portions. The *taluks* of Narayanpet, Makhtal, and Jedcherla are hot and dry, but healthy : Mahbiibnagar, Koilkonda, Ibrahimpatan, and Kalvakurti are hot and damp, and are not so healthy ; while the remaining *taluks* of Pargi, Nagar Karnul, and Amrabad are damp, unhealthy, and malarious. The annual rainfall for the twenty-one years ending 1901 averaged 34 inches.

Little is known of the history of the District. The Rajas of Warangal at one period held sway over it. but after the Muhammadan

History conquest of the Deccan it came into the possession of the Bahmani kings. On the dissolution of their power, a portion of it was annexed by the Kutb Shahis, and another portion became part of Bijapur. In 1686, when Sikandar Adil Shah was defeated by Aurangzeb, Bijapur with its dependencies was annexed to the empire of Delhi. In 1706 prince Kam Bakhsh was appointed Subahdar of Bijapur and Hyderabad : and on the foundation of the Hyderabad State early in the eighteenth century the District was included in the Nizam's Dominions.

The fort of Koilkonda was built by Ibrahim Kutb Shah, one of the (ioleonda kings, and contained substantial buildings which are now in ruins. In the Amrabad *taluk* is a fort, now in ruins, called the I'ratap Rudra Kot, which could shelter a large garrison. The old ruined city of Chandragupta, 32 miles south of Amrabad on the left bank of the Kistna, was a very populous place during the reign of I'ratap Rudra, Raja of Warangal. Besides these, there are four old temples, one of which, called the Maheswara temple, is built on a hill with 900 steps from the foot to the summit. In the Nagar Karnul *taluk* is the hill fort of I'ANGAL, a mile and a half long and one mile broad, possessing seven walls with a citadel in the centre.

The number of towns and villages in the District, including *jagirs*,

is 1,355. The population at each Census in the last twenty years was : (1881) 547,694, (1891) 674,649, and (1901) 705,725.

The towns are NĀRĀYANPET and MAHBŪBNAGAR.

Population.

More than 91 per cent. of its population are Hindus and over 8 per cent. Musalmāns. About 86 per cent. speak Telugu, 6 per cent. Urdū, and nearly 5 per cent. Kanarese. The following table gives the chief statistics of population in 1901 :—

<i>Tāluk.</i>	Area in square miles.	Number of		Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
		Towns.	Villages.				
Mahbūbnagar . . .	250	1	59	45,604	182	+ 3.1	Not available.
Jedcherla . . .	234	...	79	38,961	166	+ 0.8	
Ibrāhimpatan . . .	194	...	43	27,143	139	— 3.3	
Kalvakurti . . .	136	...	70	41,069	94	+ 4.3	
Amrābād . . .	679	...	37	16,794	24	+ 6.5	
Nāgar Karnūl . . .	532	...	127	67,990	127	+ 5.4	
Makhtal . . .	447	...	107	64,208	143	+ 2.2	
Nārāyanpet . . .	315	1	72	66,579	211	+ 13.9	
Koilkonda . . .	384	...	91	45,572	118	+ 5.9	
Pargi . . .	115	...	49	21,511	187	+ 42.3	
<i>Jāgirs, &c.</i> . . .	2,957	...	619	270,294	91	+ 5.1	
District total	6,543	2	1,353	705,725	107	+ 4.6	23,688

In 1905 the Ibrāhimpatan *tāluk* was transferred to Medak District, and 73 villages from Koilkonda, Nārāyanpet, and Makhtal were made over to the adjoining *tālukes* of Gulbarga District. Koilkonda and Jedcherla were merged in adjoining *tālukes*, and Nārāyanpet in Makhtal. The Pargi and Amrābād sub-*tālukes* have been raised to the status of *tālukes*. The District in its present form thus comprises six *tālukes* : Mahbūbnagar, Kalvakurti, Amrābād, Nāgar Karnūl, Makhtal, and Pargi.

The most numerous caste is that of the agricultural Kāpus, numbering 132,000, or about 19 per cent. of the total population. Next come the Chamārs or leather-workers, who number 93,000, or 13 per cent. The Brāhmins number 87,600, or over 12 per cent. The Dhangars or shepherds follow with 74,600, or 11 per cent. The Mahārs (village menials) and Komatis (traders) number 44,800 and 21,000, or 6 and 3 per cent. respectively. The Mahārs and Chamārs also work as field labourers. The population directly engaged in agriculture is 205,000, or 29 per cent. of the total.

There is an American Mission at Mahbūbnagar town, which has established a school for low-caste children, the total staff and pupils numbering 163. The number of Christians in the District in 1901 was 359, of whom 350 were natives.

The northern portion of the District is situated on the border of the trap region, the remainder being granitic. The soils of the Pargi

Agriculture. *taluk* and parts of Ibrahimpatan, Mahbubnagar, and Jedcherla are composed of stiff black *regar*.

Makhtal, Narayanpet, and Nagar Karnul, as well as the remaining portions of the above-mentioned *taluks*, consist of granitic or sandy soil*, known as *masab* and *chalka*. The soils of Amrabad are of granitic origin, but contain a large admixture of organic matter.

Jou'ir, gram, linseed, and other *rabi* crops are raised on the *regar* lands, while rice, sesamum, castor, and other *khanf* or rainy season crops are grown on the *chalka* and *masab* soils.

The tenure of lands is mainly *ryotwari*. The area cultivated in 1901 amounted to 1,278 square miles, out of a total *khalsa* area of 3,586, while 790 square miles were cultivable waste and fallows, 1,363 forest, and 155 were not available for cultivation.

The staple food-crops are *jowar* and *bajra*, grown on 48 and 12 per cent, of the total area cropped. Rice, *lachhna*, *savan*, and *kodro* are next in importance, the areas under these being 120, 87, 57, and 32 square miles respectively. Oilseeds are raised on 116 square miles, about three-fourths of this area being under castor alone.

No special breed of cattle is characteristic of the District ; but the Amrabad *taluk* is noted for its swift-trotting bullocks, which though small are very handsome. These are largely bred, and an extensive trade in them is carried on with other parts of the State, and with the Madras Presidency. They resemble the Mysore breed. Ponies are found everywhere, but are of an inferior class. Sheep and goats are largely reared, and are sold at prices varying from Rs. i-8 to Rs. 3 per head. Extensive pasture lands exist in the *taluks* of Pargi, Koilkonda, and Amrabad; the grazing lands in the last of these are said to comprise nearly three-fourths of the total area.

The irrigated area in 1901 was 162 square miles. The principal channels take off from the Nandipalli Vagu in the Narayanpet *taluk*, from the Turikunda Vagu in the Mahbubnagar *taluk*, and from the Musi river in the Ibrahimpatan *taluk*. The first two supply 23 large tanks, and the third was constructed at a cost of 14 lakhs to supply the Ibrahimpatan tank, which irrigates the lands of 13 villages. Besides these, there are 505 large tanks, 1,863 *kuntas* or smaller tanks, and 9,615 wells in good repair.

Mahbubnagar District has several large tracts of forest, especially in the Amrabad, Pargi, and Koilkonda *taluks*. These contain protected and ' reserved ' forests, the trees attaining a good size. The principal timber-trees are teak, ebony, *cpa* (*Jardwickia binata*), *b'ljasal* (*Pterocarpus Marsupium*), *nallamaddi* (*Terminalia tomentosa*), and bamboos, besides mango, tamarind, and *babul* (*Acacia arabica*).

Fuel is abundant. Xagar Karnul and Mahbiibnagar also contain smaller areas of forest. The ' reserved ' forests cover 800 square miles, and the protected and unprotected forests 400 and 163 square miles respectively.

The District possesses good building stone. In the Pargi *taluk* ironstone is smelted to a small extent. In the Xarayanpet, Xagar Karnul, Amrabad, and Mahbubnagar *taluks* carbonate of soda and common salt are obtained by lixiviating saline earth. The salt produced is bitter, owing to an admixture of magnesium sulphate. Six miles south of Farahabad, a bright brick-red laminated limestone is found, similar to the Shahabad stone, but much harder. A hard stone resembling emery, found in Amrabad, is used for making mortars.

Coarse cotton cloth of every description is woven in all parts. In the Xarayanpet *taluk*, silk *satis* and *dhotis*, with gold borders, are made for export to Poona, Sholapur, Bombay, and Baroda.

Ordinary blankets are made by the *changars*; and $\text{col}^{\wedge}\text{c}^{\wedge}\text{f}_{\text{onSi}}$ leather is cured in a crude way by the Chamars for water-buckets. A coarse sort of paper used to be largely -'made in the Koilkonda and Mahbubnagar *taluks*, but the trade has died out owing to the cheapness of imported paper.

The chief exports are food-grains, cotton, and castor-seed, the last two being sent to Bombay and the grain to Hyderabad city. The imports consist of cloth and chintzes of sorts, gram, wheat, sugar, salt, opium, kerosene oil, brass and copper vessels, and silver and gold.

The Great Indian Peninsula Railway passes through the south-western portion of the Makhtal *taluk*, with one station. There are 269 miles of gravelled roads, of which 207 miles are maintained by the Public Works department and 62 by the local boards. Of the former, one traverses the District from Hyderabad to Kurnool in British territory. 112 miles in length. A branch of this, 63 miles long, called the Kistna road, proceeds via Mahbubnagar to the railway. Two other roads, 21 and Ti miles long, run from Narayanpet to the Saidapur station and from Mahbubnagar to Nawabpet. The local board roads are: Makhtal to Xarayanpet, 18 miles; -Mahbubnagar to Koilkonda, 14 miles; and Mahbubnagar to Xagar Karnul, 30 miles.

In the great famine of 1876-8 thousands of people perished in this District. *Jowar* sold at 3 seers per rupee. The famines of 1897 and 1900, though very severe in other parts of the State, did not seriously affect Mahbubnagar, and the total amount spent on relief was only Rs. 2,700.

The District is divided into four subdivisions : one, consisting of the *taluks* of Makhtal and Mahbubnagar, is under a . . . , Administration.
•Second *lalukdar*; the second, comprising the *taluks* of Xagar Karnul and Amrabad, is under another Second Talukdar:

MAHBUBNAGAR DISTRICT

while the third, consisting of the *taluks* of Kalvakurti and Pargi, is under a Third Talukdar. Another Third Talukdar acts as assistant to the First Talukdar, who exercises a general supervision over the work of all his subordinates. Each *taluk* is under a *tahsildar*.

The District civil court is presided over by a Judge, styled the *Xazim-i-Dnvani*, while the *talnlhidrs* hold subordinate civil courts. The First Talukdar is the chief magistrate of the District, and the *Xazim-i- Dl'vani* or Civil Judge is also a joint-magistrate, who exercises magisterial powers during the absence of the First Talukdar from head quarters. The Second and Third Talukdars and the *tahsllddrs* exercise magisterial powers of the second and third class. Serious crime is not heavy, except in adverse seasons, when dacoities and cattle-thefts increase.

Hardly anything is known about the revenue history of the District. Some of the *taluks* were resumed from time to time from Arab and Pathan *jemadars*, who had held them in lieu of payment for troops. The old system of farming *taluks* was formerly in force, and the revenue farmers received two annas in the rupee for collection. But this system was discontinued in 1866, on the introduction of District administration, when the holdings of the cultivators were roughly measured and a fair revenue was fixed. Though the whole of the District had been surveyed some years previously, only two *taluks* (Mahbubnagar and Xarayanpet) were settled in 1900, and the remaining *taluks* in 1903. The settlement raised the land revenue by 2-6 lakhs, or 21 per cent, (from 13-2 lakhs to 15-8 lakhs), and the area of the holdings was found to be 981,029 acres, compared with 455,461 acres shown in the old accounts, a difference of 115 per cent. The average assessment on 'dry' land is R. 1 (maximum Rs. 2-2, minimum three annas), and on 'wet' land Rs. 7 (maximum Rs. 18-12, minimum Rs. 3). The 'wet' lands include *baghat* or garden lands.

The land revenue and the total revenue of the District in recent years are shown below, in thousands of rupees :—

	188 ».	1891.	1901.	1903.
Land revenue . .	8.14	10.77	9.51	11.3»
Total revenue . .	7.64	20.93	17.26	19.96

Owing to the changes in area made in 1905, the revenue demand is now about 8-3 lakhs.

Local boards were established in 1895, a Year after completion of the survey. The District board at Mahbubnagar supervises the working of the *taluk* boards. Municipal establishments are maintained at Mahbubnagar and Xarayanpet. The total income derived from the one anna cess in 1901 amounted to Rs. 34,000: and the expenditure on municipal and local works and roads was Rs. 45,000.

The First Talukdar is the head of the District police, with the Superintendent (*Mohtamim*) as his executive deputy. Under him are 9 inspectors, 128 subordinate officers, 754 constables, and 25 mounted police, distributed among 38 *thanas* and 61 outposts. The District jail at Mahbubnagar has accommodation for 250 prisoners, but those whose terms exceed six months are transferred to the Central jail at Nizamabad.

The District occupies a comparatively high position as regards the literacy of its population, of whom 3·3 per cent. (5·9 males and 0·65 females) were able to read and write in 1901. The total number of pupils under instruction in 1881, 1891, 1901, and 1903 was 619, 3,093, 3,292, and 3,208 respectively. In 1903 there were 46 primary and 3 middle schools, with 390 girls under instruction. A small school is maintained at Makhtal for the depressed castes. The total amount spent on education in 1901 was Rs. 15,300, of which Rs. 12,200 was contributed by the State and the rest by the local boards. The total fee receipts amounted to Rs. 333.

In 1901 there were 7 dispensaries, with accommodation for 22 in-patients. The total number of patients treated during the year was 26,912, of whom 116 were in-patients; and the number of operations performed was 606. The expenditure was Rs. 20,200.

To every dispensary a vaccinator is attached, but the number of persons vaccinated during 1901 was only 2,113, or $\frac{2}{99}$ Per J, °00 of population.

Mahbubnagar Taluk.—*Taluk* in Mahbubnagar District, Hyderabad State, with an area of 339 square miles. The population in 1901 was 54,563, including *nigtrs*, compared with 52,888 in 1891. The *taluk* contains one town, MAHBUBNAGAR (population, 7,605), the District and *taluk* head-quarters ; and 78 villages, of which 19 are *jagir*. The land revenue in 1901 was Rs. 68,000. In 1905 the *taluk* was increased by transfers from Jedcherla and Koilkonda *taluks*. It now contains 132 *khalsa* villages.

Mahbubnagar Town.—Head-quarters of the District and *taluk* of the same name, Hyderabad State, situated in 16° 44' N. and 77° 59' E. Population (1901), 7,605. It contains the offices of the First Talukdar, the District and Irrigation Engineers, the Police Superintendent, as well as the civil court, mission school and other schools, a District jail, a post office, and a dispensary. It was formerly called Palmur.

Mahe.—French Settlement within the limits of Malabar District, Madras Presidency, situated in 11° 43' N. and 75° 33' E., to the south of the mouth of the river Mahe, about 4 miles south of Tellicherry. Area, 26 square miles ; population (1901), 10,298. The history of Mahe resembles in its essentials that of the other FRENCH POSSESSIONS, and it is now a decaying place. Most of its chief buildings are picturesquely situated on the bank of the river close to its mouth. The site

is hilly and covered with a dense mass of coco-nut palms, and it is noted for the fertility of its soil and the salubrity of its climate. The Settlement is in charge of a *chef de sen'ice* subordinate to the Governor at PONDICHERRY. The place contains a Roman Catholic chapel, three boys' schools, one girls' school, and a British post office. A long wooden bridge maintained by the Malabar District board gives access to British territory on the right bank. The railway line from Calicut to Cannanore passes close to Mahe.

Maheji (or Chinchkhed).—Village in the Pachora *tdhuka* of East Khandesh District, Bombay, situated in 20° 48' N. and 75° 24' E., on the Great Indian Peninsula Railway, 240 miles north-east of Bombay. Population (1901), 1,591. A municipality was established in 1871, but abolished in 1903. The village contains a poorly attended boys' school. The chief Hindu fair of Khandesh is held here annually from January to March. The fair is held in honour of Maheji, a woman of the agricultural class who became an ascetic in the seventeenth century. So great was her sanctity that vows were paid to her during her lifetime. After a twelve years' stay in the hamlet of Chinchkhed close by the site of the fair, Maheji buried herself alive. The fair has lately lost much of its importance.

Mahendragiri. Peak of the Eastern Ghats in Ganjam District, Madras, situated in 18° 58' X. and 84° 24' E., 4,923 feet above sea-level, being the second highest point in the District. This was once proposed as a site for a sanitarium for Calcutta, but its steepness and the want of sufficient water rendered it unsuitable. A bungalow near the summit commands a magnificent view, as the hill is only 16 miles from the sea and stands in the highest part of this section of the Eastern Ghats. Two streams called the Mahendranaya ('children of Mahendra') rise in the peak. One flows southward into the Parlakimedi *zamindari* and joins the Vamsadhara, while the other flows through the Budarasingi and Mandasa estates and enters the sea near Baruva. On the top of Mahendragiri are four temples, built of enormous blocks of stone, one of which has been badly shattered by lightning. They contain inscriptions in Tamil and Sanskrit, which show that the CHOLA king Rajendra set up a pillar of victory in this wild spot to commemorate his defeat of his brother-in-law Vimaladitya (A. N. 1015-22). Below the Sanskrit version is cut a tiger, the crest of the Cholas, and in front of it two fishes, the emblem of their vassal the PANDYA king.

Maheshrekha. -Subdivision of Howrah District, Bengal. See ULUBAKIA.

Maheshwar.—Town in the Nimar district of Indore State, Central India, situated in 22° 11' X. and 75° 36' E., on the north bank of the Narmada river. Population (1901), 7,042. It is usually called Choli-

Maheshwar, from the town of Choli, 7 miles north of it. Maheshwar occupies a most picturesque position on the edge of the river. Broad *ghats* sweep upwards towards the fort and the numerous temples which stud the shore, while behind them towers the lofty palace of Ahalya Bai, the famous princess of the house of Holkar, temples, *ghats*, and palaces being reflected in the wide stretch of deep quiet water at their feet.

Maheshwar is the Mahishmati or Mahissati of early days, the name being derived from the prevalence of buffaloes (*mahisha*). It is connected traditionally with the ubiquitous Pandava brothers, and is mentioned in the Ramayana and Mahabharata, while the Puranas refer to Mahishas and Mahishakas, the people of Mahishmati. In Buddhist literature Mahishmati or Mahissati is mentioned as one of the regular stages on the route from Paithana (Paithan) in the Deccan to Sravasti; these stages being Mahissati, Ujjain, Gonaddha, Bhilsa, Kausambhl, and Saketa. Cunningham has identified the Mahishmati or Maheshwapura of Hiuen Tsiang with Mandla in the Central Provinces ; but the Chinese pilgrim states that he went from Jijhoti or Bundelkhand north or north-east to Maheshwapura, which is a wrong bearing for either Mandla or Maheshwar, and may be a misstatement for south-west. Numerous places which the Mahishmati Mahatmya enjoins pilgrims to visit can be identified in the neighbourhood.

The earliest historical connexion, however, is with the Haihaya chiefs, the ancestors of the Kalachuris of Chedi, who, from the ninth to the twelfth century, held much of the eastern part of Central India {see BAGHELKHAND}. Their reputed ancestor, Kartyaviryarjuna, is supposed to have lived here. The Haihayas were subdued in the seventh century by Vinayaditya, the Western Chalukya king, and Mahishmati was incorporated in his kingdom. The Haihaya chiefs then served as governors under the Chalukyas, and are always designated as hereditary 'lord of Mahishmati, the best of towns.' On the fall of Malwa to the Paramaras in the ninth century, Maheshwar seems at first to "have been one of their principal cities. It lost its importance later on, and during the time of the Muhammadan kings of Malwa was regarded merely as a frontier post on the fords of the Narbada. In 1422 it was captured by Ahmad I of Gujarat from Hoshang Shah of Malwa. Under Akbar it was the head-quarters of the Choli-Maheshwar *mahal* of the Mandu *sarkar* in the *Siibah* of Malwa, Choli being the civil administrative head-quarters and Maheshwar the military post.

About 1730 it passed into the possession of Malhar Rao Holkar, but did not become a place of importance until 1767, when Ahalya Bai, on the death of Malhar Rao, assumed the reins of government and selected Maheshwar as her capital. Under her auspices it rapidly became a place of the first importance, politically and commercially, while its

appearance was improved by the erection of numerous temples and palaces. Tukoji Rao, who succeeded in 1795, maintained Maheshwar as the capital, but during the confusion which followed his death in 1797 its prosperity rapidly declined. In 1798 Jaswant Rao Holkar plundered the treasury, and during his stay here lost his eye by the bursting of his matchlock while sitting on the bank of the Narbada amusing himself with firing at a lighted torch floating on the river. Maheshwar continued to decline in importance, as Jaswant Rao on his accession to power resided chiefly at Rampura and Bhanpura: and, after his death in 1811 and the Treaty of Mandasor in 1818, Indore finally became the real as well as the nominal capital. From 1819 to 1834 Harl Rao Holkar was confined in the fort. Malcolm states that in 1820 the town still had 3,500 houses, which would give a population of about 17,000 persons.

There are many buildings of interest, though none of any great age. The fort, as it exists at present, is of Muhammadan foundation, but an older structure must have stood there in Hindu days. Some mosques with Muhammadan records, dated in 1563, 1682, and 1712, stand in it. Among the numerous temples and shrines, the most important is the cenotaph of Ahalya Bai. A fine flight of steps leads up from the river to the richly carved shrine, which contains a *lingam* with a life-size statue of Ahalya Bai behind it. An inscription records that this shrine and *ghat* to the memory of Ahalya Bai, who resembled the Ahalya of ancient days (i.e. the wife of Gautama Rishi), and Tukoji, who designated the great and generous *sftba/idar*, were commenced by Jaswant Rao Holkar in 1799 and completed in 1833 by Krishna Bai his wife. Other notable buildings are the shrine of Yithoba or Itoji, Jaswant Rao's brother, and the palace with the family gods of the Holkars.

Maheshwar is famous for the manufacture of a special kind of coloured *saris* and silk-bordered *dhotis*, which are exported in some quantity. It contains a school, a hospital, and a State post office.

Mahespur.—Town in the Bargaon subdivision of Jessore District. Bengal, situated in 23° 21' N. and 88° 56' E., on the Kabadak river. Population (1881), 4,180. Mahespur was constituted a municipality in 1869. The income during the decade ending 1901-2 averaged Rs. 3,600, and the expenditure Rs. 2,700. In 1903-4 the income was 3,400, mainly from a tax on persons (or property tax): and the expenditure was Rs. 2,600.

Mahi (the *Mophis* of Ptolemy and *Wat's* of the *Pcriplus*). River of Western India, with a course of from 300 to 350 miles and a drainage area estimated at from 15,000 to 17,000 square miles. It rises in the Amjhera district of the Gwalior State, 1,850 feet above sea-level (22° 52' N. and 75° 5' E.), and flows for about 100 miles through the

south-western corner of the Central India Agency, at first north, next west, and lastly north-west, passing through the States of Gwalior, Dhar, Jhabua, Ratlam, and Sailana. It then enters Rajputana and flows in a northerly direction with a somewhat tortuous course, intersecting the eastern half of Banswara State, till it reaches the Udaipur frontier, where it is soon turned by the Mewar hills to the south-west, and for the rest of its course in Rajputana it forms the boundary between the States of Dungarpur and Banswara. It now passes on into Gujarat, and during the first part of its course there flows through the lands of the Mahi Kantha and Rewa Kantha States. It then enters British territory, and separates the Bombay District of Kaira on the right from the Panch Mahals and Baroda on the left. Farther to the west, and for the rest of its course, its right bank forms the southern boundary of the State of Cambay, and its left the northern boundary of Broach District. Near Bungra, 100 miles from its source, the Mahi is crossed by the old Baroda-Nimach road; and here the bed is 400 yards wide, with a stream of 100 yards and a depth of one foot. The Kaira section of the river is about 100 miles in length, the last 45 miles being tidal water. The limit of the tidal flow is Verakhandi, where the stream is 120 yards across and the average depth 18 inches. About 30 miles nearer the sea, close to the village of Dehvan, the river enters Broach District from the east, and forms an estuary. The distance across its mouth, from Cambay to Kavi, is 5 miles. The Mahi is crossed by the Bombay, Baroda, and Central India Railway at Wasad, and by the Godhra-Ratlam Railway at Pali. During flood time, at spring-tides, a bore is formed at the estuary, and a wall-like line of foam-topped water rushes up for 20 miles, to break on the Dehvan sands.

The bed of the Mahi lies so much below the level of the land on either side of its banks that its waters cannot readily be made use of for irrigation. In fair weather the river is fordable at many places in the Bombay Presidency—at Dehvan, Gajna, Khanpur, and Umeta, for instance—and always in its upper course through Rajputana, except in the rainy season, when its waters rise to a great height.

According to legend, the Mahi is the daughter of the earth and of the sweat that ran from the body of Indradyumna, king of Ujjain. Another legend explains the name thus. A young Gujar woman was churning curds one day. An importunate lover, of whom she had tried to rid herself, but who would not be denied, found her thus engaged, and his attentions becoming unbearable, the girl threw herself into the pot. She was at once turned into water, and a clear stream flowed from the jar and, wandering down the hill-side, formed the Mahi or ‘ curd ’ river. A more probable derivation, however, is from the name of the lake whence it springs. This is often called the Mau or Mahu, as well as the Menda. It is regarded by the Bhills and the

Kolis as their mother, and the latter make pilgrimages to four places on its waters — Mingrad, Faziipur, Angarh, and Yaspur. The height of its banks and the fierceness of its floods ; the deep ravines through which the traveller has to pass on his way to the river; and perhaps, above all, the bad name of the tribes who dwell about it, explain the proverb : ' When the Mahi is crossed, there is comfort.'

It is interesting to note that this river has given rise to the terms *mehwas*, a ' hill stronghold,' and *mehivasl*, a ' turbulent or thieving person.' The word was Mahlvasi, 'a dweller on the Mahi,' and in Mughal times was imported into Delhi by the army, and is used by Muhammadan writers as a general term to denote hill chiefs, and those living in mountain fastnesses. A celebrated temple dedicated to Mahadeo at Baneshar (Rajputana) stands at the spot where the Som joins the Mahi, and an important and largely attended fair is held here yearly.

Mahidpur.—Zila and town in Indore State, Central India. See MEHIDI'UR.

Mahi Kantha, The (or ' Banks of the Mahi' Group of States forming a Political Agency under the Government of Bombay, lying between 23° 14' and 24° 28' N. and 72° 40' and 74° 5' E., with a total area of 3,125 square miles. It is bounded on the north-east by the Rajputana States of Udaipur and Dungarpur; on the south-east by Rewa Kantha; on the south by the British District of Kaira ; and on the west by the State of Baroda, Ahmadabad District, and the country under the Palanpur Agency. The Mahi Kantha territory is subject to a number of chiefs, of whom the Maharaja of Idar is by far the most important. In May, 1877, these chiefs were classified into seven divisions, according to the extent of their jurisdiction.

The Native State of Idar covers more than half the territory ; eleven other States are of some importance; and the remainder are estates belonging to Rajput or Koli Thakurs, once the lawless feudatories of Baroda, and still requiring the anxious supervision of the Political Officer. Statistics for all the States and estates that form the Agency are shown in the table on the two next pages.

Mahi Kantha includes tracts of land differing widely in character and appearance. In the north and east the country is rough and wild,

broken by ranges of steep well-wooded hills, of which aspects¹¹ the most notable are Chahuns, Kalaroo, and Rojmalno in Idar: Boda Malvalo and Ghahuno in Pol ; Arasur in Danta ; and Taranga and Amba Vani in Ghodvada. To the south and west the country is level, well wooded, and most of it cultivated. With a well marked fall from the north-east to the south-west, the Agency is thoroughly drained. The Saraswati river, for about 40 miles, passes close to, and almost parallel with, the north west boundary.

MAHI KĀIXTHA

GENERAL STATISTICS OF EACH STATE IN THE MAHĪ KĀIXTHA AGENCY

State.	Caste, tribe, or race of the ruling chief.	Area in square miles.	Number of villages.	Population (1901).	Revenue (1903-4).		Tribute.	
					From land.	Total.	Amount.	To whom payable.
<i>1st Class State.</i>					Rs.	Rs.	Rs.	
Idar	Rājput	1,669	884	168,557	3,36,633	5,92,314	30,340	Gaikwār.
<i>2nd Class States.</i>								
Pol	Rājput	135	46	3,959	10,300	17,661	—	—
Dānta	"	317	168	15,262	18,000	42,727	{ 514 2,371 500	Idar. Gaikwār. Pālanpur.
<i>3rd Class States.</i>								
Mālpur	Rājput	97	59	8,005	12,732	22,808	{ 430 280 396	The British. Gaikwār. Idar.
Mānsa	"	25	12	15,936	46,337	66,267	11,754	Gaikwār.
Mohanpur	"	89	52	10,940	12,126	22,773	{ 4,750 2,245	Idar. "
<i>4th Class Tālukas.</i>								
Varsora	Rājput	11	5	3,656	15,902	18,871	1,583	Gaikwār.
Pethāpur	"	11	3	5,753	11,064	18,479	8,632	Idar. "
Ranāsan	"	30	19	3,183	8,022	9,018	{ 750 373	Gaikwār. The British.
Punādra	Koli, converted to Islām.	11	11	2,662	11,220	15,598	375	Gaikwār.
Khadāl	"	8	13	2,215	7,900	16,440	{ 1,751 250	" Attarsumba.
Ghorāsār	Koli	16	15	6,219	13,192	23,415	{ 3,501 488	Gaikwār. Kaira.
Katosan*	"	10	6	5,510	17,808	26,617	4,893	Gaikwār.
Ilol	"	19	5	3,806	15,305	20,982	{ 428 1,863	Idar. Gaikwār.
Amliyāra	"	60	32	7,227	19,754	27,672	{ 17 317	Ahmadnagar. Gaikwār.
<i>5th Class Tālukas.</i>								
Valāsna	Rājput	21	10	2,749	4,507	5,953	280	Gaikwār.
Dābha	Koli, converted to Islām.	12	9	1,307	3,871	4,379	{ 150 53	" Amliyāra.
Vāsna	Rājput	10	4	4,494	6,621	10,631	3,109	Gaikwār.
Sudāsna	"	32	21	5,269	6,289	10,781	{ 1,036 361	" Idar.
Magori	"	23	27	1,527	2,864	5,056	93	—
Yarāgām	"	28	21	2,121	4,129	5,841	—	—
Sāthamba	Koli	18	22	3,022	3,360	6,146	{ 561 401 127	Bālāsīnor. Gaikwār. Lunāvāda.
Rupāl†	Rājput	16	13	3,113	3,585	7,045	{ 1,105 362	Gaikwār. Idar.
Dadhāla†	"	28	12	2,619	1,707	3,689	{ 699 611	Gaikwār. Idar.
<i>6th Class Tālukas.</i>								
Ramās‡	Muhammadian	6	9	865	2,279	2,623	158	Gaikwār.
Bolundra‡	Rājput	6	5	740	1,941	2,499	134	Idar.
Likhi§	Koli	9	5	959	2,093	3,511	—	—
Hadol§	"	17	19	1,665	2,088	3,983	{ 113 11	Gaikwār. Idar.
Gābat (7th Class)‡	"	10	9	604	2,454	2,851	43	"

* The villages of Nandasa, Jakāsna, Ajābpura, Gamanpura, and Jotāna belong to the chief of Katosan. But their liability for tribute to the Gaikwār is separately fixed, and the respective amounts payable by them are as follows: Rs. 430-11-0, Rs. 623-11-5, Rs. 96-12-0, Rs. 139-10-9, and Rs. 3,038-1-11.

† These two talukas had jurisdictional powers, of which they were deprived owing to maladministration. They were then placed under the jurisdiction of Sābar Kānthā thāna.

‡ The talukas of Ramās, Gābat, and Bolundra are under Government management during the minority of their chiefs. The first two are in charge of the thānādār of Vātrak Kānthā, and Bolundra is under Sābar Kānthā.

§ The chiefs of Likhi and Hadol are non-jurisdictional talukdars. Likhi is included in Sābar Kānthā and Hadol in Gadhiwāra thāna.

GENERAL STATISTICS OF EACH STATE IN THE MAHĪ KĀNTHA
AGENCY (*contd.*)

State.	Caste, tribe, or race of the ruling chief.	Area in square miles.	Number of villages.	Population (1901).	Revenue (1903-4).		Tribute.	
					From land.	Total.	Amount.	To whom payable.
Sābar Kāntha <i>Thāna</i> :— Derol (6th Class)	Koli		2	837	Rs. 1,560	Rs. 1,823	Rs. 513	Gaikwār. Idar.
Kherāvāda	"		4	804	3,302	3,758	47	Gaikwār. Idar.
Kadoli	"		2	931	2,544	3,782	93	Gaikwār. Idar.
Vakhtāpur	"		4	1,744	5,075	5,788	513	Gaikwār. Idar.
Prempur	"		5	1,694	3,512	3,991	93	Gaikwār. Idar.
Dedhrota	"		2	725	1,685	2,203	187	Gaikwār. Idar.
Tājpurī	"		7	1,574	3,186	4,096	47	Gaikwār. Idar.
Hāpa	"		2	838	2,656	3,974	699	Gaikwār. Idar.
Gadhwāra <i>Thāna</i> :— Satlāsna (6th Class)	"		26	4,928	2,500	4,918	74	Gaikwār. Idar.
Bhālusna	"		9	2,226	1,000	1,277	219	Gaikwār. Idar.
Timba (7th Class)	"		5	1,675	700	935	50	"
Umari	"		1	1,021	350	565	"	"
Motā Kotarna	"		3	820	400	576	"	"
Chandap†	"		4	588	546	546	71	Gaikwār. Idar.
Katosan <i>Thāna</i> :— Maguna (7th Class)	Koli		5	3,235	11,763	11,959	217	Gaikwār. Idar.
Tejpura	"		3	1,034	3,500	3,500	892	Gaikwār. Idar.
Virsoda	"		1	718	1,251	1,326	308	"
Pālej	"		3	1,033	4,600	4,906	447	Pātan. Gaikwār.
Deloli	"		1	800	2,852	3,095	120	Gaikwār.
Kāsalpura	"		1	307	2,391	2,391	399	"
Memadpura	"		1	449	1,800	1,800	48	"
Rāmpura	"		1	353	1,752	1,901	175	"
Ijpura	"		1	342	3,051	3,051	49	Pātan. Gaikwār.
Rānipura	"		1	199	1,935	1,998	50	Gaikwār.
Sānthāl‡	"		3	3,356	§	§	239	"
Gokalpura‡	"		1	184			—	Gaikwār.
Muljī-nā-pura‡	"		1	220	■	■	42	"
Pāvisi <i>Thāna</i> **	"	96	93	28,159	43,033	46,733	25	"
Vātrak Kāntha <i>Thāna</i> :— Nirmālī††	"	10	6	1,959	1,628	2,411	29,564	Gaikwār.
Jher††	"	12	14	2,705	2,000	3,062	—	"
Sādra Bazar	"		1	1,683	1,142	5,620	—	"
					3,125	1,729	361,545	7,15,797
							11,47,826	1,34,411

< Subordinate to Satl. isua and Uhalu. Min, and included in their tribute.

+ Chandap is a *matadari* village and has no chief.

1 These three villages have no separate chief of their own. S'mthal belongs to the *thayad* of the chief of Katosan and the shareholders of Deloli, Krisalpura, &c. Mulji-nā-pura belongs to the shareholders of Deloli, and Gokalpura to the shareholders of Tejpura.

§ Co-shared village.

|| Included in Tejpura.

□ Included in Deloli.

** Is constituted of 24 chief *matadari* villages and 72 sub-villages, including Uarmuada.

†† Nirmālī and Jher are shared by the Gaikwar and the Miyan of Mandwa, and are administered by the Political Agent, Mahi Kantha.

The Sabarmati river flows through Mahl Kantha for a distance of 60 miles, crossing the Agency from north-east to south-west for 40 miles, and skirting its western boundary for 20 miles. The Hathmati river passes through Mahl Kantha for about 35 miles, and joins the Sabarmati below Ahmadnagar. The Khari, the Meshwa, the Majam, the Vatrak, and other streams also drain the country. Only the waters of the Hathmati have been used for irrigation on a large scale. Between 1869 and 1873 a weir was built across the Hathmati close above Ahmadnagar, and so much of its water as was not wanted for the town and other places on its bank was taken to feed a canal for irrigating the Parantij *taluka* of Ahmadabad District. Though it has no natural lakes, Mahi Kantha is well supplied with ponds and wells. The Rani Talao has an area of 94 acres, and a greatest depth of 17 feet; the Karmabawi Talao, area 134 acres, greatest depth 15 feet; the Babsur Talao, area 182 acres, greatest depth 15 feet.

With the exception of Idar, which was geologically surveyed in 1902, the Mahl Kantha States have never been visited by any geologist, and nothing definite can be said about their geological constitution, further than that it appears to be extremely varied and complex. One of the finest building stones in India is the calcareous sandstone used in the mosques, temples, and palaces of Ahmadabad, which is quarried at Ahmadnagar, Savgarh, and Parbada in the Idar State, and exported to considerable distances. No details as to its mode of occurrence have ever been ascertained; but it is suggested, from its resemblance to certain rocks of Gujarat and Central India, that its age may be Cretaceous. The best lime obtainable in India is made from a limestone occurring at Betali in the mountainous country about Idar, which constitutes the material used in preparing the beautiful stucco so largely used in the buildings at Delhi. Granite, gneiss, and crystalline marble are also said to occur.

Of trees, Mahi Kantha has the *mahua*, the mango, the banyan, the *asopdlav*, the *khahkra*, the wood-apple, the *riim*, and the teak. The wild animals, many of which are becoming rare, are tiger, leopard, bear, wolf, wild hog, hyena, jackal, and fox. Deer include the *sa/nhir*, the spotted deer, the antelope, the Indian gazelle, and the *nilgai*. The otter, hare, monkey, and wild cat are common. Snakes, both harmless and venomous, abound. The chief game-birds are jungle-fowl, wild duck, snipe, green pigeon, rock grouse, partridge, bustard, and florican. The rivers are well stocked with fish.

Except in several parts situated in the north and north-east, the climate of Mahi Kantha is fairly good. The greatest heat is generally in the beginning of April, and the greatest cold in January. The temperature rises to $1\ 10^{\circ}$ in May and falls to 50° in January. The annual rainfall at Idar averages 34 inches.

MAHI KÀNTHA

The earliest settlers, both rulers and ruled, were the tribes now known as BhTls and Kolls. The next comers were Rajputs, whose

History.

arrival in Mahi Kantha seems to date from the establishment of Arab power in Sind and the fall of Vallabmnagar in the eighth century. In the eleventh century the Musalman destruction of Nagar Tatta in Sind drove out the Paramara Rajputs; and in the next two centuries the farther advance of Musalman power forced many other Rajput tribes, such as the Paramaras of Chandravati, the Rathors of Kanauj, and the Chavadas of Anhilvada, south into the Mahi Kantha hills. To the Chandravati Parmars belong the houses of Mohanpur, Ranasan, Rupal, Varagam, and Bolundra ; to the Kanauj Rathors belong the houses of Pol, Malpur, Yalasna, and Magori : and to the Chavadas of Anhilvada belong the houses of Mansa and Varsora. By intermarriage with the Rolls many of these Rajputs lost caste, keeping only the names of the clans—Makvana, Dabi, and Bariya—to which their forefathers belonged. In the fifteenth century came the Yaghela houses of Pethapur and Posina (in Idar).

Jai Chand, the last Rathor Rajput sovereign of Kanauj, is said to have left two sons : the first founded the present family of Marwar, and the second in 1257 established himself at Idar. For four centuries the chiefs of the line bore the title of Rao of Idar; but the last independent prince, Jagannath, was driven out by the Muhammadans in 1656. (For further history of Idar, see IDAR STATE.) The family retired into the hills, fixed their head-quarters at Pol, and were known as the Raos of that mountainous tract. The present chief is descended from them. Danta is said to have been established in 809, but its history is mainly a record of continual struggles with Idar. In the fifteenth century Mahi Kantha fell under the sway of the Ahmadabad Sultans, and on their decline under that of the Mughal emperors. The Mughals only collected occasional tribute by moving a large force into the territory. The Marathas followed the Mughals, and every two or three years sent their *mulk-giri* or 'tribute-collecting army' into the region. In 1811, when the Maratha power was declining, the British Government stipulated to collect and pay over to the Gaikwar the yearly tribute. In 1820 the British Government finally took over the management of the Mahi Kantha territory. They agreed to collect and pay over the tribute free of expense to Baroda, while Baroda was pledged not to send troops into the country, or in any way to interfere with the administration. Since 1820 disturbances have occurred more than once. From 1833 to 1836 there were local tumults, which required an armed force for their suppression. In 1857-8 a display of force again became necessary, when the registration of arms and the disarming of part of the people took place. A smart engagement was fought at Taringa hill, and the town of Mondeti was carried by assault.

in i S67 a disturbance arose at l'osina. Peace remained unbroken until 1881, when the Bhlls of Pol rose against their chief and extorted from him a settlement of their claims.

The population of Mahl Kantha at the last four enumerations was :

(1872) 447,05^ (1881) 517,485, (1891) 581,568, and ^{Population}

(1901) 361,545. The enormous decrease of 38 per

cent, during the last decade was due to famine. Mahl Kantha contains 6 towns and 1,723 villages, and supports 115 persons to the square mile. The towns are MANSa, IDAR, PETHAPUR, YADALI, AHMADNAGAR, and SADRA. Hindus form 90 per cent, of the total, Muhammadans 5 per cent., Jains 3 per cent., and aboriginal tribes number 6,367. Among the Hindus, Brahmans number 27,000, Rajputs 15,000, Tains 9,000, Kunbls (cultivators) 68,000, KolTs (labourers)

92.000, Kumbhars (potters) 9,000; and among low castes, Chamars

15.000, and Dhers 14.000. Muhammadans are chiefly Momins (4,000), formerly weavers but now mostly cultivators, and Ghanehis (3,000) or oilmen. The aboriginal tribes are chiefly Bhils (18,000), of whom 12,000 were entered as Hindus at the recent Census, though probably not differing in religion from their animistic brethren.

The Bhlls are the most remarkable of the Mahl Kantha tribes. They are hardy and enterprising, and as sagacious in daily conduct as they are secret and speedy when on one of their robbing expeditions. They speak a dialect composed of Rajasthani and Gujarati, which is extremely difficult to understand ; worship stones covered with red lead and oil ; believe firmly in witchcraft, and are much addicted to witch-swinging. Ordinarily among the Mahl Kantha Bhlls the woman chooses her own husband. At the Posina fair in the north, if a Bhil succeeds in taking the woman he desires to marry across the river without being discovered, the parents of both agree to the marriage. If he is found out before he has crossed the river, the man is severely handled by the father of the girl. The *ver* or Bhil vendetta usually takes the form of cattle-lifting. No Bhil will disregard the *kulki* or cry which proclaims that a tribesman is in trouble. Some Bhlls, taking the name of *bhagats* or ascetics, have become the followers of a Bhil teacher, Kheradi Surmal. This teacher is a follower of the Hindu god Rama (the seventh incarnation of Vishnu), and forbids eating the flesh of domestic animals, the drinking of liquor, and the committing of offences. Like a high-caste Hindu, the *bhagat* does not partake of food without bathing, puts a red mark on the brow, and ties a yellow strip of cloth round the turban. The Bhlls formerly treated these *bhagats* as outcastes, and caused them much annoyance. This the authorities put a stop to. In 1880 the *bhagats* were estimated at 800, and not one of their number had been accused of any crime. They are now no longer regarded as outcastes, and are increasing in number.

The Census of 1901 showed that 59 per cent, of the entire population are engaged in agriculture ; commercial and professional classes include 4 per cent, and 1 per cent, respectively.

The soil is of two kinds, sandy and black, both of which are rich.

The south and west of the Agency are level. Most
Agriculture. of the tillage is for *khanf* or rainy season crops. Of

the total area of 3,125 square miles, more than 850 square miles, or 27 per cent., are cultivable. The chief crops grown are wheat, rice,

bajra, gram, cotton, sesamum, rapeseed, and sugar-cane. The Maht

Kantha bullocks are smaller and weaker than those of North Gujarat;

the buffaloes are also inferior. In the valley of the Saraswat! there is

a large irrigated area. The waters of the Hathmati have been used

for irrigation, and the canal from that river is worked by Government.

Elsewhere irrigation is carried on chiefly from wells and ponds.

Though it contains large tracts of more or less wooded hills, chiefly covered with bamboos, brushwood, and teak, Mahi Kantha has no important revenue-yielding forests. The teak is generally uncared for, and cut down before it grows to any size. The chief products are gum and honey. At Ahmadnagar, Savgarh, and Parbada in the Idar State a very superior calcareous sandstone is quarried, which is much used for ornamenting public buildings.

Weaving is carried on at Ahmadnagar and Pethapur. The finest

weaving is the work of the Musalmans of the Momin sect. The cloth

made by them is woven from silk and cotton yarn,

co Jmuniin«ons. both countr>' and English. The best dyers are at

Pethapur and Vasna, who colour and export coarse

English cloth. Since the famine many of the people engaged in local industries have emigrated to the neighbouring cities to find work in the mills. Idar, Ahmadnagar, and Pethapur were once famous for their arms and cutlery. The manufacture of arms is now forbidden, and the cutlery industry is declining.

Considerable trade was formerly carried on between Gujarat and Mewar through Idar, Pol, and thence to Marwar. Pethapur and Vasna export dyed cloth worth over a lakh annually. The chief local trade centres are Mansa, Pethapur, Sadra, Idar, Ahmadnagar, and Katosan. The most important fairs are those at Samalji and Brahmakhed.

The Mahi Kantha Agency is traversed by three railways, the Ahmadabad-Parantlj, the Gaikwar's Mehsana, and the Vijapur-Kalol-Kadi line. The first passes by Dabhoda, Rakhial, and Ahmadnagar; the second by Jotana and Katosan; and the third has stations at Limbodra and Radheja, serving the Maht Kantha towns of Mansa, Pethapur, and Sadra. There are 41 miles of metalled and 89 miles of unmetalled roads in the Agency, the most important being the Idar-Ahmadnagar road in Idar, the Danta-Ambaji road, the Sadra-Dabhoda road, and the

lhalod-Modasa road in Varagam. Avenues of trees are maintained for 3 miles. Post offices are situated at Idar, Ahmadnagar, Sadra, and Mansa. Telegraph offices have been recently opened at Sadra, Idar, and Ahmadnagar.

Severe famines occurred during the last two centuries in 1791, 1813, and 1899-1900, besides scarcities in 1825 and 1834. The recent famine of 1899-1900 was of an unprecedented nature and ^ . pressed very severely on the people. Relief works were opened and poorhouses were established. At the height of the famine there were 37,249 persons on relief works and 6,251 in receipt of gratuitous relief. Advances and remissions were granted, and the *tdhikddrs* were assisted with loans from Government for relief and other purposes.

At the head of the Agency is the Political Agent, who has three Assistants. The *tdlukas* up to the third class are under his direct supervision. The other *talukas* and the five *th'anas* , . . Administration, or groups of petty estates are divided between his Assistants. The Assistant Political Agent has also the charge of the Agency police. The Personal Assistant has the charge of all estates and *talukas* attached by the British Government during the minority of the holders or by reason of mismanagement. The Xative Assistant has charge of the Sadra civil station, the treasury, and the jail. Civil and criminal justice is administered by the chiefs according to the class to which they belong. The Maharaja of Idar is a first-class chief, exercising full powers of jurisdiction, both civil and criminal (in the case of capital offences committed by British subjects with the consent of the Political Agent). The chiefs of the second class exercise jurisdiction in civil cases up to Rs. 20,000 and full jurisdiction in criminal cases, subject to confirmation by the Political Agent in capital cases, and with the same limitation as Idar in regard to British subjects. Chiefs of the third class exercise jurisdiction in civil cases up to Rs. 5,000, and in criminal cases up to a penalty of two years' imprisonment and Rs. 1,000 fine, with a limitation in regard to British subjects; and so on for the remaining four classes, with gradually decreasing powers. The Political Agent is vested with the powers both of a Sessions Judge and of a District Magistrate. As far as practicable, the Civil and Criminal Procedure Codes and the Indian Penal Code are in force, but in the wild Bhil tracts on the Rajputana frontier all offences are dealt with under rules based on local customs. In 1838 Captain (afterwards Sir James) Outram instituted border *panchdyats* for the settlement of the numerous blood-feuds and disputes between the wild Bhills on the Mahl Kantha and Rajputana frontiers. The system, which is one of money compensation for crime, has been found very effective in preventing reprisals and maintaining peace. In 1873 the rules were revised, providing for

the regular assembling of the courts under a British officer as president, aided by two assessors from each of the States concerned. In 1878 arrangements were concluded for the extradition of all criminals except Bhlls, and of *bhopàs* or witch-finders among the BhTls, between Mahl Kāntha and Rājputāna. The commonest forms of offence are theft, robbery, dacoity, cattle-stealing, hurt, and murder.

Formerly the land revenue was farmed, but it is now collected direct from the cultivators. Except in a portion of the Idar State, no survey settlement has been introduced. The entire revenues of the States of Mah! Kāntha in 1903-4 were returned at 11[^] lakhs, the chief sources being land revenue, excise, and judicial revenue. Prior to the famine of 1899-1900 the gross revenues exceeded 12 lakhs. The expenditure in 1903-4 amounted to 11 lakhs. The total tribute payable by different States amounts to nearly 1[^] lakhs. The Gaikwar, as superior overlord, receives more than a lakh ; but of this amount about a lakh has been credited to Government towards police expenses since the withdrawal of the contingent maintained by the Gaikwar. The chief of Idar receives about Rs. 8,600, and other Gujarat States (who receive tribute from minor allied feudatories in the Agency) Rs. 2,166. The whole of the tribute is collected by the British Government and handed over to the superior chiefs entitled to receive it. In 1878-9 measures were taken in most of the Mahl Kāntha States for the suppression of illicit stills, in which *mahm 1* liquor is manufactured ; but the cheapness of this liquor is still the curse of the Mahl Kāntha States, as the Bhlls and KolTs cannot resist the temptation to drunkenness.

There are two distinct police forces in the Agency, the Agency police and the State police. In 1903-4 the strength of the former was 121 mounted and 393 foot, and the latter consisted of 175 mounted and 915 foot. There are 39 jails and lock-ups, with a daily average of 210 prisoners.

Local funds are collected and placed at the disposal of the Political Agent. The receipts of the Agency Local funds in 1903-4 amounted to more than one lakh, and the expenditure was Rs. 96,000. These funds are known as the (1) Agency general fund, made up of contributions from the States and judicial receipts of the Agency courts, and expended on education, justice, and vaccination ; (2) Sàdra Bazar fund, composed of taxes and octroi, and expended on education and conservancy ; (3) Scott College fund, composed of subscriptions from the States; and (4) the Jubilee Pauper Patient Endowment fund, composed of subscriptions from the States and private persons for the benefit of helpless patients in the dispensary.

There is a *talukdārī* school, known as the Scott College, at Sàdra, with 27 boys on the rolls, built at a cost of over half a lakh, for

the sons of the Rajas and the Thakurs who are unable to attend the Rajkumar College in Kathiawar. The total number of schools in the Agency in 1903-4 was 117, with an attendance of 6,315 pupils. The total expenditure was Rs. 30,189. The 4 Bhil schools managed by the missionaries are attended by over 117 pupils. Of the total population, 22,641, or 6 per cent. (12 per cent, males and 0.3 females), were recorded as literate in 1901.

Nineteen dispensaries were maintained in 1903-4, at which 59,228 patients were treated. The total cost was Rs. 22,605. About 10,000 persons were vaccinated in the same year.

Mahim Taluka.—Western *taluka* of Thana District, Bombay, lying between 19° 29' and 19° 52' N. and 73° 39' and 73° 1' E., with an area of 409 square miles. It contains one town, KELVE-MAHIM (population, 5,699), the head-quarters; and 187 villages. The population in 1901 was 82,562, compared with 85,841 in 1891. The density, 202 per square mile, is slightly below the District average. Land revenue and cesses in 1903-4 amounted to more than 1*9 lakhs. A range of forest-clad hills divides the *taluka* from north to south; and in the north-east corner are high hills with jagged peaks, of which Asheri is the chief. In the south-east, Takmak peak rises to 2,000 feet above sea-level. The land to the west of the central range is low, flat, and broken by swamps and tidal creeks. The climate is pleasant on the coast during the hot season; but during the rest of the year both the coast and the interior are notoriously malarious. The rainfall (63 inches) is much below the District average. The water-supply is fair. The Vaitarna river, which flows through the *taluka*, is navigable by native craft of about 25 tons. Hot springs, similar to those at Vajrabai in Bhiwandi, are found at Satvli and are supposed to flow from the same source.

Mahim.—Town in Thana District, Bombay. *See* Kelve-Mahim.

Mahim.—Town in the District and *tahsil* of Rohtak, Punjab. *See* MAHAM.

Mahlaing.—North-western township of Meiktila District, Upper Burma, lying across the Meiktila-Myingyan railway, between 20° 54' and 21° 19' N. and 95° 28' and 95° 52' E., with an area of 426 square miles. The population was 55,868 in 1891, and 62,890 in 1901, distributed in 250 villages, Mahlaing (population, 2,251), a local trade centre, situated on the railway near the Myingyan border, being the head-quarters. The township, together with the adjoining Natogyi township of Myingyan District, constitutes the chief cotton-producing area in Burma, and consists of typical cotton country, dry and undulating. In 1903-4 the area cultivated was 143 square miles, including 31 square miles under cotton; and the land revenue and *thathameda* amounted to Rs. 1,23,000.

Mahlog.—One of the Simla Hill States, Punjab. See MAILOG.

Mahmudabad Estate. — Large *talukddri* estate in the Districts of Sitapur, Bara Bank!, Kheri, and Lucknow, United Provinces, with a total area of 397 square miles. The land revenue payable to Government amounts to 3-5 lakhs, and cesses to Rs. 55,000, while the rent-roll is S-5 lakhs. The *tahikdar* traces his descent from a Shaikh named Nasrullah, who was Kazi of Baghdad, but came to India in the twelfth century. His descendants for three generations held the office of Kazi of Delhi; and about 1345 Kazi Nusrat-ullah, also known as Shaikh Nathan, was sent by Muhammad bin Tughlak to reduce the Bhars in Bara Bank!. He was successful and received a large estate. Another member of the family, named Daud Khan, was a celebrated soldier who did good service against Himu, the general of the Suris. His son, Mahmud Khan, was also a distinguished leader, and founded the town of Mahmudabad. The family maintained its position throughout the Mughal period, and their estates were largely extended under the Oudh rulers. Nawab Ali Khan received the title of Raja from the king in 1850. A few years later he took a prominent part in the Mutiny, but submitted early in 1858. His successor, Muhammad Amir Hasan Khan, rendered important public services and was rewarded by the recognition of the title of Raja and the grant of a K.C.I.E. He was succeeded in May, 1903, by his son, Raja All Muhammad Khan, a member of the Provincial Legislative Council. The chief town in the estate is MAHMUDABAD.

Mahmudabad Town.—Town in the Sidhauri *tahsil* of Sitapur District, United Provinces, situated in 27° 18' N. and 81° 8' E., on a metalled road from Sidhauri station on the Lucknow-Bareilly State Railway. Population (1901), 8,664. It ^{was} founded by an ancestor of the *talukddr* who owns the MAHMUDABAD ESTATE, and contains a fine mansion, which is the family residence, and also a dispensary. A large market is held twice a week, and brass vessels are manufactured. There is a school with 58 pupils.

Mahoba Subdivision. —Subdivision of Hamirpur District, United Provinces, including the MAHOBA and KULPAHAR *tahsi*/s.

Mahoba Tahsil.—South-eastern *tahsil* of Hamirpur District, United Provinces, conterminous with the *pargana* of the same name, lying between 25° 6' and 25° 38' N. and 79° 41' and 80° 9' E., with an area of 329 square miles. Population fell from 74,200 in 1891 to 61,938 in 1901, the rate of decrease being the highest in the District. There are 92 villages and one town, MAHOBA (population, 10,074), the *tahsil* head-quarters. The demand for land revenue in 1904-5 was Rs. 75,000, and for cesses Rs. 13,000. The density of population, 188 persons per square mile, is the lowest in the District. In the north some fairly good black soil is found ; but scattered rocky hills

stud the southern portion, and the soil here is inferior and only a thin layer conceals the underlying rock. Several considerable artificial lakes made by the Chandels add a charm to the landscape and supply water for irrigation. In 1903-4 the area under cultivation was 133 square miles, of which only 5 were irrigated. *Pan* cultivated near Mahoba has a great reputation, being exported to Calcutta and Bombay.

Mahoba Town.—Ancient town in Hamirpur District, United Provinces, and head-quarters of the *tahsil* of the same name, situated in 25° 18' N. and 79° 53' E., on the road from Cawnpore to Saugor and also on the Great Indian Peninsula Railway. Population (1901), 10,074. The name is derived from the great sacrifice or *Mahotsava*, said to have been performed by Chandra Varmma, the traditional founder of the Chandel dynasty, which ruled a large tract of country from here (see Buxdelkhaxd). Mahoba stands on the banks of the Madan Sagar, a lake constructed by Madan Varmma, the fifteenth king and the most powerful of all the Chandel rulers. Architectural antiquities of the period abound throughout the neighbourhood. The Ram Kund, which is believed to mark the place where Chandra Varmma died, is a tank of especial sanctity. The fort, now almost entirely in ruins, commands a beautiful view over the hills and lakes. Several of the latter, confined by magnificent masonry dams, have greatly silted up ; but the Klrat Sagar and Madan Sagar still remain deep and clear sheets of water. The shores of the lakes and the islands in their midst (one of which in the Madan Sagar is connected with the mainland by a stone causeway) are thickly covered with pillars and broken sculpture. The numerous arms of the lakes embrace rocky tongues of land surmounted by picturesque ruins. Three miles east of the town lies the Bijainagar Sagar, the largest of all and more than four miles in circuit, while to the south-west lies the Rahilya Sagar, on the bank of which a large ruined temple is situated. Mahoba was probably the civil capital of the Chandels, while their greatest fortress was at Kalixjar, and their religious capital at Khajraho. After a rule of more than three centuries Parmal was conquered by Prithwi Raj of Delhi in 1182, and twenty years later Mahoba fell into the hands of Kutb-ud-dm, after which little is heard of the Chandels. In the seventeenth and eighteenth centuries this part of the country was ruled by the Bundelas. The Musalman buildings of the town are exclusively constructed from Hindu materials. A mosque bears an inscription which assigns its foundation to the year 1322 in the reign of Ghiyas-ud-din Tughlak. The town contains a small cotton-press, a dispensary, and a mission orphanage. It is administered under Act XX of 1856, with an income of about Rs. 3,500. There is an increasing trade in local produce. The *tahsli* school has 164 pupils.

Mahraj.—A collection of four large villages in the Moga *tahsli* of

Ferozepore District, Punjab, situated in $30^{\circ} 19' \text{ X.}$ and $75^{\circ} 14' \text{ E.}$ It is the head-quarters of a *pargana*, held almost entirely by the Mahrajki section (*a/*) of the Sidhu Jats, the clan of which the Phulkian families of Patiala, Nabha, and Jind are another section. A great excavation, from which was taken earth to build the town, is regarded as a sacred spot, offerings being made monthly to the guardian priest. The Mahrajkins, who own the surrounding country as *jdqfdrars*, form a distinct community : physically robust, but litigious, insubordinate, and addicted to excessive opium-eating. Population (1901), 5,780. The place possesses a vernacular middle school and a Government dispensary.

Mahroni.—South-eastern *tahsil* of Jhansi District, United Provinces, comprising the *parganas* of Banpur, Mahroni, and Madaora, and lying between $24^{\circ} 19' \text{ and } 24^{\circ} 58' \text{ N.}$ and $78^{\circ} 30' \text{ and } 79^{\circ} 0' \text{ E.,}$ with an area of 887 square miles. Population fell from 117,047 in 1891 to 103,851 in 1901. There are 300 villages and one town, Mahroni, the *tahsil* head-quarters (population, 2,682). The demand for land revenue in 1903-4 was Rs. 65,000, and for cesses Rs. 12,000. The density of population, 11.7 persons per square mile, is the lowest in the District. In the south a confused mass of hills marks the commencement of the Vindhyan plateau. The drainage is carried off by the Dhasan and Jamni, tributaries of the Betwa, which in turn form part of the eastern boundary. Below the hills lies a tract of black soil, gradually turning to red in the north and east. The former has largely deteriorated owing to the spread of *kdns* (*Saccharum spontaneum*). Irrigation is practised in the red soil, especially towards the north. In 1903-4 the area under cultivation was 233 square miles, of which 22 were irrigated, almost entirely from wells.

Mahsuds.—The country of the Mahsuds lies in the south of Waziristan, North-West Frontier Province. It is hemmed in on the north and west by the Utmanzai Darwesh Khels, on the south-west by the Ahmadzai of Wana, and on the east by the Bhattannis. On the south of the Mahsud country a tract on both the north and south side of the Gomal Pass is devoid of permanent inhabitants. The permanent neighbours of the Mahsuds in this direction are the Shiranis, whose country lies south of the tract referred to. The Mahsud country hardly comes in contact with British India; all the passes from it which debouch on to British territory pass through the country of the Bhattannis. The Gomal Pass is the sole exception to this rule, and several routes lead from it to the Mahsud country. This pass has always been considered as belonging to the Mahsuds, though actually it is outside the limits of their country. The Mahsuds renounced their claim to raid in the pass, and undertook to keep it safe in consideration of the allowances and service granted in the beginning of 1890 at

Apozai (Fort Sandeman), which were revised after the attack made by them on the Delimitation Commission at Wânâ in November, 1894.

The Mahsüd country is a tangled mass of mountains and hills of every size, shape, and bearing, and is intersected in all directions by ravines generally flanked through their course by high hills. At first sight the whole region appears to be occupied by hills and mountains running irregularly in all directions ; but there are well-defined ranges which protect the interior of the country by double barriers, and make penetration into it a matter of extreme difficulty.

The Mahsüds claim descent from Mahsüd, son of Mahmüd, son of Khizri, son of Wazir, and are divided into three main branches: namely, Alizai, Shaman Khel, and Bahlolzai, each of which is subdivided into countless sections and sub-sections. The fighting strength of the three branches is estimated at—Alizai, 4,042 ; Shaman Khel (including Urmars), 2,466 ; and Bahlolzai, 4,088 : a total of 10,596. Notwithstanding the differences in their fighting strengths, the three branches divide the tribal profits and liabilities into three equal shares among themselves.

The Punjab Government described the Mahsüds in 1881 as follows : —

‘Notorious as the boldest of robbers, they are more worthily admired for the courage which they show in attack and in hand-to-hand fighting with the sword. From the early days of British rule in the Punjab few tribes on the frontier have given greater or more continuous trouble, and none have been more daring or more persistent in disturbing the peace of British territory. It is no exaggeration to say that for the first twenty years after annexation not a month passed without some serious crime, such as cattle-lifting, robbery accompanied by murder, being committed by armed bands of marauders from the Mahsüd hills.’

The description is still applicable, though the behaviour of the tribe has been good since the blockade of 1901.

The redistribution of the allowances granted to the tribe in 1895, after the close of the Mahsüd expedition, was made with special reference to the reorganization of the whole scheme of *maliks*. The principle which underlies the new arrangement was that the power and influence of a limited number of leading *maliks* in the tribe, and more particularly in their respective sections, should be enhanced by every possible means, so as in the first place to enable them to control their respective sections as effectively as possible, and secondly to enable Government to deal with a definite number of tribal representatives. The plan broke down completely, for Government was unable to protect the *maliks*, and the *maliks* consequently were reluctant to exert such authority as they had. The state of the border went from bad to worse between 1895 and 1900, when the tribe was put under

strict blockade. This resulted in the submission of the Mahsuds in igoi, when a complete redistribution of allowances was made. The tribe has since restrained its young men from raiding : but fanatical murders by Mahsuds, which were previously unknown, have given them an unenviable notoriety.

Mahudha.—Town in the Nadiad *taluka* of Kaira District, Bombay, situated in 22° 49' N. and 72° 56' E. Population (1901), 8,544. Mahudha is **said** to have been founded by a Hindu prince named Mandhata about two thousand years ago. The municipality was established in 1889, the average income during the decade ending 1901 being Rs. 8,000. In 1903-4 the income was Rs. 8,300. The town contains a dispensary and four schools (three, including an English school, for boys and one for girls), attended by 377 male and 70 female pupils respectively.

Mahudi.—Hill in the head-quarters subdivision of Hazaribagh District, Bengal, situated in 24° 12' N. and 85° 12' E., about 8 miles from the southern face of the Hazaribagh plateau. The hill is 2,437 feet above the sea, falling steeply on every side for 800 feet. Four rock-cut temples are situated on the summit.

Mahul.—North-western *tahsil* of Azamgarh District, United Provinces, comprising the *parganas* of Mahul, Kauria, and Atraulia, and lying between 25° 48' and 26° 27' N. and 82° 40' and 83° 7' E., with an area of 436 square miles. Population fell from 344,723 in 1891 to 312,234 in 1901. There are 947 villages and two towns, but neither of them has a population of over 5,000. The demand for land revenue in 1903-4 was Rs. 3,63,000, and for cesses Rs. 58,000. The density of population, 716 persons per square mile, is about the District average. The *tahsil* is divided into two portions by the Kunwar Nadi. North of this river the soil is a light loam varying to sand, while the southern part is chiefly clay and is intersected by swamps and small channels. The largest river is the Tons. The area under cultivation in 1898-9 was 251 square miles, of which 149 were irrigated. Wells supply more than half the irrigated area, and tanks, swamps, and small streams the remainder.

Mahuva. —Town and port in the State of Bhaunagar, Kathiawar, Bombay, situated in 21° 5' N. and 71° 40' E. Population (1901), 17,549. The fort is 2 miles from the mouth of the bay, the east side of which is formed by an island known on this side as Jegri or Jigri Bluff, with a 2 fathoms shoal extending for nearly a mile. North of this shoal the water is deep. The town is 2 miles to the north of the port and is a large place, having several buildings and a temple. Good water may be had at a well on Jegri island. In the neighbourhood is a large swamp extending for several miles to the north-east. The islands that front this swamp are about 60 feet high and form a

continuous line from the bay to Kutpur Bluff. 12 miles distant from Jegri. Mahuva, the ancient name of which was Moherak, stands on the Malan river, 55 miles south-west of Bhaunagar. The town contains a cotton-press, and is the scene of four annual fairs attended by about 5,000 people. On Jegri Bluff is a lighthouse, 99 feet high, with a fixed white catadioptric light of the fourth order visible from 13 miles. The soil of Mahuva is very fruitful and the mangoes grown here rival those of Bombay. The betel-vine is also cultivated. Coco-nut palm» are plentiful. Mahuva merchants are generally both wealthy and enterprising. The principal export trade is in cotton sent to Bombay. There are good turners, who manufacture cots or *dholias*, cradles, and many kinds of wooden toys.

Maibang.—Ruins in the North Cachar subdivision of Cachar District, Eastern Bengal and Assam, situated in 25° 17' N. and 93° 9' E., between two spurs of the Barail Hills on the north side of the watershed. When the Kachari Rajas were compelled by the aggressions of the Ahoms and the Nagas to abandon their capital at Dimapur, and move farther into the hills, they settled at Maibang : but during the first half of the eighteenth century they left that place, and after crossing the Barail, established their court at KHASPUR in the plains of Cachar. In 1882 a man named Sambhudan took up his abode at Maibang, and announced that he had been commissioned by Heaven to restore the Kachari kingdom. The Deputy-Commissioner, Major Boyd, proceeded with a force of armed police to arrest him; but Sambhudan evaded him and burnt the subdivisional station at Gunjong, which had been left undefended. He then returned and attacked the Deputy-Commissioner. The attack was easily repulsed, but Major Boyd received a severe cut in the hand, which caused his death from tetanus a few days later. Sambhudan was mortally wounded while endeavouring to escape from the police. Maibang is now a station on the Assam-Bengal Railway. Groves of bamboos and the remains of irrigation works show that the place must originally have been densely peopled, but few masonry ruins are now to be seen.

Maihar State.—A *sanad* State in Central India, under the Political Agent in Baghelkhand, lying between 23° 59' and 24° 24' N. and 80° 23' and 81° 0' E., with an area of about 407 square miles. It is bounded on the north by the State of Nagod; on the east by Nagod and Rewah ; on the west by Ajaigarh; and on the south by the Jubbulpore District of the Central Provinces. Maihar is watered by the Tons, which traverses it in a north-easterly direction. The tract is composed mainly of sandstones of the lower Bandair (Bhandar) series, in great part concealed by alluvium. At Jukhehi in the south of the State, the strike of the Kaimur range is displaced, producing the only important gap in the whole length of the Vindhya range. Advantage

was taken of this in constructing the great Deccan road and the branch of the East Indian Railway between Jubbulpore and Allahabad.

The chiefs of Maihar claim descent from the Kachwaha Rajput clan, a claim, however, which is not admitted, and has indeed little to support it. The family apparently migrated from Alwar in the seventeenth or eighteenth century, and obtained land from the Orchha chief. Thakur Bhlm Singh later on entered the service of Chhatarsal of Panna. His grandson, Beni Singh, the founder of the State, rising from a low position, finally became minister to Raja Hindupat, who about 1770 granted him the territory now forming Maihar, which had originally been a part of Rewah. Beni Singh was killed in 1788. He has left many monuments of his liberality throughout Bundelkhand in numerous tanks and buildings. He was succeeded by his son Rajdhar, who, together with the other chiefs in this region, was conquered by All Bahadur of Banda early in the nineteenth century. All Bahadur, however, restored the State to Durjan Singh, a younger son of Beni Singh. In 1806 and 18x4 Durjan Singh received *sanads* from the British Government, confirming him in the possession of his lands. On his death in 1826 the State was divided between his two sons, Bishan Singh, the elder, succeeding to Maihar, while Prag Das, the younger, obtained Bijai-Raghogarh. The latter State was confiscated in 1858 owing to the rebellion of the chief. The present chief, Raghubir Singh, succeeded as a minor in 1852, and obtained administrative powers in 1865. The title of Raja was conferred on him in 1869 as an hereditary distinction, and a personal salute of 9 guns was granted in 1877 and made hereditary in 1878.

The region in which Maihar lies is of considerable archaeological interest, but has not as yet been fully investigated. Remains are numerous throughout the State, especially of temples in the mediaeval style of the eleventh to the thirteenth century.

The population has been : (1881) 71,709, (1891) 77,546, and (1901) 63,702, giving a density of 156 persons per square mile. Hindus number 49,740, or 78 per cent.; Animists (chiefly Gonds), 11,876, or 19 per cent.; and Musalmans, 2,009. The State has one town, MAIHAR (population, 6,802), the capital; and 210 villages. Baghelkhandi is spoken by 50 per cent, of the inhabitants, and Bundelkhandi by 47 per cent. Agriculture supports about 90 per cent, of the total population.

The soil, except in the hills, is fertile and bears good crops. Of the total area, 510 square miles, or 27 per cent., are under cultivation, of which 70 square miles are irrigable; 43 square miles are cultivable but not cultivated; and the rest consists of forest and waste. The forests, which cover a large area of the State, are not as yet under systematic management. *Kodon* and rice each occupy 20 square miles,

or 36 per cent, of the cropped area ; gram, 12 square miles; and wheat, 8 square miles.

Formerly a considerable iron-smelting industry existed, but this has now almost entirely disappeared. Want of good internal communications has made the development of trade difficult, though a certain amount of timber is exported.

The chief has full powers in all matters of general administration and in civil judicial cases. In criminal cases he has power to inflict sentences of imprisonment not exceeding two years. The total revenue from all sources is about Rs. 75,000, of which Rs. 55,000 is derived from land revenue. The principal item of expenditure is Rs. 32,000 on general administration, including the chief's establishment. The British rupee has been current since 1849. A small force of foot and horse, amounting to 150 men with 7 serviceable guns, is maintained. At the Census of 1901, only 1 per cent, of the population were able to read and write. The State contains eleven schools and one hospital. Vaccination has made little progress, owing to the strong prejudice shown by the inhabitants.

Maihar Town.—Capital of the State of the same name in Central India, situated in 24° 16' N. and 80° 46' E., on the East Indian Railway, at the foot of the Bandair range, 1,980 feet above the level of the sea. Population (1901), 6,802. It is a well-built place, many of the houses being constructed of the local sandstone. Outside the present site is a fort built in the sixteenth century by Raja Bir Singh Ueo of Rewah, mainly from remains of Hindu temples, which is used as a residence by the chief. A large number of ruined shrines are scattered round the town, and traces of old foundations exist which must have belonged to a large place. There are two lakes, one to the north-west and the other to the south-west of the town. Maihar contains a British post-office, a school, and a dispensary.

Maikala (or Mekala).—Range of hills in the Central Provinces and Central India, lying between 21° 11' and 22° 40' N. and 80° 46' and 81° 46' E. It is the connecting link between the great hill systems of the VINDHYAS and SATPURAS, forming respectively the northern and southern walls of the Narbada valley. Starting in the Khairagarh State of the Central Provinces, the range runs in a general south-easterly direction for the first 46 miles in British territory, and then, entering the Sohagpur *pargana* of Rewah State, terminates 84 miles farther at AMARKANTAK, one of the most sacred places in India, where the source of the Narbada river is situated. Unlike the two great ranges which it connects, the Maikala forms a broad plateau of 880 square miles in extent, mostly forest country inhabited by Gonds. The elevation of the range does not ordinarily exceed 2,000 feet, but the Lapha hill, a detached peak belonging to it, rises to 3,500 feet. The range

is best known for the magnificent forests of *sal* (*Shorea robusta*) which clothe its heights in many places. These are mainly situated in *zamindari* estates or those of Feudatory chiefs, and hence are not subject to any strict system of conservation, and have been much damaged by indiscriminate fellings. The hills are mentioned in ancient Hindu literature as the place of Maikala Rishi's penance, though Yyasa, Bhṛigu, Agastya, and other sages are also credited with having meditated in the forests. Their greatest claim to sanctity lies, however, in the presence upon them of the sources of the NARBADA and SON rivers. The Markandeya Purana relates how, when Siva called successively on all the mountains of India to find a home for the Narbada, only Maikala offered to receive her, thus gaining undying fame ; and hence the Narbada is often called Maikala-Kanya, or ' daughter of Maikala.' The Mahanadi and Johilla, as well as many minor streams, also have their sources in these hills. Local tradition relates that in the fourth and fifth centuries A.D., during the Gupta rule, this plateau was highly populated; and the Ramayana and the Puranas mention the Mekhalas as a tribe of the Vindhya range, the former work placing them next the Utkalas or people of Orissa. The Rewah State has lately begun to open up the plateau. Iron ore is met with in some quantity, and is still worked at about twenty villages to supply the local demand.

Mailan.—Hill in the Surguja State, Central Provinces, situated in 23° 31' N. and 83° 37' E., and rising to a height of 4,024 feet above sea-level.

Mailar.—Village in the Hadagalli *taluk* of Bellary District, Madras, situated in 14° 48' N. and 75° 42' E. Population (1901), 1,722. It is famous throughout the District for the annual festival held at its temple every February, at which a cryptic sentence containing a prophecy (*karanikam*) regarding the prospects of the coming year is uttered.

The temple is dedicated to Siva in his form of Mallari. The story is that a demon called Mallasura ('the demon Malla') and his brother, having by severe penances extracted from Brahma a promise that they should never be harmed by any being in any form then existing, began to harass the *rishis*. The gods were appealed to ; and Siva put on a new form, so as to evade Brahma's promise, and taking with him forces to the number of seven crores, also in new forms (such as dogs) which had never before served in an army, warred with Mallasura and his brother for ten long days and at length slew them both with his bow and overcame their followers. The gods and *rishis* were in transports at his triumph, and joined in foretelling unbroken prosperity as the fruit of it. The ceremonies and rites at the festival form a curious sort of miraele-play representative of this war in heaven and its result. The pilgrims to the festival go about shouting *Elukoti!*

Elukoti! ('seven crores!') instead of the name of the god as usual; and the *goravas*, the special name for the men (and women) who have dedicated themselves to this temple in the curious manner prevalent in the western *taluks*, dress themselves up in blankets and run about on all fours, barking and pretending that they are Siva's army of dogs. After residing for ten days, the period during which Siva fought with Mallasura and his brother, on a hillock outside the village, the god returns. He is met half-way by the goddess, his wife, who comes to congratulate him on his success, and the two remain for some time at the place of meeting. The expectation of good times to follow the victory is represented by the prophecy or *karanikam*. It is pronounced on this tenth day, and all the thousands of people present crowd round the place where the god and goddess have halted. A huge wooden bow, about 10 feet long, symbolic of that with which Siva slew Mallasura, is brought and placed on end. A Kuruba (the same man has performed the ceremony for many years in succession) who has fasted for the past week steps forward and receives the benediction of the temple manager. He then climbs partly up the bow, being supported by those nearest him. For a minute or two he looks in a rapt manner to the four points of the compass, then begins shuddering and trembling as a sign that the divine afflatus is upon him, and calls out 'Silence !' The most extraordinary and complete silence immediately falls upon the great crowd of pilgrims, every one waiting anxiously for the prophecy. After another minute's pause and again gazing upwards to the heavens, the Kuruba pronounces the word or sentence which foretells the fate of the coming year, invariably following it with the word *Parak !* meaning 'Hark ye,' or 'Take ye note.' It is stated that in the year before the Mutiny the prophecy was 'they have risen against the white-ants.' Latterly the sentence has either been of exceedingly cryptic meaning, or has related to the prospects of the crops.

Mailog (*Mahlog*).—One of the Simla Hill States, Punjab, lying between 30° 52' and 31° 5' N. and 76° 52' and 76° 58' E., with an area of 43 square miles. Population (1901), 8,968. Patta, its capital, lies 30 miles south-west of Simla station, at the foot of the Kasauli hill. The chiefs of Mailog came from Ajodhya. The State used to pay tribute to the Mughal emperors through Bilaspur, and with that State was occupied by the Gurkhas between 1805 and 18x5. In the latter year, on the expulsion of the Gurkhas, the Thakur received a *sanad* from the British Government confirming him in the possession of the State. Thakur Raghunath Chand succeeded in 1880 and obtained the title of Rana in 1898. On his death in 1902 he was succeeded by his minor son, Thakur Durga Chand, and the State is now administered by a council of four members. The State has a revenue of Rs. 20,000, out of which Rs. 1,440 is paid as tribute.

Mailsi.— *Tahsil* of Multan District, Punjab, lying between 29° 35' and 30° 19' X. and 71° 45' and 72° 52' E., with an area of 1,658 square miles. Its long southern boundary is formed by the Sutlej, which periodically floods the lowland along its bank. Between the lowlands and the still uncultivated Bār lies a tract of country irrigated by inundation canals from the Sutlej. The population in 1901 was 109,727, compared with 106,050 in 1891. It contains 332 villages, including Mailsi, the head-quarters. The land revenue and cesses in 1903-4 amounted to 2·1 lakhs.

Maimana.—Head-quarters of the district of the same name in Afghān-Turkistān, situated in 35° 55' X'. and 64° 46' E.; 2,860 feet above the sea. The town, which is a large one as far as area is concerned, the circuit of its walls equalling that of Herat, comprises about 3,000 houses and 233 shops, but has a generally deserted and decayed look. There are no important industries, the manufactures being limited to *uirak* and *ki/rk* (both woollen fabrics), and a coarse blue cotton cloth. The principal articles of trade are Bokhara and Meshed silk, Russian leather, and printed cotton goods, English cotton cloth, velvets, tea, indigo, and hardware; and the usual agricultural products of the country—wheat, barley, tobacco, and dried fruits. Maimana derives such importance as it possesses from being the place of exchange for goods brought from Herāt, Kandahār, and Meshed on one side, from Kabul and Balkh on another, and from Bokhāra and Andkhui on the third. The population is chiefly Uzbek, but representatives of every race in Central Asia and Afghanistan are to be found in the bazars. Until the reign of Amir Abdur Rahman Khan, Maimana maintained a semi-independence under its own chiefs; but in 1883-4 the Amir dispatched a force to bring it under subjection, and Dilāwar Khan, the chief, surrendered and was sent to Kābul. The Amir at first appointed a member of the chief's family as Wall, with very restricted powers, the real control resting in the hands of an Afghan Resident. In 1892 the tribal levies and inhabitants of the Maimana district broke into rebellion, which Abdur Rahman soon suppressed; the Wall was removed, and Maimana has since been treated as an ordinary Afghan district.

Maimansingh.—District, subdivision, and town in Eastern Bengal and Assam. See *MYMEXSINGH*.

Maindargi.—Head-quarters of the *tāluka* of the same name in the Kurandvād State, Bombay, situated in 17° 28' N^r. and 76° 20' E. Population (1901), 6,153. It is administered as a municipality, with an income of about Rs. 400. Weaving of coarse cloth and blankets is carried on.

Maingkaing.—North-eastern township of the Upper Chindwin District, Upper Burma, comprising the basin of the Uyu river, and

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lying between $24^{\circ} 22'$ and $25^{\circ} 48'$ N. and $94^{\circ} 41'$ and $96^{\circ} 20'$ E., with an area of 4,665 square miles. The population, which is almost wholly Shan, amounted approximately to 11,000 in 1891, and to 23,303 in 1901, distributed in 248 villages. Maingkaing (population, 470), on the Uyu river, about 30 miles from its mouth, is the head-quarters. The population is confined to the banks of the Uyu and a few of its tributaries. Except for a few patches of level ground near the Uyu, the whole country is a maze of hills. The greater part of the township is dense jungle, and is exceedingly unhealthy. The area cultivated in 1903-4 was 29 square miles, and the land revenue and *thathameda* amounted to Rs. 39,000.

Maini.—Town in the Khatao *taluka* of Satara District, Bombay. See Mayni.

Mainpat.—A magnificent table-land in the Surguja State, Central Provinces, 18 miles long and 6 to 8 miles broad, lying between $22^{\circ} 46'$ and $22^{\circ} 54'$ N. and $83^{\circ} 8'$ and $83^{\circ} 24'$ E. It rises to a height of 3,781 feet above the sea and forms the southern barrier of the State. From the southern face of the plateau, which is mainly composed of gneiss and ironstone, long spurs strike out into the plains of Udaipur, while the northern side is a massive wall of sandstone, indented like a coastline with isolated bluffs standing up in front of the cliffs from which they have been parted. The plateau is well watered throughout, and affords, during the summer months, abundant grazing for the cattle of Mirzapur and Bihar.

Mainpuri District.—District in the Agra Division, United Provinces, lying between $26^{\circ} 53'$ and $27^{\circ} 31'$ N. and $78^{\circ} 27'$ and $79^{\circ} 26'$ E., with an area of 1,675 square miles. It is bounded on the north by Etah ; on the east by Farrukhabad; on the south by Etawah and Agra; and on the west by Agra and Etah. The whole District forms a level plain, and variations in its physical features are chiefly due to the rivers which flow across it or along its boundaries, generally **physical** from north-west to south-east. The Jumna, which **aspects**, forms part of the southern boundary, is fringed by deep ravines, extending two miles from the river, incapable of cultivation, but affording good pasturage for cattle, as well as safe retreats for the lawless herdsmen or Ahirs. North-east flow, in succession, the Sirsa, the Aganga, the Sengar, the Arind or Rind, the Isan, and the Kali Nad! (East), which last forms the greater part of the northern boundary. A well-defined sandy ridge lies in the west of the District, and a range of sandhills follows the course of the Kali Nadi, a little inland. Shallow lakes or marshes abound over the whole area, but are most common in the central table-land, in which are many large stretches of barren soil called *f/sar*.

The soil consists entirely of Gangetic alluvium ; but *kankar* is abun-

dant, both in nodular and block form. Saline efflorescences occur in many parts.

The flora presents no peculiarities. The District is well wooded, and extensive groves of mango and *s/ils/iam* (*.Dalbergia Sissoo*) abound. The great *dhàk* jungles (*.Buteci frondosa*) which formerly studded the District have been largely cut away. *Bcilm* (*Acacia arabica*) is common. The weed *baisuri* (*Pluchea lanceolata*) is a pest in the west, and *kàns* (*.Saccharum spontanami*) is sometimes troublesome in the sandy soil to the north-east.

There are few wild animals in the District. Antelope occur in some numbers, and *nilgai* in the *dhak* jungles. Leopards and hyenas are found in the Jumna ravines, and wolves everywhere. Pigeons, water-fowl, and quail are common. Fish are plentiful, and the right of fishing in the rivers and tanks is often valuable.

The climate of Mainpuri is that of the Doàb generally. It is hot, but not excessively sultry during the summer months. The annual rainfall averages 31 inches, and the tract near the Jumna receives slightly more than the rest. Variations from year to year are considerable.

Nothing definite is known of the early history of Mainpuri, though mounds concealing ancient ruins are common. A few places are, as

usual, connected with episodes in the Mahàbhàrata.

The first precise notice of the District, however, is found in the records of its Muhammadan invaders. In 1194 Ràpri was made the seat of a Musalmàn governor, and continued to be the local head-quarters under many successive dynasties. During the vigorous rule of Sultan Bahlol (1450-88) Mainpuri and Etàwah formed a debatable ground between the powers of Delhi and Jaunpur, to both of which they supplied mercenary forces. After the firm establishment of the Lodi princes, Rapri remained in their hands until the invasion of the Mughals. Bâbar occupied it in 1526, and Etàwah also came into his hands without a blow. Ràpri was wrested from the Mughals for a while by the Afghan, Kutb Khan, son of Sher Shah, who adorned it with many noble buildings, the remains of which still exist. On the return of Humayfñ, the Mughals once more occupied Mainpuri. Akbar included it in the *sarkàrs* of Kanauj and Agra. The same vigorous ruler also led an expedition into the District for the purpose of suppressing the robber tribes by whom it was infested. During the long ascendancy of the line of Bâbar the Musalmans made little advance in Mainpuri. A few Muhammadan families obtained possessions in the District, but a very small proportion of the natives accepted the faith of Islam. Under the successors of Akbar Ràpri fell into comparative insignificance, and the surrounding country became subordinate to Etàwah.

Like the rest of the Central Doab, Mainpuri passed towards the end of the eighteenth century into the power of the Marathas, and finally became a portion of the province of Oudh. When the region was ceded to the British by the Nawab of Oudh in 1801, Mainpuri was made the head-quarters of the extensive District of Etawah. With the exception of a raid by Holkar in 1804, which was repulsed by the provincial militia, there are no events of importance to recount during the early years of British supremacy. Its unwieldy size was gradually reduced by the formation of Etah and Etawah as separate Districts. The construction of the Ganges Canal was the only striking event between the cession and the Mutiny of 1857.

News of the outbreak at Meerut reached Mainpuri on May 12 ; and on the 22nd, after tidings of the Aligarh revolt had arrived at the station, the 9th Infantry rose in open mutiny. The few Europeans at Mainpuri gallantly defended the town till the 29th, when the arrival of the Jhansi rebels made it necessary to abandon the District entirely. The Magistrate and his party were accompanied as far as Shikohabad by the Gwalior troopers, who then refused to obey orders, but quietly rode off home without molesting their officers. The fugitives reached Agra in safety. Next day the Jhansi force attacked the town, but was beaten off by the well-disposed inhabitants. The District remained in the hands of the rebel Raja of Mainpuri, who held it till the re-occupation, when he quietly surrendered himself, and order was at once restored.

There are 8 towns and 1,380 villages. Population has fluctuated during the last thirty years. Between 1881 and 1891 excessive floods threw much land out of cultivation; but the seasons population in the following decade were more favourable. The number of inhabitants at the last four enumerations was: (1872) 765,845, (1881) 801,216, (1891) 762,163, and (1901) 829,357. The density of population is below the average of the western plain. The District is divided into five *tahsils*—MAINPURI, BHOXGAON, KARHAL, SHIKOHABAD, and MUSTAFABAD—the head-quarters of which (except that of Mustafabad, which is at Jasrana) are at places of the same names. The principal town is the municipality of MAINPURI. The table on the next page gives the chief statistics of population in 1901.

About 93 per cent, of the population are Hindus, and less than 6 per cent. Musalmans, a very low proportion for the United Provinces. Western Hindi is spoken almost universally, the prevailing dialect being Braj.

The most numerous Hindu castes are Ahlrs (graziers and cultivators), 143,000; Chamars (tanners and labourers), 107,000; Kachhis (cultivators), 68,000 ; Brahmans, 68,000 ; and Rajputs, 68,000. Among Musalmans the chief tribes or castes are Shaikhs, 5,100; Patlvans,

was advanced in the famine year 1896-7. The loans in 1903-4 amounted to Rs. 4,500. In the central and part of the south-western tract drainage was defective and has recently been improved, especially in the latter, where the Bhognpur branch of the Lower Ganges Canal had caused some obstruction.

<i>Tahsil.</i>	Total.	Cultivated.	Irrigated.	Cultivable waste.
Mainpuri . . .	3S6	179	152	5°
Bhongaon . . .	459	260	205	61
Karhal . . .	218	110	101	27
Shikohabad . .	294	196	160	44
Mustafabad . .	3iS	181	101	26
Total	1,675	926	719	20S

NOTE.—These figures are for various years from 1900 to 1903, later figures not being available.

The cattle are of the ordinary inferior type, though a little success has been achieved in improving the strain by imported bulls. Something has also been done to improve the breed of horses, and stallions have been kept here for many years. In 1870 an attempt was made, without success, to improve the breed of sheep. The best goats are imported from west of the Jumna. Sirsaganj is the great cattle market.

Mainpuri is well supplied by canal-irrigation in almost every portion, and 900 square miles are commanded. In the latest years for which statistics are available, out of 719 square miles irrigated canals supplied 266. The central tract is served by the Cawnpore and Etawah branches of the Lower Ganges Canal, which originally formed part of the Upper Ganges Canal. The tract north-east of the Isan is served by the Bewar branch, and part of that south-west of the Sengar and Sirsa by the Bhognpur branch. The last tract is perhaps that in which irrigation is most defective. Wells supplied 396 square miles, and other sources, chiefly small streams, 57. Towards the Jumna, and in the sandy tracts, wells cannot be constructed easily.

Kankar is found abundantly in both block and nodular form. The only other mineral product of the District is saltpetre, which is largely manufactured from saline efflorescences.

The District has few arts or manufactures. Glass bangles are made from *reh*. Wood-carving was once popular in many parts, including a peculiar variety in which the wood is inlaid with

brass or silver wire. There is one cotton-gin at ^{communi-}cations. Shikohabad, another was recently built at Mainpuri,

and a third is working at Sirsaganj. Indigo is still made in twenty-three factories, which employ about 1,000 hands.

The chief exports are wheat and other grains, oilseeds, hides, and cotton ; and the imports are salt, metals, piece-goods, sugar, tobacco,

Trade and

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and rice. The trade is largely with Cawnpore, but sugar comes from Rohilkhand and tobacco from Farrukhabad. Some traffic is carried by the canal.

The East Indian Railway crosses the south-western corner, and a branch line, recently constructed, connects Shikohabad with Mainpuri and Farrukhabad, thus traversing the District from west to east. There are 197 miles of metalled and 200 miles of unmetalled roads. The Public Works department has charge of the former; the cost of all but 83 miles of the metalled and of all the unmetalled roads is met from Local funds. Avenues of trees are maintained on 102 miles. Few Districts in the Provinces are so well supplied with roads, and only in the south-west are communications defective. The grand trunk road passes through the north-west, with a branch to Agra through Mainpuri town, which is also connected by metalled roads with the surrounding Districts.

Mainpuri suffered severely in 1837-8, when extensive remissions of revenue were necessary, but nothing more was done to relieve distress.

Famine relief works were opened and 4,000 able-bodied persons worked daily, besides 4,600 who received gratuitous relief. In 1868 the situation was saved by timely rain, and grain was actually exported. Distress was felt in 1877-8, especially in the south-west of the District, where canal-irrigation was not available, and relief works had to be opened. In 1896-7 prices were high, but 2,000 temporary wells were made from Government advances, besides 12,000 constructed from private capital, and distress was confined to the immigrants from Rajputana. A test work attracted only a daily average of 100 persons. The four branches of the canal now make the District practically immune.

The ordinary District staff includes the Collector, and four Deputy-Collectors recruited in India. There is a *tahsildar* at the head-quarters

of each *tahsil*. Mainpuri is also the head-quarters of an Executive Engineer in charge of a division of the Lower Ganges Canal, and of an officer of the Opium department.

There are two regular Munsifs. The District and Sessions Judge of Mainpuri and the Sub-Judge exercise jurisdiction also over Etawah District. Crime is of the usual nature, but outbreaks of dacoity are frequent. Cattle-theft is not uncommon, and offences against the opium law are numerous. Mainpuri has long held a bad reputation for female infanticide, and 21,082 persons were still under surveillance in 1904, by far the largest number in any District of the United Provinces.

In 1801 Mainpuri became the head-quarters of the District of Etawah, which then included, besides the present District, parts of Farrukhabad, Agra, Etah, and Etawah. In 1803 large additions

were made, and in 1824 four subdivisions were formed, the Mainpuri portion remaining under the Collector of Etawah, who still resided at Mainpuri. The District began to take its present form in 1837. Early settlements were for short periods, and were based on the records of previous collections and on a system of competition, preference, however, being given to the hereditary *zamindars*, if they came forward. The first regular settlement was made in 1839-40, when a revenue of 12*5 lakhs was fixed. This assessment was, as it turned out, excessive, owing to the failure to allow for the after-effects of the famine of 1837-8; and it was reduced in 1845-6 to 10-5 lakhs, rising gradually to 11*4 lakhs in 1850-1. The next settlement was made between 1866 and 1873. Soils were marked off on the village map by actual inspection, and the rents payable for each class of soil were ascertained. The revenue assessed amounted to rather less than half the 'assets' calculated by applying these rates, and was fixed at 12-8 lakhs. In 1877, owing to floods, mainly along the Kali Xadi, the settlement of seventy villages was revised. Between 1883 and 1887 serious injury from floods again occurred along the Kali Nadi, and *kdns* grass spread, while in the south the new Bhognipur branch of the canal had caused damage. The revenue was reduced by about Rs. 19,000. The present demand falls at an incidence of Rs. 1-5 per acre, varying from little more than 8 annas to nearly Rs. 1-12. A revision of settlement has just been completed.

Collections on account of land revenue and total revenue are given below, in thousands of rupees: —

	1880-1.	1890-1.	1900-1.	1903-4
Land revenue .	12,60	12,23	11,74	12,44
Total revenue .	14,46		17,91	18,31

Besides the single municipality of Mainpuri, there are seven towns administered under Act XX of 1856. Outside these, local affairs are managed by the District board, which has an income of about a lakh, chiefly derived from rates. In 1903-4 the largest item of expenditure was Rs. 81,000 on roads and buildings.

The District Superintendent of police has a force of 4 inspectors, 83 subordinate officers, and 340 men, besides 102 municipal and town police, and 1,859 rural and road police. A sub-inspector and 11 head constables are specially maintained in connexion with the surveillance of villages where female infanticide is believed to be prevalent. There are 15 police stations. The District jail contained a daily average of 293 prisoners in 1903.

Mainpuri takes a very low place in respect of literacy. In 1901 only 2-4 per cent, of the population (4-2 males and 0-2 females) could

read and write. The number of public schools fell from 151 in 1881 to 133 in 1901, but the number of pupils rose from 4,146 to 4,851. In 1903-4 there were 153 public schools with 5,151 pupils, of whom 173 were girls, besides 82 private schools with 811 pupils. Three of the public schools are managed by Government, and most of the remainder by the District or municipal boards. In 1903-4, out of a total expenditure on education of Rs. 38,000, Local funds contributed Rs. 32,000 and fees Rs. 3,000.

There are 8 hospitals and dispensaries, with accommodation for 36 in-patients. In 1903 the number of cases treated was 47,000, of whom 772 were in-patients, and 1,920 operations were performed. The expenditure in the same year was Rs. 8,200, chiefly met from Local funds.

About 25,000 persons were successfully vaccinated in 1903-4, representing 30 per 1,000 of population. Vaccination is compulsory only in the municipality of Mainpuri.

[M. A. McConaghey and D. M. Smeaton, *Settlement Report* (1875) ! *District Gazetteer* (1876, under revision).]

Mainpuri Tahsil.—Central northern *tahsil* of Mainpuri District, United Provinces, comprising the *parganas* of Mainpuri, Ghiror, and Kurauli, and lying between 27° 5' and 27° 28' N. and 78° 42' and 79° 5' E., with an area of 386 square miles. Population increased from 171,152 in 1891 to 183,180 in 1901. There are 249 villages and three towns, Mainpuri (population, 19,000), the District and *tahsil* head-quarters, being the largest. The demand for land revenue in 1903-4 was Rs. 2,24,000, and for cesses Rs. 36,000. The density of population, 475 persons per square mile, is slightly below the District average. The *tahsil* is bounded on the north by the Kali Nadi, and is also crossed by the Isan and its tributary the Kaknadiya, and by the Arind. Near the Kali Nadi lies a considerable area of sandy soil or *bhur* but most of the *tahsil* consists of fertile loam, in which some large swamps or *jlnls*, now partly drained, and patches of *iisar* or barren land alone break the uniformly rich cultivation. Three branches of the Lower Ganges Canal provide ample means of irrigation. In 1900-1 the area under cultivation was 179 square miles, of which 152 were irrigated. Wells supply about half the irrigated area, canals one-third, and tanks or *jhlis* most of the remainder.

Mainpuri Estate.—A *talukddri* estate in the District of the same name, United Provinces, with an area of 89 square miles. The rent-roll for 1903-4 amounted to more than a lakh, and the revenue and cesses payable to Government by the estate were Rs. 58,000. The Raja of Mainpuri is regarded as the head of the Chauhan Rajputs in the Doab. lie traces descent to the renowned Prithwi Raj of Delhi, who fell before Muhammad Ghori in 1192. According to tradition,

the Chauhans settled near Bhongaon early in the fourteenth century. It is probable that the Rai Pratap, mentioned by the Muhammadan historians as occupying part of this District towards the close of the fifteenth century, was a member of the family. Pratap aided Bahlol Lodi in his wars with Jaunpur and was confirmed in his estates. Jagat Man, ninth in descent from Pratap, founded the city of Mainpuri, which was extended in 1749 by another descendant. During the rule of the Oudh government, towards the close of the eighteenth century, the Raja was deprived of many of the farms he had previously held ; but at the cession to the British a large tract was settled with him as *ta/ukddr*, the estate being sometimes known as Manchana. In 1840 it was decided that settlement should be made with the subordinate proprietors where these existed, the *talukddr* receiving a certain proportion of the rental 'assets,' but being excluded from management of the villages. The Raja now receives this allowance from 133 villages, while his *zaniindcin* estate comprises 75 villages. In the Mutiny Raja Tej Singh rebelled, and the estate was confiscated and conferred on his uncle Bhawani Singh, who had contested the title when Tej Singh succeeded. The present Raja, Ram Partab Singh, is a son of Bhawani Singh.

Mainpuri Town. Head-quarters of the District and *iahsll* of the same name, United Provinces, situated in 27° 14' N. and 79° 3' E., at the junction of metalled roads from Agra, Etawah, Etah, and Fatehgarh, and on a branch of the East Indian Railway recently opened from Shikohabad. Population (1901), 19,000. The town, which lies south of the Isan river, is made up of two parts, Mainpuri proper and Muhkamganj, lying respectively north and south of the Agra road. The former existed, according to tradition, in the days of the Panda vas, while another fable connects an image known as Main Deo with the name. It seems to have been of no importance till the Chauhans migrated here from Asauli at dates ranging from the thirteenth to the sixteenth century, according to different versions. The town contains a fort, composed partly of brick and partly of mud, belonging to the Raja. Muhkamganj was founded in 1803 by Raja Jaswant Singh. In the Mutiny the place was occupied by the Jhansi rebels, who plundered and burnt the civil station, but were beaten *off* when they attempted to sack the town. The Agra branch of the grand trunk road runs through the centre and forms a wide street, lined on either side by shops which constitute the principal bazar. Besides a *tahsili* and dispensary, the town contains the head-quarters of the American Presbyterian Mission, a large *sarai* and grain market called Raikesganj, after the Collector who built it about 1849, ^{ant ^ a ^ ine} street called Laneganj, after another Collector. The civil station, with the District offices and jail, lies north of the Isan, which is crossed by stone

bridges. Mainpuri has been a municipality since 1866. During the ten years ending 1901 the income and expenditure averaged Rs. 16,000. In 1903-4 the income was Rs. 22,000, chiefly from octroi (Rs. 16,000) ; and the expenditure was Rs. 25,000. Trade is mainly local, but may be expected to expand now that the railway is opened. The place is noted for the production of articles of carved wood inlaid with brass wire. A steam cotton-ginning factory, recently opened, employs about 100 hands. The municipality maintains two schools and aids two others, with 322 pupils in 1904. There are also a District and *tahsil* schools, and a Presbyterian Mission school.

Maiskhal. Island off the coast of Chittagong District, Eastern Bengal and Assam, lying between 21° 29' and 21° 45' N. and 91° 50' and 91° 58' E., with an area of 102 square miles. Population (1901), 24,228. Through the centre and along the east coast-line rises a range of low hills 300 feet high ; the west and north are fringed by mangrove jungle and arc of the same character as the Sundarbans. Among the hills is built the shrine of Adinath, which attracts pilgrims from all parts of the District. The greater portion of the island belongs to a permanently settled estate.

Maisur.—Native State, District, *taluk*, and town. See Mysore.

Maizar.—Village on the southern bank of the Margha river in the Madda Khel territory, Northern Waziristan Agency, North-West Frontier Province, situated in 32° 54' N. and 69° 37' E. On June 10, 1897, the Madda Khels treacherously attacked the Political officer's escort, and shot down several British officers and sepoys of the force under the walls of the village. A punitive expedition was dispatched, which exacted a fine of Rs. 10,000, besides Rs. 9,000 as compensation for the property taken in the attack, and the surrender of six of the ringleaders.

Majhauil.—Village in the Deoria *tahsil* of Gorakhpur District, United Provinces. See Salempur-Majhauil.

Majhgawan.—Village lands in the Mau *tahsil* of Banda District, United Provinces, containing the town of Rajapur.

Majltha.—Town in the District and *tahsil* of Amritsar, Punjab, situated in 31° 46' N. and 74° 58' E., 12 miles north-east of Amritsar city. The main branch of the Bari Doab Canal runs between Majltha and the village of Kathu Nangal, a station on the Amritsar and Pathankot Railway, 4 miles to the north. Population (1901), 6,403. The town is said to have been founded by a Gil Jat from the Malwa, named Madu, who called the town Madu Jetha after his eldest son (*jeltha*). To the Jat clan of this village belonged the Majltha Sardars, some of whom, such as Sardars Desa Singh and Lehna Singh, held high places at the court of Ranjit Singh. The municipality was created in 1867. The income during the ten years ending 1902-3

averaged Rs. 3,700, and the expenditure Rs. 3,000. In 1903-4 the income was Rs. 4,800, chiefly from octroi; and the expenditure was Rs. 4,700. Some carpets are manufactured, but the town is not of any commercial importance. There is an Anglo-vernacular middle school and a dispensary.

Majuli.—Island (or *char*) in the north of Sibsagar District, Assam, lying between 26° 45' and 27° 12' N. and 93° 39' and 94° 35' E., formed by the diversion of the Kherkutia channel from the main stream of the Brahmaputra. This channel subsequently receives the waters of the Subansiri, in itself a large river, and is then known as the Luhit to the point where it rejoins the parent stream opposite the mouth of the Dhansiri. The island has an area of 485 square miles, with a population (1901) of 35,000, and is the site 'of the AUNIATI, DAKHINPAT, GARAMUR, and other *sattras*, or priestly colleges, which are held in great reverence by the Assamese. The Majuli is much exposed to flood and diluvium, and the staple crops are summer rice and mustard. It contains numerous streams, lakes, and patches of tree forest covered with beautiful cane brake, and the general effect is very picturesque. The island has but one road and no town, and an old-world air pervades the place which savours more of the eighteenth than the twentieth century.

Makanpur.—Village in the *tahsil* of Bilhaur, Cawnpore District, United Provinces, situated in 26° 54' N. and 79° 59' E., 40 miles north-west of Cawnpore city. The shrine of a Musalman saint, named Shah Madar, who had originally been a Jew, attracts a large number of pilgrims annually, both Musalman and Hindu, the latter regarding the saint as an incarnation of the god Lakshmana. In addition to the religious attractions of the fair, a large cattle-market is held, at which 15,000 to 20,000 animals of all kinds are offered for sale.

Makhtal.—*Taluk* in Mahbubnagar District, Hyderabad State, with an area of 511 square miles. The population in 1901, including *jagirs*, was 69,560, compared with 68,031 in 1891. The *taluk* contains 120 villages, of which 13 are *jagir*, and Makhtal (population, 4,476) is the head-quarters. The land revenue in 1901 amounted to i-8 lakhs. In 1905 the *taluk* was enlarged by the addition of some villages from Narayanpet, but lost 31 villages to Yadglr in Gulbarga. The town of Narayanpet is now included in this *taluk*, which forms the borderland between the Carnatic and the Telingana country.

Makhu.—Town in the *Zila tahsil* of Ferozepore District, Punjab, situated in 31° 6' N. and 75° 4' E., 30 miles north-east of Ferozepore town. Population (1901), 1,355. Municipality was created in 1867. The income during the ten years ending 1902-3 averaged Rs. 1,100, and the expenditure Rs. 1,000. In 1903-4 the income was Rs. 1,500, chiefly from octroi; and the expenditure was Rs. 1,000.

Makrai.— Feudatory State in the Central Provinces, lying between $21^{\circ} 58'$ and $22^{\circ} 14'$ N. and $76^{\circ} 57'$ and $77^{\circ} 12'$ E., within the Harda. *tahsil* of Ilohshangabad District, with an area of 155 square miles. The State contains some rich villages in the open valley of the Narbada ; but the greater part of it is situated on the lower slopes of the Satpura range, consisting of low hills covered with forest, of which teak, *sdj* (*Tenninalia tomentosa*), and *tinsd* (*Ougeinia da/bergioides*) are the principal trees. The head-quarters of the State are at Makrai, which contains an old hill-fort, and is 15 miles from Bhiringi station and 19 miles from Harda on the Great Indian Peninsula Railway. The ruling family, who are Raj Gonds, claim a high antiquity of descent and a jurisdiction extending in former times over the whole of the Harda *tahsil*. There is, however, no historical evidence in support of their pretensions, and all that is known is that they were deprived by Sindhia and the Peshwa of the forest tracts of Kalibhit and Charwa. The present chief, Raja Lachu Shah, *alias* Bharat Shah, was born in 1846 and succeeded in 1866. He was temporarily set aside for mismanagement in 1890, but reinstalled in 1893, when he appointed a Diwan with the approval of the Chief Commissioner. The population of the State in 1901 was 13,035 persons, showing a decrease of 30 per cent, in the previous decade, during which it was severely affected by famine. Gonds and Korktis form a considerable portion of the population. In 1904 the occupied area amounted to 62 square miles, of which 54 were under crops. The cropped area is said to have decreased by 3,000 acres since 1894. Wheat is the staple crop, and *iowar*, cotton, and gram are also grown. The revenue in 1904 amounted to Rs. 62,000, of which Rs. 43,000 was derived from land, the incidence of land revenue being Rs. 1-8 per acre. Other principal sources of revenue were forests (Rs. 5,500), excise (Rs. 5,000), and law and justice (Rs. 1,400). The expenditure in the same year was Rs. 64,000, of which Rs. 14,000 was expended in the maintenance of the ruling family, Rs. 6,100 on administration, Rs. 4,700 on police, Rs. 1,600 on education, Rs. 1,700 on medical relief, and Rs. 9,000 on miscellaneous items. The receipts and expenditure during the five years ending 1903 averaged Rs. 65,000 and Rs. 61,000 respectively. No tribute is paid to Government. The State contains 42 miles of unmetalled roads. It maintains five primary schools, the total number of pupils being 273. In 1901 the number of persons returned as able to read and write was 353. There is a dispensary at Makrai. The State is under the charge of the Deputy-Commissioner of Hoshangabad District, subject to the control of the Commissioner, Nerbudda Division.

Makran (*Makkurdn*).—The south-western division of the Kalat State, Baluchistan, lying between $25^{\circ} 1'$ and $27^{\circ} 21'$ N. and $61^{\circ} 39'$ and $65^{\circ} 36''$ E., with an area of about 26,000 square miles. It is

bounded on the east by the Jhalawan country and part of Las Bela ; on the west by Persia ; on the north by the Siahan range, which separates it from Kharan ; and on the south by the sea. The coast-line, which stretches dry and arid aspects * Physical from Kalmat to Gwetter Bay, is about 200 miles long. Much of the country consists of mountains, the parallel ranges of which have a general direction east to west, enclosing narrow valleys. The more important are the MAKRAK COAST, CENTRAL MAKRAK, and SIAHAK RAXGES. They gradually ascend in height, as they leave the sea, to an elevation of about 7,000 feet. Within them lie the cultivated areas of the country, including Kulanch ; Dasht ; Nigwar ; Kech, also known as Kej, of which Kolwa, Sami, Tump, and Mand form part ; and Panjgur with Rakhshan. The Central Makran hills contain the minor cultivable tracts of Buleda, Balgattar, Parom, Gichk, and Raghai. The most important rivers are the DASHT and the RAKSHAK. They are dry. throughout the greater part of the year, but carry heavy floods, and one of their features is the frequent pools from which water is drawn off for purposes of irrigation. Among streams of minor importance may be mentioned the Shadi Kaur, which enters the sea near Pasni ; and the Basol, which breaks through the Makran Coast Range. GWADAR and PASNI are the seaports, and a little traffic is carried on at Jiwnri. The coast is open and exposed, and owing to the shoaling of the water no large steamers can approach nearer than two miles from the shore.

The only information we possess about the geology of the country is derived from Dr. Blanford's observations \ It is known to contain a large development of eocene flysch (Khojak shales), while along the coast the Siwaliks include numerous intercalations of marine strata, known as the Makran group, containing rich fossil fauna of upper miocene age. The coast appears to coincide with a line of faulting, and the mud volcanoes, which occur near it, are probably connected with this fracture. The vegetation of the country is similar to that which occurs generally throughout Southern Baluchistan, consisting of an ill-favoured, spiny scrub. Such species as *Capparis aphylla*, *Salvadora oleoides*, *Zizyphus Jujuba*, *Prosopis spicigera*, *Acanthodium spicatum*, *Tamarix articulata*, several kinds of *Acacia*, and many *Astragali* are common. The mangrove grows in the swamps on the coast. Sind ibex and mountain sheep are common in the hills, and ' ravine deer ' (gazelle) along their skirts. An occasional leopard is killed, and wild hog are to be found in places.

The climate is marked by three zones of very different character. Along the coast it is uniform and, though hot, not unpleasant. In Kech the winter is healthy and dry, but the heat in summer is intense

¹ Records, Geological Stn'y of India, vol. v; and Eastern Persia (1876).

and in remarkable contrast to the milder atmosphere of the coast. Panjgur lies in the most temperate zone, with severe cold in winter and moderate heat in summer. The north wind (*gorich*) is experienced everywhere throughout the year. It is scorching in summer and cutting in winter. During the winter Kech is subject to dense fogs, called *?iod* ; and, to guard against the damp and the mosquitoes, every native of Makran possesses a mosquito-curtain. The rainfall is capricious and uncertain, and the country is liable to long periods of drought. Previous to 1904 good rainfall had not been received in Kolwa, Kulanch, and Dasht for five years, and this is said to be no uncommon occurrence. The two periods during which rain is expected are known as *bashsham* and *bahdrqdh*. *Bashshdm* brings the summer rains, between May 15 and September 15, which generally affect the eastern side of the country. The north and west are more dependent on the winter rains (*bahdrqdh*), falling between November and February.

Makran is generally known as Kech-Makran, to distinguish it from Persian Makran. Kech-Makran and Persian Makran together constitute the Makranat, a term occurring in several history. histories. The etymology of the name is uncertain.

By some Makran is said to be a corruption of *mdki khoran*, 'fish-eaters,' identifiable with the *Iclithyophagi* of Arrian. Lord Curzon considers the name to be Dravidian, and remarks that it appears as 'Makara' in the *Brihat Sanhita* of Varaha Mihira in a list of tribes contiguous to India on the west. To the Greeks the country was known as Gedrosia. Lying on the high road from the west to the east, Makran is the part of Baluchistan round which its most interesting history centres. Legendary stories tell of the marches of Cyrus and Semiramis through its inhospitable wastes, marches which Alexander sought to emulate when he made his famous retreat from India in 325 B.C., so graphically described by Arrian. The *Shahndma* relates how Kaikhusru of Persia took the country from Afrasiab of Turan: and the memory of the former, and of his grandfather Kai-Kaus, is preserved in the names of the Khusravi and Kausi *kdrez* in Kech. But the suzerainty over Makran gravitated sometimes to the west, and sometimes to the east. At one time the Sassanian power was in possession; later we hear of its conquest by Rai Chach of Sind. The Arabs, in the seventh century, made themselves masters of the country; but, on the decline of the Khalifat, it disappears from authentic history until Marco Polo mentions it about 1290 as the most westerly part of India under an independent chief. Local tradition relates that of the indigenous races the Rinds, Hots, and Maliks successively held sway in the country after the Arabs; the Maliks were followed by the Buledais, who in their turn were ousted

by the Gichkis from India. In the time of Ahmad Shah Durrani, the country was reckoned in the province of Kirman. Owing to internal dissensions, the Gichkis fell under the suzerainty of Kalat in the middle of the eighteenth century ; and Mir Nasir Khan I acquired the right to half of the revenue of the country, besides extending his conquests westward into Persian Makran. In 1862 Makran came into the prominent notice of the British Government in connexion with the construction of the Indo-European Telegraph line, and a British officer was stationed at Gwadar from 1863 to 1871. Meanwhile Persia was extending her power eastward, and in 1879 it was found necessary to depute Colonel Goldsmid to settle the western boundary. Internally matters had gone from bad to worse, owing to the disputes between the Khan of Kalat and the dominant races, the Gichkis, Nausherwanis, and others, until at length a settlement was effected by Sir Robert Sandeman in 1884. The interference of the British Government has ever since been constantly required, and frequent visits have been paid to the country by European officers supported by escorts. In 1891 Mr. Tate, of the Survey of India, was appointed as the Khan's representative; but he was withdrawn in 1892, being succeeded by a Hindu Government official as the Khan's *ndzim*. A rising of the Makranis took place in 1898, when the *tiazim* was temporarily captured, but the rebels shortly afterwards received a severe lesson at the fight of Gokprosh. A Brahui of good family was thereupon appointed *nazim*. A disturbance in 1901 led to another small expedition, which captured Nodiz fort. An Assistant Political Agent, who is *ex-officio* commandant of the Makran Levy Corps, has been posted to Panjgur since 1904.

From careful inquiries made in 1903 the population of Makran was estimated at about 78,000. The permanent villages number 125, the chief of which are Turbat, the head-quarters of the p_op_ul_at_io_n administration, GWADAR, PASNI, and Isai. The more important villages are those clustering round the forts, which number fifteen. The population may be divided into five classes: the dominant races; the middle-class cultivators, generally known as Baloch; cultivators of irrigated lands, menials, and artisans, called Darzadas, Nakibs, and Loris; fishermen, known as Meds and Koras; and dependants of servile origin. It is distributed into groups, each of which lives independently of the rest; and the democratic tribal system, which is so strongly prevalent in other parts of the Kalat State, is here non-existent. The dominant races include the Gichkis, Nausherwanis, Blzanjaus, and Mirwaris, the whole of whom probably do not number more than about 500 persons. Their influence is due either to their acquisition of the country by conquest, or to the fact that they represent the ruling power in Kalat. They are strictly endogamous, and Gichkis born of Baloch mothers are known as *tolag*, i. e. 'jackal'

Gichkis, and lose much of their social status. The Baloch are the peasant proprietors; the more important are the Hot, Kauhdai, Shehzada, Kalmati, and Rais. The Darzadas and Naklbs are regarded as of aboriginal descent. They are courageous and of fine physique. Of the coast population, the Meds are fishermen and the Koras seamen who make voyages in their vessels to distant countries. Servile dependants abound, and do much of the cultivation and all the household work for men of means. Many of them are Baloch or descendants of Baloch who were captured in the frequent raids which took place in pre-British days. About half of the people are Sunni Muhammadans and the other half Zikris, a curious sect whose alleged incestuous and other immoral practices appear to have been much exaggerated. The language of the country is Baluchi. The majority of the population live by agriculture. Other occupations are flock-owning, seafaring and fishing, weaving, and pottery-making.

Most of the cultivable land consists of 'dry-crop' area. Irrigation exists in Kech and Panjgur, which could probably be improved and developed. Its sources are underground channels

(*kdrez*), channels cut from pools in rivers (*kaur-jo*), and springs. The *karez* in use number 127, and the channels cut from rivers 118. The best soil, known as *milk*, consists of a soft white clay. When it contains a mixture of sand, it is known as *zatvar*. The principal spring crops (*jopdg*) are wheat and barley. Minor crops include beans and pulses. The chief autumn crop (*er-aht*) is *jowar*; rice is cultivated in Kech, Buleda, Panjgur, and Zamuran; while Tump, Dasht, and Kulanch produce cotton. The date, however, is the crop *par excellence* of Makran, and the best are said, even by the Arabs, to surpass those of Basra. The cultivators are well versed in the artificial impregnation of the date-spathes, on which the quality of the produce depends. *Amen*, the date-harvest from July to September, is the pivot round which the thoughts of all the people of Makran centre, and is a signal for a general influx of all the inhabitants of the surrounding country to Kech and Panjgur. Horses, camels, cows, donkeys, every beast and every man lives on dates. *Laghati*, or compressed dates, constitutes the staple food of the poor. Those preserved with date-juice in earthen jars, called *humb*, are much relished everywhere. More than 300,000 date-trees are assessed to revenue by the Khan, but the actual number exceeds this figure. The Makrani is an able, though indolent, cultivator, and with the introduction of peace and security agriculture will doubtless develop.

Horse-breeding is not so popular as elsewhere in Baluchistan, and few mares are kept. The breed of cattle is small and generally of a brown colour. Makran donkeys are known for their fleetness. Goods are carried chiefly by camels, which are available everywhere, except

along the coast. The commonest sheep in the country are white. Brown and grey sheep, known as *bor* and *kirg*, are especially valued for their wool, which is made into overcoats (*shâl*). Four-horned sheep are not uncommon in Dasht and Nigwar. No system of forest reservation has yet been introduced. The commonest trees are the tamarisk, which abounds in river-beds, and the acacia. No minerals of economic value have yet been found.

The people comprising the artisan class are generally landholders also. They have no stock in trade, and merely supply manufactured articles from the material furnished to them. The weaving industry is moribund, owing to the importation of European cloth. A few coarse cottons are, however, still manufactured. Kerchiefs, used by the women to put over their hair, are made from floss silk obtained from Sarbâz in Persia. Horse-cloths, sword-belts, and shoes are embroidered in silk. The pottery is of the roughest description, consisting of round pitchers and earthen jars. .

In 1902-3 the imports to the Makrân ports from India were valued at 6½ lakhs and the exports at 7 lakhs. These figures, however, include the trade with the ports of Sonmiâni and Ormâra in Las Bela. No statistics are available regarding the trade which is carried on with places in the Persian Gulf, Arabia, and Africa. The chief centres are Gwâdar, where the largest transactions take place, Pasni, Turbat, and Isai. Wholesale trade is carried on entirely by Hindus from Sind and Khojas from Cutch Mândvi. The retail trade is mostly in the hands of Hindus, but a few of the indigenous inhabitants and some Bâbis from Kalât are also engaged in it. The principal exports are raw wool, hides, cotton, matting, dates, salted fish, fish-maws, and shark-fins ; and the chief imports are piece-goods and grain, including large quantities of wheat, rice, and *jowâr*.

The communications consist solely of caravan routes, most of which are exceedingly bad, especially those from north to south, which cross the hill ranges at right angles. The main road from Quetta to Bâmpûr in Persia passes through the Panjgûr valley ; another important route between Karachi, Las Bela, and the west traverses the Kolwa and Kech valleys and eventually also reaches Bâmpûr. Routes from Gwâdar and Pasni converge on Turbat northwards. The latter has been recently improved under skilled supervision, and is being continued to Panjgûr through Buleda. Another track from Turbat reaches Panjgûr through Bâlgattar. Steamers of the British India Steam Navigation Company carrying the mails call at Pasni and Gwâdar on alternate weeks. Both these places have post and telegraph offices.

The production of grain in the country is probably insufficient for

its requirements, but a good date-harvest is enough to meet the needs of the scanty population for the year. In times of scarcity the inhabitants, rapidly dispersing, find a plentiful demand for labour at Karachi and in Rajputana.

The administration of the country is conducted, on behalf of the Khan of Kalat, by an officer known as the *ndzim*. He is assisted

Adm'n'stration [^] [^]our ^{ja}as> are stationed in Tump, Kolwa, Pasni, and Panjgur. Irregular levies are maintained, numbering 79 horse and 81 foot, at a total cost of about Rs. 32,000 per annum. The infantry hold the important forts of Turbat, Nasrabad, and Tump in Kech, Bit in Buleda, and Isai in Panjgur. All persons, including holders of revenue-free grants, are bound to assist the *ndzim* with armed men when occasion requires. For this purpose allowances amounting to Rs. 6,000 per annum are granted to certain leading men by the Khan. A telegraph subsidy of Rs. 5,520 is paid by the British Government for the protection of the Indo-European Telegraph line. A Levy Corps of 300 men under two British officers, with its head-quarters in Panjgur, is being stationed along the western frontier. Its cost, about 1-2 lakhs per annum, is borne by the British Government. Disputes are generally referred to *kdzis* for decision according to the Muhammadan law. Important awards are confirmed by the Political Agent in Kalat. Crime is conspicuous by its absence, the number of criminal cases decided in 1900-1 being only 63. The total cost of administration, including the pay of the irregular levies, is about Rs. 80,000 per annum.

It has been stated that Nasir Khan I obtained from the Gichkls only a right to the collection of half the revenues of the country. In the course of the long series of struggles between the Khans of Kalat and the dominant groups which followed, the position gradually changed; and the Khan has now obtained, by confiscation, exchange, &c., the exclusive right to the revenue of some places, while retaining the right to a moiety in others. Elsewhere, the dominant classes hold exclusive rights to collect. The revenue is taken by the appraisement of cereals, the State share being generally one-tenth; by contract; and by a cash assessment on irrigated lands, known as *zarr-e-shdh*, which has now degenerated into a poll-tax of very unequal incidence. A cash assessment is levied on date-trees, and grazing tax is collected at the rate of one sheep in 40 or 50 and one seer of *ghl*. Among other receipts are trajisit dues, tithes in kind on all fresh fish caught on the coast, and duties on imports and exports. In 1902-3 the total revenue derived from the country by the Khan was Rs. 45,500, to which a grant of Rs. 36,700 was added by him to meet the expenses of administration.

A little education is imparted by a few ignorant *mullds* and *kdzis*, generally Darzadas and Afghans. A Hospital Assistant is attached to

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the *nazim*, who affords medical relief in a few cases. The people are very superstitious and attribute almost all diseases to evil spirits, for casting out which special processes are employed. Night-blindness, which is attributed by the people to their diet of fish and dates, is common. Fevers, sore eyes, and ulcers are of constant occurrence. Cholera and small-pox not infrequently visit the country. Vaccination is unknown, but inoculation is popular, the usual fee being four annas. The people thoroughly understand the value of segregation, and careful precautions are taken against the transport of infection by flies.

[Ross, *Memorandum on Makran* (Bombay, 1867) ; *East and West*, vol. iii, No. 31, May, 1904, contains an account of the ancient history of the country by Shams-ul-ulamā J. J. Modi.]

Makran Coast Range.—Mountain range in Baluchistan, known locally as Bahr-i-Garr, which skirts the Arabian Sea for 280 miles between 25° 22' and 26° 0' N. and 61° 44' and 66° 3' E. Its width varies from 35 to 70 miles. The prevailing rock is a pale-grey clay or marl, occasionally intersected by veins of gypsum and interstratified bands of shelly limestone and sandstone. The parallel ranges of the system descend gradually from east to west. Everywhere defiles, rents, and torrent beds are to be seen. The principal ridges from east to west are Dhrun (5,177 feet), Gurangatti (3,906 feet), Taloi (3,022 feet), and Gokprosh, whose highest point is Janzat (4,345 feet). Gokprosh is famous as the scene of the defeat of the Baloch rebels in 1898. Neither permanent inhabitants nor cultivated lands exist. A few stunted trees and scrub jungle compose the only vegetation. Sind ibex and mountain sheep are plentiful.

Makran Range, Central.—Mountain range in Baluchistan, occupying the centre of Makran, between 26° 3' and 27° 39' N. and 62° 19' and 65° 43' E. Springing from the hills of the Jhalawan country its two well-defined and gradually descending ridges, the Zangi Lak or Dranjuk hills (6,166 feet) on the north and the Koh-i-Patandar (7,490 feet) with its continuation the Kech Band (3,816 feet) on the south, run west-south-west for about 250 miles. The tumbled mass in the centre merges on the west into the Zamuran hills, and the northern portion stretches into the Persian Bampusht range. The width is uniform, about 45 miles. Sandstone is the prevailing rock, sometimes associated with shaly strata and limestone. Within the range lie the valleys of the Raghai, Giehk, and Gwargo rivers, Balgattar, Buleda, and Parom. The Zamuran hills are alone inhabited, and have some cultivation and vegetation.

Makrana.—Village in the Parbatsar district of the State of Jodhpur, Rajputana, situated in 27° 3' N. and 74° 44' E., on the Jodhpur-Bikaner Railway. Population (1901), 5,157. The village derives its importance from its marble quarries, which have been noted for

centuries, and from which the material used in the construction of the Taj Mahal at Agra was obtained. It has been proposed to use this marble for the Victoria Memorial Hall at Calcutta. The quarries vary in depth from 30 to 75 feet, and the yearly out-turn averages about 900 or 1,000 tons. The marble is excavated by blasting, and is then cut into required sizes by means of steel saws. The chips and dust left behind after the blocks have been hauled to the surface are burnt into lime, and used for the finer kinds of plastering. There are now twenty-six quarries being worked, which give employment to about 100 labourers daily, mostly of the Silawat caste of Muhammadans.

Maksudabad.—Old name of MURSHIDABAD TOWN, Murshidabad District, Bengal.

Maksudangarh (*j'v'aiaki/a*).—Petty State in Central India, under the Bhopal Agency, with an area of about 81 square miles. It lies in Malwa and takes its name from the chief town. The State originally formed a part of Raghugarh. In 1776 Raja Balwant Singh of Raghugarh granted the tract to his brother Budh Singh, whose son Durjan Sal (1795-1811) considerably extended his possessions, founding a State of which the town of Bahadurgarh (now Isagarh in Gwalior) was the capital. Early in the nineteenth century his lands were seized by Sindhia, but were in part restored by Sindhia's general, Jean Baptiste Filose, who in 1816 installed Beri Sal Khlchi, of the Lalawat branch of the family, as chief of Maksudangarh. Since then it has existed as a separate State, feudatory to Gwalior, to which, however, it pays no tribute. Its position is thus peculiar, as the chief does not hold under a British guarantee. Since the establishment of the Bhopal Agency, however, the internal administration has invariably been conducted under the supervision of the Political Agent, without interference on the part of the Gwalior Darbar. The present chief, Raghunath Singh, succeeded in 1864 at the age of fifteen. The State, which had been mismanaged, was taken under superintendence by the Political Agent in 1880, with the concurrence of the Maharaja Sindhia, and is still under supervision. The chief bears the hereditary title of Raja.

The population was : (1891) 14,422, and (1901) 14,284, giving a density of 176 persons per square mile. Hindus number 12,214, or 85 per cent.; Animists, 1,661, or 12 per cent.; and Musalmans, 398. The State contains 80 villages. About 16 square miles are cultivated. The soil is fertile and bears good crops, but the absence of roads prevents any great development of trade. Opium, the most important product, has to be taken more than 50 miles by country track to the railway. The total revenue is about Rs. 37,000, of which Rs. 28,000 is derived from land.

The chief town is Maksudangarh, situated in 24° 4' N. and 77°

1 S' E., about 1,700 feet above sea-level. Population (1901), 2,222. It is a small place, formed of an irregular congeries of houses dominated by the fort called Naiakila or the 'new fort,' which was built by Raja Vikramaditya of Raghugarh about 1730. A school, a hospital, a jail, and a British post office are situated in the town, which is 30 miles by fair-weather road from Biaora on the Bombay-Agra high road.

Makurti.—Peak in the KUNDAHS in the Ootacamund *taluk* of the Nilgiri District, Madras, situated in $11^{\circ} 22'$ N. and $76^{\circ} 31'$ E., at an elevation of 8,403 feet above sea-level. This is a favourite point for excursions from Ootacamund, the ascent being made by a zigzag path cut on the eastern face. Its western side is an almost unbroken precipice, several hundred feet in depth. The spirits of men and buffaloes are supposed by the Todas to take a leap together into Hades from this peak.

Malabar (Malayalam, or Malayam, 'the land of hills').—Perhaps the most beautiful, and certainly one of the richest and most fertile, of the Districts of Madras, lying on the west coast of the Presidency, between $10^{\circ} 15'$ and $12^{\circ} 18'$ N. and $75^{\circ} 1'$ and $76^{\circ} 51'$ E. Its ancient name was Kerala, which included also the District of South Kanara and the Native States of Cochin and Travancore; the form Malabar appears to be derived from Arabic sources, the termination *bar* meaning 'country.'

Excluding the LACCADIVE ISLANDS, the District has an area of 5,795 square miles, and stretches for a distance of 150 miles along the Arabian Sea from South Kanara in the north to Cochin State on the south. On the east it is separated from Coorg, the Nilgiris, and Coimbatore by the Western Ghats, which form a continuous mountain barrier from 3,000 to 8,000 feet high, at a distance from the coast which varies from 20 miles in the north to 60 in the south, and are interrupted only at the Palghat Gap, 16 miles wide, the one break in the whole of the range. In two places the limits of the District extend beyond the mountain wall: namely, in the Wynaad

taluk, a plateau 3,000 feet above sea-level, which aspects, really forms part of the great Mysore table-land; and in the Attapadi and Silent Valleys, which lie behind the irregular ridge stretching from the Kundahs to the northern pillar of the Palghat Gap. The most conspicuous peak in the Malabar hills is the Vavul Mala or 'Camel's Hump,' 7,600 feet high, which heads a magnificent buttress thrown out to the south-west below the Tamarasserri pass, where the general line of the Ghats recedes eastward. This spur constitutes the right flank of the NILAMEUR Valley, while the left is formed by the Kundahs, which rise to over 8,000 feet in the Nilgiri Hills and Makurti peaks on the Xilgiri boundary.

The Ghats are thickly wooded in most parts, and contain mountain scenery of unrivalled beauty, many of the peaks being precipitous and inaccessible. The country below presents the general appearance of a sea of forest-covered hills. Long*wooded spurs with deep ravines run down from the main range, and are succeeded by gentler slopes, covered with low jungle, and by bare downs with gradually widening valleys of luxuriant cultivation. Nearer the coast the laterite downs shelve suddenly into rice plains and lagoons fringed with coco-nut palms. Along the coast is a level strip seldom more than 2 or 3 miles wide. It was thus described by Ibn Batuta as early as the fourteenth century : ' The whole of the way by land [down the coast] lies under the shade of trees, and in all the space of two months' journey there is not one span free from cultivation ; everybody has his garden, and his house is planted in the middle of it.'

With the exception of three tributaries of the Cauvery—the BHAVANI, which rises in the Attapadi Valley and flows through Coimbatore, the Kabbani and the Rampur, which rise in the Wynaad and traverse Mysore—all the numerous rivers of Malabar flow westward from the Ghats to the sea, where they are backed up by littoral currents and discharge into a line of backwaters and lagoons parallel to the coast. Most of the rivers are navigable by small boats for some miles beyond tidal influence, and many of the lagoons are connected by small canals; there is thus an extensive system of inland waterways of great commercial importance. The longest of the rivers is the Ponnani, but the most important are the BEYPURE and the VALARPATTANAM ; all three are connected with extensive systems of backwaters.

The seaboard is entirely open except in the extreme north at Mount Delly, a massive laterite island hill, celebrated* as the first point of India sighted by the Portuguese ships. South of this as far as Calicut small headlands of laterite cliff, forming shallow bays, alternate with long stretches of sand ; beyond Calicut is one unbroken stretch of sand. The sea bottom shelves very gradually, and there is no deep water within three miles of the shore. Thereafter it plunges suddenly down to 1,000 fathoms and more. Small craft find shelter in the mouths of the bigger rivers ; while at CALICUT, QUILANDI, and COCHIN shifting mudbanks afford a calm roadstead in all weathers.

The greater part of the low country is covered with laterite, but the underlying rock consists of fine-grained gneisses, quartzose, garnetiferous, and quartzo-felspathic. The laterite is of two kinds: namely, vesicular, derived from the decomposition of the gneiss *in situ*; and pellety, a detrital rock formed of the debris of the vesicular variety. The Wynaad plateau is composed chiefly of rocks of the cnarnockite series with biotite gneiss and biotite granite, in the former of which

auriferous reefs occur. Veins of pegmatite, carrying ruby mica of fair size and quality, are found in the south of it.

Owing to the perennial humidity of the climate, the flora of the District is very luxuriant. It is similar in its general character to that of Ceylon, but varies with the many changes in altitude and moisture which occur. Palms, bamboos, the jack-tree, and the pepper-vine are among the more characteristic plants of the lower levels. Higher up are heavy evergreen forests full of large timber; and tree-ferns, orchids, and mosses are plentiful. The *Hortus Malabaricus* of Van Rheede, a Dutch governor of this part of the country, is the earliest treatise on the flora of Southern India and describes as many as 794 different plants.

The fauna of Malabar is extremely varied. Throughout the Ghats and the Wynaad are found the usual large game common to the South Indian hills, such as tigers, bears, leopards, bison, *sawbar*, and hog. Elephants abound, especially in the Wynaad and Nilambur forests, where large numbers are caught in pits by the Forest department. Spotted deer are confined to the hills at the foot of the Ghats, and the Nilgiri ibex (*Hemiiiragus hylocrius*) to the Palghat hills and the Kundahs. Crocodiles and otters abound in the backwaters, and a large number of edible fish of many kinds are caught all along the coast.

The climate, though excessively damp, is on the whole healthy; but the Wynaad and loAver slopes of the Ghats, with the country immediately at the foot of the hills, are malarious, especially from February to June. The temperature of the low country varies little the whole year round, seldom rising as high as 90° or falling below 70°; there is a constant sea-breeze during the day in the hottest weather. The mean temperature for the year at Calicut is below 81°.

The rainfall is heavy and unfailing throughout the District, and the seasons are regular. Thunderstorms begin among the hills in April. In May the south-west monsoon sets in, and banks up the clouds against the Ghats. The rains break early in June and continue to the end of September, when the south-west monsoon dies away. Three-fourths of the total fall is received during these four months. In October the north-east monsoon sets in, the rains slacken, and by December the dry season is established. The rainfall is lightest in Palghat, where the gap in the Western Ghats prevents the accumulation of so much moisture as elsewhere, and heaviest among the high hills in the south of the Wynaad. The annual fall for the whole District averages 116 inches.

Famine, therefore, is practically unknown ; while, since the rapid rivers have cut deep beds for themselves, floods are rare. Nor is there any record of serious natural calamities of other kinds, such as cyclones or earthquakes, except the storm-wave of 1847, which did much damage on the LACCADIVE ISLANDS and a little on the mainland.

The early history of Malabar is inseparable from that of the adjoining State of Travancore. Identical in people, language, laws, customs, and

History climate, the whole of ancient Kerala is homogeneous in every respect, except in the accident of a divided political administration. To trace the successive waves, whether of invasion or of peaceful colonization, which are now represented by the Cherumans and Tiyans, Nayars and Nambudris, overlying one another in social strata, or to examine the physical justification for the legendary origin of this interesting country, is beyond the scope of this article.

It is probable that the later flood of immigration which gave to Kerala or Chera its Nayars and Nambudris was part of a general movement southward, which in prehistoric times brought the best of its people and its Brahmanism to Southern India. It is also likely that the physical formation of Kerala was due to some natural process, gradual or convulsive, which gave rise to the local legend of its having been the gift of the ocean. In very ancient times a traffic sprung up between the Mediterranean and the roadsteads of Malabar. The Phoenicians came by way of the Persian Gulf and afterwards by the Red Sea. Possibly the Jews made the same voyage in the reigns of David and Solomon. The Syrians under the Seleucids, the Egyptians under the Ptolemies, the Romans under the emperors, the Arabs after the conquest of Egypt and Persia, the Italians, more especially the Republics of Venice, Florence, and Genoa, have each in turn maintained a direct trade with the western ports of the Madras Presidency. In the early political history of Malabar the first figure that emerges from the mist of tradition is Cheraman Perumal, the last of the sovereigns of Chera. He is represented as voluntarily resigning his throne, subdividing his kingdom, and retiring to Mecca to adopt Islam. The date of Cheraman has been the subject of much discussion; but recently information has been received that his tomb still exists at Sabhai on the Arabian coast, and the dates on it were said to indicate that he reached that place in a.h. 212 (a. d. 827) and died there in

a. h. 216 (a.d. 831). His departure from Malabar may possibly have taken place on August 25, 825, which is the first day of the Kollam era still in use on the coast. The epoch popularly assigned to him is the middle of the fourth century. It is probable that, if the resignation and partition actually occurred, they were forced on the ruler by the growing power and turbulence of his feudatory chiefs and by the encroachments of the Western Chalukya dynasty. From this time Malabar remained divided among numerous small chieftains, of whom Kolattiri or Chirakkal in the north and the Zamorin (or Samuri) in the south were the most conspicuous. It was with these last two, and with the Cochin Raja, that the early Portuguese adventurers first entered into relations.

Vasco da Gama visited Malabar in 1498, and his successors speedily established themselves at Cochix, Calicut, and Caxxaxore. In 1656 the Dutch appeared in the Indian seas to compete with the Portuguese for the trade of the country. They first conquered Cannanore, and in 1663 captured the town and fort of Cochin, as well as Tangasseri, from their rivals. In 1717 they secured the cession of the island of Chetwai from the Zamorin. But in the next half-century their power began to wane : Cannanore was sold to the Cannanore family, represented at that time by All Râjà, in 1771 : Chetwai was conquered by Haidar in 1776, and Cochin captured by the English in 1795. The French first settled at Calicut in 1698. In 1726 they obtained a footing in Mahé, and in 1751 acquired Mount Delly and a few outposts in the north, all of which fell into the hands of the English in 1761. Their frequent wars with the English ended in the destruction of their commerce in the East, Mahé having been thrice taken and thrice restored. The English established themselves in 1664 at Calicut, in 1683 at TELlicherry, and in 1684 at AXJENGO, Chetwai, and other commercial factories. Tellicherry became their chief entrepôt for the pepper trade ; and so rapid was the extension of their power and influence that in 1737 the English factors mediated a peace between the princes of Kanara and Kolattiri. They obtained the exclusive privilege of purchasing the valuable products of the country : namely, pepper, cardamoms, and sandal-wood.

For nearly a century the Marâthâ pirates under Angrià and other chiefs infested the coast, and ravaged even inland towns by sailing up the Beypore, Ponnâni, and other rivers, till 1756, when they were destroyed by a British expedition. The Ikkeri or Bednür Râjî in 1736 and 1751 invaded the country of Kolattiri and imposed fines on the northern division. The Pâlghât State, after dismemberment by the Râjâs of Calicut and Cochin, sought the alliance of Mysore, then ruled by its Hindu Râjâ, who stationed a subsidiary force in Pâlghât. It was this connexion which afforded Haidar All, when he became ruler of Mysore, a pretext for invading Malabar in defence of his ally, the Pâlghât Achchan. In 1760 Haidar sent an army to Pâlghât and descended the *ghâts* through Coorg in person. Again in 1776, at the instigation of All Râjâ, the Mâppilla chieftain of Cannanore, he made an easy conquest of the whole country, the Râjâs flying into the jungles or taking refuge in the English settlement of Tellicherry. They, however, took advantage of the war between Haidar and the English in 1768 to reinstate themselves until 1774, when Haidar again passed down the *ghâts* with two armies and completely subjugated the country, the Hindu chiefs retiring to Travancore and Tellicherry.

On war breaking out between the English and the French in 1778, Haidar resented the asylum that had been granted by the former to refugees in 1769, and began hostilities by investing Tellicherry fort. The siege was prosecuted in a fitful manner for two years till reinforcements arrived from Bombay, when it was raised by a sortie, the success of which was so complete as practically to annihilate the besieging army. Peace intervened between 1784 and 1788, when Tipti Sultan, son and successor of Haidar, descended the *ghats* and commenced a religious persecution of the people. This produced a rebellion ; and, on the breaking out of the war between him and the British in 1790, the refugee chiefs were encouraged by proclamation to join the British cause. The contest terminated in the cession of Malabar (except the Wynaad) to the Company by the Treaty of Seringapatam in 1792. Since that date the District has remained in the peaceable possession of the British, except for the rebellion of the Kottayath (Pychy) Raja in the north and various Mappilla chiefs in the south (1795-1805). The Wynaad fell to the British on the death of Tipu Sultan in 1799.

Prehistoric menhirs and dolmens, in which have been found bones, pottery, iron implements, and beads, are scattered all over the District. Peculiar to Malabar are the *topi kallu* ('hat-stones'), *kuda kallu* (' umbrella-stones '), and bee-hive sepulchres cut in the laterite rock. A large number of Roman coins of the early emperors have been found in Kottayam, and a few elsewhere. The architecture of the temples, both Hindu and Muhammadan, perhaps suggests Mongolian influence; the most striking feature is the reverse slope of the eaves above the veranda, a peculiarity which is found all down the West Coast but nowhere else in India south of Nepal. Most of the temples are small; the finest are at GURUVAYUR, CALICUT, and TALIPARAMBA.

During the last thirty years the population of the District has advanced steadily if not rapidly. In 1871 it was 2,261,250; in 1881,

Population ²/₃ 65 > ° 35; in 1891, 2,652,565; and in 1901, 2,800,555.

' Malabar is now the third most populous District in the Presidency, and, notwithstanding the large areas of hill and forest included within its limits, is more densely peopled than any other except the rich delta of Tanjore. The rate of increase is little affected by outside influences, famine being practically unknown, emigration small, and immigration a negligible quantity. The District contains ten *taluks*, o/ which particulars, according to the Census of 1901, are shown in the table on next page, and also includes the LACCADIVE ISLANDS.

Each *taluk* is divided into *amsams* (parishes) instead of villages, and these are again subdivided into *desams*. The custom by which each family lives in its own separate homestead is inimical to the growth of towns, and there are only seven in all Malabar: namely, CALICUT, TELLICHERRY, PAIGHAT, CANNANORE, COCHIX, BADAGARA, and Pon-

NANI. Of every 100 of the people 68 are Hindus, 30 (a far larger proportion than in any other District) Musalmans, and 2 Christians. Malayalam, a language which is confined to the Malabar coast, is the prevailing vernacular, though 4 per cent, of the total population speak Tamil. Mahl is the language of the islanders of Minicoy, one of the Laccadives.

Taluk	H Sfj	Number of H	Number of I	Number of u	Percentage of variation in population be- tween 1891 and 1901.	Number of persons able to read and write.	
Kottayam . .	481	1	223	209,516	436	+ 7.2	28,249
Chirakkal . .	677	1	273	320/107	473	+ 2.9	33,580
Kurumbanad .	505	1	339	32 7,310	648	+ 7.6	39,199
Wynaad . .	521		a»	75;149	92	- 2.1	4,649
Calicut . .	379	1	180	255,612	674	+ 7.5	33,447
Ernad . .	979		221	357;142	365	+ 3.9	27,745
Walavanad . .	852		316	35M12	398	+ 7.0	30,611
Palghat . .	643	1	136	390,098	607	+ 4'S	37,335
Ponnani . .	426	1	459	478,376	1,123	+ 6.5	45>5X7
Cochin . .	2	1	3	25,859	12,930	+ 5.0	6,011
Laccadive Islands			5	10,274		- 3.5	'461
District total	5,795	7	2,213	2,800,555	451	+ 5.6	280.954

The Hindus of the District include 113,000 Tamils (30 per cent, of whom are Brahmans), about 20,000 Telugus, and a sprinkling of other races; but the enormous majority consists of Malayalam-speaking castes peculiar to the country. The most numerous of these are the Tlyans (or Iluvans), the toddy-drawer caste, who number 66,000. Next come the Nayars (391,000), originally the military caste of the District and still the aristocracy. They are followed by the Cherumans (246,000), the agricultural labourers of the country, who are often *adscripti glebae* in the strictest sense, and form one of the most unprogressive communities in the Presidency. The Kammalans (artisans) are the only other caste over 100,000 strong. The Nambudri Brahmans, though numbering under 20,000, deserve mention from their influential position. They are almost invariably landholders, often of large estates. Unlike most Brahmans, they keep aloof from public affairs, and despise modern education; but they are the object of the deepest reverence from all other castes.

Space does not permit of a detailed account of the many ways in which Malayalam caste customs differ from those of the rest of the Presidency, but two peculiarities may be noticed. The first is the vitality of the doctrine of ceremonial pollution, which is elaborated in great detail and is still scrupulously observed except in the towns. There are regularly graduated degrees of distance within which one

caste is held to pollute another ; and a high-caste man returning from his bath shouts out to warn others of his approach, so that they may step aside into the fields and not pollute him. The second is the prevalence of the Marumakkattayam law, or system of inheritance through females, which makes a man's sister's children his nearest heirs. This is invariable among the Nayars and kindred castes, and is followed by most of the Tiyans and Mappillas of North Malabar and by some of those of South Malabar. The custom presumably originated in the uncertainty regarding parentage that arose from the polyandry which was formerly widely practised and may still exist in isolated cases. Among the Hindu Marumakkattayam castes, marriage consists in a union (*sambandhchim*) formed by a girl who has reached maturity with a man of her own or a higher caste, the main ceremonial being the presentation of a piece of cloth by the bridegroom. This union is dissolvable at will, and the children born of it belong to the mother's family (*tanvad*) and do not inherit their father's property. In 1891, in compliance with a movement among a section of the Nayars, the Government appointed a Commission to consider how a more permanent form of marriage might be provided for Marumakkattayam castes ; and a law was enacted by which, if *sambandhams* were formally registered, the property of the parents could be bequeathed to the children of the union.

The Musalmans of Malabar number 843,000, or more than one-third of all the followers of that faith in the Presidency. Of these, 806,000 are classed as Mappillas, a name originally applied to Arab traders and their descendants by the women of the coast, but now used to include all indigenous West Coast Muhammadans, among whom are comprised large numbers of converts from the lower Hindu castes, and descendants of the victims of Tipu's persecution. Of the remainder, 24,000 are Labbais, also a mixed race.

Eurasians are more numerous in Malabar than in any other District except Madras and the Nilgiris.

The people of Malabar are less exclusively agricultural than those of other Districts. This is due to the fact that a large number live by fishing and fish-curing, wood-cutting, oil-pressing, rice-pounding, and making the palm-leaf hats and umbrellas which are universally used. The number of those who subsist by service in temples, astrology, and teaching is also above the average.

Of the 51,000 Christians in the District, 46,000 are natives and 4,000 Eurasians. The Native Christian Church of the West Coast, founded traditionally either by St. Thomas or by missionaries from Babylonia in the fourth century, appears to have been more or less independent till the sixteenth century, though acknowledging generally the supremacy of the Nestorian Patriarch of Babylon. After a long

struggle against the influence of St. Francis Xavier and various Jesuit and other Portuguese missionaries, culminating in the famous synod of Diamper (UDAYAMPERUR) in 1599, the Church passed under the domination of the Pope; but with the rise of the Dutch power the greater portion of the original Native Church threw off its allegiance to Rome in 1653 and attached itself to the Jacobite Patriarch of Antioch. The Carmelite missionaries, who first came to the country in 1656, gradually won back a large number of the native Christians to Rome; and the remaining section, falling under the influence of the Church Missionary Society in the beginning of the nineteenth century, have split up into two bodies. The indigenous Church, therefore, is now represented by three organizations : namely, the Romo-Syrians, who acknowledge the Pope and are Roman Catholics, though they have their own Syrian rite; the Jacobite Syrians, who follow the Patriarch of Antioch ; and the Reformed Syrians or St. Thomas Christians, who appoint their own bishops, and whose doctrines approximate to those of the Anglican Church.

The present Roman Catholic missionaries are Carmelite Fathers and Jesuits. The only Protestant mission is the Basel German Lutheran Mission, established in 1839. It has churches and schools in all the *taluks* except Ernad and Cochin, and a congregation numbering about 6,000, or 12 per cent, of the Christian population.

The agricultural conditions of Malabar differ from those of the East Coast as widely as do its physical features. The prevailing soil is a red ferruginous loam, but on the slopes of the Agriculture Ghats there is a rich layer of black mould formed of decayed vegetable matter. On the hills and plateaux of the low country the soil varies from rich loam to uncultivable laterite, the former being most prevalent in the Ernad, Walavanad, and Palghat *taluks*, where there is extensive 'dry' (unirrigated) cultivation. The best rice crops of the District are grown in the deeper inland valleys, where a tenacious soil is enriched by the surface earth washed down from the hills. The shallower valleys contain a light loam, which becomes sandy as they broaden out near the coast, or clayey where they meet the bigger rivers and backwaters. Above the line of ' wet' cultivation there is as a rule a fringe of gardens, each with its home-
stead, often reaching to the very top of the hill-side; but in the southern *taluks* the slopes are more frequently terraced and cultivated with ' wet crops ' to a considerable height above the level of the valley. The soil of the level country near the coast is poor and very sandy, and subject to damage from salt-water floods. It is, however, peculiarly adapted to the growth of the coco-nut palm, with which the coast lands are thickly planted.

Two 'wet crops' are grown in most of the valleys with the help of

the two monsoons. The first (*ka/mi*) is sown in April and May and reaped in August and September, while the second (*makaram*) is sown in September and October and reaped in January and February. On some of the best lands a third crop (*piñja*) is sown in February and reaped in May. On 'single-crop' lands one or other of the above is grown; but the cultivation season varies almost infinitely with the nature of the land and its irrigation facilities, and in some cases extends over ten months. In the better soils rice is usually planted out from nursery beds; elsewhere it is sown broadcast. 'Dry crops' are raised usually with the help of the south-west monsoon from May to August. *Modan*—rice grown on the open lower hills and in *parambas* (orchards)—is raised on the better soils once in two or three years, on the worse soils once in five years. On the best it is usually followed immediately by a crop of gingelly (*Sesamum indicum*) and another of *chama* (*Panicum miliare*), the three crops occupying the land for more than eighteen months. *Punam*—a mixed crop of rice, millet, &c.—is raised once in seven or eight years on hill-sides roughly cleared by burning.

The 5795 square miles of which the District consists include 18 square miles of 'minor *mams*'; the rest, except the Laccadives and a small area held on special terms by All Raja of Cannanore, is *ryotwari*. There are no accurate statistics of the area under cultivation, &c. ; but the extent cropped in 1903-4 (including temporary cultivation, i.e. the actual area cultivated for the year with 'dry crops') was about 2,200 square miles, or 38 per cent, of the total area. Of the remainder, the major portion consists of high hills, forests, and other uncultivable areas.

Rice is the staple food-grain, covering 60 per cent, of the net area cultivated. In gardens and *parambas*, which occupy nearly half the cultivated area, by far the most important crop is the coco-nut palm. Next come areca palms, plantains, and pepper, the latter being practically confined to the three northern *taluks* and the Wynaad. Other garden products are jack, mango, palmyra palms, betel-vines, cinnamon, and many kinds of vegetables. Gingelly, *c/idma*, *rdgi*, and various pulses are raised on the open hills and in *parambas*) ginger is a valuable 'dry crop' in Ernad, Walavanad, and parts of Ponnani, and cardamoms in Kottayam and the Wynaad, while lemon-grass is being widely grown in Ernad. About 4,800 acres in the Wynaad are under coffee and 4,600 acres under tea.

No accurate statistics exist to show the extension in the area of holdings. Near the coast there is little cultivable waste, while inland the limits of cultivation are being steadily pushed back into the jungles. The Malabar ryot is very conservative in his methods of cultivation, and still generally confines himself to the use of straw- and leaf-manure

FORESTS

for ' wet ' lands. Fish-manure is used in some gardens on the coast and in the Wynaad. The gardens could often be much improved by a more extended use of well-irrigation. No advantage has been taken of the Land Improvement Loans Act.

There are no important local breeds of stock. In the four southern *taluks*, where cattle are comparatively numerous, the majority are imported from Coimbatore. Male buffaloes are widely used in cultivation. In the northern *taluks* animals are imported from Coorg and Mysore, and they are bred to a small extent in the Wynaad. Cattle are fed mainly on rice straw.

The cultivation of the District depends on the practically unfailing rainfall, and there are no irrigation works of any importance. ' Wet ' lands are irrigated where necessary by diverting into them the innumerable streams which flow down the valleys, and some of the high-lying fields by baling with *picottahs* from small reservoirs and wells. A few temporary dams are constructed on the upper waters of the Ponnani river and its tributaries in the Palghat and Walavanad *taluks*, and a little land is irrigated by baling from the same river throughout its course. Gardens are watered by hand from the wells which most of them contain.

Nearly one-third of the total area of Malabar is occupied by forests

The forest zone, which begins about 5 miles from the foot of the Western Ghats and extends to the eastern boundaries — Forests,
of the District, includes both evergreen and deciduous growth. The former is found on the Ghats and the slopes of the hill ranges in the north of the Wynaad, from a height of 500 feet upwards, the region of very heavy rainfall (over 200 inches). The principal timber trees in the evergreen forests are ebony, white and red cedar, *pun* (*Calophyllum inophyllum*), *irimbogam* (*Hopea parviflora*), *aim* (*Artocarpus hirsuta*), and jack (*Artocarpus integrifolia*); in the deciduous forests, teak, *vengai* (*Pterocarpus Marsupium*), *ventek* (*Lagerstroemia microcarpa*), black-wood (*Dalbergia latifolia*), *karimaradu* (*Terminalia tomentosa*), *irul* (*Xylia dolabriformis*), as well as jack and *aim*. Minor forest produce includes cardamoms, dammar, honey, wax, gall-nuts, soap-nuts, gum kino, ginger, cinnamon, pepper, &c. Most of the forests are private property, and their produce has long formed an important source of wealth to the country ; but continued unscientific forestry is denuding most of the hills of their valuable trees, as it has long ago denuded the bigger isolated hills in the plains.

The Government forests cover 454 square miles, and are divided into two divisions, North and South Malabar, each under a separate Forest officer. The former includes the Wynaad (199 square miles of forest) and Kottayam (32 square miles); and the latter Ernad (161), Walavanad (33), and Palghat (29). There are also about 50 square

miles of ' reserved ' lands, which are mainly leased forests. The most important Reserves are in the north of the Wynaad and at Nilambur (Ernad), where there are valuable teak plantations. The total receipts from Government forests in 1903-4 amounted to Rs. 1,19,000, including a considerable sum from the sale of trapped elephants.

The minerals of the District are now hardly worked at all. Iron ore is rudely smelted in small quantities in the east of Ernad and Walavanad. Gold seems to have been extensively worked by the natives in ancient times, both by surface washing and mining, in the valley of the Bepore river, one of the tributaries of which is called the 'Gold river,' and up the slopes of the Ghats in East Ernad and South Wynaad. The soil throughout these parts is auriferous, and there are numerous reefs of considerable thickness. About 1874 a determined attempt was made by various English companies to establish the industry by scientific quartz-crushing ; but none of the mines was a success. At present gold-working is confined to a little sand-washing in the bed of the Bepore river. Mica is mined to a small extent in South Wynaad. Laterite is quarried throughout the District for building purposes, and clay for tiles and pottery is worked in most of the *taluks*.

Few arts of importance are practised in the District. The weaving of calico, which derives its name from Calicut, has practically died out,

though coarse cotton cloths for local use are made

Trade and small extent in many villages. The Basel communications.

Mission has weaving establishments at Cannanore and Calicut. The chief indigenous industries are the manufacture of yarn from coco-nut husks, the husks being soaked in pits in the backwaters and the fibre beaten out by hand; toddy-drawing from coco-nut, sago, and palmyra palms, the liquor being largely drunk by the lower castes and also distilled or manufactured into coarse sugar; fish-curing, which is mainly in the hands of the Mappillas and Mukkuvans, and is carried on at 31 Government yards; and the pressing of coco-nut and gingelly oils in small mills worked by bullocks.

There are four mission and three native factories for the manufacture of tiles, bricks, pipes, &c., from the special clays found in the District. Their total annual output is valued at over 2 lakhs, of which more than 90 per cent, comes from the mission establishments. The tiles are widely exported. At Calicut, Tellicherry, and Ferokeh are steam curing-works belonging to various European firms, at which coffee, cinchona, pepper, and ginger are cured and dried. The value of the produce dealt with at these factories in 1902-3 was estimated at over 44 lakhs, the bulk being coffee from the Wynaad, Coorg, Mysore, and the Nilgiris. A steam spinning-mill at Calicut, belonging to a native company, was established in 1883, with a nominal capital of 6 lakhs; the annual out-turn of cotton yarn is between 500 and 600 tons.

Owing to its extensive seaboard, the maritime commerce of the District is far more important than its inland trade. The chief ports are Cochin, Calicut, Tellicherry, Cannanore, Beypore, Badagara, and Ponnani. The total value of the exports and imports in 1903-4 amounted to 512 lakhs and 223 lakhs respectively. The most important exports are coffee, coir (coco-nut) yarn and fibre, and pepper, which together make up over half the total, the other chief articles being tea, cinchona, ginger, cardamoms, copra (dried coco-nut kernels), coco nut oil, salted fish, wood, and tiles. The chief imports are salt, rice and other grain, piece-goods, cotton twist and fabrics, metal ware, machinery, glass, hardware, dyes, drugs, gunny, and kerosene oil. The bulk of the ginger trade is with the United Kingdom, but pepper is sent largely to Italy, France, and Germany, coffee to France and Australia, coir and coco-nut oil to Germany, France, and the United States, and sandal-wood to France, Germany, and America. Half the coast traffic is with Bombay, but rice is largely imported from Burma and Bengal.

The Ghat barrier practically confines the inland trade with the eastern Districts to the route through the Palghat Gap, and most of it goes by rail. Of the products of the District, coco-nut oil, salted fish, and timber, and of its imports rice, salt, and piece-goods, are the chief articles carried by rail; while jaggery, tobacco, oilseeds, sandal-wood, and hides are the chief imports. By road, cattle are imported from Coimbatore, and rice is exported from the Palghat *taluk*, while from Mysore and Coorg tea and coffee come down to the coast, and grain and cattle are received in exchange for piece-goods, salt, and coco-nut oil.

The larger ports are the chief centres of general commerce, and Palghat concentrates the grain and cloth trade with the East Coast. For internal trade there are numerous weekly markets, the most important of which are at Vaniamkulam and CHOWGHAT. The sea-borne trade is largely in the hands of European firms at Calicut, Cochin, and Tellicherry. Of the native castes, Mappillas are the chief traders; but numerous Parsi, Arab, and Gujarati merchants are settled on the coast, and in Palghat are found some Labbais and Chettis from the Tamil country.

The south-west line of the Madras Railway (standard gauge) enters the District in the south-east through the Palghat Gap and runs along the Ponnani river to within a few miles of the sea, and then turns north and follows the coast to Cannanore, a total distance of 157 miles. The line is now being extended into South Kanara. From Olavakod a small branch of miles runs to Palghat, and from Shoranur the new metre-gauge line, opened by the Cochin State in 1902, goes to Ernakulam.

The total length of metalled roads in the District is 606 miles, and of

Civilians. They are the Palghat subdivision, comprising the PAL-
GHAT and PONNANI *taluks*; the Malappuram subdivision, comprising
ERXAD and WALAVANAD ; and the Tellicherry sub-.....
division, consisting of the CHIRAKKAL, KOTTAYAM, 17- Administration,
and KURUMBRAHAD *taluks*. The remaining three subdivisions, the
WYNAAD, CALICUT, and COCHIN, formed of the *taluks* of the same names,
are each under a Deputy-Collector recruited in India. The outlying
ports of ANJENGO and TANGASSERI were also included in the charge of
the Deputy-Collector at Cochin till 1906, when they were constituted
into a new unit called the District of Anjengo, under the administrative
control of the Resident in Travancore and Cochin. The Laccadive
Islands fall under the administration of the Calicut divisional officer.

For judicial purposes the District is divided into North and South
Malabar, with District Courts at Calicut and Tellicherry. Subordinate
to the former are three Sub-Judges and twelve District Munsifs; and
to the latter, eight Munsifs. The District ranks second in the Presi-
dency in the number of the civil suits filed.

Grave crime is now comparatively rare; but since 1836 the public
peace has been periodically disturbed by outbreaks among the Map-
pillas. Starting with the murder of a Hindu landlord, the looting of
a house, or the defiling of a Hindu temple, a small body of these men
will run riot over the country, gathering adherents as they go, until
finally brought to bay, when they invariably sell their lives as dearly as
possible. Experience has proved that Native troops cannot be relied
on to deal with these outbreaks ; and since 1851 a detachment of
British infantry has been stationed at Malappuram, the most con-
venient centre of the menaced tract, and in the same year a special
police force was organized for their suppression. In 1852 the Tangal
(high-priest) of TIRURANGADI, who was suspected of fomenting the
disturbances, was banished by Mr. Conolly, the District Magistrate;
and in the following year a special Act was passed providing for the
treatment of Mappilla fanatics, and for the fining of the villages in
which outbreaks should occur. Two years later Mr. Conolly was
murdered in his veranda by a body of fanatics who had escaped from
the Calicut jail. The Mappilla Act was then for the first time put into
force. The most serious outbreaks in recent years have been in 1873
at Kolattur; in 1885 at Trikkalur in the Ernad *taluk*, when twelve
fanatics took up a strong position in a Hindu temple from which they
were only dislodged by the use of dynamite ; in 1894 at Mannarakkat,
when the gang numbered thirty-five and had to be driven from their
position by a howitzer; and in 1896, when nearly a hundred men were
shot down in the MANJERI temple.

Inquiries show that though agrarian grievances, such as eviction by
Hindu landlords, or the refusal of a landowner to grant a site for

a mosque, have been the incentives to many of these outbursts, yet in all the big outbreaks it has been impossible to impute any definite motive to the majority of those who joined the gang. The one constant element is a desperate fanaticism : surrender is unknown; the martyrs are consecrated before they go out and hymned after death. Other noticeable features are that the gang mainly consists of men, or boys, of the lowest class; while with few exceptions the outbreaks have originated within a radius of 15 miles round Pandalur, a hill in Ernad which was the home of one of the chief Mappilla robbers who disturbed the early years of British supremacy. It lies amid large tracts of uncleared jungle, which have long attracted the unsuccessful Mappillas, who are crowded out of their villages in the west, and who remain for the most part ignorant and destitute and ready on slight provocation to let their smouldering fanaticism kindle.

Special efforts have been made for many years to encourage education and to open up the country in the fanatical zone ; but the natural characteristics of the District and its inhabitants make progress in either of these directions necessarily slow. Two regiments of Mappillas recently raised for the Indian Army have been disbanded.

In Malabar, unlike other Districts of Southern India, the Hindu rulers appear to have levied no regular land revenue, but to have contented themselves with customs and tolls and with the occasional levy of special contributions. The Nayars quickly attained pre-eminence among the various immigrant tribes, and organized the country on a military basis, dividing it into *nads*, each under its Nayar chief, who in return for military service granted his vassals fiefs held free of land revenue and carrying with them various administrative and other privileges. The chiefs themselves retained domains for their own support. This organization was probably not disturbed by the Brahman immigration, though the Brahmans in Malabar, as elsewhere, attained great influence and received large grants of land for their own support and the maintenance of their temples; and the feudal system seems to have continued both when the *nads* were combined into a kingdom, and when, on the abdication of the last of the Perumals, the country was again split up into *nads*. As the influence of the Rajas who succeeded to the Chera kings declined, the process of disintegration continued, and the fief-holders and Brahman landowners naturally claimed independent lordship of their lands ; and these formed the majority of the *janmis* (landowners) on whose share of the produce the Mysore assessment was eventually levied.

Haidar Air, on his conquest of the District at the end of the eighteenth century, proceeded to introduce a regular system of land revenue. The various *nads* were, however, settled at different times and according to no definite system. The principle was to take for

the government revenue a share in money of the *janmi's* rent, or *pattom* ; but the share appears to have varied from 10 per cent, on some 'wet' lands in North Malabar to 100 per cent, on gardens in South Malabar. The rate of commuting into money the rents paid in kind likewise varied in the different *ndds*, while in North Malabar the collection was entrusted to the chiefs of the *ndds* and in South Malabar to Muhammadan officials.

On the cession of the District to the British, the Commissioners appointed to settle the country adopted the Muhammadan revenue assessment. During 1792-3 the Zamorin and other Rajas were allowed to collect the revenue; and in 1794 a system of quinquennial settlement with the Rajas of the *ndds*, based on the Muhammadan accounts prepared in 1782, was introduced. The *zaminddri* system, however, failed to work; the Government resumed the collection of the revenue, and, owing to the continued complaints of inequality, the Collector appointed in 1801 set himself to revise the whole assessment on regular principles. On ' wet ' lands one-third of the net produce, after deducting cultivation expenses, was to go to the cultivator, and the remainder or *pdttom* was to be divided in the proportion of six-tenths to the Government and four-tenths to the *janmi*. On *paramba* lands the gross produce of the trees was to be divided in three equal shares between the cultivator, the *janmi*, and the Government. These principles were approved and a proclamation issued accordingly in 1805; but the settlement was not proceeded with, as it was decided that the existing assessment was adequate and not unpopular. Subsequently a settlement of garden lands on these lines was taken in hand and introduced into various *taluks* between 1829 and 1840; and in the Kurumbranad *taluk* this settlement was revised in 1853. Otherwise the Muhammadan settlement of 1776 remained in force till 1900, when the introduction of a new settlement was begun, based on a scientific survey conducted between 1887 and 1895 and following the principles of the *ryotwari* settlements of the other Districts of the Presidency.

In the new settlement the cultivable land has been divided into ' wet,' ' garden,' and ' dry ' ; and acreage rates, based on the Government share of the produce claimed in the proclamation of 1805, have been assigned. The new rates were introduced throughout the District by the end of 1903-4. The result will be an enhancement of the land revenue by about 76 per cent., or 13 lakhs, an increase which is to be attributed to the rise in prices during a period of more than a century and to the increase in the area brought under permanent assessment, which amounts to about 50 per cent, above the area shown in the old accounts. Under the old settlement ' wet ' rates varied from 4 annas to Rs. 40 per acre, the average being Rs. 3; for gardens and 'dry' land no accurate acreage rates are obtainable. Under the new settle-

ment the 'dry' assessment averages (excluding the Wynaad) R. 0-13-2 per acre (maximum Rs. 2, minimum 4 annas), the 'wet' assessment Rs. 3-8-11 (maximum Rs. 7-8-0, minimum 12 annas), and the 'garden' assessment Rs. 2-15-3 (maximum Rs. 7, minimum R. 1).

The revenue from land and the total revenue in recent years are given below, in thousands of rupees : —

	1880-1.	1890-1. 1900-1.	1903-4.
Land revenue . . .	21.39	20.95	29.97
Total revenue . . .	35.88	38,7 46,64	54.55

The landlord's right in the soil is held to vest in the *janmi*. The word *jinmam*, literally meaning 'birth,' perhaps carries with it the idea of hereditary ownership. The probable evolution of the *janmi* as landlord has been sketched above. As now interpreted by the Courts, *janmam* right means the proprietary interest of the landlord in the soil, and is freely bought and sold : but the idea of property in land is of comparatively modern growth. The commonest form of tenure under the *janmi* is *katia?n*, which word seems to mean literally 'visible property,' and to be applied to the sum lent by a tenant to his landlord, or, originally, to the present brought by a retainer to his chief in return for protection. As now defined by the Courts, a *kanam* implies a usufructuary mortgage entitling the mortgagee to a twelve years' occupancy with a right to his improvements, subject to the payment of an annual rent to the mortgagor. There are various subsidiary forms, differing according to the interest in the land secured to the mortgagor. The ordinary forms of simple lease (*iverumpattoni*) and mortgage (*pafiyam*) are now becoming common.

Outside the five municipalities of Calicut, Cochin, Caxanore, PAlghat, and Tellicherry, local affairs are managed by the District board and the *taluk* boards of the five subdivisions of Tellicherry, Calicut, Malappuram, PAlghát, and Wynaad. The expenditure of the boards in 1903-4 was nearly 4[^] lakhs, more than half of which was laid out on roads and buildings. The chief sources of income are the land cess and toll and ferry collections, yielding nearly 2-67 and 1-59 lakhs respectively. The District possesses none of the Unions common on the East Coast, few of its villages being built in the close order which demands expenditure on sanitation.

The District Superintendent of police is assisted by three Assistant Superintendents, stationed at Palghát, Malappuram, and Tellicherry. There are 105 police stations in the District and 2 outposts. The force consists of 24 inspectors, 3 European head constables, 141 head constables, and 1,125 constables. The special force reorganized in 1885 for the suppression of the Máppilla outbreaks, with its head-quarters at

Malappuram, consists of one inspector, 4 European head constables, 4 head constables, and 81 constables.

The Central jail is at Cannanore, while 21 subsidiary jails have a total accommodation for 527 prisoners.

According to the Census of 1901, Malabar stands fourth among Madras Districts in the literacy of its population, of whom 10 per cent. (17.4 males and 3.0 females) are able to read and write. Education is most advanced in the coast *taluks*, and most backward in the Wynaad, with its many coolies and hillmen, and in Ernàd, the most distinctively Mâppilla *taluk*. The total number of pupils under instruction in 1880-1 was 31,894; in 1890-1, 70,329 ; in 1900-1, 84,408; and in 1903-4, 91,661, including 19,331 girls. On March 31, 1904, there were (besides 564 private schools) 1,038 public educational institutions of all kinds, including 954 primary, 75 secondary, and 6 training and special schools, and the three Arts colleges at Calicut, Pâlgât, and Tellicherry. Of the public institutions, 24 were managed by the Educational department, 96 by local boards, and 50 by municipalities ; while 639 were aided from public funds, and 229 were unaided but conformed to the rules of the department. As usual, the vast majority of those under instruction are only in primary classes, though Malabar stands third among Madras Districts in the proportion of pupils under secondary instruction. Of the male population of school-going age 24 per cent, were under instruction in primary standards in 1903-4, and of the female population of the same age nearly 7 per cent. Among Musalmâns, the corresponding percentages were 35 and 10 respectively. Few of these have advanced beyond the primary stage, and a large proportion receive instruction only in the Koran. The total number of female pupils exceeded that of any other District. There were 22 primary schools for Panchama boys, with 908 pupils. The total expenditure on education in 1903-4 was Rs. 5,18,000, of which Rs. 2,10,000 was derived from fees. Of the total, 53 per cent, was devoted to primary education.

The District possesses 14 hospitals and 9 dispensaries, including a leper hospital at Pallipor (Pallipuram), near Cochin, founded by the Dutch in 1728. They contain in all accommodation for 419 in-patients. In 1903 the total number of cases treated was 261,000, of whom 5,100 were in-patients, and 10,000 operations were performed. The total expenditure amounted to Rs. 78,000, the great part of which was met from Local and municipal funds.

Malabar is backward in regard to vaccination. Statistics for 1903-4 show that the number of persons successfully vaccinated was 23 per 1,000, compared with an average for the Presidency of 30. Vaccination is compulsory only in the municipalities.

[For further information regarding the District, see *Malabar*, by

W. Logan (1887), and *Malabar Laiv and Custom*, by H. Wigram and L. Moore (Madras, 1900).]

Malaisohmat.—Petty State in the Khasi Hills, Eastern Bengal and Assam. The population in 1901 was 491, and the gross revenue in 1903-4 was Rs. 200. The principal products are rice, millet, bay leaves, areca-nuts, and oranges. There are deposits of lime in the State, but they are not worked.

Malakand.—A pass which crosses the range north of Peshawar District, North-West Frontier Province, and leads from Sam Ranizai into the Swat valley, situated in $34^{\circ} 34'$ N. and $71^{\circ} 57'$ E. The pass is traversed by an ancient Buddhist road. Early in the sixteenth century the Yusufzai Pathans effected their entrance into Swat by the Malakand, and in 1587 Zain Khan, a general of the emperor Akbar, built a fort here. In 1895 the pass was taken by the Chitral relief force, and has since been occupied as a military post, near which is also the head-quarters of the Dir, Swat, and Chitral Political Agency. On July 26, 1897, the post was suddenly attacked by a large gathering of Swatis under a fanatical leader, the Mulla Mastan or 'Mad Mulla.' Tribesmen from Utman Khel and Upper Swat poured in, raising the numbers to 12,000 men. Fighting continued until August 1, when the tribes were repulsed. Chakdarra, which also was besieged by the tribesmen, was relieved the next day.

Malambi (or Malimbi).—A fine conical hill in the north-east of Coorg, Southern India, situated in $12^{\circ} 40'$ N. and $75^{\circ} 58'$ E., 4,488 feet high, conspicuous in all that part of the country.

Malanggarh (*Baiva Malang*).—Hill fortress in the Kalyan *tdluka* of Thana District, Bombay, situated in $19^{\circ} 7'$ N. and $73^{\circ} 13'$ E., 10 miles south of Kalyan town. It is known also as the Cathedral Rock. Like most of the Thana hill forts, Malanggarh rises in a succession of bare stony slopes, broken by walls of rocks and belts of level woodland. It is most easily reached from Kalyan across a rough roadless tract of about 8 miles, ending in a climb of a perpendicular height of about 700 feet. Connected with the base of the hill is a forest-covered table-land, upon which is the tomb of the Bawa Malang. At the time of Captain Dickinson's survey in 1818, there were a few dwellings for the garrison here, of which the ruined sites alone remain. From this table-land the ascent to the lower fort is very steep, and upwards of 300 feet high. The latter part is by an almost perpendicular rock-hewn staircase, at the top of which is a strong gateway covered by two outstanding tQjvers, enabling even the smallest garrison to make the place impregnable. From the lower to the upper fort there is a perpendicular ascent of 200 feet by means of a narrow flight of rock-hewn steps, on the face of a precipice so steep as to make the ascent at all times most difficult and dangerous. The upper

fort, a space of 200 yards long by about 70 broad, is nothing more than the top, as it were, of the third hill. It has no fortifications, but there are traces of an enclosure and of the walls of an old building. The water-supply is from a range of five cisterns, and a copper pipe is used to carry water to the lower fort. A yearly fair, held here in February, is attended by both Hindus and Muhammadans.

Malappuram Subdivision. — Subdivision of Malabar District, Madras, consisting of the *ERXAD* and *WALAVAXAD taluks*.

Malappuram Town.—Town in the *Ernad taluk* of Malabar District, Madras, situated in $n^{\circ} 4' N.$ and $76^{\circ} 4' E.$, 31 miles south-east of Calicut, with which it is connected by a good road. Population (1901), 9,216. It is notable as the centre for many years of the Mappilla fanatical outbreaks. A detachment of British troops has been stationed here since 1873, and a special police force since 1885. The chief buildings are the churches (Protestant and Roman Catholic), the divisional officer and magistrate's court, the barracks, and the office of the Assistant Superintendent of police. A weekly market is held here.

Malavalli Taluk.—Eastern *taluk* of Mysore District, Mysore State, lying between $12^{\circ} 13' N.$ and $12^{\circ} 33' N.$ and $76^{\circ} 54' E.$ and $77^{\circ} 20' E.$, with an area of 391 square miles. The population in 1901 was 101,779, compared with 85,910 in 1891. The *taluk* contains one town, *MALAVALLI* (population, 7,270), the headquarters; and 231 villages. The land revenue demand in 1903-4 was Rs. 97,000. The Cauvery forms part of the southern boundary, receiving from the north the Shimsha, into which all the waters of the *taluk* flow. About the middle of the southern boundary are situated the Falls of the Cauvery, on either side of the island of Sivasamudram. The *taluk* generally is an undulating plain, except in the south-east, where there are a State forest and several high hills, including *KABBALDURGA* (3,507 feet). In the south-west is *Kundurbetta* (3,129 feet). The soil is rocky and shallow in the south-east and north west, generally red mixed with sand elsewhere, and improves in the south-west, where there is some black soil. Mulberry is the chief garden crop. Some land is irrigated by channels. The Cauvery Power-works at Sivasamudram have recently attracted population.

Malavalli Town.—Head-quarters of the *taluk* of the same name in Mysore District, Mysore, situated in $12^{\circ} 23' N.$ and $77^{\circ} 4' E.$, 18 miles south of Maddur railway station. Population (1901), 7,270. In the seventeenth century it was an important place, with a large fort, now ruinous. Haidar Ali gave Malavalli in *jaghr* to his son Tipu, who planted a large fruit garden near the tank, now occupied by paddy-fields. To the west of the town took place the battle in which Tipu Sultan was defeated by the British in 1799. After the

action he had the place destroyed, to prevent its being of any use to the British. The establishment of the Cauvery Power-works at Sivasamudram has revived the importance of Malavalli. A small Faith Mission has a station here. The municipality dates from 1873. The receipts and expenditure during the ten years ending 1901 averaged Rs. 1,700. In 1903-4 they were Rs. 2,100 and Rs. 1,600.

Malavalli Village.—Village in the Shikarpur *taluk* of Shimoga District, Mysore, situated in 14° 29' N. and 75° 19' E., 20 miles north-west of Shikarpur town. Population (1901), 500. It is of interest on account of the Satakarni inscription found on a pillar, probably of the second century, the oldest in Mysore next to the edicts of Asoka. From this it appears that the village was then called Mattapatti.

Malayagiri.—The highest peak in Orissa, Bengal, situated in the Pal Lahara Tributary State, in 21° 22' N. and 85° 16' E. The hill, which is 3,895 feet above the sea, is isolated and commands a magnificent view over the surrounding country. Water is obtainable near the summit, on which there is space for building sites.

Malcolmpeth. — Sanitarium in Satara District, Bombay. See Mahabaleshwar.

Malda District (*Maldaha*).—District in the Rajshahi Division of Eastern Bengal and Assam, lying between 24° 30' and 25° 32' N. and 87° 46' and 88° 31' E., with an area of 1,899 square miles. It is bounded on the north-western corner by Purnea District and on the north-eastern by Dinajpur; Rajshahi lies to the south-east, while the Ganges forms a continuous western and south-western boundary separating it from the Santal Parganas and Murshidabad.

The Mahananda flows through the District from north to south, dividing it into two nearly equal parts which present very different characteristics. West of the river the surface is comparatively low, a great deal of it having been subject to fluvial action in very recent times ; the Ganges once washed the walls of Gaur, but it now flows 16 miles farther west. The eastern half of the District lies in the older alluvium of the Barind, and has a stiff clay soil and high undulating surface, broken by the deep valleys of the Tangan and Purnabhaha and their tributary streams ; towards the south in the Nawabganj *thdna*, as in other portions of the District bordering on the Ganges, the surface declines into the newer alluvium. The Ganges skirts the District, forming a natural boundary from the north-west corner to the extreme south. Its flood-waters, as deflected from the hills of Rajmahal, are perpetually cutting away the Malda bank, which is everywhere low and composed of loose sand. Among many former channels and deserted backwaters the little winding stream of the Bhaglrathi (also called the Chhoti Bhaglrathi) deserves

mention, as being the historical river-bed which defended the city of Gaur. This is almost dry in the winter, but becomes navigable for country boats during the rainy season. It ultimately joins the Pagla or Pagli, a larger branch of the Ganges, which runs in a meandering course to the south-east, and encloses, before it regains the Ganges, a large island about 16 miles long. The Pagla is navigable during the rains, but in the dry season it retains no current and becomes fordable at many points. The MAHANANDA enters Malda from Purnea and joins the Ganges at the south-eastern corner of the District. Its tributaries are, on the right bank, the Kalindri, and on the left bank, the Tangan and Purnabhaha, which bring down the drainage of Dinajpur. The Mahananda flows in a deep and well-defined channel between high banks, and varies in breadth from about 400 to 800 yards. At certain seasons of the year, the melting of the snows in the mountains, combined with the local rainfall, causes the river to rise as much as 30 feet, and an embankment has been constructed just above the civil station of English Bazar to protect it from inundation. There are no lakes; but old channels of the Ganges are numerous, and between Gaur and the Mahananda there are extensive undrained swamps.

The District is covered with alluvium. The Barind belongs to an older alluvial formation, which is usually composed of massive argillaceous beds of a rather pale reddish-brown hue, often weathering yellowish, disseminated throughout which occur *katikar* and pisolitic ferruginous concretions. The low-lying country to the west of the Mahananda and in the south is of more recent formation, consisting of sandy clay and sand along the course of the rivers, and of fine silt consolidating into clay in the flatter parts of the river plain.

Where the ground is not occupied by the usual crops of North Bengal, it is covered with an abundant natural vegetation, except in the sandy beds of the greater rivers. Old river-beds, however, ponds and marshes, and streams with a sluggish current have a copious vegetation of *Vallisneria* and other plants. Land subject to inundation has usually a covering of *Tamarix* and reedy grasses, and in some parts where the ground is more or less marshy *Rosa involucrata* is plentiful. Few trees occur on these inundated lands ; the most plentiful and the largest is *Barringtonia acutivigula*. Near villages thickets or shrubberies of semi-spontaneous growth and more or less useful trees of a rapid growth and weedy character are common. No Government forests exist, but portions of the Barind are covered with jungle known locally as *kdtal*. This consists chiefly of thorny bush jungle, mixed with an abundance of *plpal* (*Ficus religiosa*.), banyan (*Ficus i/idica*), red cotton-tree (*Bombax malabaricum*), *pdkar*-trees, and *nipal* bamboos.

Malda was once celebrated for its large game and especially for tigers. Owing, however, to the clearing of the *kdtll* jungle and to the extension of cultivation, tigers are now rarely met with, though leopards still abound and frequently make their appearance even in the outskirts of the civil station. Wild hog and spotted deer are also common, and wild buffaloes are occasionally seen, though they have become very rare. The swamps and ancient tanks of the District are infested with big crocodiles; and the larger swamps are frequented by game-birds of almost every species found in Bengal.

The climate is not characterized by extremes of heat or rainfall. Mean temperature increases from 63° in January to 86° in May, the average for the year being 78°. The highest mean maximum is 97° in April and the lowest 50° in January. The annual rainfall averages 57 inches, of which 4-7 inches fall in May, 9-7 in June, 13-4 in July, 11-2 in August and September, and 3-4 in October.

Except in August, 1885, when an exceptional rising of the Ganges caused great destruction of crops over about 300 square miles in the south and south-west of the District, no serious flood has occurred in recent years. In the earthquake of 1897 all the masonry houses in English Bazar and Old Malda were damaged, the cost of repairs to public buildings being estimated at Rs. 11,000, while private buildings suffered to the extent of 2[^] lakhs. In the *diara* lands cracks opened some half a mile in length, and in the higher lands subsidences occurred in a few places.

The area included within Malda District contains two of the great capitals of the early Muhammadan rulers of Bengal; and at the present

^ day the sites of Gaur and Pandua exhibit some of
 istory. ^ most interesting remains in the Province. The
 country originally formed part of the kingdom of Pundra or Paundravardhana, the country of the Pods, and subsequently of the Barendra division of Bengal under Ballal Sen. To this king is attributed the building of the city of Gaur, which under his son Lakshman Sen received the name of Lakshmanavatl or LakhnautT. Muhammad-i-Bakhtyar Khiljl, who invaded Bengal at the end of the twelfth century, expelled Lakshman Sen and moved the capital from Nadia to Gaur. About 1350 Shams-ud-din Ilyas transferred the capital to Pandua, where it remained for about 70 years till Jalal-ud-din restored it to Gaur ; but with this exception Gaur continued, in spite of many vicissitudes, to be the capital of the viceroys and kings of Bengal till 1564, when Sulaiman KararanT removed the seat of government to Tanda, a few miles to the south-west of Gaur. Munim Khan, after defeating Daud Khan in 1575, occupied Gaur; but a pestilence broke out in which thousands died every day, and the survivors fled, never to return to their deserted homes. After this Tanda apparently con-

tinued to be the capital, but a few years later Rajmahal was made the seat of government. The very site of Tanda is now unknown, though it seems to have been an important place for about a hundred years after the depopulation of Gaur; in its neighbourhood was fought the decisive battle in which prince Shuja was defeated by the generals of Aurangzeb in 1660. The East India Company established a factory at Malda as early as 1676, by the side of a Dutch factory already in existence there. In 1683, when it was visited by William Hedges, (who spent a day in exploring the ruins of Gaur), the number of factors was three¹. In 1770 English Bazar was fixed upon for a Commercial Residency, and continued to be a place of importance until the discontinuance of the Company's private trade; the fortified structure which was originally used as the Residency is now occupied by the courts and public offices. As an administrative unit the District only came into existence in 1813, when, in order to secure a closer magisterial supervision, various police circles were detached from the Districts of Rajshahi, Dinajpur, and Purnea and placed in charge of a Joint-Magistrate and Deputy-Collector stationed at English Bazar. A separate treasury was first opened in 1832, but it was not till 1859 that a Magistrate-Collector was appointed to the District. Anomalies remained in the revenue, criminal, and civil jurisdiction which were not adjusted till 1875, and since that time there have been only a few unimportant transfers of jurisdiction. In 1905 the District was transferred from the Bhagalpur Division of Bengal to the Rajshahi Division of Eastern Bengal and Assam.

Malda is considered less unhealthy than the adjoining Districts of Purnea, Dinajpur, and Rajshahi; but it is very malarious, especially in the undrained swamps between Gaur and the Mahananda, and in the jungly tract to the east. Malarial fever generally breaks out on the cessation of the rains; and in six years out of the ten ending 1900 it was one of the six Districts in Bengal from which the highest fever mortality was reported; in 1899 it headed the list with a recorded mortality from fever of 41·7 per 1,000. Cholera is often rife, and a specially bad outbreak occurred in 1899 in English Bazar.

The population has risen from 677,328 in 1872 to 711,487 in 1881, to 814,919 in 1891, and to 884,030 in 1901. It is thus growing rapidly in spite of the unhealthy conditions prevailing, and the density in 1901 was 466 persons per square mile. The increase during the decade ending with that year amounted to 8½ per cent., being greatest in the Gajol and Old Malda *thdnas* in the Barind, where Santals are settling in large numbers; this tract is still, however, the least densely populated part of the District. In the Kaliachak and Sibganj *t/idnas* in the

¹ *Hedges's Diary*, vol. i, pp. 87-9.

south-west new *chars* have attracted a number of Muhammadan cultivators from English Bazar and Nawabganj, and from Murshidabad on the other side of the river. The immigrants from the Santal Parganas now number 43,000 ; and there is also a considerable immigration from Bhagalpur and other Bihar Districts, and from the United Provinces. The population is contained in 3,555 villages and three towns : English Bazar, the head-quarters, Malda, and Nawabganj. Bengali is spoken by 74 per cent, of the population and Bihar! by 21 per cent. ; the Mahananda river forms a linguistic boundary, the northern dialect of Bengali being prevalent in the east of the District, while in the west the Magadhi dialect of Bihar! is the vernacular. The Mahananda is likewise a religious boundary ; and the two main religions are nearly equally divided, Hindus (440,398) constituting 50 per cent, of the population and Muhammadans (424,969) 48 per cent.

Of the Muhammadans, no less than 399,000 are Shaikhs; they are probably for the most part descended from the Rajbansis or Koch, who form the prevailing race of North Bengal east of the Mahananda, and are the most numerous of the Hindu castes in the District (64,000). Santals (including 18,000 returned as Animists) number 52,000, Chains (who are semi-Hinduized aborigines) 44,000, and Chasatis 27,000 ; while among the less numerous castes, Gangai (Ganesh) with 13,000 and Pundari (Puro) with 8,000 are distinctive of this part of the country. Agriculture supports 57 per cent, of the population, industries 19 per cent., and the professions one per cent.

The only Christian mission at work in the District belongs to the London Baptist Missionary Society; it has met with but little success, the number of native Christians in 1901 being 173.

The low-lying recent alluvium in the west and south is enriched by annual deposits of silt, and its fertile soil is well adapted for the cultivation of rice, mulberry, indigo, and mangoes. The soil is best suited to

the growth of winter rice, produces also large crops of pulses and oil-seeds. The north and north-west corner of the District lying between the Mahananda, the Kalindri, and the Ganges is intersected by nullahs and covered with jungle; the soil here is extremely poor, but the short grass affords pasturage to a considerable number of cattle.

In 1903-4 the net cropped area was estimated at 1,120 square miles and the cultivable waste at 455 square miles; about 7 per cent, of the net cultivated area is twice cropped. Rice constitutes the staple food-crop and is grown on 611 square miles, of which 312 square miles are estimated to be under the winter crop, while on most of the remainder early rice is grown. Wheat covers 119 square miles, barley 34 square miles, maize 25 square miles, pulses (including gram) and other food-grains 153 square miles, oilseeds (chiefly mustard) 105 square miles,

and jute 38 square miles. Jute is grown for the most part in the north-west of the District, and wheat, barley, and gram in the extreme west. Mangoes, for the excellence and variety of which this District is deservedly famous, are grown chiefly in the English Bazar (*hana*). But the profits from the sale of this fruit, as well as the improved facilities for transport, have encouraged landowners to cultivate it in all the *thànas* to the west of the Mahànandà. Every plot of land suitable for the growth of mango grafts is planted with them, and tracts of land formerly growing ordinary *rabi* or winter crops have in recent years been converted into mango orchards. The mulberry is grown in the central and south-western portion of the District ; and its cultivation gives a curious aspect to this part of the country, as the land has to be artificially raised to the height of 8 or 10 feet, to prevent the plants from being destroyed by the annual floods. Indigo is still grown on the Ganges *diàras* to the west, covering about 1,000 acres, but the area under this crop has been largely reduced.

Cultivation has rapidly extended around the ruins of Gaur and also in the Bârind, where the greater portion of the cultivable area has been cleared of jungles in recent years ; and there has also been an extension of cultivation in the swampy tract to the east of Gaur. Manure is used only on mulberry lands, and artificial irrigation is unnecessary except for the spring rice crop. The agricultural classes are on the whole prosperous, and there has hitherto been little demand for advances under the Agriculturists' and Land Improvement Loans Acts.

Good cart-bullocks are imported from the Districts to the west, but the local cattle are poor. There are extensive tracts of waste land in the Bârind and elsewhere, but little nourishing pasture land. During the rains the inhabitants of the *diàras* graze their cattle in the higher tracts. An industrial exhibition, at which domestic animals and poultry are shown, was instituted at English Bazar in 1903.

The staple industry of the District is silk. Its production may be classed in three branches : the rearing of the cocoons, the spinning of the raw silk, and the weaving; of silk piece-goods.

Within the last twenty-five years the cultivation of mulberry and the production of cocoons has nearly doubled; and the annual output of cocoons is estimated at 100,000 maunds, worth from 25 to 30 lakhs, of which about 60,000 maunds are exported. The annual export of silk thread is estimated at 1,650 to 1,700 maunds, and its value at 10 or 11 lakhs. The industry is said to date back to the Hindu kingdom of Gaur; and the cloth known as Mâldahi was for a long time a speciality of external commerce, but its manufacture is now very limited, and a few pieces only are occasionally woven to meet the demands of a Bombay firm. The export of ordinary silk piece-goods has also decreased, and it is

estimated that it does not now exceed Rs. 60,000. The East India Company had a factory at Malda as early as 1676, and in 1576 there were seven European concerns for the manufacture of raw silk; but there are now only two factories under European management, at Baragharria and Bhola Hat, and the number of native factories has also declined. In 1903-4 the European factories turned out 23,000 lb. of raw silk, valued at 2-1 lakhs, which was exported chiefly to England and France; they also purchase and export large quantities of cocoons. Some cotton cloth is woven ; but the only other important industry is the manufacture of brass-ware and bell-metal at English Bazar, Nawabganj, and KalTgram. The manufacture of indigo is languishing, and the out-turn in 1903-4 was only 4 tons.

The chief exports are silk cocoons, silk thread, paddy and lice to Calcutta, Dacca, Assam, and Bihar, mangoes (chiefly to Calcutta and Eastern Bengal) and jute (to Calcutta, Murshidabad, Nagpur, Benares, Meerut, and Lahore), while wheat, barley, gram, oilseeds, and chillies are also exported. The imports comprise cotton piece-goods, coco-nuts, betel-nuts, paper, *g/ii*, *gur* (molasses), sugar, copper, brass plates, kerosene oil, shoes, umbrellas, and spices of all kinds. Coco-nuts and betel-nuts are brought from Lower Bengal, *ghl* and *gur* from Bihar, and the other articles mainly from Calcutta. A large part of the traffic is carried in country boats down the Mahananda; while some of the trade is carried by boat or river steamer to Rajmahal on the East Indian Railway, or to Damukdia Ghat on the Eastern Bengal State Railway. The chief mart for the purchase and sale of silk cocoons and silk thread is Amaniganj Hat, the sales on a market day occasionally amounting to a lakh. The most important centre of trade is Nawabganj on the Mahananda, while Malda and Rohanpur have also an important rice trade.

No railway at present enters the District, but there is a project to construct a branch line from Katihar to Sara Ghat or to Godagari (to connect with an extension of the Ranaghat-Murshidabad branch of the Eastern Bengal State Railway recently opened to traffic). Excluding 424 miles of village tracks, there are only 277 miles of roads, of which 9 miles are metalled. The most important are those from English Bazar to Nawabganj and to Rajmahal, and the Dinajpur road branching off from the latter ; the road from Godagari to Dinajpur passes through the south-eastern corner of the District. There are 32 ferries under the District board. The paucity of roads is due to the excellence of water communications.

The Mahananda is navigable throughout the year by boats of 150 maunds up to Alai, the Tiingan for boats of 100 maunds up to Lalgola, and the Purnabhaha for boats of the same burden as far as Dinajpur. Steamers belonging to the India General Steam Navi-

gation Company ply six days a week between English Bazar and Sultanganj; a service between Rajmahal and Damukdia Ghat stops at various stations on the Malda side of the Ganges, and during the rains a ferry steamer runs from Rajmahal to English Bazar and back three days a week.

Some scarcity in 1885 and 1897 necessitated Government relief on a small scale, but no actual famine has occurred in recent years.

The Magistrate-Collector is assisted at English Bazar, the headquarters, by a staff of three Deputy-Collectors and . .

one Sub-deputy-Collector. There are no subdivisions in the District.

The civil courts subordinate to the District Judge are those of three Munsifs, of whom two sit at English Bazar and one at Nawabganj. The District and Sessions Judge, who is also Judge of Rajshahi, has his headquarters at Rampur Boalia in that District. Crime is on the whole light, and the commonest offences are of a petty character or are due to disputes about land.

The District, as already stated, is a recent creation from the Districts of Purnea and Dinajpur, and its land revenue history cannot be stated separately. In 1903-4 there were 655 estates, with a revenue demand of 4-36 lakhs. The whole of the District is permanently settled, with the exception of 40 estates with a total demand of Rs. 35,000, which are temporarily settled or managed direct by Government. Little is peculiar in the land tenures of the District, except the existence of several large revenue-free estates granted as endowments to Muhammadan *fakirs*. Under the *halahdsili* tenure the annual rent varies both according to the amount of land under cultivation and the nature of the crop raised. This tenure is most common in the backward parts of the District, and one of its incidents is that it allows a certain proportion of the village lands always to lie fallow. Rent rates vary largely for different kinds of land, being usually much lower in the case of old holdings. Land yielding two or three crops brings in about Rs. 1-14 per acre in the case of old holdings, and from Rs. 3 to Rs. 4-8 per acre in the case of land newly brought under cultivation. Low lands for winter rice yield from about Rs. 1-8 to Rs. 2-4 per acre; spring rice lands from Rs. 3-12 to Rs. 6 and Rs. 12, and occasionally even Rs. 18 and Rs. 24 per acre; mulberry lands from Rs. 3 to Rs. 3-12 for unraised land and from Rs. 4-8 to Rs. 6 for well-raised plots; mango orchards from Rs. 4-8 to Rs. 6; and garden lands from Rs. 6 to Rs. 15 per acre. The average holding of a tenant, as estimated from certain typical estates in various parts of the District, is 1½ acres.

The following table shows the collections of land revenue and total revenue (principal heads only), in thousands of rupees :—

	1880-1.	1890-j.	1900-1.	1903-4.
Land revenue . .	4,15	4=29	4,4°	4,40
Total revenue . .	6,69	7.69	8,50	9,08

Outside the municipalities of English Bazar, Old Malda, and Nawabganj, local affairs are managed by the District board. In 1903-4 its income was Rs. 87,000, of which Rs. 32,000 was derived from rates; and the expenditure was Rs. 96,000, including Rs. 53,000 spent on public works and Rs. 25,000 on education.

English Bazar is protected by an embankment 2-| miles in length from the inundations of the Mahananda and Kalindrl rivers.

The District contains ten *thanas* or police stations and three out-posts. In 1903 the force subordinate to the District Superintendent consisted of 2 inspectors, 26 sub-inspectors, 20 head constables, and 255 constables. There was, in addition, a rural police force of 178 *daffaddrs* and 1,784 *chauktddrs*. The District jail at English Bazar has accommodation for no prisoners.

Education is backward; in 1901 only 3-7 per cent, of the population (7-4 males and 0-2 females) could read and write. An advance has, however, been made in recent years, the number of pupils under instruction having increased from 8,608 in 1883-4 to 11,752 in 1892-3, and to 12,009 in 1900-1. In 1903-4, 14,782 boys and 1,085 girls were at school, being respectively 22-5 and 1-6 per cent, of those of school-going age. The number of educational institutions, public and private, in that year was 487, including 27 secondary and 444 primary schools. The expenditure on education was Rs. 76,000, of which Rs. 9,000 was met from Provincial funds, Rs. 23,000 from District funds, Rs. 1,100 from municipal funds, and Rs. 35,000 from fees.

In 1903 the District contained nine dispensaries, of which one had accommodation for 28 in-patients. The cases of 56,000 out-patients and 500 in-patients were treated, and 2,419 operations were performed. The expenditure was Rs. 15,000, of which Rs. 800 was met from Government contributions, Rs. 5,000 from local and Rs. 2,000 from municipal funds, and Rs. 7,000 from subscriptions.

Vaccination is compulsory only in municipal areas. In 1903-4 the number of persons successfully vaccinated was 30,000, representing 35 Per 1,000 of the population.

[Martin (Buchanan Hamilton), *Eastern India* (1838), vol. ii, pp. 291-582, and vol. iii, pp. 1-350 ; Sir W. W. Hunter, *Statistical Account of Bengal*, vol. vii (1876); N. G. Mukerji, *Monograph on the Silk Fabrics of Bengal* (Calcutta, 1903).]

Malda Town (or Old Malda).—Town in Malda District, Eastern

Bengal and Assam, situated in $25^{\circ} 2'$ N. and $88^{\circ} 8'$ E., at the confluence of the Kalindri with the Mahananda. Population (1901), 3,743. The town is admirably situated for river traffic, and probably rose to prosperity as the port of Pandua. During the eighteenth century it was the seat of thriving cotton and silk manufactures, and both the French and Dutch had factories here. In 1810 Malda was already beginning to lose its prosperity; and, though some trade is still carried on in grain, it shows signs of poverty and decay. Malda was constituted a municipality in 1869. The income during the decade ending 1901-2 averaged Rs. 3,450, and the expenditure Rs. 3,300. In 1903-4 the income was Rs. 3,400, mainly from a tax on persons (or property tax); and the expenditure was Rs. 3,000. The town contains a mosque built in 1566. At Nimasarai, near the confluence of the Mahananda and Kalindri, stands an old brick tower with stones shaped like elephant tusks projecting from its walls. It resembles the Hiran Minar at Fatehpur Sikri, and was probably intended for a hunting tower.

Malegaon Taluka. — *Tdluka* of Nasik District, Bombay, lying between $20^{\circ} 20'$ and $20^{\circ} 53'$ N. and $74^{\circ} 18'$ and $74^{\circ} 49'$ E., with an area of 777 square miles. It contains one town, Malegaon (population, 19,054), the head-quarters; and 146 villages. The population in 1901 was 96,707, compared with 86,243 in 1891. The density, 124 persons per square mile, is below the District average. The demand for land revenue in 1903-4 was 2.5 lakhs, and for cesses Rs. 17,000. Malegaon is hilly in the north; but in the south, except for a few small hills, it is flat and treeless. Three ranges run through the *tdluka*, and are crossed by numerous cart-tracks into Khandesh and the adjoining *tdluka*, the most southerly range being traversed by a section of the Bombay-Agra trunk road. The *tdluka* is healthy and well watered. The chief rivers are the Girna with its tributaries in the centre, and the Bori in the north. The Girna passes close to Malegaon town. The annual rainfall averages 21 inches.

Malegaon Town.—Head-quarters of the *tdluka* of the same name in Nasik District, Bombay, situated in $20^{\circ} 33'$ N. and $74^{\circ} 32'$ E., on the trunk road from Bombay to Agra, 154 miles north-east of Bombay and 24 miles north-east of Manmad on the Great Indian Peninsula Railway. Population (1901), 19,054. Malegaon was formerly a cantonment, but the troops have now been finally withdrawn. It has a municipality, established in 1863. The income during the decade ending 1901 averaged Rs. 24,000. In 1903-4 the income was Rs. 32,000. The town contains two cotton-ginning factories, about 3,000 hand-loom for cotton weaving, which employ 7,000 persons, a Subordinate Judge's court, two English schools, and a dispensary. Malegaon was occupied by Arab troops during the Pindari War, and

its capture by Colonel M'Dowell in May, 1818, was attended by a loss of more than 200 of the British force. When the Arabs were dispersed after the capture of the fort, many of them were escorted to Surat and there shipped to their native country : others retired to Cutch, Kathiawar, and the Deccan. The fort is said to have been built in 1740 by Narushankar, a daring Arab leader; other authorities refer its construction to an engineer sent from Delhi.

Malegaon Village.—A *jagir* village in the north-east of Bidar District, Hyderabad State, situated in 18° 41' N. and 76° 58' E. Population (1901), 270. It was once celebrated for its annual horse fair, where upwards of 4,000 horses and ponies were disposed of for prices ranging up to Rs. 700. Piece-goods, cloth of all kinds, hardware, &c., were among other things exposed for sale. Owing to plague and famine the fair has not been held since 1897.

Maler Kotla State.—Native State under the political control of the Commissioner, Jullundur Division, Punjab, lying between 30° 24' and 30° 41' N. and 75° 42' and 75° 59' E., with an area of 167 square miles. Population (1901), 77,506, giving a density of 478 persons per square mile. It is bounded by the District of Ludhiana on the north and by Patiala territory elsewhere, except for a few miles on the western border, where it marches with some Nabha villages. The country is a level plain, unbroken by a single hill or stream, and varied only by sand-drifts which occur in all directions and in some parts assume the shape of regular ridges. The Bhatinda branch of the Sirhind Canal passes through the northern part of the State, but the Nawab refuses to allow irrigation from it. The Nawabs of Maler Kotla are of Afghan descent, and originally held positions of trust in the Sirhind province under the Mughal emperors. As the empire sank into decay during the eighteenth century, the local chiefs gradually became independent. In 1732 the chief of Maler Kotla, Jamal Khan, joined the commander of the imperial troops stationed in the Jullundur Doab in an unsuccessful attack on Raja Ala Singh, the Sikh chief of Patiala; and again in 1761, Jamal Khan afforded valuable aid against his Sikh neighbour to the lieutenant whom Ahmad Shah, the Durrani conqueror, had left in charge of Sirhind. The consequence of this was a long-continued feud with the adjacent Sikh States, especially with Patiala. After the death of Jamal Khan, who was killed in battle, dissensions ensued among his sons, Bhikan Khan ultimately becoming Nawab. Soon after Ahmad Shah had left India for the last time, Raja Amar Singh of Patiala determined to take revenge on Bhikan Khan. He attacked him, and seized some of his villages, till at last the Maler Kotla chief found that he was unable to resist so powerful an enemy, and a treaty was negotiated which secured peace for many years between these neighbouring States. During this peace the forces of

Maler Kotla on several occasions assisted the Patiala Rajas when in difficulties; and in 1787 Raja Sahib Singh of Patiala returned these kindnesses by aiding Maler Kotla against the powerful chief of Bhadaur, who had seized some of the Nawab's villages. In 1794 a religious war was proclaimed against the Muhammadans of Maler Kotla by the Bedi Sahib Singh, the lineal descendant of Baba Nanak, the first and most revered of the Sikh Gurus. This man, who was half-fanatic and half-impostor, inflamed the Sikhs against the cow-killers of Maler Kotla, and a great many Sikh Sardars joined him. The Nawab and his troops were defeated in a pitched battle, and compelled to flee to the capital, where they were closely besieged by the fanatical Bedi. Fortunately for the Nawab, his ally of Patiala again sent troops to help him ; and ultimately the Bedi was induced to withdraw across the Sutlej by the offer of a sum of money from the Patiala Raja.

After the victory of Laswari, gained by the British over Sindhia in 1803, and the subjugation and flight of Holkar in 1805, when the Nawab of Maler Kotla joined the British army with all his followers, the British Government succeeded to the power of the Marathas in the districts between the Sutlej and the Jumna ; and in 1809 its protection was formally extended to Maler Kotla as to the other Cis-Sutlej States, against the formidable encroachments of Ranjlt Singh of Lahore. In the campaigns of 1806, 1807, and 1808, Ranjlt Singh had made considerable conquests beyond the Sutlej; and in 1808 he occupied Farldkot, marched on Maler Kotla, and demanded a ransom of Rs. 1,55,000 from the Nawab, in spite of the protests of Mr. (afterwards Lord) Metcalfe, who was then an envoy in Ranjlt's camp. This led to the resolute interference of the British, who advanced troops under Colonel Ochterlony, and at the same time (December, 1808) addressed an ultimatum to Ranjit Singh, declaring the Cis-Sutlej States to be under British protection. Finally, Ranjit Singh submitted ; Colonel Ochterlony formally reinstated the Nawab of Maler Kotla in February, 1809; and in April of that year the final treaty between the British Government and Lahore, which affirmed the dependence of the Cis-Sutlej States on the former, was signed by Mr. Metcalfe and Ranjit Singh.

The present Nawab, Muhammad Ibrahim All Khan, born in 1557, succeeded in 1877 ; but he has been insane for some years, and the State is now administered by Sahibzada Ahmad All Khan, the heir-apparent, as regent. The State contains the town of Maler Kotla, the capital, and 115 villages. The chief products are cotton, sugar, opium, aniseed, tobacco, garlic, and grain ; and the estimated gross revenue is Rs. 5,47,000. The Nawab receives compensation from the Government of Indiif, amounting to Rs. 2,500 per annum, on account of loss of revenue caused by the abolition of customs duties. 1 he State

receives an allotment of 14 to 16 chests of Malwa opium annually, each chest containing 1-25 cwt., at the reduced duty of Rs. 280 per chest. The duty so paid is refunded to the State, with a view to securing the co-operation of the State officials in the suppression of smuggling. The military force consists of 50 cavalry and 439 infantry. This includes the Imperial Service contingent of one company (177 men) of Sappers and Miners. The State possesses 2 serviceable guns. The Nawab of Maler Kotla receives a salute of 11, including 2 personal, guns. The State contains an Anglo-vernacular high school and three primary schools.

Maler Kotla Town.—Chief town of Maler Kotla State, Punjab, situated in 30° 32' N. and 75° 59' E., 30 miles south of Ludhiana town. Population (1901), 21,122. The town is divided into two parts, Maler and Kotla, which have lately been united by the construction of the new Moti Bazar. The former was founded by Sadr-ud-din, the founder of the Maler Kotla family in 1466, and the latter by Bayazid Khan in 1656. The principal buildings are the houses of the ruling chief, a large Diwan Khana (courthouse) situated in Kotla, and the mausoleum of Sadr-ud-din in Maler. The cantonments lie outside the town. The chief exports are grain and Kotla paper and survey instruments, manufactured in the town itself; and the chief imports are cotton cloth, salt, and lime. A large grain market has lately been constructed. The town has a small factory for the manufacture of survey instruments, employing about 20 hands. A cotton-press, opened in 1904, gives employment to about 300 persons. Maler Kotla has since 1905 been administered as a municipality. It contains a high school, a hospital, and a military dispensary.

Malgaon. Town in the Mi raj (Senior) State, Bombay, situated in 16° 53' N. and 74° 47' E. Population (1901), 5,774. It is administered as a municipality, with an income in 1903-4 of Rs. 700. A temple of Daudnath, which is supposed to have been dedicated by the hero of the Ramayana, stands on a hill about 3 miles from the town; and just outside is the shrine of a Muhammadan saint named Bawafan, at which a yearly fair, attended by both Hindus and Muhammadans, is held. Malgaon is famous for its betel-nut gardens, the produce of which is exported to Kolhapur, Poona, Bombay, and other places. It is connected with Miraj, 6 miles away, by a good road, which serves as a feeder to the Southern Mahratta Railway. The town contains a branch post office and a school.

Malia.—State in the Kathiawar Political Agency, Bombay, lying between 23° 1' and 23° 10' N. and 70° 46' and 71° 2' E., with an area of 103 square miles. The population in 1901 was 9,075, residing in 17 villages. The revenue in 1903-4 was Rs. 1,56,000, and the cultivated area 68 square miles. The State ranks as a fourth-class

State in Kathiawar. The Thakur or chief was raised from the fifth to the fourth class to give him a greater hold over the Mianas, a predatory tribe which infests the neighbourhood. He is a representative of the elder branch of the Cutch family, and executed the usual engagements in 1807.

Maliahs, The ('highlands').—An elevated tract in the western half of Ganjam District, Madras, comprising the country above and just adjoining the Eastern Ghats, and lying between $18^{\circ} 48''$ and $20^{\circ} 26'$ N. and $83^{\circ} 30'$ and $84^{\circ} 36'$ E., with an area of 3,551 square miles. They are also called the Agencies, because they are administered by the Collector under special powers vested in him in his capacity as Agent to the Governor. They are peopled by primitive forest tribes. The ordinary courts have no jurisdiction in them, the Agent and his Assistants administering both civil and criminal justice, and much of the ordinary law of the land is not in force.

The tract consists of a series of wild undulating plateaux, divided by lower valleys. In the north, almost the whole of the Udayagiri *taluk* may be said to have an average elevation of 2,300 feet. Passing west to Balliguda and Pokiribondo, the general level sinks to 1,700 and 1,500 feet, and farther south of Balliguda to 1,000 feet at Kotgar. On the west of this last line is a higher plateau round Belghar, with an average elevation of 2,500 feet, and in the southern centre of the Balliguda *taluk* is another of between 2,500 and 3,000 feet. South of this the general altitude is about 1,700 feet, again sinking in the neighbourhood of Nolahat in Ramagiri *taluk* to 1,000 feet; while still farther south the elevation once more rises, and the hills run up into the three highest peaks in the District, all of which are above 4,500 feet.

The scenery throughout is usually beautiful, and in places remains of the old heavy forest are still standing; but the continual clearing of the hill-sides for the purposes of the shifting cultivation practised by the tribes prevents the trees from attaining any size. This shifting cultivation is effected by felling and burning a piece of forest, cultivating the ground in a careless manner for two or three years, and then moving to a fresh patch. The best growth now, which is on the slopes leading up into the hill country, consists chiefly of *sal* (*Shorea robusta*). The chief passes into the Maliahs are the Kalingia *ghat* from Russellkonda, the Pippalaponka *ghat* from Gazilbadi, the Katingia *ghat* from Surada, the Taptapani or 'hot spring' *ghat* (so called from a hot sulphur spring it contains) from Digupudi, the Puipani *ghat* from Surangi, and the Munisinghi *ghat* from Parlakimedi.

The Agency tracts are for the most part held on a kind of feudal tenure, the proprietors being in theory bound to render certain services when called upon. They comprise fourteen different Maliahs known

by separate names, of which four, the Goomsur, Surada, Chinnakimedi, and Parlakimedi Maliahs, are Government land.

In 1901 the population numbered 321,114, living in 1,926 villages. Of the total, 139,000 were Khonds, 83,000 Savaras, 44,000 Panos, and 46,000 Oriyas. The Panos, who are often good-looking, have well-marked gipsy proclivities. Their occupations are trade, weaving, and theft. They live on the ignorance and superstition of the Khonds, as brokers and pedlars, sycophants and cheats. Where there are no Oriyas the Panos possess much influence, and are always consulted by the Khonds in important questions, such as boundary disputes. The Khonds live chiefly in the north and the Savaras in the south. Both are primitive people and their religious beliefs are animistic, though those who have settled below the Ghats have to some extent adopted the ordinary Hindu gods and rites. Their languages, which are called after them Khond and Savara, are unwritten.

The various dialects of the Khonds differ greatly in different localities, and the ways and character of the tribe vary almost as much as their dialects. Those inhabiting the Kutia country are the most warlike and troublesome. Generally speaking, the Khonds are 'a bold and fitfully laborious mountain peasantry, of simple but not undignified manners; upright in their conduct; sincere in their superstitions; proud of their position as landholders, and tenacious of their rights.' Khond women wear nothing above the waist except necklaces. The men have one dirty cloth, the ends of which hang down behind like a tail. Their head-dress is characteristic. They wear their hair very long, and it is drawn forward and rolled up until it resembles a short horn. Round this it is the delight of the Khond to wrap a piece of coloured cloth or some feathers, and he also keeps his comb, pipe, &c., inside it. The men go about armed with a *tangi*, a sort of battle-axe, and use bows and arrows when after game. They are over-fond of sago-palm liquor; and in March, when the *mahua* flower falls, they distil strong drink from it, and many of the male population remain hopelessly intoxicated for days together. In places the Sondis, a caste of traders and toddy-sellers, have obtained much of the Khonds' land by pandering to their taste for liquor.

The Savaras are of poorer physique, and more docile and timid than the Khonds. They use bows and arrows like the Khonds, and dress their hair in the same sort of horn on the top of their heads. They are not, however, nearly so addicted to strong drink. They are skilful cultivators, and in some places grow rice by terracing the hill-sides with much labour and ingenuity.

The dominant race above the Ghats are the Oriyas. The hill villages are arranged into groups called *muttahs*, over each of which is an hereditary headman, known as the *patro* or Bissoyi, who has a

number of *paiks* or guards under him. With one exception, all these *patros* are Oriyis. Government holds them responsible for the good order of their *muttahs*, and the Khonds almost everywhere obey them willingly.

Government derives very little revenue from the Maliahs, except from the Chokkapad *khandam* in the Goomsur Maliahs, which is managed as a *ryofivari* area. All the *zawindars* and chiefs who hold Maliahs under special *sa'iads* (grants) pay *nazaranas* (fees) to Government, and receive fixed amounts from the *patros* of the several *muttahs*, who, in their turn get fixed *mdmuls* (customary payments) from the several villages in their *muttahs*.

The Maliahs had an evil repute in days gone by for frequent *meriah*, or human, sacrifices to the earth-god to secure good crops. The Khonds were the great offenders in this matter. The *meriah* victim was formally purchased and destined for sacrifice, and on the day appointed was stupefied with intoxicants and then, after certain ceremonies, was publicly done to death, the body being cut up into small pieces which the people buried in their fields before sundown. The method of sacrifice varied. At Balliguda the victim was tied to a horizontal bar, roughly shaped to resemble an elephant's head, which turned on a vertical post. The bar was whirled round and round, and as it revolved the people hacked to shreds the still living victim. One of these diabolical contrivances is now in the Madras Museum.

Special officers were appointed to suppress this custom (and female infanticide, which was also common); but it persisted as late as 1857, and even in 1880 an attempted sacrifice in Vizagapatam District was very nearly successful. Some hundreds of persons of both sexes who had been bought for sacrifice were rescued by the special officers, and three or four of them are still alive and in receipt of a monthly dole from Government. The Khonds now substitute a buffalo for the human victim.

Mallhabad Tahsil.—Northern *tahsil* of Lucknow District, United Provinces, comprising the *parganas* of Mallhabad and Mahona, and lying between 26° 52' and 27° 9' N. and 80° 34' and 81° 4' E., with an area of 334 square miles. Population increased from 175,542 in 1891 to 184,230 in 1901. There are 379 villages and only one town, Mallhabad (population, 7,554), the *tahsil* head-quarters. The demand for land revenue in 1903-4 was Rs. 3,30,000, and for cesses Rs. 51,000. The density of population, 552 persons per square mile, is the lowest in the District. Across the centre of the *tahsil* flows the Gumti, whose banks are fringed by ravines and bordered by a sandy tract. In the north-east the soil is clay, and tanks and *jhills* abound. The south-western portion is intersected by several small streams and is very fertile. In 1903-4 the area under cultivation was 213 square miles, of

which 73 were irrigated. Weils supply two-thirds of the irrigated area, and tanks most of the remainder.

Malihabad Town.—Head-quarters of the *tahsil* of the same name in Lucknow District, United Provinces, situated in 26° 55' N. and 80° 43' E., a mile from a station on the Oudh and Rohilkhand Railway and on the road from Lucknow city to Hardoi. Population (1901), 7,554. According to tradition, the town was founded by Malia, a Pas!; but nothing is known of its history till the reign of Akbar, when it was inhabited by Pathans. It contains two bazars built in the eighteenth century, one of which owes its origin to Nawab Asaf-ud-daula. Besides the usual offices, a dispensary and a branch of the American Methodist Mission are situated here. Malihabad is administered under Act XX of 1856, with an income of about Rs. 2,300. It has little trade, but a kind of tinfoil is manufactured in small quantities, and the place is noted for its mangoes and orchards of *ber* (*Zizyphus Jujuba*). A school for boys contains 175 pupils and one for girls 29.

Maliwun (Siamese, *Alalewan*).—Southernmost township of Mergui District, Lower Burma, lying on the mainland between 9° 58' and 10° 55' N. and 96° 27' and 98° 56' E., and including islands which extend to 9° 38' N. and 97° 44' E. Its area is 989 square miles. The eastern boundary runs for most of the way along the Pakchan river, on the other side of which is the Siamese State of Renong. The head-quarters were moved in 1891 from Maliwun, the principal tin-mining centre in the District, situated on a tributary of the Pakchan, to the healthier and more accessible Victoria Point at the southern extremity of the mainland. Except for a few Government officials and their families, there are no Burmans in the township, the population of which was 7,719 in 1891 and 5,265 in 1901, composed of Siamese in the rice plain on the right bank of the Pakchan, Chinese in the mining camps, Malays along the coast, and Salons about the islands. The township contains 41 villages and hamlets. Until the time of Alaungpaya the Pakchan was an important trade route. The country seems to have been completely depopulated by that monarch's devastations, and was left a good deal to itself till, fifty years ago, immigration had led to such a series of dacoities and piracies that measures had to be concerted between the British and Siamese Governments for the maintenance of order. In 1859 the population was only 733. The next year the tract was leased to a Chinaman, who took over the administration for ten years; but internal brawls in 1861 led to the establishment of a frontier police under a European inspector, and later to the appointment of a resident magistrate. The village of Victoria Point, called by the Siamese Kawsong, by the Malays Pulodua (both meaning 'two islands'), and by the Burmans Kawthaung, a corruption of the

Siamese name, contains about 80 houses. The Government buildings are pleasantly situated on rolling hills, from which the islands of the Archipelago and the Pakchan river, with the mountain ranges of Renong beyond it, are visible at the same time. Except for the rice plain on the Upper Pakchan and a few small patches elsewhere, the whole township is under dense forest. The area cultivated in 1903-4 was 7 square miles, and the land revenue Rs. 4,600. The total revenue raised in the same year amounted to Rs. 30,000.

Maliyas.—Hill tracts in the north of the Madras Presidency. See Maliahs.

Malkangiri.—Agency *tahsil* in Vizagapatam District, Madras, situated north of the Ghats on the western border of the District, and bounded east and west by the Machkund and Sabari rivers. Area, 2,396 square miles; population (1901), 35,856, compared with 28,277 in 1891; number of villages, 566. The *(ahsll)* is the largest and most sparsely peopled in the Presidency, the density of population being only 15 persons per square mile. Malkangiri is a wild forest-clad area, watered by the Sabari and Sileru, and sloping down to the Godavari border. Good teak and *sal* (*Shorea robusta*) forests exist, and they are being 'reserved' by the Raja of Jeypore, to whom the *tahsll* belongs. The head-quarters are at Malkangiri village. Among the inhabitants, besides hill tribes, are found a considerable number of Telugus who have immigrated from the neighbouring Agency tract in Godavari.

Malkapur Taluk.—*Taluk* of Buldana District, Berar, lying between 20° 33' and 21° 2' N. and 76° 2' and 76° 36' E., with an area of 792 square miles. The population fell from 177,877 in 1891 to 173,234 in 1901, the density in the latter year being 219 persons per square mile. The *taluk* contains 288 villages and two towns, Malkapur (population, 13,112), the head-quarters, and Nandura (6,669). demand for land revenue in 1903-4 was Rs. 5,24,000, and for cesses Rs. 41,000. Malkapur lies in the fertile valley of the Puma, which bounds it on the north, while on the south it is bounded by the hills of the Balaghat.

Malkapur Town.—Head-quarters of the *taluk* of the same name in Buldana District, Berar, situated in 20° 53' N. and 76° 15' E., on the Nalganga, a tributary of the Purna, at an elevation of 900 feet, with a station on the Nagpur branch of the Great Indian Peninsula Railway, 308 miles from Bombay and 213 from Nagpur. Population (1901), 13,112. Two *bands* or dams cross the Nalganga here, one of which is said to have been constructed about two hundred years ago to facilitate communication with the *peth* or suburb, and the other about fifty years later to fill the town ditch with water and thus protect it from surprise by marauders. A dilapidated rampart of dressed stone with five gates and twenty-eight bastions surrounds the town, which is divided into

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four principal quarters. One of the gates bears on it an inscription, to the effect that it was erected in 1729 during the rule of Muhammad Maali Khan. Malkapur is mentioned in the *Ain-i-Akbari* as the headquarters of a *pargam* in the *sarkar* of Narnala. The town is said to have been founded about four hundred and fifty years ago by a prince of the Fariiki house of Khandesh, and to have been named by him after the princess (*malika*) his daughter : but the story is improbable, for we have no record of any journey in this direction by Mi ran Ghanl Adil Khan, the Faruki prince of the period. In 1761 the town was rich enough to pay Rs. 60,000 to the army of Ragbunath Rao Peshwa, for exemption from plunder. The Nizams used to keep a force of about 20,000 men in this frontier district of their dominions. Daulat Rao Sindhia and Raghuji Bhonsla were encamped near Malkapur when the British envoy, Colonel Collins, after presenting General Wellesley's ultimatum, quitted Sindhia's camp on August 3, 1803. Malkapur was the scene of several petty battles between *zamlndars*, rival *talukdars*, Rajputs, and Musalmans during the period between the beginning of the nineteenth century and the Assignment of Berar. A subordinate civil court is established at Malkapur, which also contains a *iahsi!*, a courthouse, schools, a dispensary, and some ginning factories. A mosque near the *kdzl's* house is said to be older than the town.

Mallani.—The largest district in the State of Jodhpur, Rajputana, situated in the west of the State, with an area of 5,750 square miles. In 1901 it contained one town, Barmer, and 464 villages, with a total population of 172,330, of whom about 75 per cent. were Hindus, 12 per cent. Musalmans, 6 per cent. Animists, and 5 per cent. Jains. The population in 1891 was 221,184; the decrease is due to the famine of 1899-1900. The most numerous castes are the Jats, 40,000 ; Bhlls, 11,700; Rajputs, 11,400 (of whom 1,400 are Musalmans); Mahajans, 11,000; Brahmans, 9,400; and Balais or Chamars, 8,000. The salient feature of the country is the sandhills, which in some places rise to an altitude of 300 to 400 feet. The northern and western portions form part of the desert stretching into Sind and Jaisalmer. Water is usually brackish, and in some spots deadly to man or beast. Wells and pools yield potable water only after the rains and become noxious by March, so that in the summer there is a great scarcity of water and the use of a wholesome well has to be paid for. The sandy wastes provide excellent grazing for the herds of camels, cattle, sheep, and goats kept by a large migratory population, including some of the hardy Baloch tribes. The only river in Mallani is the Luni, which enters the district at Jasol and pursues a tortuous course of about 80 miles till it passes into the Sanchor district of the State, and thence to the Rann of C'utch. There are about 40 *jhils* or marshes

in the vicinity of Barmer, Takhtâbâd, and Setrao, some of which cover an area of 400 or 500 acres. In favourable seasons, wheat is grown in their beds, and when they are dry they yield a good supply of water at a depth varying from 8 to 24 feet. Fuller's earth is found in considerable quantities ; and the principal manufactures are cloth of a mixture of cotton and wool, woollen blankets, small rugs of camel hair, millstones, and horse and camel saddlery. The horses of Mallâni are famous for their hardiness and ease of pace, and though light-boned will carry heavy weights ; the best are bred in the villages of Xagar and Gfirha. The administration of the district is in the hands of a Superintendent, under whom are the *hakim* or chief local officer ; the Munsif, who settles civil suits and disputes about land ; and the *risâ/dâr*, who is the head of the local police. There are four vernacular schools of long standing, and a couple of small hospitals.

Historically the tract is very interesting, and justly claims to be the cradle of the Râthor race in the west. Here, in the beginning of the thirteenth century, Rao Siâhji and his son Asthânji, having conquered Kher (now a ruined village near Jasol) and the adjoining tract called Mewo, from the Gohel Rajputs, planted the standard of the Râthors amid the sandhills of the Lüni. The eighth in succession from Siâhji was Rao Salkha, in whose time, about the middle of the fourteenth century, a separation took place. Salkha had three sons : namely, Mallinâth, Viramdeo, and Jetmal. A portion of the tribe followed the fortunes of Viramdeo, whose son Chonda captured Mandor from the Parihâr Rajputs in 1381, and whose descendants ruled first there and subsequently at Jodhpur. The rest of the tribe remained on the banks of the Lüni with Salkha's eldest son, Mallinâth, after whom the district of Mallâni is named. Succession following the rule of partition, the country became minutely subdivided among the descendants of Mallinâth, and the dissensions and blood-feuds thereby created offered the chiefs of Jodhpur opportunities to interfere and establish an overlordship which continues to the present day. The district was for centuries one continual scene of anarchy and confusion ; and the Jodhpur Darbâr, when called upon to remedy this, acknowledged its inability. In these circumstances, in 1836, it became necessary for the British Government to occupy Mallâni and restore order by reducing the principal Thâkurs. The district was subsequently held in trust by Government, the rights of the Jodhpur chief being recognized ; and as the Darbâr gave increasing evidence of sound administration, its jurisdiction has been gradually restored—namely, military in 1854, civil in 1891, and criminal in 1898. The whole of Mallâni consists of *jâgir* estates, the principal being Jasol, Barmer, and Sindri, held by descendants of Mallinâth, and Nagar and Gfirha, held by descendants of Jetmal. They pay a small tribute called *faujbal* to the Jodhpur

Darbar, which thus derives an income of about Rs. 18,000, including a few miscellaneous items.

Mallanwan.—Town in the Bilgram *tahsil* of Hardoi District, United Provinces, situated in 27° 3' N. and 80° 9' E., on the old route from Delhi to Benares, north of the Ganges. Population (1901), 11,158. The Shaikhs who inhabit the place claim to have come with Saiyid Salar, and it was of some importance under native rule. In 1773 a force of the Company's troops was cantoned between Mallanwan and Bilgram, but was removed soon after to Cawnpore. At annexation in 1856 Mallanwan was selected as the head-quarters of a District; but after the Mutiny the offices were removed to Hardoi. The town is administered under Act XX of 1856, with an income of about Rs. 2,700. There is a considerable manufacture of vessels of brass and bell-metal. The school has 216 pupils, and the American Methodist Mission has a branch in the town.

Malot (1).—Ancient fortress, now in ruins, in the District and *tahsil* of Hoshiarpur, Punjab, situated in 31° 50' N. and 76° E. It was founded by a Pathan general in the reign of Bahlol Lodi (1451-89), and became under Sher Shah the capital of the tracts which now form Hoshiarpur and Kangra Districts. In 1526 it was surrendered to Babar by Daulat Khan, ruler of the Punjab, and in later times it fell into the hands of the hill Rajputs.

Malot (2).—Fort and temple on a precipitous spur projecting from the southern edge of the Salt Range, Jhelum District, Punjab, situated in 32° 42' N. and 72° 50' E., about 9 miles west of Katas. The fort is said to have been built five or six centuries ago by Raja Mai, a Janjitia chief, whose descendants still hold the village. The temple, with its gateway, stands on the extreme edge of the cliff. They are in the earlier Kashmir style, built of coarse red sandstone, much injured by the action of the weather. The temple is 18 feet square inside, with remarkable fluted pilasters and capitals, on each of which is a kneeling figure.

[*Archaeological Survey Reports*, vol. v, pp. 85-90.]

Malpe.—Village and port in the Udipi *taluk* of South Kanara District, Madras, situated in 13° 28' N. and 74° 46' E. It is the best natural port in the District, the roadstead being sheltered by the island of Darya Bahadurgarh. The St. Mary Isles, on which Vasco da Gama landed in 1498 and set up a cross, lie about 3 miles to the north-west. The Basel Mission has a tile factory here.

Malpur.—Petty State in Mahi Kantha, Bombay.

Malpura.—Head-quarters of the *nizamat* and *tahsil* of the same name in the State of Jaipur, Rajputana, situated in 26° 18' N. and 75° 23' E., about 55 miles south-west of Jaipur city, and connected with the Rajputana-Malwa Railway at Naraina by an unmetalled road

about 38 miles long. Population (1901), 6,502. The town has a more than local reputation for the *namda* or felt manufactured there. Blankets, *gugis*, or capes with hoods worn in the rainy season, Hindu prayer-rugs, saddle-cloths, gun-covers, and floorcloths are the chief articles made from this material; and they are largely exported. A vernacular middle school is attended by about 120 boys, and the hospital has accommodation for 4 in-patients. There are numerous excellent irrigation works in this district ; among them the Tordi Sagar, a few miles to the south of Malpura town. Completed in 1887 at a cost of 5 lakhs, this tank, when full, covers an area of over 6 square miles, and can hold water sufficient to irrigate about 27 square miles. The total expenditure up to 1904 was about 6-3 lakhs, while the total revenue realized up to the same date was 6-4 lakhs.

Malsiras Taluka.— *Tdluka* of Sholapur District, Bombay, lying between 17° 35' and 18° 2' N. and 74° 37' and 75° 13' E., with an area of 574 square miles. It contains 69 villages, the head-quarters being at Malsiras (population, 2,263). The population in 1901 was 52,533, compared with 74,039 in 1891. The *taluka* is very thinly populated, with a density of only 92 persons per square mile, the average for the District being 159. The demand for land revenue in 1903-4 was 1-1 lakhs, and for cesses Rs. 8,000. Malsiras is generally flat and bare of trees, except in the west, where there is a chain of hills. Water is not plentiful. The chief rivers are the Nira and Bhlma. The *tdluka* chiefly consists of good black soil. The climate is dry and hot, and the rainfall scanty and uncertain.

Malsiras Village.—Head-quarters of the *tdluka* of the same name in Sholapur District, Bombay, situated in 17° 53' N. and 74° 58' E. Population (1901), 2,263. A weekly market is held on Tuesday. The village contains an old Hemadpanti temple of Someshwar, and a shrine of Hanuman, on the high road from Poona to Pandharpur, which is much frequented by pilgrims. There is one school.

Malur Taluka.—South-western *taluk* of Kolar District, Mysore, lying between 12° 48' and 13° n' N. and 77° 51' and 78° 8' E., with an area of 267 square miles. The population in 1901 was 61,908, compared with 54,180 in 1891. The *taluk* contains one town, Malur (population, 3,632), the head-quarters; and 374 villages. The land revenue demand in 1903-4 was Rs. 1,21,000. Malur occupies the watershed separating the Palar and Ponnaiyar rivers. The high-lying tracts are bare or covered with low jungle. The north-east is the most fertile part, watered by streams flowing west to the Ponnaiyar. There are many large tanks. Good potatoes are grown. The soil is red and comparatively deep, mixed with sand in the south-west; in the east it is grey and shallow, being similar in the south, where rock crops up.

Malur Village.—Village in the Channapatna *taluk* of Bangalore District, Mysore, situated in $13^{\circ} 0' N.$ and $77^{\circ} 56' E.$, on the Kanva. Population (1901), 2,515. Most of the residents are Brahmans of the Srlvaishnava sect, who give it the name Rajendrasimha-nagara. There are several ruined temples, but a large one of Aprameyaswami is kept in good order. The place was of importance under the Cholas. Vijnaneswara is said to have here composed the law book *Mitdkshard*, his celebrated commentary on Yajnavalkya, its date being about uoo.

Malvalli. — *Taluk* and town in Mysore District, Mysore. See Malavalli.

Malvalli.—Village in Shimoga District, Mysore. See Malavalli.

Malvan Taluka.—Southern *taluka* of Ratnagiri District, Bombay, lying between $16^{\circ} 1'$ and $16^{\circ} 19' N.$ and $73^{\circ} 27'$ and $73^{\circ} 41' E.$, with an area of 238 square miles. It contains one town, Malvan (population, 19,626), the head-quarters; and 58 villages, including Masura (8,855) and Pendur (5,364). The population in 1901 was 107,944, compared with 92,437 in 1891. The increase is due to the presence of large numbers of Bombay mill-hands, whose homes are in Malvan, and whom the closing of mills in 1901 had forced to return to their villages. The density, 454 persons per square mile, is much above the District average. The demand for land revenue in 1903-4 was Rs. 89,000, and for cesses Rs. 6,000. The *tdluka* forms a considerable stretch of the Ratnagiri sea-board, intersected by the Kolamb and Kalavali creeks. The interior is a series of rugged hills and rich valleys. Rice and sugar-cane are grown along the Karli and Kalavali creeks. The headland of Rajkot at Malvan offers a secure harbour to small steamers and country craft which anchor in Malvan Bay, but the bay is dangerous to vessels without a pilot. The climate is on the whole healthy. The annual rainfall averages 88 inches. The supply of water for drinking and other purposes is abundant. The Karli and Kalavali creeks are navigable by small craft for 20 miles. The chief ports on the sea-board are Devgarh, Achra, and Malvan, forming the Malvan customs division.

Malvan Town (*Maha-lavana*, the 'Salt Marsh').—Head-quarters of the *tdluka* of the same name in Ratnagiri District, Bombay, situated in $16^{\circ} 3' N.$ and $73^{\circ} 28' E.$, 70 miles south of Ratnagiri town. Population (1901), 19,626. In a bay almost entirely blocked by rocky reefs, there were formerly three islands. On the larger of the two outer islands was the famous fort of Sindhudrug, and on the smaller the ruined fort of Padmagarh. Sindhudrug or the 'ocean fort,' built by Sivaji, was very extensive, little less than 2 miles round the ramparts. To the Marathas it is Sivaji's cenotaph, and his image is worshipped in the chief shrine. On what was once the inner island, now part of the mainland, is situated, almost hidden in palms, the old town of Malvan.

MALIVA agency

The English had a factory here in 1702. The modern town of Malva has spread far beyond the limits of the former island. Within the boundaries of the town, on rising ground surrounded on three sides by the sea, is Rajkot fort. Malvan was formerly a stronghold of the Maratha pirates, known as 'the Mai wans'; but in 1812 it was, under the Treaty of Karvir, ceded to the British by the Raja of Kolhapur. Towards the close of 1812 Colonel Lionel Smith completely extirpated the pirates. Iron ore of good quality is found in the neighbourhood. The value of trade at the port of Malvan in 1903-4 was : imports 12 lakhs, exports 6\ lakhs. The town contains a Subordinate Judge's Court and eleven schools, of which two are for girls.

Malwa Agency.—A collection of Native States in charge of a Political Agent under the orders of the Agent to the Governor-General in Central India, lying between 22° 20' and 25° 9' N. and 74° 32' and 76° 28' E. It has an area of 8,919 square miles, and is bounded on the north and west by Rajputana; on the south by the Bhopawar and Indore Residency Political Charges; and on the east by Bhopal.

The total population in 1901 was 1,054,753, of whom Hindus numbered 839,364, or 81 per cent.; Musalmans, 107,290, or 10 per cent.; Animists, 55,013, or 5 per cent.; Jains, 36,615, or 3 per cent.; and Christians, 1,488. The density of population is 118 persons per square mile. The Agency contains 15 towns, of which the chief are Ujjain (population, 39,892), Ratlam (36,321), Jaora (23,854), Nlmach including cantonment (21,588), Mandasor (20,936), and Dewas (15,403); and 3,847 villages.

After the conclusion of the Treaty of Mandasor with Holkar in 1818, the local corps raised in accordance with its provisions was stationed at MEHIDPUR, and the commandant received military and civil powers. His charge comprised the whole of the Agency as it was up to March 20, 1907, before the inclusion of the Indore Agency and the lately transferred Indore districts, but not the NLMACH district, which was at that time included in Rajputana. After the Mutiny, Colonel Keatinge, who was placed in political control of the country, moved his head-quarters from time to time between MANDASOR, AGAR, and MEHIDPUR. In 1860, when the Central India Horse was regularly constituted and stationed at Agar, the dual military and civil control of the charge, then called the Western Malwa Agency, was entrusted to the commandant. The civil work becoming too heavy for this officer to deal with adequately, the Malwa Agency was created under a separate Political officer in 1895, the head-quarters being placed at Nlmach. In 1903 the Indore State districts comprised in the charge were handed over to the Resident at Indore. A further change was made in March, 1907, when the Indore Agency was abolished, and the

MALWA AGENCY

States and estates directly under the Agent to the Governor-General were transferred to the Political Agent in Malwa. In 1854, on the first appointment of an Agent to the Governor-General, the twin States of Dewas and several estates, of which the Thakurat of BaglT was the most important, remained directly under the Agent to the Governor-General, who delegated the powers of control to his First Assistant. The increase of secretariat work at head-quarters necessitated the abolition of this arrangement, and the charge was transferred. There are now five States with their head-quarters in the Agency : the Hindu twin States of Dewas, the Muhammadan treaty State of Jaora, and the mediatized Hindu States of Ratlam, Sltamau, and Sailana. In addition to the above, the Political Agent also has charge of a considerable portion of Gwalior territory, of the Pirawa *pargana* of Tonk, and of numerous holdings under British guarantee, of which Piploda and Bagli are the most important (see table on next page). Among these minor holdings Panth-Piploda is peculiar, being held directly from the British Government, without the intervention of any Native State. The holders possess no land, but receive a cash assignment levied on the income derived from ten villages situated within the territory of various Thakurs, five of these villages being in Piploda. The grantees have no proprietary rights whatever, receiving their cash assignment through the Political Agent, who holds the jurisdiction over these villages.

The Ajmer-Khandwa branch of the Rajputana-Malwa Railway, the Ujjain-Ratlam-Godhra branch of the Bombay, Baroda, and Central India Railway, and the Ujjain-Bhopal Railway serve the Agency. The Agra-Bombay, Ujjain-Agar, Mhow-Nimach, Ujjain-Sehore, Agar-Sarangpur, Dewas-Ujjain, and Dewas-Bhopal metalled roads also traverse it.

The Political Agent exercises the usual general control over all the States, and is a Court of Sessions for the cantonment of Nlmach. He is also the District Magistrate and Judge and Court of Sessions for the Rajputana-Malwa, Ujjain-Nagda, and Ratlam-Godhra sections of the Bombay, Baroda, and Central India Railway, from Fatehabad to Kesarpura stations and from Ratlam to the east of the Mahl.

The Agency comprises the States, portions of States, and estates shown in the table on the next page.

Malwa (1).—A high-level region, with an area of 7,630 square miles, forming the greater part of the western section of the Central India Agency, which, as one of the most fertile and habitable parts of the Peninsula, has figured prominently in the ancient and mediaeval periods of Indian history.

The term Malwa has at different periods been applied to somewhat varying tracts, though Malwa proper has always constituted its main area. Malwa proper, as understood by Hindus, consists solely of the plateau

Name.	Title.	Caste, clan, &c.	Area in square miles.	Population, 1901.	Total revenue. Rs.
1. Dewās, Senior Branch, portion	H. H. Rājā .	Ponwār Marāthā .	385	51,708	2,85,000
2. Dewās, Junior Branch, portion	H. H. Rājā .	Ponwār Marāthā .	378	44,410	2,95,000
3. Jaoṛā	H. H. Nawāb .	Pathān Musalmān .	568	84,202	8,50,000
4. Ratlām	H. H. Rājā .	Rāthor Rājput .	902	83,773	5,00,000
5. Sitāmau	H. H. Rājā .	Rāthor Rājput .	350	23,863	1,26,000
6. Sailānā	H. H. Rājā .	Rāthor Rājput .	450	25,731	1,50,000
7. Piplodā	Thākūr .	Doria Rājput .	60	11,441	95,000
8. Ajraoda	Thākūr .	Ponwār Marāthā .	*	*	336
9. Bāgli	Thākūr .	Rāthor Rājput .	108	14,049	1,00,000
10. Bardia (Barra) .	Rao .	Chauhān Rājput .	7	568	15,000
11. Barkhera Deo Dūngri	Thākūr .	Rāthor Rājput .	4	225	2,800
12. Barkhera Panth .	Thākūr .	Rāthor Rājput .	5	375	4,800
13. Bhātkherī	Rāwat .	Chandrāwat Rājput	35	1,878	15,000
14. Bhojātkherī . . .	Rao .	Sondhiā	6	250	2,000
15. Bichraud I	Thākūr .	Chauhān Rājput .	*	*	1,200
16. Bichraud II . . .	Thākūr .	Chauhān Rājput .	*	*	1,500
17. Bilaud	Thākūr .	Muhammadan	16	204	6,500
18. Borkhera	Thākūr .	Saiyid	8	870	13,900
19. Dābri	Thākūr .	Rāthor Rājput .	*	*	180
20. Datāna	Thākūr .	Chauhān Rājput .	*	*	186
21. Dhulātia	Thākūr .	Jādon Rājput .	*	*	1,221
22. Jawāsia	Rao .	Khichī Rājput .	*	*	1,221
23. Kālukhera	Rao .	Goyal Sesodia	4	418	10,000
24. { Karaudia and Kheri Rājāpur	{ Thākūr	Rājput	6	932	7,000
25. Kherwāsa	Thākūr .	Khichī Rājput .	6	932	7,000
26. Khojankhera . . .	Thākūr .	Jādon Rājput .	10	1,469	8,000
27. Lālgarh	Thākūr .	Chauhān Rājput .	6	630	4,180
28. Narwar	Diwān .	Rāthor Rājput .	5	716	11,000
29. Naugaon	Rao .	Solanki Rājput .	5	549	6,000
30. Panth-Piplodā . .	Thākūr .	Chauhān Rājput .	14	1,838	18,000
31. Pathāri	Rao .	Jhāla Rājput .	16	1,405	19,000
32. Piplia	Thākūr .	Jādon Rājput .	*	*	114
33. Sadātkherī (Sheogarh)	Pandit .	Karāde Dakshani Brāhman	19	3,544	15,000
34. Sanauda	Thākūr .	Chauhān Rājput .	15	1,436	16,000
35. Sarwan	Rāwat .	Khichī Rājput .	8	600	4,000
36. Shujaota	Thākūr .	Rāthor Rājput .	2	445	42,000
37. Sidri	Thākūr .	Rāthor Rājput .	9	143	2,200
38. Sirsi	Thākūr .	Rāthor Rājput .	71	4,056	42,000
39. Tāl	Thākūr .	Solanki Rājput .	7	319	10,000
40. Unī	Thākūr .	Nimā Mahājan	1	184	3,000
41. Uparwāra	Thākūr .	Baniā	15	1,352	25,000
42. Gwalior	...	Rāthor Rājput .	10	1,122	10,000
43. Indore	...	Doria Rājput .	5	494	1,800
44. Tonk	...	Solanki Rājput .	10	1,186	20,000
Railways, cantonments, and stations				23,771	—
Total			8,919	1,054,753	62,38,917

NOTE.—The area and population of numbers 10-14, 17, 18, 22, 25, 26, 30, 32, and 41, have also been included in their parent State. * No villages.

lying between 23° 30' and 24° 30' N. and 74° 30' and 78° 10' E., which is terminated on the south by the great Vindhyan range, on the east by the arm of this same range that strikes north from Bhopal to Chanderi (the Kulāchala Parvata of the Purānas), on the west by the branch which reaches from Amjhera to Chitor (in Rājputāna), and on the north by the Mukandwāra range which strikes east from Chitor to Chanderi. Under Muhammadan rule the *Sūbah* of Mālwā included, in addition to the tract mentioned, the Nimār district on the south, between the Vindhya and Sātpurā ranges, Mewār (now in Rājputāna) on the west, Hāraoti (the Hāra States of Būndi and Kotah in Rājputāna) on the north, and much of the present Central Provinces on the south-east, including even Garhā Mandlā.

Sindhiā's possessions on this plateau, which comprise the Ujjain, Shājāpur, Mandasor, and Amjhera *si/as*, are known collectively as the Mālwā *prānt*.

Mālwā is always divided by natives into six divisions : Kauntel, the country of which Mandasor is the centre; Bāgar, of which Bāns-wāra State in Rājputāna is the centre, and in which part of Ratlām State lies; Rāth, the country in which the greater part of Jhābua and Jobat States are situated ; Sondwārā, the country of the Sondia tribe, of which Mehidpur is the centre; Umatwārā, the country of the Urat Rājputs, now represented at Rājgarh and Narsingharh ; and Khichiwārā, the land of the Khilchī Chauhāns, of which Rāghugarh State is the centre.

The plateau is mainly composed of a vast spread of basaltic rock, which forms great rolling downs, dotted over with the flat-topped hills peculiar to that geological formation. The country

aspects^ highly fertile, being principally covered by the soil
1 here called *mār* or *kāll* by the natives, and ' black cotton soil ' by Europeans. The plateau has a general slope towards the north, the great Vindhyan scarp to its south forming the watershed. The chief rivers are the CHAMBAL, SIPRĀ, greater and lesser KALI SIND, and PĀRBATI. The people are skilful and industrious cultivators. The principal crops are wheat, gram, *jowār*, cotton, and poppy. *Jowār* occupies about 44 per cent, of the cropped area, poppy about 6 per cent. The annual rainfall averages 30 inches. The Rājasthāni dialect called Mālwī or Rāngri is spoken by nearly half of the population.

The name of the tract, more correctly Mālavā, was originally the designation of a tribe, which is mentioned in the Mahābhārata and the Rāmāyana; but the earliest reference to their habitation is a somewhat vague statement in the Vishnu Purāna that the Mālavās lived in the Pariyātra mountains, or western Vindhyas, while the name Mālavadesa, ' country of the Mālavās,' is not mentioned in any Sanskrit work before the second century B.C., and then refers to an entirely different locality, probably held by another section of this tribe. From these

rather involved accounts, it appears that the tract now known as Malwa was not so called till the tenth century A. P., or even later. The *Brihat Sanhita*, written in the sixth century, does indeed mention a country called Malava; but the name is not applied to the present Malwa, which is called Avantī in the same work, while its inhabitants were known as Avantikas or Ujjayantikas. The latter country, of which Avantī (Ujjain) was the chief town, comprised the tract lying between the Vindhya on the south, Jhalrapatan (in Rajputana) on the north, the Chambal river on the west, and the Parbati on the east. To the east of the Parbati lay the country of Akara, or Eastern Malwa, of which Vidisha, now Bhilsa, was the recognized capital. In the seventh century Malwa and Ujjain were described as separate principalities by the Chinese traveller Hiuen Tsiang, who placed the former to the west of the latter, possibly in Gujarat. Another branch of the Malavas appears to have occupied the country round Nagaur in Rajputana, 45 miles north of Kotah, where large numbers of their coins have been found, dating probably from not later than the fourth century A. D. The Malavas seem to have been at first a nomadic tribe composed of separate units, each under its own headman, but subsequently they formed a regular tribal constitution. They also inaugurated an era which has long been in use among Hindus north of the Narbada, and is now known as the Vikrama Samvat, the initial year corresponding to 57 B.C. Till the tenth century, however, the word Vikrama is never employed with dates given in this era, which are always designated as of the Malava era, the era of the lords of Malava, or of the tribal constitution of the Malavas. No historical event can be connected with its initial year, or with the adoption of the title Vikrama, which certainly has no connexion with any king of that name living in 57 B.C., as is popularly supposed. All the earliest records in this era come from Rajputana, north-west of Malwa, and the first inscription in Malwa proper is that at MANDASOK, dated in the year 493 of the tribal constitution of the Malavas, or A.D. 436.

According to the early Buddhist books, Avantidesa was one of the sixteen powers of India in Buddha's lifetime, its chief town, Ujjain, being important as one of the principal stages on History the great route from the Deccan to Nepal, which passed through Mahissatī or Mahishmatī, now Maheshwar, and Vidisha or Bhilsa. The Maurya dynasty held Malwa among their western provinces, Asoka being governor during his father's lifetime, with his head-quarters at Ujjain. On his accession he erected the great *stupa* at Sanchi, where a fragment of one of his edicts has been found.

Early in the Christian era the Western Satraps extended their rule over Malwa. The Kshatrapa, or Satrap, Chashtana is mentioned by Ptolemy (A.D. 153), who calls him Tiastenos king of Ozene (Ujjain).

From Chashtana onwards a regular succession of Satraps ruled Malwa, the most famous being Rudradaman, who added greatly to his dominions, and whose record at Junagarh in Kathiawar (A.D. 150) mentions that he possessed Akara and Avanti, or Eastern and Western Malwa, he himself ruling from Ujjain, while his other provinces were held by viceroys.

As the rule of the Satraps died away, the Guptas of Magadha rose to power. Samudra Gupta (326-75), in his Allahabad pillar inscription, mentions the Malavas as a frontier tribe. His successor Chandra Gupta II (375-413) extended his dominions westwards and, driving out the Kshatrapas, annexed Malwa about A.D. 390, as his records at Sanchi and Udayagiri show. In the next century the Gupta empire broke up; and, though some of the family still held petty principalities, the greater part of the tract fell to the White Hun adventurers, Toramana and his son Mihirakula. The White Huns probably entered India towards the end of the fifth century, and, after occupying the Punjab, forced their way southwards. During Skanda Gupta's lifetime they were kept in check; but on his death Toramana occupied the districts round Gwalior, where an inscription put up by his son Mihirakula has been found. Advancing farther southwards, Toramana and his son soon obtained a footing in Malwa, which by 500 was entirely in their power, the petty Gupta chiefs Budha Gupta and Bhanu Gupta, of whom records dated 484 and 510 exist, becoming their feudatories. On Toramana's death about 510, Mihirakula succeeded; but his harsh rule caused a revolt, and about 528 he was defeated by a combination of native princes under Nara Sinha Gupta Baladitya of Magadha, and Yasodharman, a chief who seems to have ruled at Mandasor, where the battle was fought. Yasodharman erected two pillars at Mandasor, recording his victory, and appears then to have become one of the principal chiefs in Malwa. In the seventh century the famous king Harshavardhana of Kanauj (606—48) held suzerainty over Malwa.

It is uncertain when the Malavas actually entered the tract. From the second to the seventh century, while the country was under the strong rule of the Kshatrapas, the Guptas, and Harshavardhana of Kanauj, they must have held a subordinate position; but on the fall of the brief empire of Kanauj they probably acquired greater independence, and rising in importance gave their name to the region. What exactly happened is uncertain; but it would appear that the Malavas became gradually Hinduized, possibly from contact with the Brahman rulers of Ujjain, and being a hardy race of warriors, and as such desirable allies, were promoted to Kshattriya rank, and finally absorbed into the great Rajput families which then began to be evolved out of the heterogeneous elements of which the population of India was composed.

HISTORY

In the tenth century the names of the Rajput clans begin to appear, and Malwa fell ultimately to the Paramaras (800-1200), a section of the Agnikula group, who fixed their head-quarters first at Ujjain and later at Dhar. They rose to considerable power, so that 'the world is the Paramara's' became a common saying. The Paramara lists give a line of nineteen kings whose known records range from the tenth to the thirteenth century, and of whom several were famous for their patronage of literature. The most notable was Raja Bhoja (1010-53), who was both a great scholar and a great warrior. His renown as a patron of literature and as an author still survives, and he is now looked on as the Augustus of India, while many ancient writers of note and works of merit are assigned to his period. He was finally driven from his throne by a combination of the Chalukyas of Anhilvada in Gujarat and the Kalachuris of Tripuri. From this time the Paramara power declined, his successors being little more than local chiefs.

In 1235 the Muhammadans first appeared under Altamsh, who took Ujjain, demolishing the renowned temple of Mahakal, and sacked Bhilsa, thus destroying the two principal towns of Malwa. From this time the country was held in fief, with occasional lapses, by officers of the Muhammadan court, till in 1401 Dilawar Khan assumed the insignia of royalty.

From 1401 till 1531, when it was annexed to Gujarat, the province of Malwa or Mandu, as it was often called after the famous fortress which became its capital under these rulers, remained an independent State. Its princes were incessantly at war with those of Gujarat, with the Bahmani kings of the Deccan, and with other neighbouring chiefs. Dilawar Khan Ghorī (1401-5) had originally received Malwa as a fief under Firoz Shah; but during the confusion that followed the invasion of Timur he became independent, making Dhar the capital of his kingdom. He was succeeded by his son Alp Khan, better known as Hoshang Shah (1405-34), the founder of Hoshangabad, who lies buried in a magnificent marble tomb in the fort at Mandu, to which place he moved the capital. He left a minor son, Muhammad Ghazni Khan, whom his guardian, Mahmud Khilji, promptly murdered, seizing the throne for himself. Under Mahmud Khilji's rule (1436-75) Malwa reached the zenith of its power. His activity was unceasing, so that it was said of him that his tent became his home and the field of battle his resting-place, and yet his administration was marked by the absence of all enmity between Hindus and Muhammadans. Mahmud extended his dominions in all directions, seizing among other places Ajmer and Ranthambhor in Rajputana, and Ellichpur in the Deccan; and in 1440, at the invitation of certain nobles, he even advanced against Delhi, but was successfully opposed by Bahlol Lodi. In 1440 he

attacked Rana Kumbha of Chitor. Both sides claimed the victory, and the Rana erected the famous Tower of Victory, still standing in the fort, in honour of his success. Mahmud was succeeded by his son, Ghiyas-ud-dTn (1475-1500). Having undergone much toil and anxiety during his father's lifetime, Ghiyas-ud-din soon handed over the reins of government to his son, Nasir-ud-din, and retired to his harem. Na.sir-ud-dTn (1500-10) has left a reputation infamous for cruelty. He is said even to have poisoned his father, an act which roused such indignation in the emperor Jahangir that, when visiting Mandu in 1616, he had the king's remains taken out of the tomb and thrown into the Narbada. Nasir-ud-dm was drowned in a tank in the Kaliadeh palace, near Ujjain, into which he had fallen in a drunken fit, no one daring or caring to pull him out. He was succeeded by Mahmud II (1510-31). Of him the historian relates that he imagined that kingdoms were ruled by the sword, and that he attempted to put this maxim into practice with dire results. Distrusting his own people, he introduced a Rajput, Medini Rai, into his State as minister. In 1517, scared by the increasing power of this man, he called in Sultan Muzaffar Shah of Gujarat to assist in his expulsion. Later on, in a fight with Medini Rai and Rana Sanga of Chitor, he was taken prisoner, but was magnanimously released. This, however, did not deter him from attacking the Rana's successor some years later, when he was again taken prisoner by the Rana's ally, Bahadur Shah of Gujarat, and put to death while attempting to escape. The Malwa dynasty thus came to an end, the kingdom being annexed to Gujarat (1531)-

In 1535 Humayun attacked Bahadur Shah and drove him out of Malwa, defeating him successively at Mandasor and Mandu. During the rule of the Suri dynasty (1540-55), Malwa was held by Sher Shah's right-hand man Shujaat Khan, known locally by the name of Shujawal Khan, the founder of Shujalpur, and on his death by his son Baz Bahadur, chiefly famous for his musical talent, and his romantic attachment to the beautiful and accomplished Rupmati of Sarangpur. In 1562 Baz Bahadur was forced to submit to Akbar, and Malwa became a Mughal province, continuing so until the eighteenth century. Abul Fazl deals with the province at some length in the *Ain-i-Akbari*. The *Si/bah* varied considerably in extent at different times. In 1594 it contained twelve *sarkars* (districts), but in 1665 it had only nine. Malwa possessed special importance from its position on the great Mughal route, along which armies marched from Delhi to the Deccan, the road passing by Dholpur, Gwalior, Narwar, Sironj, and Hindia. Among the numerous governors of Malwa during this period were prince Murad (1591), the first Nizam-ul-mulk (1719), and Maharaja Sawai Jai Singh of Jaipur (1734).

The Maráthá period of Málwá history forms the subject of Sir John Malcolm's *Central India*, where it is treated in great detail. Briefly, the Maráthás gained a permanent footing in Málwá about 1743, when the Peshwa was made deputy-governor of the *STibah*. By degrees the whole country fell to the great Maráthá generals, whose descendants still hold most of it—Sindhia of Gwalior, Holkar of Indore, and the Ponwárs of Dhar and Dewas.

In the middle of the eighteenth century the British appeared as actors on this scene; and Malwa from 1780 onwards, for a quarter of a century, was a vast battle-field where Maráthá, Muhammadan, and European struggled incessantly, until the supremacy of the British was finally established in 1818. During the next forty years the history of Malwa was comparatively uneventful; but in connexion with the Mutiny of 1857 risings took place at Indore, Mhow, Nilmach, Agar, Mehidpur, and Sehore. In 1899-1900 Malwa suffered from a severe famine, such as had not visited this favoured spot for more than thirty years. The people were unused to, and quite unprepared for, this calamity, the distress being aggravated by the great influx of immigrants from Rájputána, who had hitherto always been sure of relief in this region, of which the fertility is proverbial. In 1903 a new calamity appeared in the shape of plague, which has seriously reduced the agricultural population in some districts.

[For Málavás and Kshatrapas, see *Journal of the Royal Asiatic Society*, 1890, p. 639, 1897, p. 17, and 1899, p. 357; for Guptas and Hunas, J. F. Fleet's 'Gupta Inscriptions,' vol. iii of the *Corpus Inscriptionum Indicarum*; *Journal Asiatique*, 1883; *Journal of the Royal Asiatic Society*, 1893, p. 77, and 1897, pp. 19, 421, 850, and 852; for Paramaras, *Epigraphia Indica*, vol. i, p. 222; for Muhammadan dynasty, L. White-King, *Numismatic Chronicle* (1904).]

Málwá (2).—Tract in the Punjab, lying between 29° and 31° N. and 74° 30' and 77° E., and comprising the area south of the Sutlej occupied by the Sikhs. It includes the Districts of Ferozepore and Ludhiana, and the Native States of Patiala, Jind, Nábha, and Máler Kotla. The tract is a great recruiting ground for Sikh regiments, being in this respect second only to the Mánjha. It is said that the name is a modern one, the title of Malavá Singh having been conferred on the Sikhs of the tract for their valour by Banda, Bairági, who promised that it should become as fruitful as Malwa.

Mámandür.—Village in the Arcot *taluk* of North Arcot District, Madras, situated in 12°45' N. and 79° 40' E. Population (1901), 1,884. It is chiefly remarkable for its rock-caves. The embankment of the large tank to which the village gives its name rests upon two low hills, and in the eastern face of the more southerly of these are the excavations. They were probably the work of the Jains; and possibly

a party of monks from Conjeeveram, which is only 7 miles distant, may here have hollowed out for themselves a retreat with narrow cells into which each might retire to indulge in solitary meditation.

Mamdapur.—Historic village in the District and *tdluka* of Bijapur, Bombay, situated in 16° 32' N. and 75° 36' E., 6 miles north of the Kistna and about 22 miles south-west of Bijapur town. Population (1901), 2,232. The story goes that Muhammad (1626-56), the sixth Bijapur Sultan, wished to know what the Konkan was like. His prime minister, the celebrated Jagad-Murari, built ponds, laid out fields, and planted trees and vegetables from the Konkan on the site of Mamdapur, which so pleased the Sultan that, about 1633, he united the villages of Antapur, Barigi, Khasbagh, and Chavdapur, and named the new village after himself, fulfilling the prophecy of a saint, Kamal Sahib of Chavdapur, who had foretold the event. The saint's tomb is in the middle of the market and is highly honoured. In the shrine is the grave of another saint, Sadie Sahib of Mecca, who died here and in whose honour a fair is held yearly. There are numerous temples. Mamdapur contains two lakes made by Sultan Muhammad, when the town was built. The great lake is probably the largest existing reservoir of native construction in the Bombay Presidency. When full, its surface area is 864 acres, or 1¹/₄ square miles; the dam is 2,662 feet long, or just over half a mile, and its greatest height is 27 feet 9 inches. Except in seasons of unusual drought the water in this lake lasts throughout the year. The smaller lake, to the east of the large lake, when full has a surface area of 428 acres and a greatest depth of 12 feet; the dam is 1,180 feet long. The inscriptions cut on the dams show that both were built in 1633 at a cost of about 2 lakhs (50,000 pagodas) by Sultan Muhammad.

Mamdot Estate (*Afghanmadot*).—Estate in the Ferozepore, Muktsar, and Fazilka *tahsils* of Ferozepore District, Punjab. Area, 83 square miles of proprietary land, with 309 held in *jdgir*. It is held by the minor Nawab of Mamdot, Ghulam Kutb-ud-din Khan, a Pathan, whose ancestor Kutb-ud-din Khan held the principality of KASUR, but was expelled from it by Ranjit Singh in 1807 and retired to Mamdot, which he had conquered from the Raikot chief in 1800. His son Jamal-ud-din Khan held Mamdot as a fief of the Lahore kingdom till 1848, when he received the title of Nawab, with the powers of a ruling chief, from the British Government; but the powers thus conferred were abused by Jamal-ud-din Khan, and were therefore withdrawn, the State being annexed to British territory in 1855. It was, however, subsequently conferred as an estate on the Nawab's younger brother Jalal-ud-din Khan, who had rendered good service in 1848 and 1857. Jalal-ud-din died in 1875, leaving a minor son, by name Nizam-ud-din Khan, and the estate was managed by the

Court of Wards until 1884, when the ward came of age and took charge of it. He died in 1891, leaving an infant son and the estate heavily involved in debt. It is now again under control of the Court of Wards, and the young Nawab is being educated at the Aitchison College, Lahore. The gross income of the estate, which is the finest in the Punjab, is now Rs. 3,80,000. It owes its prosperity mainly to the Grey Canals.

Mamdot Village.—Village in Ferozepore District, Punjab, and former capital of a State, situated in $30^{\circ} 53' \text{ N.}$ and $74^{\circ} 26' \text{ E.}$, on the open plain, about 2 miles south of the Sutlej. Population (1901), 2,631. The walls rise to a height of 50 feet, and have a rectangular form, with a round tower at each corner and in the middle of each face. More than two-thirds of the fort was carried away in 1877-8 by the Sutlej, and a branch of that river now flows under the walls of the remainder. Anciently known as Muhammadot, it formed the centre of an *ilaka*, which became depopulated during the Mughal period and was occupied by the Dogars about 1750. Shortly afterwards, the Dogars made themselves independent, but were reduced to subjection by Sardar Subha Singh, a Sikh chieftain. With the assistance of the Rai of Raikot, they expelled the Sikhs; but the Rai made himself supreme at Mamdot, and the Dogars then revolted with the aid of Nizam-ud-din and Kutb-ud-din of Kasur. Nizam-ud-din was murdered by his three brothers-in-law, whom he had ousted from their *jagirs*. Kutb-ud-din eventually submitted to Ranjit Singh, relinquishing Kasur, but retaining Mamdot in *jagir* subject to the service of 100 horse. Nizam-ud-din's son received a corresponding *jagir* in Gogaira, but laid claim to Mamdot. With the Dogars' aid he expelled Kutb-ud-din, but was finally recalled by the Maharaja, who confirmed Jamal-ud-din, son of Kutb-ud-din, in the succession. Jamal-ud-din sided openly with the Sikhs in 1845, but rendered certain services towards the close of the campaign to the British Government, which requited him by maintaining him in possession of Mamdot as a protected chief with the title of Nawab. Jamal-ud-din, however, was guilty of serious misgovernment, and the Dogars especially, having incurred his resentment, suffered grave oppression. The British Government therefore, after an inquiry, deposed him in 1855, and annexed his territory. His estates were in 1864 conferred on his brother Jalal-ud-din, to the exclusion of his sons. The present Nawab, Ghulam Kutb-ud-din, who succeeded in 1891, is the grandson of Jalal-ud-din.

Man.—*Tahika* of Satara District, Bombay, lying between $17^{\circ} 27'$ and $17^{\circ} 56' \text{ N.}$ and $74^{\circ} 17'$ and $74^{\circ} 53' \text{ E.}$, with an area of 629 square miles. It contains one town, MHASVAD (population, 7,014), and 76 villages. The head-quarters are at Dahivadi. The population in 1901 was 64,889, compared with 62,857 in 1891. It is the most

thinly populated *tdluka* in the District, having a density of only 103 persons per square mile. The demand for land revenue in 1903-4 was Rs. 92,000, and for cesses Rs. 7,000. The climate is decidedly hotter than the rest of the District, which is chiefly due to the low level of the *tdluka* and the fact of its being shut in on three sides by hills. Towards the north-west the hills form picturesque groups, their highest peaks crowned by the Varugarh and Tathvada forts, and to the east of Dahivadi is a fine gorge, traversed by streams; but, except for a sparsely-wooded tract near the Man river, the country is barren, rocky, and desolate. The annual rainfall, which averages 20 inches at Dahivadi, is variable and scanty, and hardly suffices for the proper cultivation of the small area of black soil in the *tdluka*.

Mana.—Village in Garhwal District, United Provinces, situated in 31° 5' N. and 79° 26' E., on the Saraswatī, an affluent of the Bishan-ganga, 10,560 feet above sea-level. It lies close to a pass of the same name, also known as Chirbitya-la or Dungri-la, which has an elevation of 18,650 feet. Though very lofty, it is one of the easiest passes into Tibet from the south, and is therefore much used by Hindu pilgrims to Lake Manasarowar. The village is chiefly inhabited by Bhotia traders with Tibet.

Manaar, Gulf of.—A portion of the Indian Ocean, bounded on the west by Tinnevely and Madura Districts in the Madras Presidency, on the north by the ridge of rock and islands known as Adam's Bridge, and on the east by the coast of Ceylon. It lies between 8° and 9° N. and 78° and 80° E. Its extreme breadth from Cape Comorin, the southernmost point of India, to Point de Galle, the southernmost point of Ceylon, is about 200 miles. The gulf abounds in dangerous shoals and rocks at the northern extremity, and is exposed to the fury of both the monsoons, being quite open towards the south-west and only partially protected by the Ceylon coast on the north-east.

Manabum.—Range of hills on the extreme eastern frontier of Lakhimpur District, Assam, lying between 27° 30' and 27° 47' N. and 95° 54' and 96° 18' E. These hills are an outlying spur of the mountain country occupied by the Singphos and Khamtis, and mark the eastern limit of the administrative jurisdiction of the British Government.

Manantoddy.—Village in the Wynaad *tdiluk* of Malabar District, Madras, situated in 11° 49' N. and 76° E. Population (1901), 2,000. It is the head-quarters of the divisional officer and *tahsildar*, and of one of the two Forest officers of the District.

Manar, Gulf of.—Gulf between India and Ceylon. See *Manaar, GULF* of.

Manargudi.—Subdivision, *taluk*, and town in Tanjore District, Madras. See *MAXXARGUJI*.

Manas.—River of Assam, which rises in the Bhutan hills and

enters the valley of the Brahmaputra at the point where the Districts of Kamrup and Goalpara meet. It once formed the boundary between these, but its channel is subject to frequent changes, and the greater part of its present course lies within Goalpara. The principal tributaries are : on the right bank, the Makra, Dulani, Ai, Pomajan, Bhandura, and Koija; and on the left bank, the Chaulkhoa. The banks are, as a rule, covered with jungle; and the river is not much used as a trade route above its junction with the Chaulkhoa, though boats of 4 tons burden could probably go as far as Mowkhoa at all seasons of the year. Some damage is caused by the floods of an old channel known as the Mora Manas. The total length of the Manas is about 200 miles.

Manasa.—Town in the Rampura-Bhanpura district of Indore State, Central India, and head-quarters of the *pargana* of the same name, situated in 24° 29' N. and in 75° n' E., 1,440 feet above sea-level. Population (1901), 4,589. The town is said to have been founded by Mana Patel of the Mina tribe. From an inscription in the temple to Kherapati, it must have been in existence in the twelfth century. In 1749 it was held by Raja Madho Singh of Jaipur, falling to Holkar in 1752 with the Rampura district. Besides the *pargana* offices, a school, a dispensary, a State post office, and an inspection bungalow are situated in the town.

Manauli.—Estate in the Kharar and Rupar *tahsils* of Ambala District, Punjab, with an area of 11 square miles. It was the principal *jagir* held till recently by a member of the Faizullahpuria or Singhpuria family, which was one of the twelve great Sikh *mis* or confederacies. Founded early in the eighteenth century by Kapur Singh, a Jat of Amritsar District, the family played a great part in the Jullundur Doab under his great-nephew, Budh Singh. In 1811, however, the Singhpurias were expelled from their territories north of the Sutlej by Ranjit Singh's generals, and confined to the estates south of that river, which they still hold. From 1809 to 1846 the family ranked as independent protected chiefs, but they lost their status in the latter year. The last owner, Sardar Raghubir Singh, held 81 villages in *jagir*. These yield a net revenue of Rs. 36,000, and the Sardar had also other estates. After his death in 1904, the *jagir* was divided among a number of his relatives.

Manaung. — Island forming part of Kyaukpyu District, Lower Burma. See CHEDUBA.

Manavadar(or Bantva-Manavadar).—State in the Kathiawar Political Agency, Bombay, lying between 21° 23' and 21° 41' N. and 70° 2' and 70° 23' E., with an area of 90 square miles. The population in 1901 was 14,478, residing in 23 villages. The revenue in 1903-4 was Rs. 2,35,447, and 83 square miles were cultivated. Manavadar

ranks as a third-class State in Kathiawar. The ruling family is Musalman, and is descended from a younger son of the second Nawab of Junagarh, to whom the Bantva territory was made over in 1740. Engagements to keep order and remain at peace were entered into with the British Government in 1807. There are two sharers with the ruling chief, both holding the title of Babi, one of whom resides at Sardargarh and the other at Bantva.

Manavan.—Petty State in KATHIAWAR, Bombay.

Manbhūm.—District in the Chota Nagpur Division of Bengal, lying between $22^{\circ} 48'$ and $24^{\circ} 4'$ N. and $85^{\circ} 49'$ and $86^{\circ} 54'$ E., with an area of 4,147 square miles. It is bounded on the north by Hazaribagh and the Santal Parganas; on the east by Burdwan, Bankura, and Midnapore; on the south by Singhbhum; and on the west by Ranchi and Hazaribagh. The whole of the northern boundary is marked by the Barakar river; on the north-east, the Barakar and Damodar rivers separate the District from Burdwan; while the Subarnarekha flows along the boundary for short distances on the west and south.

Manbhūm District forms the first step of a gradual descent from the table-land of Chota Nagpur to the delta of Lower Bengal. The undulation so characteristic of Chota Nagpur here

Physical becomes less pronounced, and level tracts of considerable extent are of frequent occurrence. In the north and east the country is open, and consists of a series of rolling downs, dotted here and there with isolated conical hills. During the hot season the scarcity of trees gives to this part of the country a scorched and dreary appearance; but in the rains the fresh green of the young rice and the varying foliage of the low jungle form contrasts of colouring with the soil, and the scenery assumes a park-like aspect. In the west and south the country is more broken and the scenery far more picturesque. Here the Baghmundi range striking out from the plateau of Chota Nagpur, and farther to the south the Dalma range dividing Manbhūm from Singhbhum, stand up as commanding features in the landscape. These hills are covered almost to their summits with large and heavy forest. The principal hills are Dalma (3,407 feet), the highest peak of the range of that name; Panchkot or Panchet (1,600 feet), situated to the north-east of Purulia; and Gangabari or Gajburu, the highest peak of the Baghmundi plateau, situated about 20 miles south-west from Purulia. The principal river is the Kasai, which flows through the District from north-west to south-east and then turns almost due south as it passes into Midnapore; the total length of its course is about 171 miles. Just above Raipur the Kasai forms rapids and several picturesque waterfalls of no great height. The DAMODAR flows

through Manbhum in an easterly direction with a slight inclination to the south. Its chief tributary, the Barakar, has already been mentioned as forming part of the north-eastern boundary of the District, and the Subarnarkkha as dividing it on the west and south from Ranchi and Singhbhum. The only other rivers of any importance are the Dhalkisor, which rises in the east of Manbhum and after a short south-easterly course enters Bankura; and the Silai, also rising in the east of the District and flowing south-east into Bankura.

The geological formations are the Archaean and the Gondwana. The Archaean rocks consist of gneiss and crystalline schists, the gneiss occupying by far the largest portion of the District. It belongs principally to the group known as Bengal gneiss, which is remarkable for its varied composition, consisting of successive bands of intermixed granitic, granulitic, and dioritic gneisses, and micaceous chloritic and hornblendic schists, with a laminated or foliated structure striking usually east and west. About the centre of the District is a great belt of unfoliated or only slightly foliated granitic intrusions, also striking east and west, and extending westwards into the adjacent District of Ranchi. Crystalline limestones occasionally occur. Along the southern boundary there exists a group of rocks resembling the Dharwar schists of Southern India, which were originally sedimentary and volcanic, but have been altered into quartzites, quartzitic sandstones, slates of various kinds, hornblendic mica, and talcose and chloritic schists, the latter passing into potstones, green stones, and epidiorites.

Quite close to the southern boundary of Manbhum the schists are invaded by a gigantic dike of basic igneous rock, forming an imposing east and west range which culminates in the lofty Dalma hill. The schists are here more metamorphosed than elsewhere, with a considerable development of iron ores; in this neighbourhood, moreover, the rocks are richest in gold.

The Gondwanas, whose age as determined by fossil plants is partly upper palaeozoic and partly mesozoic, are the principal rocks from an economic point of view. They occur along the Damodar river and form the Ranlganj coal-field, the western portion of which lies in Manbhum, and the rich Jherria coal-field almost entirely situated within the District. The Gondwana rocks comprise the Mahadeva, Panchet, Ranlganj, ironstone shales, Barakar, and Talcher divisions, of which all but the first belong to the Lower Gondwanas. The series consists throughout almost exclusively of shales and sandstones. The coal seams are restricted to the Barakar and Ranlganj divisions.

The coal-fields owe their preservation from denudation and their

present situation to a system of faults that has sunk them amidst the surrounding gneiss. The faults are easily recognized along their boundaries, especially on the south, and sulphurous hot springs are often situated in their neighbourhood. Innumerable fissures are occupied by intrusive dikes of basalt and of mica-apatite-peridotite, the latter being frequently detrimental to the coal seams, which have often been burnt away by it. These intrusions are of the same age as the volcanic rocks of the Rajmahal hills¹.

The narrower valleys are often embanked for rice cultivation, and the rice-fields and their margins abound in marsh and water plants. The surface of the plateau land between the valleys, where level, is often bare and rocky, but where undulating is usually clothed with a dense scrub jungle, in which *Dendrocaryum strictus* is prominent. The steep slopes of the higher hills are covered with a dense forest mixed with climbers. *Sal* (*Shorea robusta*) is gregarious; among the other noteworthy trees are species of *Buchanania*, *Semecarpus*, *Terminalia*, *Cedrela*, *Cassia*, *Butea*, *Bauhinia*, *Acacia*, and *Adina*, which these forests share with similar ones on the lower Himalayan slopes. Mixed with these, however, are a number of characteristically Central India trees and shrubs, such as *Convolvulus*, *Sonchum*, *Boswellia*, *Hardwickia*, and *Bassia*, which do not cross the Gangetic plain. One of the features of the upper edge of the hills is a dwarf palm, *Phoenix acaulis*; while the wealth of scarlet blossom in the hot season produced by the abundance of *Butea frondosa* and *B. sinensis* is also striking.

Tigers, leopards, bears, wolves, hyenas, deer, and wild dogs were formerly common, but are now decreasing in numbers, tigers being very rare visitors. The short-tailed Indian pangolin (*Manis pentadactyla*), which owing to its peculiar habits is one of the least-known quadrupeds in India, is occasionally found in the jungles bordering on Singhbhum.

Temperature is moderate, except during the hot months of April, May, and June, when the westerly winds from Central India cause great heat with very low humidity. The mean temperature increases from 82° in March to 89° in April, May, and June, the mean maximum from 95° in March to 101° in May, and the mean minimum from 68° to 76°. The annual rainfall averages 53 inches, of which 8·9 inches fall in June, 13·4 in July, 13·2 in August, and 7·8 in September.

¹ The Archaean series has been described by V. Ball, *Memoirs, Geological Survey of India*, vol. xviii, pt. ii; the Raniganj coal-field by A. Y. T. Blanford, *Memoirs*, vol. iii, pt. i; the Jherria coal-field by Th. Ilghes. *Memoirs*, vol. v, pt. iii, and by Th. Ward, *Records, Geological Survey of India*, vol. xxv, pt. ii; the mica-apatite-peridotites by T. H. Holland, *Records*, vol. xxvii, pt. iv.

The above account was contributed by Mr. F. Yrdenburg of the Geological Survey of India.

HISTORY

The distinctive tribe of the District is the Bhumij, who are closely allied to the Mundas and have been identified with the Bajra Bhumi of Jain legendary history. The ancient Jains have left their traces in the ruins of temples near Purulia and several places along the course of the Kasai and Damodar rivers : but we have no authentic records of this part of the country till Muhammadan times, when it was regarded as part of the Jharkand or ' forest tract,' which is the name given in the *Akbarnama* to the whole region from Blrbbum and Panchet to Ratanpur in the Central Provinces and from Rohtasgarh in South Bihar to the frontier of Orissa. In the *Badshahnama* the *zamindar* of Panchet is shown as a commander of horse under Shah Jahan, and his *zamindari* was subject to a fixed *peshkash*. The territory comprised in the present District of Manbhum was acquired by the British with the grant of the Dlwani of Bengal, Bihar, and Orissa in 1765. Up to 1805 the estates contained in it were attached, some to Blrbhum and some to Midnapore ; but in that year they were formed with a few others into a separate District called the Jungle Mahals. In 1832 one Ganga Narayan, a claimant to the Barabhum estate in this District, rose in rebellion, but was driven to Singhbhum, where he died. As a result of these disturbances, a change of administration was determined upon, and by Regulation XIII of 1833 the District of the Jungle Mahals was broken up ; the estates of Senpahari, Shergarh, and Bishnupur were transferred to Burdwan, while the remainder, with the estate of Dhalbhum detached at the same time from Midnapore, were formed into the present District of Manbhum, which was withdrawn from the regular system of administration and placed under an officer called the Principal Assistant to the Agent to the Governor-General for the South-West Frontier. Subsequently, by Act XX of 1854, his title was changed to Deputy-Commissioner, and that of the Governor-General's Agent to Commissioner of Chota Nagpur. Dhalbhum had again been transferred to Singhbhum eight years previous to this, and the District of Manbhum was reduced to its present area by further transfers of minor importance in 1871 and 1879. When the District was first constituted, the civil station was fixed at Manbazar, but it was transferred to Purulia in 1838. During the Mutiny of 1857 the military garrison at Purulia, which consisted of 64 sepoys of the Ramgarh battalion and 12 *sowars*, all Hindustanis, plundered the treasury, released the prisoners in the jail, burnt the records, and then marched off towards Ranchi.

The District contains several interesting archaeological remains. The most ancient of these are ascribed to the Jain Saraks, including ruins at Palma, Charra, Pakbira, where a temple, belonging probably to the seventh century, contains a statue of the Jain hierarch Arnanath,

and Deoli, where there is a group of temples, one containing a fine Jain figure now also known as Arnanath. Instances of early Brahmanical architecture occur in the villages of Para and Katras. A group of temples at Telkupi on the Damodar belongs apparently to the early part of the Muhammadan period. Other interesting ruins exist at DALMI, BORAM, and PAXCHET.

The population increased from 820,521 in 1872 to 1,058,228 in 1881, to 1,193,328 in 1891, and to 1,301,364 in 1901. This rapid growth is

Population due to the healthiness of the climate and the fecundity of the aboriginal tribes who form the majority of the inhabitants; in 1881 it was also due in part to better enumeration, while recently the natural increase has been assisted by the opening up of the country by railways and the growth of the coal industry. Blindness and leprosy are exceptionally common.

The principal statistics of the Census of 1901 are shown below :—

Subdivision.	Population in 1901	Number of males	Number of females	Percentage variation in population between 1891 and 1901	Number of persons able to read and write.
Purulia	3,344	1,423	1,921	+ 5.4	42,323
Gobindpur.	503	245	258	+ 25.1	10,410
District total	4,147	1,668	2,479	+ 9.7	52,427

The three towns are Purulia, the head-quarters, Jhalida, and Raghunathpur. The density is greatest in the alluvial tract along the banks of the Damodar; in the broken country in the north-west and south the inhabitants are fewer, except in the neighbourhood of the Jherria coal-field, where the mines attract large numbers of coolies. The Jherria and Topchanchi *thanas* in the north-west, which contain the greater number of the collieries, grew by 75 and 30 per cent, respectively during the decade ending 1901, accounting between them for over 45 per cent, of the total increase. A large number of immigrants, chiefly from Hazaribagh, Bihar, and the United Provinces, come to work in the mines; but the emigrants, more than half of whom were enumerated in Assam, exceed the immigrants by over 74,000. The vernacular of the District is the western dialect of Bengali known as Rarhi *bo/i*. Along the western border this merges into Hindi, the dialect spoken being locally known as Karmali or Khotta, or even Khotia Bangala. Santal is spoken by 182,000 persons. Hindus number 1,132,619, or 87 per cent, of the total; Animists, 103,011, or 7.9 per cent.; and Muhammadans, 62,799, or 4.8 per cent.

The aboriginal element is strongly represented, the most numerous tribes being the Santals (195,000, of whom 96,000 were returned as

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Hindus, and 99,000 as Animists), BHUMIJS (109,000), and Koras (22,000). Many of the lower Hindu castes consist to a great extent of aboriginal elements; such are the Bauris (99,000), Bhuiyas (37,000), Raj wars (32,000), and Dorns (19,000), and probably also the Kurmls (241,000), the most numerous caste in the District. Agriculture supports 67 per cent, of the population, industries 11-7 per cent., and the professions 1-3 per cent.

Christians number 2,910, of whom 2,599 are natives. The German Evangelistic Lutheran Mission, which began work in 1864, maintains schools and also works among the lepers ; while a mission of the Free Church of Scotland in the Gobindpur subdivision has a community of 700.

The surface consists of a succession of rolling uplands with intervening hollows, along which the drainage runs off to join the larger streams. The soil is for the most part composed of hard, dry, ferruginous gravel, which has been furrowed Agriculture, into countless small channels by the discharge of surface drainage : but many of the lower levels are filled with good alluvial soil. The lower slopes of these uplands, and the swampy ground between, supply the only land on which a wet rice crop can be grown without elaborate levelling and embanking. The hill-sides, when terraced for rice cultivation, present the appearance of a series of steps varying from 1 to 5 feet in height. In some cases the beds of streams are banked up at intervals and made into long narrow rice fields.

The chief agricultural statistics for 1903-4 are shown below, areas being in square miles :—

Subdivision.	Total.	Cultivated.	Cultivable waste.	Forest.
Purulia . . .	3,34+	1,455	161	11
Gobindpur . .	503	470	51	4
Total	4,147	1,925	212	15

It is estimated that 10 per cent, of the cultivated area is twice cropped. The most important staple is rice, which covers an area of 1,428 square miles. Two principal crops are grown : the *nudn* or *aits*, which is sown broadcast as soon as possible after the first good fall of rain and reaped at the end of September; and the *haimantik* or *jiman*, which is sown in a nursery about the end of May and afterwards transplanted and finally reaped from November to January. A third but less important crop, the summer rice or *goradha/i*, is sown broadcast in May on table-lands and tops of ridges, and is reaped in August. The first two crops are grown only on lands where there is a good supply of water. Other important cereals are maize grown on

172 square miles, *niarua*, *bajra*, wheat, and barley. Green crops and pulses—including gram, *viung*, *kalai*, *rahar*, peas, *khesari*, beans, *kurthi*, and *masurl*—are cultivated on 245 square miles. Among oilseeds rape and mustard are grown on 52 square miles, and *til* on about 16 square miles. Some sugar-cane, cotton, and tobacco are also grown. Rotation of crops is practised to a very limited extent. Manure is used for all crops to which the cultivator can afford to apply it. It usually consists of cow-dung, ashes, decayed leaves and grass, and black mud mixed with decayed vegetable matter gathered from the bottoms and sides of stagnant pools and tanks.

There is an ever-increasing demand for land; and, in spite of the unusual amount of labour required to bring fresh fields under cultivation, reclamation is steadily proceeding under the tenures known as *nayabddi* and *jalsasan*. The proportion of uncultivated waste is still high, but it is estimated that during the decade ending 1901-2 there was an increase of 60 per cent, in the area under crops. Little advantage is taken of the provisions of the Land Improvement and Agriculturists' Loans Acts, but during the lean years 1896-8 about Rs. 86,000 was advanced under the provisions of these Acts.

The local cattle are small, but a larger variety is sometimes obtained by cross-breeding with large Hazaribagh bulls. Regular pasture-grounds are rare; but sufficient rice straw is kept in stock by the ryots for fodder during the hot months, and after the break of the rains the extensive waste lands of the District afford ample pasturage. Fairs are held annually at Chakultor, south of Purulia, in September for a month, and at Anara on the Purulia-Barakar road for about twenty days in April.

The surface drainage is rapid and the soil dries up quickly; irrigation of some kind is thus essential for most crops. There are no canals or other artificial water-courses, but there is a very large number of tanks and *ahars*. The latter are reservoirs, often of considerable size, constructed by running a dam across a ravine or dip, thereby holding up the natural surface drainage. The fields below the dam are kept continually moist by the percolation of the water.

There are two small 'protected' forests, but no revenue is derived from them. The predominant tree is *sal* (*Shorea robusta*). The principal minor jungle products are lac, catechu, *sabai* grass, and *tasar* silk cocoons. Lac rearing forms the occupation of a large section of the population. The best variety is produced on *kusum* trees (*Schleic/iera trijuga*), and inferior qualities on *ber* (*Zizyphus Jujuba*) and *palds* (*Butea frotidosa*). The chief edible jungle products are the flowers of the *viahua* (*Bassia latifolia*) and the fruits of the *ber* and *singhara* (*Trapa bispitiosa*).

The most important mineral in Manbhum is coal, which is mined

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on a large scale in the Gobindpur subdivision. The Jherria coal-field occupies an area of about 180 square miles, and a portion of the Raniganj-Barakar field also extends into the District. .

Coal had long been known to exist in Manbhum, ^Minerals.

but as recently as 1891 only two mines were being worked, with an output of 78,000 tons. The Jherria field was tapped by the railway in 1894 ; and the output of coal from the collieries of the District rose from 129,000 tons in that year to 1,281,000 tons in 1895, nearly the whole of the increase coming from the Jherria field. After a short period of depression in the two following years the industry has grown steadily, and in 1903 as many as 141 collieries were at work : namely, 115 in the Jherria field and 26 in the Raniganj field, with outputs of 2,746,000 tons and 246,000 tons, and giving employment to 28,000 and 3,000 persons respectively. The most important concerns are those of the Barakar Coal Company, Jardine Skinner & Co., the Standard Coal Company, Agabeg Brothers, MacLeod & Co., Turner Morrison & Co., the Raniganj Coal Association, the Bengal Coal Company, and the Bengal-Nagpur Coal Company.

Steam-power is generally used in the Raniganj field, but only in twenty-four collieries in the Jherria field, where good coal is often found very near the surface and the roof in many instances is of hard stone, and the system of working by means of inclines is practicable. Shafts are never of the depths common in most collieries in England, and the mines are consequently free from the danger arising from gas ; the deepest shaft in the Jherria field is one of 320 feet belonging to the Bhaga colliery.

Many of the labourers employed are local residents, but a large number also come from Hazaribagh; they generally belong to the aboriginal tribes or low Hindu castes. The relations between capital and labour appear to be on the whole satisfactory, and as the demand for labour is very great, a colliery manager has every inducement to treat his miners well; they are generally paid by piece-work at rates varying from 12 annas to Rs. 1-4 per 100 cubic feet of coal raised, the wages earned usually amounting to 7 or 8 annas a day.

About three-fourths of the coal produced is purchased by large European firms who carry it by rail to Calcutta. A small quantity is used by mills and steamships there; but by far the greater portion is shipped to Bombay, Karachi, Madras, Penang, Singapore, and other ports. About one-fourth of the output is consumed by different railways and by mills in the Upper Provinces.

A clay ironstone, constituting a large proportion of the ironstone shales, is especially rich and plentiful in the Raniganj coal-field, where it is sometimes associated with carbonaceous matter forming a black-band iron ore. Among the gneissose and schistose rocks there are

magnetic and titaniferous iron ores. Red hematite occurs in the siliceous fault breccias of the same areas, and lateritic iron ores also exist. The rocks on the southern boundary of the District constitute part of the northern edge of the auriferous tract of Chota Nagpur. They are traversed by innumerable gold-bearing quartz veins, from which has been derived the alluvial gold obtained in all the rivers that drain the schist area. The Patkum prospecting syndicate attempted to work the gold on an extensive scale, but failed, and the careful investigation to which the area has been subjected of late years leaves very little hope of extracting the gold at a profit. A vein of argentiferous galena occurs about a mile east of Dhadka, in the south-east of the District. Several small soapstone quarries are worked, and rubble, quartz, ka,7ikar, sandstone, trap, and basalt are also quarried.

Shellac is largely manufactured, especially in the Jhalida and Balarampur *t/ldnas*, and 54 factories employing 1,400 hands were at work in 1903-4. The manufacture of *tasar* silk is carried on ^{Trade and communications.} ^{on chjeflv in.} ^{in.} Raghunathpur *thana*, and was formerly an important industry ; but in 1903-4 the estimated out-turn was only 16,000 yards. Coarse cotton cloths are woven all over the District, and are preferred by the lower classes to the imported machine-made article on account of their superior durability. Brass and bell-metal utensils and rough brass ornaments are also manufactured in several places. Soapstone found in the Chandil *thana* is made into cups, images, &c., but the industry is small. An inferior quality of rope is made from *sabai* grass, which grows extensively in the Patkum, Baghmundi, Barabhum, and Hesla *jfrarga?ias*. Cutlery and guns are made at Jhalida.

The chief exports are coal and coke; and the chief imports are salt, rice, gram, pulses, kerosene oil, cotton twist and cotton piece-goods, molasses, sugar, and tobacco. Most of the imports come from Calcutta and Burdwan, with the exception of gram, pulses, tobacco, and molasses, which come chiefly from Bihar. The coal exported by rail in 1903-4 amounted to over 2,000,000 tons, of which nearly three-quarters was sent to Calcutta and Howrah. The principal trade centres are Purulia, Jhalida, Chas, Raghunathpur, Chandil, Chirkunda, Gobindpur, Manbazar, Ichagarh, Barabazar, Dubra, and Nirsar. Most of the external trade is carried on by rail; bullock-carts are extensively used for local traffic. The greater part of the trade is carried on by Marwaris and Gandhabaniks.

The Bengal-Nagpur Railway traverses the head-quarters subdivision from north-east to south-west. The Jherria extension of the East Indian Railway with its numerous sidings connects the coal-fields of the Gobindpur subdivision with Asansol and Calcutta, and has been carried on to Bankura and Midnapore, intersecting the Bengal-Nagpur

Railway at Adra station. Another line recently constructed links up Jherria with Gaya. The District contains 818 miles of road, of which 682 miles are under the control of the District board and the remainder are Provincial, 59 miles being maintained by the District board and 77 being in charge of the Public Works department. The Provincial roads, of which 119 miles are metalled, include 41 miles of the grand trunk road in the Gobindpur subdivision, 42 miles of the Purulia-Barakar road, and 36 miles of the Purulia-RanchI road. Of the District board roads 363 miles are metalled, the principal being those from Purulia to Chaibasa, Manbazar, and Bankura, and from Raghunathpur to Raniganj. The District board maintains six ferries on the more important roads.

The undulating character of the surface and the consequent rapid drainage render Manbhum peculiarly liable to drought, and it suffered severely during the general famines of 1866, 1874, and 1897. The distress in 1866 was felt over almost the whole District. Rice rose to the excessively high price of 3[^] seers to the rupee in the month of August, and in the affected area as many as 33,296 persons, or 6.55 per cent, of the population, died from starvation and its indirect effects. In 1874 the north and north-east of the District suffered most. In addition to a cash expenditure of 2.7 lakhs, more than 8,000 tons of grain was distributed by Government, and thus the price of rice never exceeded the rate of 12 seers to the rupee. The famine of 1897 was felt over the greater part of the District, but was most intense in the Gobindpur subdivision. The price of grain was highest in July, when rice sold at 7 seers to the rupee. The total expenditure on relief works amounted to 2.8 lakhs, and Rs. 42,000 was spent in advances for village works. The aggregate number of persons relieved on works, expressed in terms of one day, was 1,311,569, and 1,456,105 persons received gratuitous relief.

For administrative purposes the District is divided into two subdivisions, with head-quarters at Purulia and Gobindpur. Subordinate to the Deputy-Commissioner at Purulia is a ... • staff of five Deputy-Magistrate-Collectors; the sub- ^ ministration, divisional officer of Gobindpur is assisted by a Sub-Deputy-Collector.

The chief civil court is that of the Judicial Commissioner of Chota Nagpur. For the disposal of civil work a Subordinate Judge and two Munsifs sit at Purulia, and a Munsif each at Raghunathpur and Gobindpur. The Munsif of Raghunathpur also tries rent suits under Act X of 1859, and exercises the powers of a third-class magistrate. Deputy-Collectors try rent suits under Act N of 1859 at 1 'mulia and Gobindpur. The Deputy-Commissioner exercises special powers under section 34 of the Criminal Procedure Code. As Additional Sessions Judge of Chota Nagpur, the Sessions Judge of Bankura tries all

sessions cases and criminal appeals arising within Manbhum and Singhbhum; for the disposal of sessions cases he sits at Purulia, and for the hearing of appeals sometimes at Purulia and sometimes at Bankura. Of late years Manbhum has been notorious for the number of dacoits it shelters; in 1905 more dacoities were committed than in any other Bengal District. These crimes are confined mainly to the coal-fields, and are the work of up-country criminals who congregate there.

At the time of the Permanent Settlement the smaller chiefs in Manbhum were considered to be independent landholders and were admitted to separate settlements. Succession to land follows the custom of primogeniture; there has thus been no subdivision of property, and in 1903-4 there were in all only 29 revenue-paying estates with a current demand of Rs. 84,000; of these all but two are permanently settled, the largest being Panchet with a demand of Rs. 58,000. The Permanent Settlement was extended to the District at a time when it was unprepared for such a measure, and the assessment is therefore disproportionately light, amounting to only R. 0-1-x per cultivated acre. Special tenures are the *ghatwali* and other service tenures, maintenance grants to the younger members of a *zamindar's* family, and *manki* and *murari* tenures, a survival of the aboriginal village system (see Kolhan). The *ghatwals* hold a certain quantity of land on a quit-rent, as a remuneration for police duties which they are required to perform on behalf of Government. Other service tenures are those of the *jdgirddrs* in Panchet, who retain one-third or more of the produce of the villages included in their holdings; *goraiti* tenures, or grants made to the *gorait* or village messenger; and *Idydli* grants made to *layas* or priests of the aboriginal deities. Petty service, or *chdkrdn*, grants with no specific name are often made to barbers, potters, washermen, smiths, and others performing menial services for their landlords: as a rule, they are given free of rent.

Maintenance tenures granted for the support of the younger members of a Raja's or *zamindar's* family are of two kinds, *khorphosh* and *hikimdli*. The latter, which are confined to the Barabhum and Manbhum *parganas*, are grants of land assigned for the maintenance of the *hikim* or second brother and the *kitnwdr* or third brother of the *zamtnddr* for the time being. On the death of the *zamtnddr*, the brothers of his successor take up the lands attached to the office of *hikim* or *kumvdr*, and perform the services in consideration of which those lands are held. A *hikimdli* tenure is thus dependent on the life of the *zamindar* and not on that of the tenure-holder. But each *zamlnddr*, when he succeeds to the estate, is bound to make suitable provision in the form of ordinary *khorphosh* grants for the *hikims* who have vacated the *hikimdli* grants derived from their relationship to his predecessor.

Such maintenance grants are held during the life of the grantees, and are liable to lapse at their death to the parent estate. The incidence of cental for the whole District is estimated at Rs. 1-12-3 ^{Per} cultivated acre : but owing to the fact that land is seldom assessed on measurement, any statement of rates is only an approximation. In Barabhum the generally accepted rates of rent payable by the cultivator to his landlord are Rs. 4-12-9 per acre of *bahal* or low-lying rice-land ; Rs. 3-9-7 per acre of *kandli* or moderately high rice-land; Rs. 2-6-5 per acre of *baid* or high land ; Rs. 1-3-2 per acre of *gord* or the worst class of land. A substantial cultivating ryot pays about Rs. 2-2 for his *bastu* or homestead land, a non-cultivating ryot Rs. 1-1, and a ryot of the poorer class about 8[^] annas. Similar rates prevail in the other *parganas* in the south of the District, but in Panchet and in other estates in the north they are from 50 to 100 per cent, higher.

The following table shows the collections of land revenue and total revenue (principal heads only), in thousands of rupees :—

	1880-1.	1890-1.	1900-1.	1901-2.
Land revenue .	83	52	50	54
Total revenue .	3,07	4,25	6,97	7,1

Outside the municipalities of Purulia, Jhalidâ, and Raghunâthpur, local affairs are managed by the District board, with a subordinate local board at Gobindpur. In 1903-4 its income was Rs. 1,42,000, half of which was derived from rates ; and the expenditure was Rs. 1,19,000, including Rs. 74,000 spent on public works and Rs. 32,000 on education.

The District contains 24 police stations or *thdnais* and 3 outposts. In 1903 the force subordinate to the District Superintendent consisted of 3 inspectors, 36 sub-inspectors, 24 head constables, and 297 constables. In addition, there was a rural police force of 4,360 *chaukiditrs*, of whom 1,720 held service tenures, and 1,972 *ghdtwd/s* of different grades. The District jail at Purulia has accommodation for 276 prisoners, and a subsidiary jail at Gobindpur for 32.

The District is very backward in respect of education, and in 1901 only 4-0 per cent, of the population (7*7 males and 0-3 females) could read and write. The number of pupils under instruction increased from 10,563 in 1883 to 15,578 in 1892-3 and to 20,535 in 1900-1. In 1903-4, 24,751 boys and 2,058 girls were at school, being respectively 25*2 and 2* 1 per cent, of the children of school-going age. The number of educational institutions, public and private, in that year wa[^] 799, including 26 secondary, 761 primary, and 12 special schools. The expenditure on education was Rs. 1,28,000, of which Rs. 14,000 was met from Provincial funds, Rs. 32,000 from District funds, Rs. 600

from municipal funds, and Rs. 51,000 from fees. The chief educational institution is the Purulia Government school.

In 1903 the District contained 8 dispensaries, of which 5 had accommodation for 64 in-patients. The cases of 41,000 out-patients and 641 in-patients were treated during the year, and 1,623 operations were performed. The expenditure was Rs. 12,600, of which Rs. 800 was met from Government contributions, Rs. 2,000 from local and Rs. 6,000 from municipal funds, and Rs. 5,300 from subscriptions. A leper asylum 2 miles south-west of Purulia town is managed by the German Evangelical Lutheran Mission. Its grounds cover about 400 acres and it has 509 inmates, including 83 children. Untainted children of leprous parents are received in a special home at some distance from the asylum.

Vaccination is compulsory only in municipal areas. In 1903-4 the number of persons successfully vaccinated was 39,000, or 30·7 per 1,000 of the population.

[Sir W. W. Hunter, *Statistical Account of Bengal*, vol. xvii (1877); F. B. Bradley-Birt, *Chota Nagpur* (1903).]

Manchar.—Village in the Khed *taluka* of Poona District, Bombay, situated in 19° N. and 73° 57' E., on the right bank of the Ghod, about 12 miles north of Khed town. Population (1901), 5,300. The place is surrounded by a wall and belonged to Holkar till 1868-9, when it became British by exchange. To the west, beyond a watercourse, is a fine Hemadpanti reservoir about 25 yards square, with two flights of steps leading to the water. Except the west wall, which has a small niche with carved sideposts and sculptured foliage, the walls of the reservoir are plain. Within the niche is a much-worn inscription. Manchar appears to have been a Musalman town of some importance, and has a small mosque at its south-west entrance. The mosque is entered by a fine single arch, surmounted by a projecting and bracketed cornice with a small minaret at each of the four corners. The village contains a school with 176 boys and 10 girls.

Manchhar.—Lake in the Sehwan *taluka* of Larkana District, Sind, Bombay, lying between 26° 22' and 26° 28' N. and 67° 37' and 67° 47' E. It is formed by the expansion of the Western Nara and the Aral streams, and is fed by hill-torrents. The first flows into it from the north, and the latter from the Indus westward at a distance of about 12 miles; but the supply from the Nara is trifling in quantity when compared with that from the Aral. It is, however, this latter stream which affords a means of discharge for the redundant waters of the lake. During the period of inundation the Manchhar may be estimated at from 15 to 20 miles in length, with a breadth of about 10 miles; but when the water is low, this area is greatly contracted, and is then probably not more than 10 miles in length. The space

left uncovered by the receding water is sown with grain, especially wheat, yielding magnificent crops.

Although shallow at the sides, the lake has a considerable depth of water in the middle ; and so great is the quantity of fine fish that hundreds of men and boats are employed. The fish are taken chiefly by spearing, but also in nets. In the season when the lotus is in blossom the lake presents a very beautiful appearance, as its surface, farther than the eye can reach, is covered with an unbroken succession of flowers and leaves.

The fisheries of the lake, which are let out on contract, yielded an average annual revenue of Rs. 5,091 during the five years ending 1905-6. The principal fish are: the *dambhro* (or *chelri*), a reddish-coloured fish often attaining an enormous size, and ranking, according to native taste, next to the *palla* in excellence ; the *tnorako* ; the *gandan*, a long, sharp, and very bony fish, of a silver colour, in length from 3 to 5 feet; the *sl/akar*, the ' murrel ' of the Deccan ; the *jerkho* or fresh-water shark, the largest fish in Sind ; *goj* and *lor*, or eels; *khaggo*, or catfish ; the *popri*, the *da.li*, the *the/i*; *ga/igat*, or prawns ; the *damn*-, and the *siiigari*.

Manda.—Village in the Naogaon subdivision of Rajshahi District, Eastern Bengal and Assam, situated in 24° 46' N. and 88° 39' E., on the west bank of the Atrai river. Population (1901), 356. It is the site of an annual fair held in March or April on the occasion of the Hindu festival, Sri Ram Nabami, in honour of Ram (the seventh incarnation of Vishnu). The fair is attended by about 25,000 people from all parts of the District.

Mandal.—Town in the Viramgam *taluka* of Ahmadabad District, Bombay, situated in 23° 17' N. and 71° 55' E., 15 miles north-west of Viramgam station on the Bombay, Baroda, and Central India Railway. Population (1901), 5,091. The municipality, established in 1889, had an average income during the decade ending 1901 of Rs. 5,000. The income in 1903-4 was Rs. 5,230. The town contains some mosques of archaeological interest: notably, the Jama Masjid, the Saiyid Masjid, the Kazl Masjid, and the Ganjni Masjid. It also contains a dispensary, and three boys' and one girls' school, attended respectively by 255 and 54 pupils.

Mandalay Division.—North-eastern Division of Upper Burma, lying between 21°42' and 27° 20' N. and 95° 6' and 98° 20' E., with an area of 29,373 square miles. It is composed of five Districts (all abutting on the Irrawaddy): Mandalav and the Ruby Mines on the east of the river, and Katha, Bhamo, and Mvitkvixa astride of it. On the north it is bounded by unadministered territory; on the east by China and the Northern Shan States; on the south by the Kyaukse District of the Meiktila Division ; and on the west by the Sagaing

MANDALA V DIVISION

Division, from which it is separated by the Irrawaddy and the watershed severing the basins of the Irrawaddy and the Chindwin. The head-quarters are at Mandalay CITY in the extreme south of the Division; but all the District head-quarters, with the exception of Mogok, are readily accessible by rail and river. The Commissioner exercises a nominal control over the Hkamti Long (Shan) States on the upper reaches of the Malikha. The population of the Division was returned at 592,625 in 1891 and 777,338 in 1901. The earlier Census, however, excluded a large part of Katha District, then forming the Wuntho State, and also portions of Bhamo and Myitkyina Districts. The distribution of the population in 1901 is shown in the table below :—

District.	Area in square miles.	Population, 1901.	Land revenue and <i>thalhameda</i> , 1903-4, in thousands of rupees. .
Mandalay . .	2,117	366,507	8,42
Bhamo . . .	4,146	79,515	1,31
Myitkyina . .	10,640	67,399	93
Katha . . .	6,994	176,223	5,34
Ruby Mines including Mongmit) .	5,476	87,694	90*
Total	19,373	777,338	16,90

* Excluding revenue of Mongmit.

The Division contains seven towns — Mandalay (population, 183,816), AMARAPURA (9,103), Maymyo (6,223), Bhamo (10,734), and MOGOK, Katha, and Myitkyina : and there are 5,413 villages. Mandalay, Mogok, and Bhamo are important industrial and trade centres. Burmans predominate largely, numbering 451,161 in 1901. They form almost the whole population of Mandalay District, and the larger part of that of Katha, and are well represented in the Ruby Mines and Bhamo, but are comparatively scarce in Myitkyina. The Shans numbered 110,728 in 1901, distributed over all the five Districts, but nowhere in the majority. In Mandalay District they are confined to the hilly Maymyo. township. The number of Kachins in 1901 was 87,790. They form the greater part of the population of Myitkyina District, are the prevalent race in Bhamo, and are common in Katha and the Ruby Mines. A portion of the north-western area of Katha is peopled by the Kadus, who numbered 34,521 in 1901. Danus to the number of 6,276 inhabit the hills in Mandalay District. Chinamen are numerous in all the Districts excepting Katha, and aggregated 9,463 at the last Census. Natives of India are distributed all over the Division, for the most part in or near the towns and District head quarters. They include 25,391 Musalmans, 21,894 Hindus, and

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2,149 Sikhs. Of the indigenous races, the Burmans and Shans profess Buddhism, which had 634,000 adherents in 1901, while the Kachins for the most part are to be reckoned among the Animists, who numbered about 88,000. Christians numbered 5,663.

Mandalay District (Burmese, *Mandate*).—District of the Mandalay Division of Upper Burma, lying between 21° 42' and 22° 46' N. and 95° 54' and 96° 46' E., with an area of 2,117 square miles. It is bounded on the north by the Ruby Mines District; on the south by the State of Lawksawk and by Kyaukse and Sagaing Districts ; on the east by the State of Hsipaw ; and on the west by the Irrawaddy, which divides it from Sagaing and Shwebo Districts.

The main feature of the District is the wide plain, about 700 square miles in extent, which occupies about one-third of the area, spreading from the Irrawaddy eastwards to the foot of the Shan plateau, and gradually increasing in width from Physical north to south. This wedge-shaped level slopes both southward and westward, and is, with the exception of portions that are irrigated by canals or tanks, liable to drought by reason of the uncertainty of the rainfall. The area flooded by the rivers during the rains is about 150 square miles. To the north and east of the plain are the hills forming the western edge of the Shan plateau, which run for the most part in broken parallels north and south. Those in the north, however, taking off from the Ruby Mines mountain group, end abruptly north of the Sagyin hill, and cover about one-half of the northernmost township. The highest points in this system are from 2,000 to 3,600 feet above the sea. The elevated ground to the east takes in the whole of the Mayrnyo subdivision. It rises very steeply from the plain, and develops into a picturesque plateau, 3,000 feet high, bounded on the east by a deep steep-sided gorge. Conspicuous hills in this plateau tower to a height of 4,000 and 4,700 feet. From the level plain in the Irrawaddy valley rise isolated limestone hills, of which the best known are the Sagyin hill (800 feet), famous for its alabaster quarries; Mandalay hill (954 feet), at the north-east corner of the city, of which it commands a noble view: and the Yankin hill, due east of the city, interesting for its images of fish, carved in a natural cave, which are worshipped in times of scarcity of rain.

The main rivers are the Irrawaddy, the Myitnge, and the Madaya. The two latter are tributaries of the former, which skirts the western boundary of the District throughout its entire length (75 miles), and is studded with rich alluvial islands, whose movements from one side of the channel to the other give considerable trouble to the officials concerned in the administration of the Districts abutting on the stream. The Myitnge (or Doktawaddy), known as the Nam Tu by the Shans,

forms part of the eastern and practically the whole of the southern boundary of the District, sweeping round in a narrow canon from south to north-west, and emerging from the hills at the foot of a striking bluff, about 2,000 feet high, locally known as Kywetnapa, or 'rat's snout.' It is navigable only to the foot of the hills, its course above being full of rapids and falls. The Madaya river, known by the Shans as the Nam Pi, and locally as the Chaungmagyi, rises in the Shan States and flows at first southwards, forming part of the eastern boundary of the District, after which it turns westwards, and joins the Irrawaddy about 25 miles above Mandalay. Close to its debouchure from the hills are the head-works of the new Mandalay Canal, which distributes its waters over the eastern part of the plain almost to the Myitnge river.

Of lakes proper there is none, though several large areas are inundated to a considerable depth in the rains, the chief being the Aungbinle lake east of Mandalay, the Nanda lake 21 miles north-north-east of the city, the Shwepyi in the north of the District, and the Taungthaman close to Amarapura. The Mandalay Canal is, however, fast converting the first two into paddy-fields. The last two are lagoons fed from the Irrawaddy, which are dammed for fishing and cultivation when the river falls.

The plain is to a great extent covered with alluvial deposit from the Irrawaddy. The isolated hills are of crystalline limestone, belonging to the period of Mogok gneiss. In the Sagyin Hills rubies are found in the débris resulting from the denudation of the limestone. The hilly tract, the edge of the Shan plateau, is composed of palaeozoic rocks, probably faulted down against the crystalline limestone. A fringe of Devonian limestone extends along the outer edge of the plateau, followed by a zone of Silurian sandstone, shales, and limestones, which occupy most of the broken country below its crest. The Silurians rest unconformably upon a series of quartzites and slaty shales which are probably of Cambrian age. Near Zibingyi (on the Lashio railway), a narrow band of black shaly limestone is found at the base of the Devonian limestone, containing graptolites and fossils of Upper Silurian age. The surface of the plateau extending from Zibingyi to beyond Maymyo is covered with Devonian limestones, the denudation of which has exposed the Silurian rocks beneath in the hilly country north of Maymyo. The shales of the Lower Silurian formation are highly fossiliferous, containing large numbers of detached plates of cystideans and fragments of crinoid stems.

The forest produce is described below. The Maymyo plateau is extraordinarily productive of flora both indigenous and foreign. Many kinds of orchids and lilies grow wild ; ' English blooms of every description flourish ; and the *padauk* (*Pterocarpus itidicus*), the *ing*)*i*

(*Pentaane siamaisis*), the *saga-wa* and *saga-sei/i* (*Michelia C/iampaca*), the *gatigaw* (*Mesua frrea*), and the *sabe* are all met with.

The fauna does not greatly differ from that of Upper Burma generally. The elephant, the bison, and the *tsine* or *hsaing* (*Bos sondaicus*) are met with in the hilly tracts in the north and east. The barking-deer (*gyi*) is ubiquitous, and the *sdmbar* and hog deer (*daye*) are fairly common. The serow (Burmese, *tawseik* or 'wild goat') is occasionally met with in the hills. Tigers and leopards are common both in the hills and on the plain. Wild hog cause a good deal of destruction to the crops at the foot of the slopes, and two species of black bear (Malay and Himalayan) frequent the hills of the Maymyo subdivision.

The climate is dry and healthy. From April to August strong winds prevail. In the plains the thermometer rises frequently in the hot season to 105° or 107° in the shade, and the minimum, in December, is about 55°. Occasionally temperatures of 112° have been recorded in April. In the hills the range is from 32° to 90°. The Maymyo plateau is, except at the beginning and end of the rains, very healthy, and is at all seasons temperate. The average minimum at Maymyo in December is 38° and the maximum in May is 86°, though six degrees of frost and temperatures exceeding 90° have been recorded.

The rainfall in the plains is meagre, and somewhat capricious. It is least in the south, where it averages 30 inches, increasing to about 40 inches in the extreme north. In the hills it is considerably heavier, with a mean of about 58 inches, while as much as 75 inches have been recorded. In November, 1899, an extraordinary fall of rain caused great damage, breaching the railway and flooding a large part of Mandalay city; several bridges were swept away, and a village was destroyed with a loss of seven lives. Such storms are frequent at the beginning and end of the rains, though as a rule the havoc they work is inconsiderable.

The District has from very early times been a part of the kingdom of Burma. The history of the foundation of Mandalay City is contained in a separate article, and the account of the negotiations of the British Government with king

History,

Thibaw at Mandalay is given in the article on Burma. We are concerned here with the settling of the District after the fall of Mandalay in November, 1885. Though about 1,000 troops were quartered in Mandalay itself after the annexation, the District was for some time overrun and practically administered by three or four dacoit leaders, who gave themselves out as acting for the Myingun prince, and who were kept together by a relative of his. Dacoities continued throughout 1886, but in 1887 their perpetrators were hunted down. In August, 1887, a rising took place in the Maymyo sub-

division under the Setkya pretender, and the Assistant Commissioner at Maymyo was killed. Two dacoit leaders, Nga To and Xga Yaing, at that time held the islands of the Irrawaddy and made raids right up to the walls of Mandalay; and a third, known as Nga Zeya, occupied the hilly country in the north and north-east of the District. However, these leaders were either driven out of the country or executed in 1888 and 1889, and their gangs were broken up. The last dacoit band, led by Kyaw Zaw, a lieutenant of the Setkya pretender, was dispersed in 1889-90. It had till then harried the Maymyo subdivision and the neighbouring hilly tracts of Kyaukse District.

Pagodas of all sizes are dotted over the plain, crowning the low limestone hills that rise out of it. Some of the most interesting of these lie in or close to Mandalay itself, and are described under Mandalay City. In the Madaya township are the Sutaungbyi and Sutaungya pagodas. The former was built in the eleventh century by king Anawrata, on his return from China, to commemorate his victories there. The latter was erected by king Mindon in 1874 for the use of the royal family, it is said, lest any among them who aspired to the throne should obtain the fulfilment of their prayers which the more venerable shrine was believed to ensure. At Tawbu in the same township is an old pagoda where a great festival is held in February. An impressive sight is the Shwegyetet group of shrines, about 600 years old, on the bank of the river at Amarapura. Large crowds assemble annually to witness the feeding of the fish which come up in shoals to be fed at the great Tabaung feast of the Shwezayan pagoda on the Myitnge river, built by Shinmunhla, the queen of Anawrata. The fish are so tame that they are called up by the voice and are fed by hand, pious worshippers decorating their heads with gold-leaf. In the north of the District, 8 miles east of Singu, is the Shwemale pagoda. According to an inscription, it was built about 1,000 years ago by king Yamaingsithu, who gave up certain lands to be worked by *payakyuns* (pagoda slaves) and their descendants, the revenue to go to repairs of the pagoda. The receipts are at present spent for the most part on festivals, as may be inferred from the neglected appearance of the shrine.

Little is known regarding the population under native rule, but it is clear that it was smaller in 1891 than before annexation. In 1891

. the inhabitants numbered 375,055, of whom 188,815
opu ation.]_{3e}i_{ong}e(j t_o Mandalay city. By 1901 the total

had fallen to 366,507, the residents of the city having dwindled to 183,816.

The chief statistics of area and population for 1901 are given in the table on the next page.

The principal town is Mandalay, the head quarters, and formerly

POPULATION

the capital of independent Burma. The attractions of the Burmese court, and the comparative security against dacoities that its presence ensured, were doubtless responsible in pre-annexation days for the existence of a larger population than the District was able economically to support. The waning of the former and the extension of the latter throughout Burma have had the effect of drawing off the surplus not only from the city, but also from the adjacent townships of Amarapura and Patheingyi. The census figures show that the flow of emigrants has been mostly towards Ma-ubin, Pyapon, and Hanthawaddy Districts, and to Rangoon, which together contain nearly 30,000 persons born in and about Mandalay. The rural population in 1901 was 172,300, rather less than half the total, and the average density in the rural areas was 82 persons per square mile. Buddhists predominate; but in 1901 there were 20,300 Musalmans, 13,400 Hindus, and 1,000 Sikhs, mostly residents of the city. Burmese is the language of 91 per cent, of the people.

Township.	Area in square miles.	Number of w < 5 = be o f >	Population.	Population per square mile. Percentage of variation in population between 1891 and 1901. Number of persons able to read and write.
Mandalay City .	25	11...	183,816	7,353 - 3 64,938
Amarapura .	«A	i 227	43,884	516 ' - 13 9,694
Patheingyi. .	213	... 152	28,546	134 ' - 10 3,857
Madaya . .	3 - i	... 217	53,21 ^	166 + 4 13,443
Singu . .	/i - j	... 146	35,670	50 - 4 10,251
Pvintha . .	190	... 54	4:2 95	23 — :3 543
Maymyo . .	396	I 101	13-730	35 + 72 2,230
\\ etwin . .	175	... 37	3:354	i < / +19 357
District total	2,117	3 934	366,507	173 " 2 " 5:313

In 1901 Burmans numbered 306,300 ; Shans (for the most part in the hilly Maymyo subdivision), 5,400; and Danus, a mixture of the last two races, 6,300. Natives of India are numerous. There were 7,900 Indian immigrants in 1891, and this number had increased in 1901 to 15,400, of whom 12,000 lived in Mandalay city. The oldest foreign settlers are the Kathes and Ponnas, a large number of whom are descended from Manipuri prisoners of war. They now number nearly 9,000, and are mostly domiciled in the city and its environs, though the Ponnas have their own villages in the Amarapura township. The percentage of Indian women is exceptionally high, a fact which points to a large permanent Indian colony. Chinamen, for the most part traders and artisans in Mandalay and Maymyo, number 1,600. The European community in 1901 numbered 2,200 (composed largely of the British troops in cantonments). The

number of persons directly dependent on agriculture in 1901 was 24,698, or less than half the rural population and a quarter of the total. More than 37,000 persons living in the hills in the north and east are dependent on *taungya* (shifting) cultivation alone.

Christians in 1901 numbered 4,389, of whom 2,062 were natives (mostly Madrasis). Mandalay city is the see of a Roman Catholic bishop, under whom nine priests are at work in the District, but rather among the Indian Christians than the indigenous folk. The mission possesses thriving schools and an important asylum for lepers. The American Baptists have three pastors at work among the Burmans and natives of India. The Anglican Church is represented by the S.P.O. Mission in Mandalay city, where also the Wesleyan Mission has its head-quarters, and controls a leper asylum.

Owing to the scanty rainfall, the greater part of the plain is at present uncultivable. Agricultural conditions have, however, been

improved by the opening of the new Mandalay

Agriculture. (^{ana})_j which should eventually result in a considerable expansion of cultivation. The settlement of 1892-3 divided the District into five soil tracts. The first is composed of a thick absorptive clay, commanded by the Shwetachaung Canal, taking off from the Madaya river. The second is a stiff paddy clay or cotton soil, formerly irrigated by the Aungbinle tank, but now by distributaries from the Mandalay Canal. The third is a free and friable kind of sandy loam, and in some places a stiff paddy clay or cotton soil, formerly commanded by the Shwelaung Canal, the place of which has practically been taken by the Mandalay Canal. The fourth is alluvial land inundated during the rains. The fifth consists of rough broken land, composed largely of cotton soil with patches of sandy loam, where cultivation depends entirely upon a timely rainfall. There is very little variety in the systems of cultivation ; rice is the chief crop, and the plough and harrow are the main agricultural implements. *Taungya*, or shifting, cultivation prevails in the Maymyo subdivision, though here too a certain amount of irrigated rice is grown in terraced rice-fields in the bottoms of the valleys.

About three-fourths of the cultivated land is state land (chiefly *ahmudansa*, or land held on a service tenure). The non-state lands are mostly lands acquired in the latter days of the monarchy by purchase, or presented to junior members of the royal family and others. The table on the next page exhibits the main agricultural statistics for 1903-4, in square miles.

Exclusive of the Maymyo subdivision, for which no statistics exist, 273 square miles were under cultivation in 1890-1, 196 square miles in 1900-1, and 246 square miles in 1903-4. The increase in the

AGRICULTURE

cultivation and a diversion of about 9,000 acres from 'dry crops' to rice are due to the opening of the Mandalay Canal, which has also reduced the area of current fallows by nearly 7,000 acres. The area under rice had risen in 1903-4 to 136 square miles, of which 98 were irrigated. Of the total rice crop, about 27 square miles were *may in* or hot-season rice. A large share of this is twice-cropped irrigated land in the Shwetachaung Canal tract. Pulse of various kinds, *pegyi* being the most popular, covers 56 square miles, mainly in the northern or Madaya subdivision. Gram and wheat each occupy about 3,500 acres, chiefly in the Patheingyi township. The areas under both these crops, as well as those under various fodder crops and sesamum, the last covering 14 square miles, have all decreased of late, owing to the land being converted into irrigated paddy-fields. Tobacco is cultivated to the extent of about 3,500 acres on the alluvial deposits in the Irrawaddy islands. Onions, tomatoes, and chillies are grown to a smaller extent. The area under garden cultivation is 16 square miles, including mango groves, nearly 2,000 acres of which clothe the bank of the Myitnge river and areas in the Amarapura township, and 4,600 acres of plantain groves. There are very valuable gardens at Madaya, watered by the Shwetachaung Canal, in which large quantities of coco-nuts, plantains, betel-vines, pine-apples, mangoes, papayas, and custard-apples are grown. Grapes have been tried in Amarapura, and strawberries do well in Maymyo. A certain amount of homestead garden cultivation is attached to every Shan village in the Maymyo subdivision. There is a considerable amount of *bobabaing* or non-state land in the District. In all, 52 estates exceed 100 acres in extent, and one has an area of 670 acres. The average size of a rice or mixed crop holding is 5¹/₂ acres, that of other holdings is 2 acres.

Township.	Total area.	Cultivated.	Irrigated	Forests.
Mandalay City .	2 1	7	2	\ I 505
Amarapura .	85	43	12	
Patheingyi .	21 3	6;	29	
Madaya . .		81	39	
Singu . .	712	=,0	15	
Pyintha . .	190			
Maymyo . .	396			
Wetwin . .	175			
Total	2,117	246	100	505

The cultivation of tobacco and wheat from imported seed is gradually spreading. Indian wheat and Havana and Virginia tobacco seed have given satisfactory results, producing better crops than the indigenous varieties. The local cultivators seldom avail themselves

ALINDALA Y DISTRICT

of the benefits of the Land Improvement and Agriculturists' Loans Acts, preferring to obtain advances from money-lenders, who are less particular as to security, and are quite content with the production of a land revenue receipt.

There are no local breeds of cattle or ponies. Bullocks are used for ploughing very much more commonly than buffaloes. Ponies are brought from the Shan States, as well as from Pakokku and other Districts down the river. The area of reserved grazing ground exceeds 1,000 acres, and the large uncultivated areas and broad *kazins* or field embankments will render further reservation unnecessary for some time to come.

At the time of annexation the District contained several canals of considerable size. The Shwelaung Canal took off from the Madaya river at Zehaung, close to the headworks of the new ^{MANDALAY} Canal, and, crossing the District diagonally for about 30 miles, joined the Irrawaddy at Amarapura. On the foundation of Mandalay, it was directed so as to supply the city moat, but it was never very reliable, and failed absolutely in 1880. The Shwetachaung Canal was 26 miles in length, taking off from the Madaya stream near Madaya, and running south to join the Irrawaddy below Mandalay. From the dam just above Mandalay (below which the canal is empty) to its head it is still navigable by country boats. It is a valuable source of supply, irrigating about 50 square miles. Between these two is the Dinga stream, supplying the Nanda lake north of Mandalay. The present Mandalay Canal takes the place of the Shwelaung Canal and of the Aungbinle and Nanda lakes, which are being converted into paddy-fields. The area annually irrigable by this work is estimated at 80,000 acres, and that irrigable by the Shwetachaung Canal at 28,000 acres ; the area actually irrigated in 1903-4 by the former was 30,000 acres, that by the latter 24,000 acres. In the same year 2,300 acres were irrigated from wells, and 1,500 acres from tanks. The total irrigated area of the District in 1903-4 was 100 square miles. More than one-third of this total lies in the Madaya, and more than a quarter in the Patheingyi township.

The fisheries are mainly situated near the Irrawaddy, their success depending upon the nature of the rise and fall of the river. The

... season begins in October, when the river falls and the outlets of the lagoons and connecting channels are closed with *yi/is* (bamboo screens). In the Amarapura township the most important fishery is the Taungthaman lake, which brings in about Rs. 8,000 annually. There are two valuable fisheries in the Madaya township, the larger, the Kyi-in fishery, yielding an annual revenue of about Rs. 9,500. In the Singu township, where the river spreads out over a considerable area in lagoons and backwaters, seven

large fisheries realize more than Rs. 5,000 each. In 1903-4 the fisheries yielded a total revenue of 1-2 lakhs.

The forests are of various types, depending on climatic conditions, which vary considerably in different parts. In the plains the jungle growth consists of open scrub, increasing in height and density as the rainfall increases. The principal species here are *zi* (*Zizyphus Jitjudd*) and *kan* (*Carissa Carandas*), overtopped here and there by a *tanaung* (*Acacia leucophlaed*), *nabe* (*Odina SVodier*), or *sit* (*A Ibizzia procera*). On the lower slopes, facing the plain, the forest is of the type known as 'dry,' in which the principal species are *ska* (*Acacia Catechu*), *dahat* (*Tectona Hamiltoniana*), *than* (*Terminalia Oliveri*), *ingyin* (*Pentacme siamensis*), and *myinwa* (*Dendrocalamus strictus*), or the common bamboo. With increasing rainfall this gradually merges into mixed forest in which teak, *padauk* (*Pterocarpus indicus*), and *pyingado* (*Xylia doiabrifformis*) are found. In the north are mixed forests with belts of *indaing* on laterite soil. In these tracts the principal species, besides teak, *padauk*, *pyingado*, and *in* (*Dipterocarpus tuberculatus*), are *thitya* (*Shorea obtusa*) and *thitsi* (*McLanorrhoea usitata*), with various species of *Sterculia* and bamboo. Oaks and chestnuts begin to appear at an elevation of about 2,800 feet, and on the Maymyo plateau these are among the most common species. A small patch of pine forest (*Pinits Khasya*) exists on a hill about 12 miles east of Maymyo. Besides teak, the trees yielding the most valuable timber are *padauk* and *pyingado* : *thitya*, *ingyin*, and *in* are also employed in building. The other trees of economic importance are the *sha*, yielding the cutch of commerce ; the *thitsi*, producing a black varnish ; and the various species of *Sterculia* (Burmese, *shaic*), the bark of which yields a strong fibre.

The area of 'reserved' forest in 1903-4 was 335 square miles, and that of 'unclassified' forest 470 square miles, principally in the Maymyo subdivision. The only plantations that have been formed are those in the Singu and Lower Madaya Reserves, in which 61 acres had been planted up to the end of 1901 on the teak *taungya* system. The forest revenue in 1903-4 amounted to Rs. 13,000.

The Sagyin Hills near Madaya produce spinels and rubies, plum-bago, graphite, and alabaster. Copperas is met with at Kainggyithamin and Yegyi, and lead at Onhlut. Mica has been found at Shwegyin, 9 miles north of Singu, and an inferior kind of coal, of little use for fuel, has been dug near Wetwin on the Mandalay-Lashio railway.

Most of the arts and manufactures of the District are carried on in Mandalay and are described in the city article. In ^{Trajan} Amarapura township the chief industry is that of ^{communica}tions. silk-weaving, in which whole villages are often occupied. The beautiful *acheik tamcins* (skirts) come from the Katlic

(Manipuri) villages of this township. A little cotton is woven in the rural areas, but only for local use. An important manufacture of Amarapura is that of *kammawa* writing slips. These measure 18 inches by 2, and are made of four folds of chintz stuck together with black *thitsl* and overlaid with vermilion. They form the material on which *kammawa*, or Buddhist religious texts, are written in Pali.

About three-fourths of the total population being non-agricultural, a large internal trade is carried on between the city of Mandalay and the District. The through trade is also considerable, imports from the Shan States being shipped for ports down the river in the steamers of the Irrawaddy Flotilla Company, together with the main products of the District, such as hides and skins, grain, and silk goods. These, and the rubies, stick-lac, rubber, and cutch that come from up country, are exchanged for imports, mostly manufactured goods from Rangoon. The latter include hardware, metals, cotton and woollen piece-goods, and general stores from Europe; silks and dyes from Japan and China; and *ngapi* and salted fish from Lower Burma. These are brought by rail and river from Rangoon, and are to some extent re-exported to the Shan States and Western China. The total value of the imports from the Northern Shan States amounted in 1903-4 to 61 lakhs by caravan and 21½ lakhs by rail. By far the most important commodity brought in is pickled tea (valued at 21 lakhs) from the Hsipaw and Tawngpeng hills. The exports to the Northern Shan States were valued in 1903-4 at 5½ lakhs by caravan and 22½ lakhs by rail. They included cotton piece-goods (7½ lakhs), dried fish (if lakhs), cotton twist and yarn (2½ lakhs), salt (2 lakhs), and petroleum (if lakhs). Maymyo is a registering station for trade to and from both the Northern and Southern Shan States. The imports from the Southern States in 1903-4 were valued at a lakh, and the exports at a lakh and a half. Trade with Western China along the Maymyo route is registered, but it is very small and shows no signs of increasing.

The main railway from Rangoon enters the District 10 miles south of Mandalay city on the bank of the Myitnge, which it crosses by a fine girder-bridge, and passes through the Amarapura township to the terminus in the city. From Myohaung, 3 miles south of the terminus? there are two branches. One runs westwards through Amarapura to a point on the bank of the Irrawaddy 12 miles from Mandalay, where a ferry connects it with the Sagaing terminus of the line to Myitkyina. The other turns abruptly eastwards, and after a level run of 16 miles across the plain climb? up the Maymyo plateau, and, passing Maymyo, leaves the District near Wetwin about 55 miles from Mandalay. The city will probably before long be connected with Madaya by a light railway.

The District is fairly well provided with roads. Of these, the most important outside municipal limits are the Mandalay-Lashio road, metalled in part, passing through Maymyo and quitting the District at Wetwin; the Mandalay-Madaya road along the Shwetachaung Canal embankment; and the Mandalay-Lamaing road, the two last being each about 16 miles long. These three are maintained by the Public Works department. The District fund is responsible for the upkeep of a considerable number of inter-village tracks, which include the Madaya-Singu road (32 miles), continuing for another 19 miles to the Ruby Mines District boundary, and 3 miles of the metalled road from Mandalay to Amarapura. There is an electric tramway in Mandalay city.

The Irrawaddy is navigable at all seasons by large river steamers, while country boats navigate the Madaya and Myitnge rivers all the year round, the former up to Sagabin, about 20 miles, and the latter for 16 miles, and in the rains for another 30. The Shwetachaung Canal is navigable from the dam just above Mandalay to its head. Government launches ply constantly between Mandalay and other stations on the river; and the Irrawaddy Flotilla Company runs, in addition to some cargo-boats, one mail steamer a week to Bhamo, two to Thabeikkyin (for the Ruby Mines), and two down the river to Rangoon, calling at the several river-side stations, and one daily to Myingyan. The tolls levied on the Shwetachaung Canal and the six ferries that the District contains bring in respectively Rs. 6,000 and Rs. 5,000 a year.

The District is divided into five subdivisions: the eastern and western subdivisions of Mandalay City, the former including the cantonment; the Amarapura subdivision in the south-west, comprising the Amarapura and Pathëingyi Administration, townships; the Madaya subdivision in the north, comprising the Madaya and Singu townships; and the Maymyo subdivision in the south-east, comprising the Pyintha, Maymyo, and Wetwin townships. The subdivisions and townships are under the usual executive officers. The three township officers in the Maymyo subdivision, however, are little more than *myothugyis*, and the *myo-oks* at Wetwin and Pyintha have third-class powers, but cannot take cognizance of cases and never try any. There were 449 village headmen in 1903. The District falls within three Public Works divisions. The greater part forms a portion of the Mandalay division, with head-quarters at Mandalay city. Maymyo and its environs form, with the Lashio subdivision, the Maymyo division under an Executive Engineer at Maymyo, and the Mandalay Canal constitutes a third charge. There are two Deputy-Conservators of Forests, one in charge of the depot division at Mandalay and one at Maymyo, who in addition to the

Mandalay forests has charge of the forests in Kyaukse, Meiktila, and Myingyan Districts, and in the Northern Shan States. At the port of Mandalay are two officers of the Royal Indian Marine, one being Marine Transport officer for Upper Burma, the other the Superintending Engineer for Government vessels and launches.

Mandalay is the head-quarters of the Judicial Commissioner, Upper Burma, as well as of the Commissioner of Mandalay, who is Sessions Judge. There is a whole-time District Judge, who is also additional Sessions Judge of the Mandalay Division and Judge of the Mandalay Small Cause Court. In criminal work the Deputy-Commissioner is assisted by the head-quarters Assistant Commissioner (senior magistrate). Violent crime is most prevalent in the Amarapura subdivision, and theft of stray cattle is common in Maymyo. On the whole, however, the crime of the District presents no special features.

Under native rule the District was divided administratively into eight parts, one comprising the city and one the islands in the Irrawaddy, while the rest were under salaried officials called *ne-oks*. The actual collection of revenue was done by the *myothugyis* and subordinate *thugyis*, who were paid by a 10 per cent, commission on the revenue collected, and whose office was as a rule hereditary. Appeals lay first to the *Akundaiv Tana* (revenue court), and second appeals were allowed to the *Hlutdaw* (high court); but in cases relating to royal lands appeals lay to the *Leyondaiv* (land court), and thence to the *Hlutdaw*. *Thathameda*, at the average rate of Rs. 10 a household, was assessed by *thamadis*, elders of the village specially appointed for the purpose, but not in the city itself, where instead of the *thathameda*, imposts were levied on goods sold. No land revenue was collected over the greater part of the District on *bobabaing* or non-state lands, unless they were irrigated, in which case a tax of Rs. 2 per *pe* (1.75 acres) was levied. On state lands a rate theoretically equivalent to one-fourth of the gross produce was assessed, but in practice the amount was fixed by custom.

Three attempts at a regular settlement were made in the District soon after annexation. The first two were confined to limited tracts; but in 1891, after a cadastral survey had been completed, a regular settlement of the plain was undertaken. The rates proposed in 1893 were crop rates fixed at one-eighth of the gross produce on state land, and two-thirds of that rate on non-state land. These proposals were, however, revised, and in 1896 new rates on state land were introduced as follows : for *kaukkyi* rice, Rs. 2 to Rs. 7-6 per acre 3 for *may in* (or hot-season) rice, Rs. 2-4 to Rs. 4 per acre. Gardens paid from Rs. 5 to Rs. 25 ; miscellaneous crops on islands and alluvial lands, Rs. 2-8 to Rs. 7-8; and *ya*, or upland holdings, Rs. 1-5 to Rs. 4 per acre. These changes brought in a revenue of 3 lakhs in

1897-8, as compared with t-| lakhs realized in the year before their introduction. In 1899-1900 rates were levied on non-state land, the old water rate being abolished, while irrigated lands paid seven-eighths of the state land rate and non-irrigated three-fourths ; at the same time the *thathameda* rate was readjusted. The result was a slight increase of revenue. Since 1901 these rates have been resanctioned from year to year, and are still in force, except in the new Mandalay Canal tract, where tentative land revenue and water rates came into force in 1903-4. The rates, however, still require readjustment, especially in the Shwetachaung tract, and settlement operations are now being carried out with a view to their revision. No land revenue is collected in the three townships of the Maymyo subdivision.

The table below shows, in thousands of rupees, the fluctuations in the land revenue and total revenue since 1890-1. At present an important item of receipt is *thathameda*, which amounted to Rs. 2,59,600 in 1890-1, Rs. 2,59,400 in 1900-1, and Rs. 2,78,000 in 1903-4.

j 1890-1. 1900-j. l 1903-4.

Land revenue . . 1,77	4,17 5,64* j
Total revenue . . 6,54 13,14 is, 21	

* Inclusive of Rs. 12,000 collected in Mandalay city.

The District fund, administered by the Deputy-Commissioner for the provision of various local needs, had an income of Rs. 42,600 in 1903-4. The chief item of expenditure was public works (Rs. 40,000).

MANDALAY CITY is the only municipality, but Maymyo is administered by a town committee.

The District garrison, which is divided between Mandalay and Maymyo, consists of a British battalion, a Gurkha battalion, and two Punjabi regiments, a Native mountain battery, and a transport column. The head-quarters of the Burma division, formerly at Rangoon, are now at Maymyo, while Mandalay is the head-quarters of a military district.

The District Superintendent of police is aided by four Assistant Superintendents (one at head-quarters, the others in charge of the two urban subdivisions and the Maymyo subdivision), 6 inspectors, 19 head constables, 68 sergeants, 625 Burman and 335 Indian constables, distributed in 21 police stations and 15 outposts. South of the city are large barracks for the Mandalay military police battalion, the strength of which is one commandant, two assistant commandants, and 1,356 native officers and men. One assistant commandant and 889 men are stationed at Mandalay itself. The only other military police posts in the District are at Maymyo (60 men) and Madaya (25 men).

There is a Central jail in the north-west corner of Fort Dufferin at Mandalay, with accommodation for 1,141 prisoners, who are engaged in gardening, carpentry, smithy and cane-work, carriage-building and repairing, &c. Large orders for furniture for Government offices are carried out by means of prison labour.

The proportion of literate persons in the District in 1901 was 28·7 per cent. (49·9 males, 7·6 females). The total number of pupils under instruction in the District as a whole was 13,773 in 1891, 18,375 in 1901, and 21,720 in 1904. The principal schools are in Mandalay and Maymyo.

It will be found convenient to give separate educational figures for Mandalay city and for the District. Mandalay city contained in 1903-4, 142 special, 22 secondary, 91 primary, and 927 private schools, with 10,710 male and 3,260 female pupils. These schools were maintained at a total cost of Rs. 96,000, towards which municipal funds contributed Rs. 38,000 and Provincial funds Rs. 16,000. The District, excluding the city, contained in the same year 4 special, 7 secondary, 92 primary, and 749 private schools, with 6,590 male and 1,160 female pupils. These schools are maintained largely from Provincial funds, which provided Rs. 21,000 in 1903-4.

There are four hospitals and a dispensary, with accommodation for 191 in-patients. In 1903 the number of cases treated was 5,508, including 2,987 in-patients, and 1,861 operations were performed. The Mandalay municipal hospital accounted for 2,482 of the in-patients and 17,271 of the out-patients. The total income of these institutions amounted to 1·1 lakhs, towards which the Mandalay municipality contributed Rs. 68,000, the Maymyo town committee Rs. 11,300, and Provincial funds Rs. 21,600. In addition to the hospitals, two institutions for lepers are maintained at Mandalay.

Vaccination is compulsory only within municipal limits and in cantonments. In 1903-4 the number of persons successfully vaccinated was 10,432, representing 28 per 1,000 of population.

[Symes, *Embassy to Ava* (1795); Crawford, *Mission to Ava* (1826); Colonel Yule, *Narrative of the Mission sent to the Court of Ava* (1857); M. Laurie, *Settlewite Report* (1894).]

Mandalay City.—Head-quarters of the Division and District of the same name in Upper Burma, and capital of the Burmese kingdom from 1858 to 1885. The city lies in 21° 59' N. and 96° 6' E., and occupies part of a plain, here about 8 miles wide, on the east bank of the Irrawaddy, between the river and the Shan range, the dead level of which is broken only by a hill 954 feet in height. To the south-west of this hill, a mile and a half from the river, are the moat and walls of the old city, nearly 6 miles in circumference. The cantonments include the hill with the old city and a space

to the north and east of it, about 6 square miles in all. West and south of the cantonments is the present native city, which stretches to the river on the west, and to the walls of the old fort of Amarapura on the south. The entire area of the municipality and cantonments is 25 square miles, but this includes large unoccupied spaces at the four corners. Religious buildings are scattered over the whole, covering with their precincts 2 square miles. The European quarter is on the south of the fort, and the business quarter is on the west. Masonry buildings are general in the latter, but over the rest of the city the houses are sometimes of wood, more commonly of bamboo. Paddy-fields occupy the country near the river to the north and south ; and towards the south-east, where the royal gardens of Mindon once were, is a piece of land now given over to the St. John's Leper Asylum and to rice Cultivation. As the city lies below flood level, it is protected by an embankment, which runs all round the municipality and cantonments, and is in some places doubled. A canal, called the Shwetachaung, gives water connexion with Madaya on the north. Along the river bank are some backwaters cut off by the embankments and gradually filling up. .

Mandalay dates only from the accession of king Mindon, who is said to have been induced by a dream to abandon for it the old capital of Amarapura, immediately south of the present municipal limits. The walls and moat of

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the new city and the palace were constructed with paid labour between February, 1857, and May, 1858. Jars full of oil, buried in masonry pits at each of the four corners, are said to have taken the place of the human sacrifices which had once been customary. The whole area to be occupied, both within and without the walls, was laid out in square blocks separated by broad roads, along most of which tamarind and other shade trees were planted. Many of these blocks were occupied in the centre by a high official, whose retainers dwelt along the edges.

Mindon's reign was peaceful, except for an attempt at rebellion by his son the Myingun prince, who in 1866 killed the heir apparent, and eventually fled to Rangoon. Mindon was succeeded in 1878 by his son Thlbaw, the history of whose reign is one of palace intrigue varied by massacre. A year after his accession about eighty of his kindred—men, women, and children—were murdered in the palace precincts, and their bodies thrown into a trench. In 1884 occurred a further massacre of about 200 persons, suspected of being concerned in a plot on behalf of the Myingun prince. In 1885 came the rupture with the British; an expeditionary force was dispatched into Upper Burma, and towards the end of November of that year General Prendergast's flotilla appeared off Mandalay. No resistance was offered, and the

king received Colonel Sladen in a summer-house in the palace gardens and formally surrendered himself. For some months after this dacoities and robberies were frequent in and about Mandalay, but the city was eventually reduced to order. About a tenth of the urban area was burnt down during the hot season of 1886, and in August of that year an abnormally high flood burst an embankment built by king Mindon, and caused some loss of property. In 1887 a municipal committee was formed and the metalling of the main roads taken in hand, a telephone system was introduced, and a survey partly carried out. Before the introduction of municipal government the stockade round the palace and the bamboo houses in the old city were removed, compensation being paid for the sites, and new land being given to the expropriated.

The old city now forms part of the cantonments, and is known as Fort Diifferin. The walls form a perfect square, with a side a mile and a quarter long. They are built of brick and proportioned with battlements, the total height being 29 feet. Picturesque watch-houses with many-storeyed roofs rise above them at regular intervals, thirteen on each side, the largest over the gates, which are twelve in number. Outside the walls is a strip of grass land, and beyond this the moat, more than 200 feet across, and bridged opposite the central gate on each side, and also opposite the gates on the south-west and north-east.

In the centre of the square, with roads converging on it from the four main gates, is a platform 11 feet high, 1,000 feet long, and about half as wide, on which the palace is built. It was surrounded in the Burmese kings' time by a brick wall and stockade 2,000 feet square, but these have been removed. Within this space, north and south of the palace, are shady pleasure gardens with lakes and grottoes. The garden on the south contains the summer-house where king Thibaw surrendered. On the east is the bell-tower where the watches were sounded, and north of it the glittering tomb of king Mindon, covered with glass mosaic. Opposite the bell-tower, on the south side of the road, is another tower enshrining a tooth of Buddha ; and farther south a small monastery of glass mosaic on the site of an older one, where Thibaw was living in retreat with shaven head and yellow robe, in accordance with Burmese custom, when called to the throne.

The principal throne-room, surmounted by a nine-roofed spire 200 feet high, is near the east end of the platform. In front of it is an open hall 285 feet long. Its golden roof is supported by gilded teak pillars, some of them 60 feet high. The building was repaired, and the gilding renewed, at a cost of more than a lakh, after Lord Elgin's visit in 1898. The throne is approached through a gate of gilded iron open-work from a flight of steps at the back. To the west

is another throne-room in which foreign representatives were received. Next in line to the west are the hall of the body-guard ; a waiting-room for readers and others, with the pages' quarters to the north of it ; another throne-room used for royal marriages ; and a lofty room with an open veranda on two sides that was used by king Mindon as a sleeping-chamber. Thlbaw's queens slept in the last room of the series, when not in the royal apartments to the south. On the west of this are sitting-rooms with the usual gilded pillars and roof, and south of them a room from which plays were witnessed. To the east of the entrance hall is a brick building with a tank (now filled in), where the king and queen amused themselves at the annual water-festival by watching the pages and maids-of-honour throw water at each other. On the north of this is the king's treasure chamber and a room where he held informal levées, and on the east the council-chamber where the ministers held their secret deliberations. The Hlutdaw, where they met in public for judicial and other business, was to the east of the platform and has been pulled down. Close to the council-chamber is a watch-tower, 78 feet high, exclusive of its decorative roof, from which a fine view is obtainable. On the north side of the platform is a gilded entrance hall similar to that on the south. Both contained thrones, which have been removed. To the west of this hall are the large apartments occupied by Sinbyumashin (' Lady of the White Elephant'), mother of Thlbaw's three queens ; and here the neglected Supayàgyi, by right the chief queen, was obliged to live in practical confinement. Most of the buildings on the western half of the platform have been demolished ; but the beautiful Lily throne-room, where the wives of officials were received in state twice a year by the king and queen, remains, and till recently was used as part of the Upper Burma Club.

The most important Buddhist shrine in Mandalay is the Payàgyi or Arakan pagoda, 4 miles from the palace and 2 miles south of the Zegyo bazar. Its terraced roof of gilded stucco is of recent construction, the original roof having been burnt in 1554. The building was erected to hold the great brass image of Buddha brought from Arakan by king Bodawpayâ after his victorious campaign in 1754. It is said to have been cast by king Sandathuriya of Arakan, who ascended the throne in A.D. 146. Gautama is seated on a pedestal 7 feet high, and measures 12 feet 7 inches from the platform to the tip of the *magaik*, or tiara, on his head. The image was dragged over the mountains by Burmese soldiers, and was accompanied by numerous captives of war, who afterwards settled in Mandalay. Long galleries approach the building from each side, partly decorated with paintings—some, on the north side, descriptive of the bringing of the image from Arakan. The galleries are lined with stall» on which gongs, marionetto,

and the usual bazar goods are displayed, and are thronged in the cold season, especially during a festival, with a gay crowd of many races. In the court on the north-east is a stone inscription, recording the manner in which the image was brought from Arakan. To the south-east is a large tank filled with turtles, and in the north-west court are two colossal bronze images of good execution, but now dilapidated, also brought from Arakan. On the south-west are 575 stone inscriptions—Burmese, Pali, and Talaing—the originals of which were collected by king Bodawpaya and copied by his orders. On the east bank of the Shwetachaung Canal, a little to the south of the Zegyo bazar, is the Setkyathiha pagoda, built in 1884 over a brass image even larger than that from Arakan. It was cast by order of king Bagyidaw in 1824, and followed the court from Ava to Amarapura and Mandalay. Close to it on the east is a small pagoda built on the site of her old home by Shinbome, a famous beauty who was the wife of five successive kings.

Across the Shwetachaung is the Eindawya pagoda, built in 1847 by king Pagan on the site of a summer-house used by him when a prince. Being on a spacious platform, from which it rises to a height of 114 feet, it is seen to better advantage than the other pagodas in Mandalay. On the west side is the Mahuya Paya, or 'corundum' image, of black stone, brought by an emissary of king Bagyidaw from Gaya in 1833.

To the west of the fort, between the roads leading from the two gates on that side, is the Shwekyimyin pagoda, built in 1852 over an older one said to have been erected in A.D. 1104, and containing several images of great sanctity, in addition to the great brazen Buddha for which it was built. One of these, the Shwelinbin, represents Gautama standing in royal robes, and has been moved from one capital to another since it was placed in a pagoda of the same name by king Narapadisithu of Pagan (A.D. 1167-1204). The Anyathihadaw, which is kept in a vault near the great image, has been so plastered with gold-leaf by devotees that it is now a mere shapeless lump.

Close by to the north is the Payani or 'red' pagoda, so named from the colour of one of its predecessors, built on the site of a shrine erected in 1092. It is interesting chiefly on account of the presence of the Maungdaw and Nyidaw images, dating from the time of Anawrata, which were stolen from Mandalay hill in the troubles following the annexation and, after being stripped of the mass of gold with which they were covered, thrown into the valley, where they were found by a monk and regilded by the town people.

The Yadanamyizu pagoda is beyond the Shwetachaung on the north side of C Road, three-fourths of a mile from the south-west gate. It

was built in 1478 by king Maha Thihathura, and is said to have retained its original shape.

On the north side of the fort, in an unfinished building at the foot of Mandalay hill, is a Buddha 25 feet high, hewn out of a single block of Sagyin marble at the beginning of king Mindon's reign. To the east of it is the Sandamani pagoda, containing an iron image of Buddha cast by king Bodawpaya.

Farther east is the Kuthodaw, the most splendid monument of king Mindon, consisting of a pagoda 100 feet high surrounded by 729 others, in each of which is a marble slab inscribed with a part of the Buddhist scriptures in Burmese and Pali. Great care was taken to collate the various manuscripts so as to arrive at the most correct version, and the whole stands as a complete official record of the sacred writings.

South of the Kuthodaw are the walls of a vast monastery built by the same king and called the Atumashi, or 'incomparable.' These and a forest of blackened pillars are all that is left of the building, which was burnt in 1892. Just to the east of it is the Shwegyaung, or 'golden monastery,' built by Mindon's chief queen after his death with the materials of the house in which he died. The interior is a blaze of gold.

Close to the east gate of the fort is the Taikta, a large monastery surrounded by others, all finely carved, which served as the residence of the Thathanabaing, or head of the Buddhist Church, from 1859 to the annexation. The Myadaung monastery, situated on A Road, a mile to the south-west of the fort, is also profusely carved and gilded, though the gilding on the outside is now nearly worn off through exposure to the weather. The builder was Thubaw's favourite queen Supayalat. The Salin monastery, near the racecourse to the north of the fort, contains what is probably the finest carving in Burma. It was built in 1873 by the Salin princess.

On the highest point of Mandalay hill is a pagoda which once contained the Naungdaw and Nyidaw images referred to above. A little lower, at the southern end of the ridge, stood, until it was burnt in 1892, a great wooden image called Shweyattaw, erected by king Mindon on the foundation of Mandalay. It represented Buddha pointing to the palace as the future site of the capital. Preparations are being made to erect a new figure in place of that burnt.

An interesting morning may be spent on the top of the hill with a good glass. The whole of Mandalay lies at one's feet, and every building of importance may be identified. Conspicuous to the south-east are the Kuthodaw and the walls of the Incomparable Monastery. Far beyond them to the south, at the edge of a cultivated plain, the white pagodas on Kyaukse hill may be seen, backed by the Shan range.

Maymyo lies due east, hidden by several ranges of hills. On the north a conical hill marks the marble quarries of Sagyin, and far beyond are the mountains of the Ruby Mines District. West, across the broad Irrawaddy, the huge mass of brickwork erected by king Bodawpaya at Mingun may be seen, with innumerable white pagodas dotted over the hills southward to Sagaing. On the east bank, opposite Sagaing, the pagodas of the old city of Ava, and farther to the left those of Amarapura, rise above the trees.

Half a mile to the west of the south-west corner of the fort is the main bazar, called the Zegyo. The buildings of this huge mart, which covered 12 acres, were erected under king Mindon, and utterly destroyed by fire in 1897. They have since been replaced by a masonry bazar, costing 8 lakhs, where almost everything obtainable in Mandalay may be bought. The bazar sellers are mostly women . and unmarried Burman girls of all classes may be seen displaying their good looks as well as their wares, and sharpening their wits in competition with natives of India, against whom they can hold their own much better than their men-folk.

Within the fort walls are barracks and officers' quarters for one British and two Native infantry regiments. The jail is in the north-west corner, and near it Government House overlooks the moat from the north wall. To the north of the fort, skirting Mandalay hill, are the Burma Sappers' lines, and quarters for a mountain battery. To the south, outside the walls, lie the courthouses, municipal office, and circuit-house ; and farther west the hospital, the «^¿-bungalow, and the railway station. On the west, in the business quarter of the city, are the post and telegraph offices, and the main bazar. There are twelve markets besides the Zegyo within municipal limits, and seventeen police stations and outposts.

Of European religious buildings the chief is the Roman Catholic cathedral, situated in the business quarter. It was completed in 1898, the entire cost being borne by a wealthy Burman convert. The Society for the Propagation of the Gospel has a church and school, built by king Mindon, across the Shwetachaung in the west; the mission of the English Wesleyans is south of the fort, and that of the American Baptists a mile to the south-west. The St. Joseph's Orphanage, opened in 1904, gives free board and teaching to 150 Chinese boys. The St. John's Leper Asylum, a Roman Catholic institution, was built in 1902 at a cost of 3 lakhs through the energy of the late Father Wehinger. It contains seven wards accommodating 50 patients each, and in 1904 had 323 inmates. The asylum is maintained at a cost of Rs. 34,000 a year. Expenses are met by a Government grant of about Rs. 6,000 a year, contributions from municipal and other Local funds amounting to over Rs. 10,000, and private

subscriptions. A little to the west are the wards of the Mission to Lepers in the East, of which the local superintendent is at present a Wesleyan missionary. In 1904 there were 138 inmates in this asylum, besides 11 untainted children of lepers kept separately. The annual cost of maintenance is Rs. 15,000, defrayed from a Government grant of Rs. 3,300, municipal and Local fund contributions (Rs. 4,000), the mission fund (Rs. 2,200), and local subscriptions (Rs. 6,000). The mission has been at work in Mandalay since 1890. The city contains over a hundred Buddhist monasteries and schools, and several mosques.

The population of Mandalay in 1901 was 183,816, a decrease of 4,999 since the first Census taken in 1891. Of this number, 166,154 persons were living within municipal limits and 17,662 in cantonments. Half of the decrease was Population, in cantonments, and was due mainly to the reduction of the garrison, the falling off in the city itself being little more than 1 per cent. Of the people living within municipal limits, 91 per cent, were returned as speaking Burmese, 4[^] per cent. Hindustani, less than 1 per cent. English, and 3[^] per cent, other languages, mostly Indian. A large proportion, however, of the Burmese-speaking people have Indian blood in them. While the number of those speaking Indian languages cannot exceed 8 per cent., those returning themselves as Muhammadan or Hindu in religion are no less than 13 per cent, of the total population ; consequently, it would seem that at least 5 per cent, of the Burmese-speaking people must be partly Indian in race. The proportion is possibly greater, for there are many Buddhists of mixed descent. The Chinese in the District numbered 1,365 males and 211 females in 1901, and probably nearly all these were in Mandalay city. The city has several colonies of Manipuris and Hindus from Manipur, Assam, and Arakan, brought as captives after the invasions of those countries, and now called indiscriminately Ponnas. They are all of the Hindu religion, and do not as a rule intermarry with Burmans, but their women wear Burmese dress. Of the 9,000 Ponnas enumerated in the District in 1901, the majority were residents of the city. Christians numbered 2,470, or 1[^] per cent, of the total population. Roman Catholic missionaries have been established in Upper Burma since the eighteenth century : the Society for the Propagation of the Gospel has had a school in Mandalay from the time of king Mindon ; and the American Baptists and English Wesleyans also have churches and schools. Of the cantonment population, nearly two-thirds were returned as Burmans.

The census returns show that unskilled labourers and their dependents in 1901 numbered 18,000. religious devotees (monks, &c.) 11,000, and Government servants, including the troop«?. 9,000.

Nearly 8,000 persons were connected with agriculture, and about 10,000 with personal services of various kinds. Of the industries, cotton-weaving ranked first, with close upon 11,000 representatives. Tailors and sempstresses, with their dependents, numbered 10,000. Next came sawyers, carters, and workers or dealers in the precious metals, each with 7,000, sandal-makers with 6,000, and silk-weavers with 5,000. Tanners and lacquerers accounted for more than 2,000, and blacksmiths for a similar number.

The arts and crafts of Mandalay include nearly everything that the Burmese race is capable of producing. The use of machinery is almost unknown; and with the exception of a few Industries, brewery belonging to a European firm, and a few rice and timber-mills, almost all the industries are carried on in the home. Among the arts may be included hammered silver-work, wood-carving, iron-work, painting, and a kind of embroidery, called *shwechido*, of gold and silver thread and spangles. The silver-work now consists mostly of bowls with figures in relief. It is of unequal merit, but good work can be got if demanded. The wood-carving, though the most national of all the arts practised, is in its decadence. The work of the old craftsmen was intended for the open air, where it was exposed to the elements and needed to be effective at a distance. The best work still shows its origin in its bold free lines and vigour of execution. The ironwork chiefly consists of *htis*, intended to ornament the tops of pagodas. The painting produced in the city is not of a high order, but the work on silk is in demand among Europeans. The *shivechido* work is the most characteristic of all. It is gorgeous and effective, being used for the palls at the cremation of monks and for the dresses of royal personages on the stage; but it does not last well, nor does it lend itself to fine detail. Equally rich in effect is a rough kind of gold lacquer interspersed with coloured glass, a favourite material for monastic furniture. The ordinary lacquer-work is inferior to that of Pagan, and is used mostly for platters, the designs on which are effective but wanting in variety. The material used is not lac but *thitsi*, the gum of the *jSfelcuiorrhoea usitata*. The patterns of the silk *pasos* and *tameins*, including the beautiful *achcik* work, are constantly varying, and the fashions change as quickly as in any European capital. The making of brass and marble images of Buddha can hardly be called an art, as there is no variation in the type. Brass-work is moulded by the *cire perdu* process. The figure is modelled in wax and encased in a shell of clay. It is next subjected to an intense heat, which expels the wax. The molten brass is then poured in and takes the place of the wax. A pure white marble is obtained from the quarries at Sagyin, 20 miles to the north; and the images made of it, sometimes of great size, are sent all over Burma. Among the minor

industries of the city may be mentioned the making of gongs, circular or three-cornered, and the preparation of sacred writings with ornamental lettering on brass or lacquer.

A municipal committee was formed in Mandalay in 1887, and has members representing the European, Burmese, Muhammadan, Hindu, and Chinese communities. The principal sources of . . revenue are the house and land tax, which has risen Admin'strati'on steadily from 1.6 lakhs in 1888-9 to 2.4 lakhs in 1903-4, and market dues, which yielded 1.4 lakhs in 1888-9, 2.7 lakhs in 1902-3, and 2.1 lakhs in 1903-4. Of this amount the Zegyo bazar contributed 1.5 lakhs in 1902-3, and 1.2 lakhs in 1903-4, the falling off in the latter year being due to a fire in 1903. Slaughter-houses yielded Rs. 44,000 in 1903-4. Other sources of income are the cart tax and toll, which has increased in the last five years from Rs. 23,000 to Rs. 31,000; and the hackney-carriage tax, which has fallen off from Rs. 11,000 to Rs. 9,000. The principal item of expenditure is conservancy, which cost 1.1 lakhs in 1903-4, while Rs. 14,000 was received as conservancy fees. Roads are a varying item of expenditure. The average for the past five years is Rs. 1,30,000, besides Rs. 26,000 for establishment. The maintenance of the hospital costs about Rs. 65,000 yearly, the fees received being about Rs. 5,000. About Rs. 50,000 a year is devoted to education. There is no municipal school, but the Educational department divides the grant among mission and other schools. The lighting of the town costs Rs. 43,000, which amount is just covered by a tax levied for the purpose. The expenditure on general administration rose from Rs. 28,000 in 1899-1900 to Rs. 36,000 in 1903-4, and that on the collection of taxes from Rs. 15,000 to Rs. 19,000. The survey costs about Rs. 16,000 a year, and the fire brigade Rs. 20,000. Vaccination and registration of births and deaths each cost about Rs. 4,000. Other items are Rs. 20,000 payable to Government to defray the annual cost of the embankment surrounding the city, and grants of Rs. 10,000 to the cantonment fund and Rs. 10,800 to the leper asylums. The total income and expenditure during the ten years ending 1901 averaged 5.4 lakhs. In 1903-4 they were respectively 15 lakhs and 12 lakhs. The incidence of taxation in the city is Rs. 1.8-4, or about 2s. per head. Income tax is levied by Government, but not *thathameda*, so that persons with incomes of less than Rs. 1,000 are more lightly taxed than in the villages outside municipal limits. The length of roads within the municipality is 117 miles, of which, however, only 51 are metalled. An electric tramway, opened in 1904, runs along 12 miles of road; and it is proposed to light the city, or part of it, by electricity, in place of oil. Both conservancy and water-supply are capable of great improvement. Night-soil is removed in carts, but only when the houseowner chooses

to pay a fee. In the business quarter, however, a tax has been sanctioned. The water-supply is from the moat and river, and from wells. A scheme for sinking new wells at a cost of 3[^] lakhs is under consideration. The average death-rate during the five years ending 1903-4 was 38.2, and the birth-rate 40.72 per 1,000. The hospital, which was built in 1891, had 2,482 in-patients in 1903-4, and medicines were dispensed in over 17,000 cases. In addition to the hospital, there is a dispensary near the Zegyo bazar, at which a somewhat larger number of cases were attended to.

The cantonment fund is chiefly maintained by grants-in-aid from the Government and the municipality, amounting in 1903-4 to Rs. 54,000. These are supplemented by house, conservancy, and other taxes, yielding in all about Rs. 16,000, a sum of Rs. 7,000 from market dues, and other collections amounting to about Rs. 4,000. The chief items of expenditure are conservancy (Rs. 31,000), police (Rs. 17,000), and hospital (Rs. 8,000). There are 26 miles of metalled roads within cantonment limits, maintained from Imperial funds. The Upper Burma Volunteer Rifles, 560 strong, have their head-quarters at Mandalay.

Statistics regarding the educational institutions of the city (vernacular and Anglo-vernacular) are given in the District article. Of Anglo-vernacular schools, there are eight secondary and

Education. three primary. Of these, the principal are St. Peter's high school and St. Joseph's (Roman Catholic), the American Baptist Mission high and European schools, the Royal school of the Society for the Propagation of the Gospel, and the high school of the European Wesleyan Mission. Special schools include a survey school and a normal school for teachers.

Mandalay Canal.—An irrigation canal in Mandalay District, Upper Burma, running north and south, parallel to the Irrawaddy, and watering a level plain in the centre of the District, which is bounded on the north by the Madaya stream, on the south by the Myitnge river, on the east by the Shan Hills, and on the west by the Irrawaddy. The canal, which derives its water from the Madaya stream, is 39 miles in length, has 86 miles of distributaries, and is capable of irrigating 80,000 acres of land. It was commenced in 1896 and was opened in 1902, its cost having been nearly 51 lakhs. It irrigated 30,000 acres in 1903-4. It waters much the same country as a canal dug for irrigation during Burmese rule, which, owing to faulty alignment and the inability of the Burmans to deal with the cross-drainage from the Shan Hills in the east, failed of its object. The revenue derived from the work in 1903-4 was nearly a lakh.

Mandalgarh.—Head-quarters of a *zi/a* or district of the same name in the State of Udaipur, Rajputana, situated in 25° 13' N. and 75° 7' E., about 100 miles north-east of Udaipur city. Popu-

lation (1901), 1,462. To the north-west is a fort about half a mile in length, with a low rampart wall and bastions encircling the crest of the hill on which it stands ; it is strong towards the south, but assailable from the hills to the north. The fort is said to have been constructed about the middle of the twelfth century by a chief of the Balnot clan of Rajputs (a branch of the Solankis). According to the Musalman historians, it was taken by Muzaffar Shah of Gujarat at the end of the fourteenth century, and twice by Mahmud Khilji of Malwa in the middle of the fifteenth century. Subsequently, it belonged alternately to the Ranas of Udaipur and the Mughal emperors. In or about 1650 Shah Jahan granted it in *jdgir* to Raja Rup Singh of Kishangarh, who partially built a palace there, but Rana Raj Singh retook it in 1660. Twenty years later, Aurangzeb invaded Mewar and captured Mandalgarh, and in 1700 he made it over to Jujhar Singh, the Rathor chief of Pisangan (in Ajmer District), from whom it was recovered by Rana Amar Singh in 1706 ; and it has since remained in the uninterrupted possession of his successors, in the town are a primary school, attended by about 60 boys, and a dispensary'. Iron mines are still worked at Bigod and other places in the district.

Mandapeta.—Town in the Ramachandrapuram *taluk* of Godavari District, Madras, situated in 16° 51' N. and 81° 55' E. Population (1901), 8,380. Local affairs are managed by a Union *panchayat*.

Mandargiri.—Hill about 700 feet high, in the Banka subdivision of Bhagalpur District, Bengal, situated in 24° 50' X. and 87° 2 1 C., about 40 miles south of the town of Bhagalpur. The hill, which consists of a huge mass of granite overgrown near the summit with low jungle, is a sacred spot to the Hindus, who consider it the mythological mountain Mandar, which was used in churning the ocean. The oldest buildings are two ruined temples near the top of the hill, which are ascribed by local tradition to a legendary Chola king who was cured of his leprosy by bathing at a tank here. There are two inscriptions and some rude carvings on the rock, and numerous artificial tanks have been cut in the side of the hill, some of which go back to the time of Aditya Sen (A. D. 675). The largest of these, known as the Sitakund, is 100 feet long by 500 feet wide and stands 500 feet above the surrounding plain.

[M. Martin, *Eastern India*, vol. ii, pp. 60-3.]

Mandasor Zila.—District of the Gwalior State, Central India, lying between 23° 33' and 25° 11' X. and 74° 11' and 75° 54' E., with an area of 1,721 square miles. The population in 1901 was 196,434, giving a density of 114 persons per square mile. The district contains three towns—MANDASOR (population, 20,936), the head-quarters, NIMACU (including the cantonment, 21,588), and

Jawad (8,005)—and 775 villages. It is divided into seven *fla?-ganas*, with head-quarters at Mandasor, Nimach, Bhaogarh, Jawad, Nahargarh, Singoli, and Gangapur. The land revenue is Rs. 9,03,000. Mandasor lies on the Malwa plateau, and, except for the range which runs east and west to the north of Nimach, consists of a level plain covered with black cotton soil. Poppy is largely grown.

Mandasor Town.—Head-quarters of the district of the same name in Gwalior State, Central India, situated in 24° 4' N. and 75° 5' E., on the bank of the Siwana (Seuna or Sau) river, a tributary of the Sipra, and on the Ajmer-Khandwa branch of the Rajputana-Mahva Railway, 1,516 feet above sea-level. The population fell from 25,785 in 1891 to 20,936 in 1901. The town is a centre of the opium trade, one of the Government depots at which duty is levied on the drug being established here. Another industry of some importance is the manufacture of coloured cloth for quilts and *chunris* (a piece of printed cloth worn by women to cover the arms and upper part of the body). Local affairs are managed by a municipality constituted in 1902. The income amounts to Rs. 1,300, derived mainly from octroi. Besides the usual offices, a combined British post and telegraph office, a State post office, a police station, a dispensary, a school, and an inspection bungalow are situated here.

Mandasor is a place of considerable antiquity and of historical and archaeological importance. Its name in former days was Dasha-pura, or the 'township of ten hamlets,' and it appears to be referred to in an inscription found at Nasik, which dates from early in the Christian era. An inscription near Mandasor refers to the erection of a temple of the Sun in 437, during the rule of Kumara Gupta I, which was repaired thirty-six years later. As the town stands now, it is entirely Muhammadan, though Hindu and Jain remains are numerous. The fort on the east of the town is said to have been founded by Ala-ud-din Khilji in the fourteenth century, but it was considerably increased and made a place of importance by Hoshang Shah (1405-34) of Malwa. Many of the stones used in the construction of the wall seem to have been brought from Afzalpur, 12 miles to the south. Owing to its position, Mandasor figures continually in history. Near the big tank, outside the city, Humayun surrounded the camp of Bahadur Shah in 1535 and defeated him, driving him out of Malwa. When Malwa was taken by Akbar in 1562, Mandasor became the head-quarters of the Mandasor *sarkar* of the *Subah* of Malwa. In the eighteenth century it fell to Sindhia, in whose possession it has since remained. After his defeat at Mehidpur, Holkar came to terms with the British, and the treaty by which Malwa was settled was signed at Mandasor early in 1818.

In the Mutiny of 1857 one Sahibzada Firoz Shah, a member of the Delhi house, raised his standard here and collected a considerable following, among whom were a large number of Rohillas. As their presence endangered the safety of Nimach, the Malwa field force made a rapid advance on the fort, which was captured on November 21, 1857. A fierce fight took place three days later at the village of Guradia, 5 miles north-west of Mandasor, in which the Rohillas fought bravely; but their defeat broke up the forces of Firoz Shah and completely cleared this part of the country.

In Mandasor itself and in the neighbourhood there are numerous remains of archaeological interest. The village of Sondani (or SongnT), 3 miles to the south-east, contains two magnificent monolithic sandstone pillars with lion and bell capitals. An inscription incised on both of them records that Vasodharman, king of Malwa, defeated at this spot the Huna adventurer Mihirakula, probably in 528. Great importance attaches to these for their use in settling the commencement of the Gupta era.

[J. F. Fleet, *Indian Antiquary*, vol. xv.]

Mandawa.—Town in the Shekhawati *nizamat* of the State of Jaipur, Rajputana, situated in 28° 4' N. and 75° 9' E., about 90 miles north-west of Jaipur city. Population (1901), 5,165. A combined post and telegraph office and several schools are maintained here.

Mandawar.—Town in the District and *tahsil* of Bijnor, United Provinces, situated in 29° 29' N. and 78° 8' E., 8 miles north of Bijnor town. Population (1901), 7,210. It was identified by St. Martin and by General Cunningham with the Motipura visited by Hiuen Tsiang in the seventh century; but this identification rests entirely on its distance from various places, and no excavations have been made¹. According to tradition, some Agarwal Banin* settled here in the twelfth century, when they found the place deserted. The town was captured by Timur in 1399, and was the capital of a *mahdl* or *pargana* under Akbar. In 1805 it was pillaged by Amir Khan, the Pindari, and during the Mutiny it suffered at the hands of Jat marauders. A mound half a mile square rises some 10 feet above the rest of the town, containing large bricks. The Jama Masjid stands on this, constructed from the materials of a Hindu temple. North-east of the town is another large mound, and there are two tanks in the neighbourhood. Mandawar is administered under Act XX of 1856, with an income of about Rs. 1,200. There is a small industry in papier mache; and boxes, pen-trays, paper-knives, &c., are made. A primary school has 126 pupils, and two aided schools have 85 pupils. The American Methodist Mission has a branch here.

¹ *Archaeological Survey Reports*, vol. i, p. 24S.

Mandhata.—Village in the Khandwa *iahsil* of Nimar District, Central Provinces, situated in $22^{\circ} 15'$ N. and 76° $< /$ E., 32 miles from Khandwa and 7 miles east of Mortakka station on the Rajputana-Malwa Railway. Population (1901), 832. It stands on the Narbada river and is a well-known Hindu place of pilgrimage, as it contains one of the twelve celebrated *liigams* of Siva. The village of Mandhata is built partly upon the south bank of the Narbada and partly upon an island in the river, and is exceedingly picturesque with rows of houses, temples, and shops, and the Rao's palace conspicuous above the rest, standing on terraces scarped out of the sides of a hill on the island. Between the island and the southern bank the Narbada forms a deep pool, which is full of large tame fish. Upon the summit of the hill are signs of a once flourishing settlement, in the shape of ruined fortifications and temples. The most interesting is the temple of Siddhanath. It stands on a raised platform, whose plinth is supported by elephants in various positions. The temple of Onkar on the island is a comparatively modern structure, but the great columns supporting it have been taken from some older building. On the north bank of the river are some Vaishnava and Jain temples. The Rao of Mandhata, the hereditary custodian of all the modern temples, is a Bhilala, claiming descent from a Chauhan Rajput who is said to have taken Mandhata from a Bhil chief in 1165. A large fair is held annually in October, at which in former times devotees of Bhairon threw themselves from the cliffs and were dashed to pieces on the rocks in the river. The last sacrifice of this kind was witnessed by a British officer in 1824. It is the practice at the fair to present horses as offerings at the shrine of Siva : and as the frugal worshippers are inclined to consider that any horse will pass muster for an offering as long as it is alive, it has come to be a proverb, when describing an absolutely worthless horse, to say that it is good enough to be offered at the shrine of Mandhata.

Mandi State.—Native State in the Punjab, under the political control of the Commissioner, Jullundur Division, lying between $31^{\circ} 23'$ and $32^{\circ} 4'$ N. and $76^{\circ} 40'$ and $77^{\circ} 22'$ E., in the upper reaches of the Beas. It is bordered on the north by Chhota Bangahal; on the east by the Nargu range, which divides it from the Kulu valley, and by the Beas, Tirthan, and Bisna streams ; on the south it adjoins Suket, and on the west Kangra District. It is 54 miles long and 33 broad, with an area of 1,200 square miles of mountainous country. 'Flic

Beas enters at the middle of its eastern border, and
 Physical aspects leaves it near the north-west corner, thus dividing it
 into two parts; of which the northern is the smaller.

This is trisected by two parallel ranges, of which the higher and eastern, the Ghoghar-ki-Dhar, is continued south of the Beas and extends into the south-west of the State. The south-eastern corner,

the Mandi Sarāj, or 'highland,' is formed by the western end of the Jalauri range.

The State lies partly on rocks belonging to the central Himalayan zone, of unknown age, and partly on Tertiary shales and sandstones. The rocks of the central zone consist of slates, conglomerates, and limestones, which have been referred to the infra-Blaini and Blaini and Krol groups of the Simla area. The sandstones and shales of the sub-Himālayan zone belong to the Sirmūr series, of Lower Tertiary age, and to the Siwālik series (Upper Tertiār)'). The most important mineral is rock-salt, which appears to be connected with the Tertiary beds¹.

\\ild flowers—such as the anemone, dog-violet, and pimpernel—grow abundantly in the hills in March and April. The best timber trees are the *deodār*, blue pine, *ckll* (*Finns longifolia*), spruce, silver fir, and box. The forests abound in game, leopards, bears (especially black), hyenas, barking-deer, *gitral*, and musk deer being common. Leathered game are also abundant, and fish in the larger streams.

The autumn months are unhealthy, except in the upper range.', the lower valley being malarious. The temperature is generally cool even in summer, except at Mandi, the capital, which is shut in by hills, and in the west of the State, which is only about 2,000 feet above sea-level. The rainfall in the upper ranges of the Nargu and Ghoghar-ki Dhār hills is heavy.

Mandi formed part of Sukel State until in the reign of Salni Sen, the eleventh of the Chandarbansi Rājās of that kingdom, Bahu Sen, his younger brother, left Suket and settled at Mang-laur in Kulii. His descendant, Karanchan, was killed in a battle fought with the Rājā of Kulü, and his Rani, who was pregnant, fled to her father's house at Seokot. On the way a son was born to her under an oak-tree (*bān*), who succeeded the Rānā of Seokot under the title of Ban Sen. Ban Sen enlarged his possession.', and transferred his capital to Bhin, 4 miles above Mandi town; and his son, Kalyān Sen, purchased Batauhli opposite Mandi on the other side of the Beās. Little is known of their successor.', until the time of Ajbar Sen, who founded the town of Mandi in 1527. The ambition of a later chief, Sūraj Sen, brought disaster upon the principality. Having attacked Bangāhal, he was defeated by Man Singh, the Rājā's brother-in-law, lost the salt-mines of Guma and Drang, and was compelled to sue for peace and pay a war indemnity; yet he built the strong fort of Kamla in 1625 and the Damdama palace at Mandi. All his eighteen sons having died in his lifetime, he had an image made of silver which he called Mādhava Rao, and to it he bequeathed hi*

¹ Medliccf. 'The Sub-11 imālaya» Range I etween the Hango and Ravi.' *Memoirs. Geological Survey of India*, \ul. iii, pi. ii.

kingdom in 1648. He was succeeded in 1658 by his brother Shyam Sangh, who built the temple of Shyami Kali on the Tarna ridge in Mandi town. His successor, Gur Sen, brought the famous image preserved in the Padal temple from Jagannath; and his illegitimate son, Jippu, reorganized the revenue of the State on a system still in force. Raja Sidh Sen, who succeeded in 1686, a great warrior supposed to be possessed of miraculous powers, conquered Nachan, Hath, and Daled in 1688, and Dhanesgarh, Raipur, and Madhopur from Suket in 1690 : but he treacherously murdered Pirthi Pal, the Raja of Bangahal, at Mandi. He adorned his capital with a temple of Ganpati, and also built the Shivapuri temple at Hatgarh in 1705. It is said that Guru Gobind Singh was hospitably entertained by him at Mandi, an occasion on which the Guru blessed him. Sidh Sen is recorded to have died at the age of 100 in 1729. His grandson and successor, Shamsher Singh, conquered Chuborai, Ramgarh, Deogarh, Hastpur, and Sami from Kulu. His son, Isri Sen, succeeded when only five years old ; and Sansar (.hand, the Katoch Raja of Kangra, seized the opportunity to invade Mandi. He took Hath and Chohar, which he made over to Suket and Kulu respectively, and Anantpur, which he retained. Isri Sen was kept a prisoner in Kangra fort, and his ministers paid tribute to the conqueror. In 1805 Sansar Chand attacked Rahlur, and its Raja invoked the aid of the Gurkhas, who had already overrun the country from the Gogra to the Sutlej. The allies defeated the Katoch Raja at Mahal Mori in 1806; and Isri Sen, released from captivity, paid homage to the Gurkha Amar Singh and was restored to his kingdom. But in 1809 the Sikhs, under Ranjit Singh, drove the Gurkhas back across the Sutlej, and in 1810 Desa Singh Majithia was appointed *ndzim* of all the Hill States including Mandi. Its tribute, at first Rs. 30,000, was raised to a lakh in 1815, reduced again to Rs. 50,000 a year or two later, and fixed at Rs. 75,000, in addition to a succession fine of one lakh, on the accession of Zalim Sen in 1826. On the death of Ranjit Singh in 1839, the Sikh government determined to complete the reduction of Mandi, as a stepping-stone to the projected conquest of Chinese Tartary. In 1840 General Ventura occupied Mandi, and Kamlagarh capitulated after a siege of two months. The Raja, Balbir Singh, was sent a prisoner to Amritsar, but was released in 1841 by Maharaja Sher Singh and returned to Mandi. The oppression of the Sikhs drove him into negotiations with the British; and after the battle of Sobraon his proffered allegiance was accepted, and the relations between the Raja and the paramount power were defined in a *sanad* dated October 24, 1846. By that date the Sikh garrisons had already been expelled by the unaided efforts of the Raja and his subjects. Balbir Singh died in 1851, and was succeeded by his four-year-old son, Bijie Sen. A Council of Regency was formed

under the presidency of Wazir Gusaon. Dissensions among the members compelled Government in 1852 to entrust all the real power to the Wazir, and during the remaining years of the Raja's minority the State was well governed. The training of the Raja was, however, neglected until too late, and his accession to the throne in 1866 was followed by confusion in the State. During the rest of his long reign the administration was carried on only with the perpetual assistance and advice of the British Government. Bije Sen died in 1902, and his illegitimate son, Bhawani Sen, was recognized as his successor. He was educated at the Aitchison College, Lahore, and for the first two years after his installation in 1903 had the assistance of an officer of the Indian Civil Service as Superintendent of the State. The Raja of MandT is entitled to a salute of 11 guns.

Besides MandI Town, its capital, the State contains 146 villages. The population at the last three enumerations was : (1881) 147,017, (1891) 166,923, and (1901) 174,045. The State is ^{Population} divided into 24 *wazlms*, and each of these was ^{*} formerly divided into *mahmis* or groups of hamlets (*graon* or *bdsi*), with head-quarters at a *garh* or fort in which the revenue in kind was stored. Hindus number 170,304, or about 98 per cent, of the population; and there are 3,187 'Muhammadans and 510 Buddhists. The State is sparsely populated. The language is MandialT, but Saraj has a distinct dialect called Paharl. By far the most numerous caste is that of the Kanets, who number 82,000, and are essentially agriculturists. After them come the Brahmans (19,000), Dumnas (Dums or low-castes, 14,000), Kolls (14,000), and Chamars (leather-workers, 11,000). The Rajputs (6,000) form a territorial aristocracy under the Raja. Of the total population, 84 per cent, live by agriculture, supplemented by pasture and rude home industries. The industrial castes are few, and numerically small.

The principal autumn crops are rice, maize, *mash* (*Phascolus radiatus*), millets, and potatoes : the principal spring crops are wheat, barley, tobacco, and sugar-cane. The Raja is the sole proprietor of all the land in the State. Lands ^{ericulture*} are leased to *malguzdrs* by written leases, which specify the revenue and *be gar* (if any) due on the holding and its extent, and stipulate that an enhanced rate is to be paid if additional land is brought under cultivation. On the other hand, a *mdlguzdr* can be ejected only for disloyalty or failure to pay rent, and he is forbidden to sell or mortgage his holding, though he may transfer its possession for a period not exceeding fifteen years. Under the *mdlguzdrs* tenants cultivate, usually on payment of half the produce.

The area for which particulars are on record is 1,130 square miles, of which 550 square miles, or 48 per cent., are forests; 112, or

10 per cent., not available for cultivation ; 6S, or 6 per cent., cultivable waste other than fallows ; and 400 square miles, or 36 per cent., are cultivated. The staple food-crops are rice, maize, pulses, millets, and potatoes, the last introduced some years ago. Cotton and turmeric are also grown. In spring, wheat, barley, and gram are the main crops in the lowlands. Poppy is grown in the highlands, and inferior sugar-cane in the Ballh valley. MandT opium, like that made in Kashmir and the Simla Hill States, pays a duty of Rs. 2 per seer on import into the Punjab. Tea, introduced in 1865, is now grown in two State gardens, which produce about 60,000 lb. per annum.

The cattle, though small, are fairly strong. Buffaloes are kept only by the Gujars, who are mostly immigrants from Jammu, and by a few landholders. Ponies and mules are scarce ; but an attempt is being made to encourage mule-breeding, and two Syrian donkeys have been imported by the State. Sheep are generally kept, and blankets and clothing made of the wool, while goats are still more numerous.

Artificial irrigation is carried on by means of *kuhls* (cuts) from the hill streams. The channels are made by private enterprise, and their management rests entirely with the people.

Nearly three-fifths of the State is occupied by forest and grazing lands. The southern hills bordering on Kulu abound in *deodar* and

Forests. blue pine, while spruce and *chil* trees are found on the lower hills in the Beas valley. Boxwood and

chestnut occur in some localities, and the common Himalayan oak grows nearly everywhere. The *tun* (*Cedrela Toona*) and *khirk* (*Celtis*) are found in numbers near villages. A forest department is now being organized. The revenue from forests in 1903-4 was Rs. 15,000.

The Ghoghar-ki-Dhar is rich in minerals. Iron is found throughout the Saraj *waziri* in inexhaustible quantities, and is collected

Mines and minerals. after rain, when the veins are exposed and the schist is soft. Owing, however, to the lack of coal, it can only be smelted with charcoal, and the out-

turn is small and unprofitable. Salt is worked at Guma and Drang, being quarried from shallow open cuttings. It is of inferior quality, but is in demand for the use of cattle, and a considerable quantity is exported to Kangra District and the neighbouring Hill States. Its export into British territory is permitted under an arrangement between the Government of India and the Raja, by which the former receives two-thirds and the latter one-third of the duty levied on the total quantity of salt sold at the mines, the Raja being authorized to charge, in addition to the duty of 4[^] annas per maund, 10[|] annas as the price of the salt. The revenue derived by the State from this source in 1903-4, when the duty was 6 annas a maund, amounted

to Rs. 96,693, while the British Government's share of the duty was Rs. 31,639.

With the exception of the ordinary manufactures of iron-ware, brass utensils, woodwork, dyeing, and weaving, there are no industries; and the trade of the State is confined to the export of rice, wheat, potatoes, tea, salt, and *g/il*, with timber ^{com}mSS_c“?_o_{ns}. and other forest produce. Piece-goods, utensils, and ornaments are imported largely, with sugar, oil, and Khewra salt in small quantities.

The principal route to Mandi town is the road from Pathankot on the North-Western Railway. This is metalled from Pathankot to Baijnath (82 miles) in Kangra District, and the State has undertaken to metal the remaining 47 miles in Mandi territory. The Beas is crossed at Mandi town by the Empress Bridge, built by the State in 1878 at a cost of a lakh. From Mandi two roads lead into Kulu : one, the summer route, over the Bhabu pass (9,480 feet), and the other over the Dulchi pass. Minor roads, open all the year round, connect Mandi town with Jullundur (124 miles), Doraha (via Rupar, 106 miles), and Simla (via Suket, 88 miles).

The Raja is assisted in the administration of the State by the Wazir, who is entrusted with very extensive powers, both executive and judicial. As a judicial officer, his decisions . . . are subject to appeal to the Raja; and sentences Administration.

of death passed by him are submitted to the Raja for concurrence, and further require confirmation by the Commissioner of the Jullundur Division, who is the Political Agent to the Lieutenant-Governor for the State. As a revenue officer, the Wazir controls the two *tahsildars*, whose judicial decisions are also subject to appeal to him. Though there are only two officers with the rank of *tahsildar*, the State is divided into four *tahsils*, Xagar-Mandi, Chichot, Gopalpur, and Harabagh, which comprise 5, 3, 3, and 10 of the old *zavaziris* respectively.

The total revenue in 1903-4 was 4.4 lakhs, of which 2.3 lakhs was land revenue. The tribute payable to the British Government is one lakh.

The State is divided into eight police circles, each under 21 deputy-inspector (*thanad*) and there are 137 constables. The whole force is under an Inspector. The jail at Mandi town has accommodation for 50 prisoners, and there is a lock-up at each police station. The military forces consist of 20 cavalry and 152 infantry, including gunners and police, and 2 serviceable guns.

Mandi stands low among the Districts and States of the Punjab as regards the literacy of its population, only 2.4 per cent, of the total (4.6 males and 0.1 females) being able to read and write in

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1901. The number of pupils under instruction was 121 in 1880-1, 135 in 1890-1, 201 in 1900-1, and 180 in 1903-4. In the last year there were eight schools.

The only hospital is the King Edward VII Hospital at Mandi town, built in 1902, with accommodation for 12 in-patients. It is in charge of an Assistant Surgeon; and 25,154 cases, including 1,777 in-patients, were treated at it in 1904, and 306 operations performed. The expenditure in that year was Rs. 3,615, all from State funds. Vaccination is becoming fairly popular, and since 1902 the State has entertained a vaccinator of its own.

[*State Gazetteer* (in press); L. H. Griffin, *The Rajas of the Punjab* (second edition, 1873).]

Mandi Town.—Capital of the Mandi State, Punjab, situated in 31° 43' N. and 76° 58' E., on the Beas, 131 miles from Pathankot and 88 from Simla. Population (1901), 8,144. Founded in 1527 by Ajbar Sen, Raja of Mandi, the town contains several temples and other buildings of interest. These include the Chauntra or court where the Chauntra Wazir or prime minister is installed, and the Damdama palace, built in the seventeenth century. The Beas, which passes through the town, is spanned by the handsome iron Empress Bridge, and the Suket stream, which joins that river below the town, by the Fitzpatrick Bridge. The town possesses an Anglo-vernacular middle school and a hospital. It has a considerable trade, being one of the chief marts for commerce with Ladakh and Yarkand.

Mandla District. —District in the Jubbulpore Division of the Central Provinces, lying between 22° 12' and 23° 23' N. and 79° 58' and 81° 45' E., with an area of 5,054 square miles. Mandla is the most easterly of the Satpura plateau Districts, and occupies a stretch of wild, hilly country forming part of the main eastern range of the Satpura Hills, and culminating in the plateau of Amarkantak just beyond the border in Rewah. It is bounded on the north-west by Jubbulpore District; on the north-east by the State of Rewah; on the south and south-west by Balaghat and Seoni; and on the south-east by Bilaspur District and the State of Kawardha. The Narbada river, rising at Amarkantak, flows first to the north-west,

—
^aspects^ separating Mandla from Rewah, and then turning to the west crosses the District and curves tortuously through the central range of hills. When rather more than half-way across, it makes a sudden bend to the south, thrown back by a long spur running out from the central range as far as Mandla town, and after almost enclosing the town in a loop, again turns and flows north and north-west to Jubbulpore, bounding the District for some distance on its western border. The Narbada is the centre of the drainage system, and during its passage through the District receives

tin* waters of numerous tributary streams from the south and north. The larger and richer portion of Mandla lies south of the Narbada, and consists of a succession of hill ranges running down to the river, and separated by the valleys of a number of its affluents. The principal of these are the valley of the Banjar on the west, those of the Burhner and its tributaries in the centre, and those of the Kharmer and a number of smaller streams to the east. The valley of the Banjar contains the best cultivated tract in the District, called the Haveli, which extends on both sides of the river for some miles south of its junction with the Narbada at Mandla. South of the Haveli, the Banjar valley is covered with forest. This is the lowest part of the District, and has an elevation of about 1,500 feet. East of the Banjar runs a lofty range of hills approaching the Narbada at Ramnagar, and separating the valley or plateau of the Banjar from that of the Halon and Burhner, which is 500 feet higher. To the north this plateau is much cut up by hills, with small and fertile valleys lying between them; but in the south there are large expanses of good black soil, watered by perennial streams, and covered over large areas with magnificent *sal* forests (*Sl/orea robusta*'). Still farther east lies the third plateau of Raigarh, at an elevation of about 2,700 feet. This consists for the most part of an open cultivable plain, but is very sparsely populated and covered all through the hot season with an abundance of thick green grass, which makes it a well-known grazing ground. The rivers, even in the hottest months, never quite dry up; and the numerous natural springs render wells unnecessary. The hills here are flat-topped, sometimes forming small plateaux of a few square miles in extent. Amarkantak, across the border, which is the most important of these, has an elevation of 3,400 feet, while Chauradadar within the District is of about the same height. North of the Narbada the hills become more rugged and inaccessible, and extend over most of the country. The valleys are small and scattered, though some of them are extremely fertile.

The geology of Mandla presents but little variety, as except on the southern and eastern borders nearly the whole surface is covered with trap. In the south, the formation of the tract on both sides of the Banjar to within a short distance of its junction with the Narbada consists of crystalline rocks ; but they are not exposed over any wide area. East of the Banjar valley, though granite, syenite, and limestone frequently appear on the banks of streams and form the sides of hills, yet almost everywhere, even on the tops of the highest peaks, trap is the uppermost rock, and sometimes the trap itself is covered by laterite.

Sal (*Shorea robusta*) is the most important timber tree of the District, and occupies the higher hill-sides. The forests on lower levels are

of the mixed type common in the Central Provinces, teak and bamboos being the most important trees. Other common trees are *harrd* (*Terminalia Chebula*), *sdj* (*Terminalia tomentosa*), *tcndu* (*Diospyros tomentosa*), *kusumb* (*Schleichera fnjuga*), *Judd a* (*Adina cordifolia*), and *dhciura* (*Afiogeissus la ffolia*).

Wild animals are still plentiful in most of the District forests, especially in the central and southern regions. Towards the east they have been almost exterminated by the snares and poisoned arrows of the Baigas. Bison are found in most of the forests, and these animals are now being carefully preserved; but they are nowhere very numerous, as they appear to suffer periodically from epidemics of cow-pox, with which they are doubtless infected by tame cattle grazing in the forests. The wild buffalo is not now met with, though it must at one time have been common, and it has been shot in the Phen valley within the last fifteen or twenty years. The deer tribe is well represented. The *bardsingha* or swamp deer is found in large herds in the *sal* forests. *Sdmbar*, spotted, and barking-deer are common, and the mouse deer is also found. *Nilgai* and antelope are frequently seen in the open plains, but *chinkdra* or 'ravine deer' are somewhat rare. Tigers, leopards, and bears are found in all the forests. The numerous packs of wild dogs are very destructive to game. Partridges and quail are fairly common, but water-birds are not numerous, as there are very few tanks. Mahseer and other kinds of fish are found in the Narbada, but seldom attain to full size.

The climate is cool and pleasant. December and January are the coldest months, and occasionally frosts occur. On the higher plateaux ice is by no means rare. Malarial fever of a somewhat virulent type is prevalent during the monsoon and autumn months.

The annual rainfall averages 52 inches. Hailstorms not infrequently occur in the winter months and do serious damage to the crops, and thunderstorms are common in the hot season.

The Gond Rajput dynasty of Garha-Mandla commenced, according to an inscription in the palace of Ramnagar, in the fifth century, with ^ ^ the accession of Jadho Rai, a Rajput adventurer who entered the service of an old Gond king, married his daughter, and succeeded him on the throne. Cunningham places the date two centuries later, in 664. The original seat of the dynasty is supposed to have been Garha near Jubbulpore, but this theory is discredited by the fact that the Kalachuri Rajput dynasty was in power there as late as the twelfth century. In any case the Garha-Mandla kingdom was a petty local chiefship until the accession of Sangram Sah, the forty-seventh king, in 1480. This prince extended his dominions over the Narbada valley, and possibly Bhopal, Saugor, and Dam oh, and most of the Satpura hill country, and left fifty-two

forts or districts to his son. The control of the Garha-Mandla kings over their extended principality was, however, short-lived, for in 1564 Asaf Khan, the imperial viceroy, invaded their territories. The queen Durgavati, then acting as regent for her infant son, met him near the fort of Singorgarh in Damoh; but being defeated, she retired past Garha towards Mandla, and took up a strong position in a narrow defile. Here, mounted on an elephant, she bravely headed her troops in the defence of the pass, and notwithstanding that she had received an arrow-wound in her eye refused to retire. But by an extraordinary coincidence the river in the rear of her position, which had been nearly dry a few hours before the action commenced, began suddenly to rise and soon became unfordable. Finding her plan of retreat thus frustrated, and seeing her troops give way, the queen snatched a dagger from her elephant-driver and plunged it into her breast. Asaf Khan acquired an immense booty, including, it is said, more than a thousand elephants. From this time the fortunes of the Mandla kingdom rapidly declined. The districts afterwards formed into the State of Bhopal were ceded to the emperor Akbar, to obtain his recognition of the next Raja, Chandra Sah. In the time of Chandra Sah's grandson, Prem Narayan, the Bundelas invaded Narsinghpur and stormed the castle of Chauragarh. During the succeeding reigns family quarrels led the rival parties to solicit foreign intervention in support of their pretensions, and for this a price had always to be paid. Part of Saugor was ceded to the Mughal emperor, the south of Saugor and Damoh to Chhatarsal Raja of Panna, and Seoul to the Gond Raja of Deogarh. In 1742 the Peshwa invaded Mandla, and this was followed by the exaction of *chauth*. The Bhonslas of Nagpur annexed the territories now constituting Balaghat and part of Bhandara. Finally, in 1751, the last king of the Gond-Rajput line was deposed, and Mandla was annexed to the Maratha government of Saugor, then under the control of the Peshwa. At some period of the Gond kingdom the District must have been comparatively well populated, as numerous remains of villages can be observed in places now covered by forest; but one of the Saugor rulers, Vasudeo Pandit, is said to have extorted several lakhs of rupees from the people in eighteen months by unbridled oppression, and to have left it ruined and depopulated. In 1799 Mandla was appropriated by the Bhonsla Rajas of Nagpur, in accordance with a treaty concluded some years previously with the Peshwa ; and during the period of eighteen years which followed, the District was repeatedly overrun by the Pindaris, who, however, did not succeed in taking the town of Mandla. In 1818 Mandla became British territory ; and as the Maratha garrison in the fort refused to surrender, a force under General Marshall took it by assault. The peace of the District was not subsequently disturbed, except for a brief period

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during the Mutiny of 1857, when the chiefs of Ramgarh, Shahpura, and Sohagpur joined the mutineers, taking with them their Gond retainers, who, though not really disaffected, followed their chiefs with their usual unquestioning faithfulness. Order was restored early in 1858, and the estates of Ramgarh and Shahpura were subsequently confiscated, while Sohagpur was made over to Rewah. The last representative of the Gond Rajput kings, Shankar Sah, had retired to Jubulpore, where he held an estate of a few villages. During the Mutiny he attempted to raise a party in Jubulpore, then in a very disturbed condition, with a view to rebellion. On being captured and convicted, he and his son were blown away from guns.

The District contains few notable buildings. Deogaon, at the junction of the Narbada and Burhner, 20 miles north-east of Mandla, has an old temple. At Kukarramath, 12 miles from Dindorl. are the remains of numerous temples, most of which have been excavated and carried away to make the buildings at Dindorl. The palace of the Gond Rajas of Garha-Mandla, built in 1663, is situated at Ramnagar, about 10 miles east of Mandla on the south bank of the Narbada, and is in a fairly good state of preservation but of little architectural merit. There are numerous other ruins, as Ramnagar remained the seat of government for eight reigns.

The population of the District in the last three years of census was as follows: (1881) 300,659; (1891) 339,341; (1901) 375,250. The

Population. increase between 1881 and 1891, of 13 per cent., was attributed partly to the increased accuracy of the

Census. During the last decade the decrease was 6·1 per cent., chiefly in the Mandla taluk. The District was severely affected by famine in 1897, and there was great mortality among the forest tribes. The figures of population given below have been adjusted on account of transfers of territory since the Census of 1901 :—

Taluk.	Area in square miles.	Number of		Population.	Population per square mile.	Percentage variation in population between 1891 and 1901.	Number of persons able to read and write.
		Towns.	Villages.				
Mandla ..	2,530	1	980	178,77*	70	- 8·4	4,754
Dindon ..	2,524		854	139,629	55	- 3·9	1,812
District total	5,054	1	1,834	318,409	63	-6·5	5,966

In 1904 an area of 15 square miles with 11 villages containing 1,150 persons was transferred from Balaghat to Mandla, and 5 square miles of Government forest from Mandla to Balaghat. The corrected District totals of area and population are 5,054 square miles and

318,400 persons, The density of population is 63 persons per square mile, which is smaller than that of any District in the Province with the exception of Chanda. The District contains one town, MANDIA, the head-quarters; and 1,834 inhabited villages. The villages are usually very small, the average number of persons to each being only 174. The figures of religion show that 121,000 persons, or 38 per cent, of the population, are Hindus, and 191,000, or 60 per cent., Animists. Practically all the forest tribes are returned as still professing their own religion. Muhammadans number only 5,000. Nearly 75 per cent, of the population speak the Baghell dialect of Eastern Hindi, and nearly 25 per cent. Condi. The former dialect is spoken in the Central Provinces only in Jubbulpore and Mandla, and resembles ChhattisgarhT in many respects. About half of the Gonds speak their own language and the other half a corrupt Hindi, which is also the language of the Baigas and Kols.

The principal landholding castes are Brahmans (7,000), Kalars, Gonds, Lodhls (5,000), Banias, and Kayasths. Next to Gonds, the most important castes numerically are Ahlrs (23,000), Pankas (14,000), and Telis (10,000). The Kalars were money-lenders to the Gonds before the advent of the Bania. The Lodhls were formerly the chief landholding caste and possessed several fine estates. The Gonds number 160,000, or just half of the population. They are lazy cultivators, and favour the small millets *kodon* and *ki/tki*, which in new soil yield a large return with a minimum of exertion. The Baigas number about 14,000. They are probably the first residents of the District; and a Baiga is always the village priest and magician, on account of the more intimate and long-standing acquaintance he is supposed to possess with the local deities. The Baigas have always practised *bewar* or shifting cultivation in patches of forest, manured by burning the timber which has been cut down on it. When they were debarred from continuing this destructive method in Government forests, a Reserve of 24,000 acres was allotted to them for this purpose, in which there are still a few villages. Most of them have now, however, taken to cultivation in the ordinary manner. Until recently the Baigas considered that hunting was the only dignified occupation for a man, and left as much as possible of the work of cultivation to their women-kind. About 83 per cent, of the population of the District are dependent on agriculture.

Of the 560 Christians, 536 are natives, and most of these belong to the Church Missionary Society, which has stations at Mandla and four other villages. There are a number of European missionaries, and the institutions supported include schools at all the stations and two dispensaries.

The varieties of soil are mainly those formed by the decomposition

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of basalt rock, though in the south, and especially on the high southeastern plateau, areas of sandy soil occur. Black soil is generally

Agriculture patches in low-lying valleys; but owing * to the fact that the total area under cultivation is so small, it furnishes a higher proportion of the whole than in most Districts. The remaining land consists mainly of the shallow stony soil in which only the minor autumn crops are grown. Much of the forest stands on good cultivable soil, and although the land newly broken up in the last thirty years is generally of the poorer varieties, still the expansion of cultivation is far from having reached its limit. About 31 per cent, of the area occupied is uncultivated, resting fallows being essential in the absence of any artificial stimulus to allow the poorer land to recuperate. Wheat is sown in embanked fields in the tract round Mandla town and in open fields in the villages to the south-west, where the ground is too uneven and the soil not sufficiently adhesive to allow of embankments.

About 500 square miles, formerly Government forest, are in process of settlement on *ryotwari* tenure, while 10,000 acres are held wholly or partially free of revenue, and 33 square miles have been sold outright under the Waste Land Rules. The balance is held on the ordinary *mlguzdri* tenure. The following table gives statistics of cultivation in 1903-4, according to revenue returns, areas being in square miles:—

<i>Ta/mii.</i>	Total.	Cultivated.	Irrigate[«].	Cultivable waste.	Forests.
M and la . . . Dindori .	2 - 5 3 7 2,524	608 652	"	731 674	906 942
Total	^,061		5	'>405	00

Wheat covers 164 square miles or 13 per cent, of the cropped area, rice 173 square miles or 17 per cent., the oilseeds *til* and *jagnl* 145 square miles, and the small millets *kodon* and *kutkl* 444 square miles. The main feature of recent statistics is the decline in the popularity of wheat, and the increase in that of almost every other crop, as a result of the succession of unfavourable wheat harvests. But in the twenty years previous to the summary settlement of 1890, the area under wheat had more than doubled, while that of rice had increased by nearly 50 per cent.

The method of rice cultivation is peculiar, the young shoots being ploughed up as soon as they appear above the ground. Those which are ploughed or trodden well into the ground subsequently take root more strongly, while those left exposed on the surface die off and the crop is thus thinned. Little rice is transplanted. The practice of raising two crops in the embanked wheat-fields has grown up in the

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last thirty years, and second crops are now normally grown on about 50 square miles. Manure is applied to this area. Considerable quantities of waste or forest land have in recent years been allotted for cultivation on the *ryotwari* tenure, the area so taken up amounting to 217 square miles, on which a revenue of Rs. 57,000 is paid. Practically no loans have been taken under the Land Improvement Act, while between 1894 and 1904 1-25 lakhs was advanced under the Agriculturists' Loans Act.

The cattle used are bred locally. They are small and weak, no care being exercised in breeding, though Mandla has every facility for the production of an excellent class of bullocks. Those raised on the Raigarh and Ramgarh plateaux are the best. Buffaloes are not generally used for cultivation, but they are bred, and the cows kept for the manufacture of *ghee*, the young bulls being sold in Chhattisgarh. The upper classes generally keep a small pony of the usual type for riding, as carts cannot travel except on three or four main roads and in the Haveli during the open season. Ponies and bullocks are also largely used for pack carriage. There are very few goats or sheep.

Irrigation is insignificant, being applied only to sugar-cane, which covers about 500 acres, and to vegetable and garden crops, including the betel-vine gardens, of which there are many round Mandla town. The sandy soil of the south and south-east would, however, repay irrigation. Considerable stretches of sandy or *kachhar* land are exposed on the banks of the Narbada, which are flooded every year by the river, and fertilized by a deposit of silt; and on these vegetables and tobacco are raised.

Government forests cover an area of 1,848 square miles, distributed all over the District, though the most valuable are in the south and south-east. About 554 miles, not included in this area, have lately been demarcated for disforestation and agricultural settlement. The most important tree is the *sal* (*Shorea robusta*), which forms almost pure forests, occupying the whole of the eastern portion of the District, as well as a fringe of varying depth along the northern and southern boundaries. It is found in the south in the forests known as the Banjar and Phen Reserves, where specimens 100 feet in height and 10 feet in girth are not uncommon. The western and central portions of the District contain the ordinary type of mixed forest common all over the Central Provinces. Teak is not very plentiful and does not attain large dimensions. Bamboos, which are very numerous in these mixed forests, are their most generally useful and valuable product. Owing to the heavy rainfall, the *sal* forests in the east of the District are watered by running streams, and are widely known as grazing grounds for cattle, large

herds being brought to them annually from all parts of the Province for the hot season. Among the minor products of the forests the most important is the myrabolam. In an exceptionally favourable year the Government forests of the District have been known to yield more than 1,000 tons of this commodity. Other minor products include lac, resin from the *sal*-tree, *tlkhur*, and a species of arrow-root. The forest revenue in 1903-4 was Rs. 1,42,000, of which about Rs. 44,000 was realized from sales of timber and Rs. 47,000 from grazing.

Extensive iron-ore deposits occur in the District, and are quarried and smelted by Agarias or Gond iron workers. The industry does not flourish, as their methods are very primitive and they find it difficult to compete with imported iron. The furnaces used are so small that each smelting does not yield more than 2 lb. of refined iron. Only 34 tons of iron were produced in 1904. Manganese is reported to have been found within 3 miles of Mandla town at Sahasradhara. Limestone of good quality is common in many parts of the District, but is only quarried in small quantities to meet local requirements.

Coarse cotton cloth is produced in most of the larger villages, but no fine material is woven except by a few families of Koshtas in

Mandla town. Machine-made cloth is now worn,

Trade and communications. in the interior, except by the forest tribes,

Other classes of agriculturists usually wear hand-woven loin-cloths, and coats of cloth from the mills. The vessels manufactured from bell-metal at Mandla are well-known locally. Glass bangles are made at Itka near Nainpur, and lac bangles at Mandla, BamhnT, and Hirdenagar. The most important bazar or weekly market is at Pindrai on the western border towards SeonT, which is both a cattle and grain market, and a centre for the disposal of local produce and the purchase of imported commodities. The other large bazars are at Mandla, BamhnT, and Newari in the Mandla *lahsll*, and at Kukarramath in the Dindorl *ta/isll*. Two important annual fairs are held : at Hirdenagar situated at the junction of the Banjar with the Matiari, and at Madhpurl on the Xarbada about eight miles east of Mandla town.

Wheat, rice, oilseeds, j««-hemp, and *ghl* are the staple exports. From the forests a large quantity of *sal* timber and a little teak are sent, and also lac and myrabolams. Bombay sea-salt and Mauritius sugar come through Jubbulpore. Kerosene oil is generally used for lighting. *Gur* is imported from Cawnpore, and in spite of the cost of carriage can undersell that made locally. The pulse *arhar* is not produced in Mandla and is imported for consumption, as well as turmeric and all other condiments and spices. Vessels of brass are brought from Mirzapur and of bell-metal from Umrer. Silk and

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cotton cloth comes principally from Nagpur. Agarwal and Cahoi Baniyas conduct the general trade of the District, and Punjabi Muhammadans the timber trade.

The Jubbulpore-Gondia branch of the Bengal-Nagpur Railway, completed in 1904, passes through a small strip of the District on the south-western border, and has two stations, Nainpur and Pindrai, within the District. It is in contemplation to construct a branch line from Nainpur to Mandla, a distance of about 22 miles by the direct route. At present most of the trade from the west of the District is with Jubbulpore, along the only existing metalled road. An alternative route to Jubbulpore through Pindrai attracts some traffic, on account of the importance of the Pindrai weekly market. From Dindori, 64 miles to the east of Mandla, there is an embanked road to Jubbulpore, which affords an outlet from the north-west. Dindori is also connected with Birsinghpur and Pendra stations on the Katni-Bilaspur branch of the Bengal-Nagpur Railway. Carriage has hitherto generally been by pack-animals, except on the main routes. The District has 48 miles of metalled and 233 miles of unmetalled roads, and the annual expenditure on maintenance is Rs. 35,000. With the exception of 7 miles kept up out of Local funds, all roads are maintained by the Public Works department. Only 13 miles of avenues of trees are shown in the returns.

Mandla suffered from distress or famine in 1818-9, 1823-7, and 1833-4. On the first occasion the autumn rains were short, and excessive rain fell during the winter months. From 1823 to 1827 a succession of short crops was experienced, due to floods, hail, and blight, which caused the desertion of many villages. In 1833-4 the autumn rains failed, and the spring crops could not be sown owing to the hardness of the ground, caused by the premature cessation of the rains. Rice was imported from Chhattisgarh by Government agency, but no further details are known regarding these famines. In the general famine of 1868-9 Mandla was only slightly affected, as the *kodon* crop on which the poorest of the population depend was fairly successful, and no general relief was necessary. When the famine of 1896-7 came upon the District, Mandla had already suffered from a succession of poor crops for three years. The autumn harvest of 1896 was a total failure, and distress was very severe, especially among the forest tribes, who were inclined to view with suspicion the efforts made by Government to keep them alive. Relief operations had commenced in June, 1896, on account of the previous bad harvests, and they lasted until the end of 1897. The maximum number on relief was 37,000 persons, or 11 per cent, of the population, in September, 1897; and the total expenditure on relief was 7*5 lakhs. In 1899-1900 Mandla was not severely affected.

The Deputy-Commissioner is aided by one Assistant or Extra-Assistant Commissioner. For administrative purposes the District is

Administration. , divided into two *tahsils*, each of which has a *tahsilddar* and a *naib-tahsilddar*. The rorest officer is generally a member of the Imperial service. The Executive Engineer at Jubbulpore is also in charge of Mandla.

The judicial staff consists of a Subordinate Judge who is also District Judge, and a Munsif at Mandla. The Divisional and Sessions Judge of the Jubbulpore Division has jurisdiction in Mandla. The civil litigation is petty and crime extremely light, the commonest class of cases being contraventions of the Excise Act by the illicit manufacture of liquor.

Mandla is stated to have paid at one time a very high revenue to its Gond rulers, but when it first came under British control it had undergone an interlude of Maratha maladministration in its worst form. No records of the earlier governments remain, but at the date of the cession in 1818 the revenue paid to the Marathas is believed to have been Rs. 40,000. Under the Marathas the revenue was settled annually with the village headmen, who were allowed to retain one-seventh part of it. No rights in land were recognized, but the headmen and tenants were not usually ejected except for default. Numerous miscellaneous taxes were also imposed, the realizations from which are said to have exceeded the ordinary land revenue. One of these was the sale of widows, who were looked on as government property, and sold according to a sliding scale varying with their age and accomplishments, the highest price being Rs. 1,000. The revenue raised in the first annual settlement after the cession was Rs. 36,000; and subsequent efforts to increase this having resulted in further impoverishing the District, in 1837 a twenty years' settlement was made for Rs. 27,000. On its expiry the District was summarily assessed for a few years until the completion of the twenty years' settlement of 1868, when the revenue was fixed at Rs. 62,000, or an increase of more than 48 per cent, on the previous demand. On this occasion a cadastral survey was undertaken, and proprietary rights were conferred on the village headmen. The twenty years' settlement expired in 1888, and the District was then summarily assessed for a period of fourteen to fifteen years pending the undertaking of a regular cadastral survey. A very large increase in agricultural prosperity had taken place during the currency of the previous settlement, and the price of grain had more than doubled. At revision the revenue was raised to Rs. 1,08,000, an increase of 64 per cent, on the former * demand, but giving an incidence of less than 3[^] annas per cultivated acre. The District is now again under settlement, the previous term having expired, while a new cadastral survey has also been completed.

The following table shows the receipts, in thousands of rupees, of revenue from land and from all sources :—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue	90	1.45	1.69	1.78
Total revenue	2.4<5	4.2°	3.5	4.64

Mandla has no District council, and Local funds are administered by the Deputy-Commissioner, the income from these in 1903-4 being Rs. 31,000. MANDLA TOWN is the only municipality.

The police force consists of 311 officers and men, with 3 mounted constables, under a District Superintendent, besides 1,043 village watchmen for 1,834 inhabited towns and villages. Mandla town has a District jail with accommodation for 85 prisoners, including 8 females : the daily average number in 1904 was 69.

In respect of education the District stands fifteenth in the Province, 3.7 per cent, of the male population being able to read and write in 1901, while only 203 females were returned as literate. The percentage of children under instruction to those of school-going age is 8. Statistics of the number of pupils are as follows: (1880-1) 949; (1890-1) 1,767; (1900-1) 2,586; (1903-4) 3,873, including 283 girls. The educational institutions comprise an English middle school, 3 vernacular middle schools, and 56 primary schools. Mission schools for male and female orphans are maintained at Patpara. The expenditure on education in 1903-4 was Rs. 18,000, of which Rs. 13,500 was provided from Provincial and Local funds, and Rs. 1,400 by fees.

The District has 6 dispensaries, with accommodation for 52 in-patients. In 1904 the number of cases treated was 25,108, of whom 428 were in-patients, and 352 operations were performed. The expenditure was Rs. 4,000, mainly derived from Provincial and Local funds.

Vaccination is compulsory only in the municipality of Mandla. The number of persons successfully vaccinated in 1903-4 was 64 per 1,000 of the District population, this result being very favourable.

[J. B. Fuller, *Report on the Summary Settlement*, 1894. A District Gazetteer is being compiled.]

Mandla Tahsil.—Southern *tahsil* of Mandla District, Central Provinces, lying between 22° 12' and 23° 9' N. and 79° 58' and 81° xz E., with an area of 2,537 square miles. Population decreased from 193,928 in 1891 to 177,621 in 1901. The area and population have been slightly altered since the Census of 1901 by the transfer of territory to and from Balaghat District, and the adjusted figures are 2,530 square miles and 178,771 persons. The density is 70 persons per square mile. The *tahsil* contains one town, MANMA (population, 5,428), the

tahsil and District head-quarters; and 50 inhabited villages. Excluding 906 square miles of Government forest, 44 per cent, of the available area is occupied for cultivation. The cultivated area in 1903-4 was 605 square miles. The demand for land revenue in the same year was Rs. 90,000, and for cesses Rs. 14,000. The *tahsil* contains some open tracts of good land on the south-west, while the rest consists of a number of small and fertile valleys separated by hill ranges and forests. The eastern plateaux are covered with nutritious grass, and form a well-known grazing area for cattle in the summer months.

Mandla Town.—Head-quarters of the District and *tahsil* of the same name, Central Provinces, situated in 22° 36' N. and 80° 23' E., 60 miles south-east of Jubbulpore by road, and 22 miles from Nainpur junction on the narrow-gauge Jubbulpore-Gondia line. The town is picturesquely situated in a loop of the river Narbada, which surrounds it on three sides, and for 15 miles between Mandla and Ramnagar flows in a deep bed unbroken by rocks. Population (1901), 5,428. Mandla was made the capital of the Gond Garha-Mandla dynasty about 1670. The Gonds erected a fort and built a palace. Their successors, the Marathas, built a wall on the side of the town not protected by the river, which has lately been demolished. Mandla was held by a Maratha garrison in 1818, and was taken by assault by the British. It contains numerous *ghats* leading down to the Narbada, and some modern temples. Ramnagar, the site of a Gond palace, is 10 miles from Mandla. The town was created a municipality in 1867. The municipal receipts during the decade ending 1901 averaged Rs. 7,400. In 1903-4 the receipts were Rs. 7,600, mainly derived from a house tax and tolls on roads and ferries. The principal industry is the manufacture of vessels from bell-metal. A number of betel-vine gardens are situated in the outskirts of the town, and vegetables are grown on the stretches of sandy alluvial soil which are left exposed during the dry season on the banks of the Narbada. Mandla contains an English middle school, girls' and branch schools, besides a private Sanskrit school; three dispensaries, including mission and police hospitals; and a veterinary dispensary. A station of the Church Missionary Society has been established here.

Mandlana.—Village in the Gohana *tahsil* of Rohtak District, Punjab. See Mundlana.

Mandleshwar. Head-quarters of the *pargana* of the same name in the Indore State, Central India, situated in 22° n' N. and 75° 42'E. It stands on the right bank of the Narbada, at a narrow point where in the monsoon the stream often rises 60 feet above its ordinary level, becoming a roaring torrent. Population (1901), 2,807. ^ to ^1C Peshwa in the eighteenth century; and in 1740 was granted by Malhar Rao Ilolkar to a Brahman, Vyankatram Shastri, whose family still holds

a *sanad* for it. In 1823 it became the head-quarters of the District of Ximar, which until 1864 was managed by the Agent to the Governor-General at Indore. In 1864, on the transfer of Ximar to the Central Provinces administration, the head-quarters were moved to Khandwa, a station at the junction of the Great Indian Peninsula and Rajputana-Malwa Railways. Mandleshwar was restored to Holkar in 1867. The town contains a palace, and several bungalows erected under British rule, and also a British and State post office, a school, a dispensary, and an inspection bungalow.

Mandor.—Ruined town in the State of Jodhpur, Rajputana, situated in $26^{\circ} 21' \text{ X.}$ and $73^{\circ} 2' \text{ E.}$, about 5 miles north of Jodhpur city. Population (1901), 1,450. The place is of great historical interest from having been the capital of the Parihar Rajputs till 1381, when it was wrested from them by Rao Chonda, -and subsequently the seat of government of the Rathor Rajputs till 1459, when Jodhpur city was founded. The old fort, built originally by a Buddhist architect, but now in ruins, contains a low and dark pillared chamber, in which is found the sculptured effigy of Xahar Rao, a famous Parihar chief. On an elevated plateau not far from the fort are the Panch Kunda (‘ five reservoirs ’) ; the cenotaphs of four of the earlier Rathor rulers, the carving on that of Rao Ganga, who died about 1532, being very fine; and an old temple with an inscription dated 1210. In another direction are the cenotaphs attesting the epoch of Marwar’s glory, which commenced with Maldeo and ended with the sons of Ajlt; and the humbler monuments erected over the ashes of later chiefs. Of these buildings, that raised in memory of Ajlt Singh (who was murdered by his son about 1724) is larger and grander than anything in the neighbourhood; it marks the spot where his sixty-four queens and concubines immolated themselves on his funeral pyre. Another object of interest is the hall of heroes, a gallery of sixteen colossal figures hewn out of a single natural rock. It is known as the Tetis Karor Devatan-ka-sthan, or ‘the abode of the 330 million gods’ of Hindu mythology.

[A. Cunningham, *Archaeological Survey of Northern India*, vol. x.xiii.]

Mandu (or Mandogarh).—Historic fort in the Dhar State, Central India, situated in $22^{\circ} 21' \text{ X.}$ and $75^{\circ} 26' \text{ E.}$, 22 miles from Dhar town, on the summit of a flat-topped hill in the Vindhyan range. 2,079 ^{feet} above sea-level.

Mandu must have been a stronghold from the earliest days, although practically nothing is known of its history previous to Muhammadan times. In 1304 it was taken by Ain-ul-mulk, and just a century later became the capital of the Muhammadan kingdom of Malwa under Hoshang Shah Ghorî (1405—34). During the rule of the MALWA dynasty Mandu underwent the usual vicissitudes of capital towns in those days, being, except for fourteen years during the rule of

Ghiyas-ud-din Khilji (1475-1500), constantly the scene of siege and battle.

In 1531 Malwa was annexed to Gujarat by Bahadur Shah, in whose possession it remained until he was defeated in 1535 by Humayun. On Humayun's retiring soon after, the fort was seized by one Mallu Khan, who assumed independence under the title of Kadir Shah. He was ousted by Sher Shah in 1545, when Mandu, with the rest of Malwa, was placed under his general, Shujaat (or Shujawal) Khan. On the break-up of the Suri dynasty, Shujaat Khan's son and successor Bayazid, better known as Baz Bahadur, succeeded to the rule of Malwa and assumed independence. He is best remembered for his skill in music, and for his romantic attachment to the beautiful and accomplished singer, Rupmati of Sarangpur. In 1560-2 Mandu was finally incorporated in the Mughal empire, and became the head-quarters of a *sarkar* in the *Subah* of Malwa. Akbar visited Mandu in 1564 and again in 1598. In 1585 the English merchant and traveller Fitch visited the fort. The emperor Jahangir stayed at Mandu for some months in 1616 and was accompanied by Sir Thomas Roe, who describes his sojourn there at some length. Jahangir also gives a long account of the visit in his diary, and notes that he had the old palaces repaired for the use of himself and his retinue at a cost of three lakhs. Wild animals abounded in the neighbourhood, and the beautiful Nur Jahan herself shot four tigers, a fact which roused the emperor's admiration. He visited Mandu again in 1620. In 1625 prince Khurram (Shah Jahan), when in rebellion against his father, took refuge in Mandu. In 1696 the Marathas held the town, but only for a time, the country not passing finally to the present Dhar family till 1732.

The fort is formed of the entire hill, round which runs a battlemented wall nearly 23 miles in circuit. Inside are numerous mosques, palaces, tombs, and dwelling-houses, all more or less in a state of decay, but many of them magnificent specimens of Pathan architecture. Akbar appears to have destroyed a large number of the buildings to render the place less attractive to his rebel subjects. Jahangir states that his father took six months to capture the fort, when he caused the gateways, towers, and ramparts, with the city within, to be dismantled and laid in ruins. The fort has ten gates, several of which bear inscriptions referring to their erection or repair. The usual entrance is by the Garhi Darwaza ('carriage gate') on the north side close to the Delhi Gate. Just beyond the Garhi Darwaza the road leads to a beautiful collection of ruined palaces, built by the Khilji rulers of Malwa and enclosed within a wall. The principal buildings inside this enclosure are the Hindola Mahal, a massively built structure with steeply sloping buttresses, containing a great hall, very suggestive of the dining-hall of an Oxford college, and the picturesque Jahaz Mahal ('ship palace'),

so called from its overhanging a lake. To the north of this enclosure stands the oldest mosque on the hill, built of fragments of Jain temple* by DilSwar Khàn in 1405. Next come the Jama Masjid and tomb of Hoshang Shah, the two finest buildings in the fort now standing. The great mosque is a splendid example of Pathân architecture, of simple grandeur and massive strength. It was founded by Hoshang Shah and completed in the year 1454. Opposite is a mound of débris, in which the remains of a magnificent marble tomb have been discovered, probably that of Mahmüd Khilji I. When complete, it must have surpassed every other building on the hill. Beside it stand the foundations of the Tower of Victory, seven storeys high, raised by Mahmüd in 1443, in commemoration of his victory over Rânâ Kumbha of Chitor. The nature of the victory may be gathered from the fact that the Rânâ erected the famous tower on Chitor fort in 1448, in memory of his success on the same occasion. The tomb of Hoshang Shâh stands beside his mosque. It is a magnificent marble-domed mausoleum, which in its massive simplicity and dim-lighted roughness is a suitable resting-place for a great warrior. Not far beyond stands the mosque of Malik Mugdis, the father of Mahmüd I. It was built in 1432 from the remains of other buildings, and, though somewhat damaged, is still a very fine building, both in its proportions and delicate finish. The remaining buildings of importance are the palaces of Bâz Bahâdur and Rûpmatî. The former stands about half a mile from the scarp of the hill, the latter on its very edge. The view from the roof of Rûpmatrs palace is a magnificent one. Below flows the broad stream of the sacred Narbada, its fertile valley lined with fields of wheat and poppy, while to the south the long line of the forest-covered Sâtpurâs stretch ridge behind ridge down to the valley of the Tâpti river beyond. Among these hills the sacred peak of Bâwangaja (see BARWÂXI) stands conspicuous.

[C. Harris, *The Ruins of Mandoo* (1860); *Bombay Gazetteer*, vol. i, part ii, pp. 352-84; Captain Barnes, *Journal of the Bombay Branch, Royal Asiatic Society*, vol. xxi, pp. 355-91.]

Mândvi Taluka.—North-eastern *taluka* of Surat District, Bombay, lying between 21° 12' and 21° 27' N. and 72° 59' and 73° 29' E., with an area of 279 square miles. The river Tâpti forms the southern boundary. There are 136 villages and one town, MÂXDVI (population, 4,142), the head-quarters. The population in 1901 was 42,450, compared with 53,942 in 1891. This is the most thinly populated *taluka* in the District, and the density, 152 persons per square mile, is much below the average. Land revenue and cesses in 1903-4 amounted to over i*8 lakhs. The western part of the *taluka* is the most fertile and prosperous ; in the east the population gradually becomes scanty and unsettled, and cultivation disappears. The climate is the worst in Surat

District. Both in ponds and wells the water-supply is defective and its quality bad. The staple crops are rice, cotton, and *joivar*.

Mandvi Town (i).—Head-quarters of the *tdluka* of the same name in Surat District, Bombay, situated in $21^{\circ} 18' N.$ and $73^{\circ} 2' E.$ Population (1901), 4,142. The municipality was established in 1868. During the decade ending 1901 the income averaged Rs. 6,000 ; in 1903-4 it amounted to Rs. 6,273. The town contains a dispensary and four schools, three (including an English school) for boys and one for girls, attended respectively by 302 and 58 pupils.

Mandvi Town (Mandavi) (2).—Seaport in the State of Cutch, Bombay, situated in $22^{\circ} 50' N.$ and $69^{\circ} 32' E.$, on the coast of the Gulf of Cutch, 36 miles south-west of Bhijj. Population (1901), 24,683. The town contains a hospital and a dispensary, treating annually about 14,000 patients. Mandvi, or 'the mart,' also called Maska Mandvi, was known in old times as Raipur or Riyan. Two suburbs, Old and New Saraya, inhabited by traders and seafaring men, stand outside the town walls. Vessels of 70 tons can come within 500 yards. Mandvi is a port of call for British India steamers. The *mu alii ms* (pilots) are noted throughout Cutch. There are two lighthouses : one at the end of the breakwater with a revolving dioptric light of the fourth order ; and the other on the south-west bastion of the fort, which is maintained by the State and is visible for 17 miles in clear weather. The light is of the holophotal order, and shows three flashes at intervals of thirty seconds. Mandvi is a municipal town, with an income in 1903-4 of Rs. 6,600.

Mandwa.—Petty State in REWA KANTHA, Bombay.

Mandya.—North-eastern *taluk* of Mysore District, Mysore State, lying between $12^{\circ} 26'$ and $12^{\circ} 48' N.$ and $76^{\circ} 43'$ and $77^{\circ} 8' E.$, with an area of 450 square miles. The population in 1901 was 115,574, compared with 99,783 in 1891. The *taluk* contains two towns, Mandya (population, 4,496), the head-quarters, and MADDUR (2,597); and 300 villages. The land revenue demand in 1903-4 was Rs. 1,74,000. The Shimsha flows through the east of the *taluk* from north to south. It is dammed north of Maddur, and feeds several miles of channels for irrigation. The country is gently undulating, moderately wooded, and contains no jungle. The ' dry-crop ' soils are poor and gravelly, especially in the uplands to the north. Good red soil occurs in the centre and east of the Shimsha. The soils of ' wet ' lands are of fine quality. Rice is the principal ' wet ' crop. There is a good deal of mulberry in the east. The areca gardens were ruined in the famine of 1878. Inferior crops are grown after the harvest and ploughed in for manuring the rice-fields. Sheep are numerous, and a superior kind of blanket is made at Mandya and other places. Silkworms are largely reared, the cocoons being sent to Channapatna for reeling.

Maner.—Village in the Dinapore subdivision of Patna District, Bengal, situated in $25^{\circ} 38'$ N. and $84^{\circ} 53'$ E., a few miles below the junction of the Son with the Ganges, 10 miles from Dinapore cantonment and 5 miles from Bihta station on the East Indian Railway. Population (1901), 2,765. Maner is a very old place, being mentioned in the *Ain-i-Akbari*. The chief antiquities are the tombs of Makhdum Yahia Maner and Makhdum Shah Daulat. The latter, which was built in 1616, stands on a raised platform, and at each corner rises a slender pillar of graceful proportions and exquisite beauty. It has a great dome, and the ceiling is covered with delicately carved texts from the Koran. Two annual fairs are held at Maner.

Mangal.—One of the Simla Hill States, Punjab, lying between $31^{\circ} 18'$ and $31^{\circ} 22'$ N. and $76^{\circ} 55'$ and $77^{\circ} 1'$ E., with an area of 12 square miles. Population (1901), 1,227. The chiefs are Rajputs of the Atri tribe, and the family originally came from Marwar. The State was an ancient dependency of Bilaspur, but was declared independent after the expulsion of the Gurkhas in 1815. Its principal products are grain and opium, and it has a revenue of Rs. 900, out of which Rs. 72 is paid as tribute. The present chief, Rana Tilok Singh, was born in 1851, and succeeded in 1892.

Mangalagiri ('Hill of happiness').—Town in the District and *taluk* of Guntur, Madras, situated in $16^{\circ} 26'$ N. and $80^{\circ} 34'$ E. Population (1901), 7,702. Some distance up the hill after which it is named is a rock-cut platform with a temple of Narasimhaswami, to which thousands of Hindus flock during the annual festival held at the full moon in March. In the town is a large deep reservoir, built square with stone steps. Local legends used to say that it was unfathomable, and had a golden temple at the bottom; but in the great famine of 1833 it dried up. In it were found nearly 10,000 old matchlocks, thrown there, doubtless, during one of the many wars which have swept over this part of the country.

Mangaldai. — Subdivision of Darrang District, Eastern Bengal and Assam, lying between $26^{\circ} 12'$ and $26^{\circ} 56'$ N. and $91^{\circ} 42'$ and $92^{\circ} 27'$ E., with an area of 1,245 square miles. It consists of a compact block of land lying between the Brahmaputra and the Himalayas. Between 1891 and 1901 the population fell from 187,950 to 170,580, while in the previous decade there had been hardly any increase. This lack of progress is chiefly due to *kald azdr*, the malarial fever which has wrought such havoc in Lower and Central Assam. The marshes that fringe the Brahmaputra are fit only for the cultivation of mustard and summer rice, but the central portion of Mangaldai is closely populated, and the subdivision supports 137 persons per square mile, as compared with 77 in the neighbouring subdivision of Tezpur. In 1904 there were in Mangaldai 26 tea gardens with 10,940 acres under plant, which

gave employment to 28 Europeans and 13,271 natives; but the tea plant does not thrive as well here as in Upper Assam. In the central portion the annual rainfall averages between 60 and 70 inches, while it is as much as 100 inches under the hills. The submontane tracts are chiefly inhabited by the Kachari tribe, who irrigate their rice-fields with water drawn from the hill streams ; but artificial irrigation is not required in the central portion of the subdivision. The subdivision contains 783 villages, including Mangaldai, the head-quarters. The assessment of land revenue and local rates in 1903-4 was Rs. 4,01,000.

Mangalore Subdivision (*Mangaluru*). — Subdivision of South Kanara District, Madras, consisting of the MANGALORE *taluk* and the AMINDIVI ISLANDS.

Mangalore Taluk.— *Taluk* in the centre of South Kanara District, Madras, lying between 12° 48' and 13° 13' N. and 74° 47' and 75° 17' E., with an area of 679 square miles. It contains one town, MANGALORE (population, 44,108), the head-quarters; and 243 villages. The demand for land revenue and cesses in 1903-4 amounted to Rs. 5,82,000. The population was 334,294 in 1901, compared with 302,624 in 1891, showing an increase of 10·5 per cent. The density is high along the coast and in the fertile valleys of the Netravati and Gurpur rivers, and averages 492 persons per square mile for the *taluk* as a whole. The finest coco-nut gardens are, as usual, found along the backwaters, where also a considerable amount of sugar-cane is grown. The best areca gardens occur inland and near the Western Ghats. Rice is the principal crop. Round Mangalore, near Bajpe and elsewhere, considerable quantities of 'dry grains,' chillies, turmeric, vegetables, and flowers are grown, chiefly by native Christians. The laterite plateaux in this *taluk* are very extensive, notably that round MUDBIDRI, and many of the hills round Mangalore have been stripped bare to supply the local market for firewood; but its deep valleys and outstanding bluffs and crags, with the ever-present towering background of the Ghats, render its scenery unsurpassed.

Mangalore Town.—Administrative head-quarters of South Kanara District, Madras, situated on the shore of the Indian Ocean in 12° 52' N. and 74° 51' E. The population in 1901 was 44,108, of whom 25,312 were Hindus, 7,149 Musalmans, and as many as 11,604 Christians. The town stretches for about 5 miles along the backwater formed by the Netravati and Gurpur rivers. Viewed from the sea, or from any point of vantage, it presents the appearance of a vast coco-nut plantation, broken only here by some church spire and there by a factory chimney. The busy bazars are quite concealed from view.

Under various local chiefs, whether they aspired to independence or admitted the suzerainty of Vijayanagar or Bednur, such places as BARKUK and KAKKALA were of greater importance than Mangalore,

though the local Raja, known as the Bangar chief, played his part in all the disturbances of the time. The Portuguese, attracted by trade, seized the town in A.D. 1596, and maintained a footing for the next two centuries with varying success. To Haidar, with his ambitious naval schemes, Mangalore was both strategically and politically important. On the fall of Bednur he at once seized it (1763), and established dockyards and an arsenal. Captured by the British and abandoned in 1768, it was again taken by them in 1781. Surrendered to Tipu after an heroic defence by Colonel Campbell in 1784, it finally fell to the British in 1799.

Ibn Batuta mentions the commerce of Mangalore with the Persian Gulf as far back as 1342. It is now the centre of the commercial and industrial enterprise of the District. Tile-making, introduced by the Basel Mission, which has two factories in the town, is carried on by another European firm and nine native merchants as well; and the exports of tiles are valued at 3- lakhs. The town also contains a well-known weaving establishment belonging to the Basel Mission, as well as a mechanical workshop of theirs, and three printing presses. Coffee is the chief article of export, the amount sent out being valued at 48 lakhs annually. It is all brought from Mysore and Coorg to Mangalore to be cured, an industry in which four European and three native firms are engaged. The other articles exported are areca-nuts and spices (11 lakhs), rice (8^ lakhs), and salted fish (2^ lakhs). The total value of the exports amounts to 86^ lakhs annually. Of the imports, valued at 391 lakhs, piece-goods (5^ lakhs), salt (4^ lakhs), grain and pulse (3^ lakhs), and liquor (2^ lakhs) are the most important items. Steamers and large vessels are obliged to anchor outside the backwater, but the Arabian buggalows and country craft, of which more than 2,000 enter annually, can cross the bar. Reclamations and improvements, including a pier and tramway, have lately been completed at the wharves at a cost of Rs. 70,000. The St. Aloysius College (first grade), founded by the Jesuit Mission in 1880, and the Government College (second grade) are the chief educational institutions. The former has an average attendance of 460 students, of whom 60 are reading in the college classes. Mangalore was constituted a municipality in 1896. The receipts and expenditure during the ten years ending 1902-3 averaged Rs. 48,600 and Rs. 48,200 respectively. In 1903-4 the corresponding figures were Rs. 66,400 and Rs. 63,000, the chief items in the receipts being the taxes on houses and land and a grant from Government. There are two municipal hospitals with 32 beds for in-patients, and also two private leper asylums. A drainage scheme for the western portion of the town, the estimated cost of which is Rs. 1,46,000, is under consideration. An extension of the Madras Railway from Kumbala to Mangalore (21 miles) will shortly be opened.

Mangalvedha.— Head-quarters of the subdivision of the same name in the State of Sangli, Bombay, situated in $17^{\circ} 31'$ N. and $75^{\circ} 29'$ E., between the angle formed by the junction of the Bhlma and the Man, about 13 miles south of Pandharpur and 15 miles north-east of Sangli town. Population (1901), 8,397. Mangalvedha was founded before the Muhammadan period by a Hindu prince named Mangal, whose capital it was. Judging from the remains of an old temple, the place must have been of some importance and wealth. After its destruction by the Muhammadans, the materials were used in building the fort in the centre of the town. The town is administered as a municipality, with an income in 1903-4 of Rs. 4,000. The fort contains the Jama Masjid and a citadel known as the Chauburji, said to have been built by the Pandhres who were in charge of the *pargana* under the Satara Rajas (1720-50). The town contains a dispensary.

Mangaon. — Eastern *tdluka* of Kolaba District, Bombay, lying between $18^{\circ} 6'$ and $18^{\circ} 30'$ N. and $73^{\circ} 3'$ and $73^{\circ} 26'$ E., with an area of 352 square miles. There are 226 villages, but no town. The population in 1901 was 83,415, compared with 83,837 in 1891. The density, 237 persons per square mile, is much below the District average. The demand for land revenue in 1903-4 was 1-69 lakhs, and for cesses Rs. 10,000. The head-quarters are at Mangaon village. The Mandad river flows through the north and west of the *tdluka*, and the Ghod through the centre. Except in the south, the country is broken up by a number of detached hills. The rainfall during the ten years ending 1903 averaged 136 inches. Except in some of the western uplands, where the sea-breeze is felt, Mangaon is hot during the summer.

Manglaur.—Town in the Roorkee *tali sit* of Saharanpur District, United Provinces, situated in $29^{\circ} 48'$ N. and $77^{\circ} 53''$ E., 6 miles south of Roorkee town and close to the Upper Ganges Canal. Population (1901), 10,763. According to tradition, the town was founded by Raja Mangal Sen, a Rajput feudatory of Yikramaditya, and the remains of a fortress attributed to him can still be traced. A mosque in the town was built by Balban in 1285. There is little trade ; but the crops grown in the neighbourhood are irrigated from the canal and are exceptionally fine, and there is a great demand for manure. The place was formerly noted for carpentry. This industry, which had begun to decline, has now revived ; and very good chairs and other articles are made. The Muhammadan weavers are much impoverished. Manglaur is administered under Act XX of 1856, with an income of about Rs. 3,500. Much has been done to improve its sanitary condition.

Manglon.—One of the Northern Shan States, Burma, lying astride the Salween, between $21^{\circ} 31'$ and $22^{\circ} 54'$ N. and $98^{\circ} 20'$ and $99^{\circ} 18'$ E., and having, with its sub-feudatory States, an area of about 3,000 square miles. It is bounded on the north by South Hsenwi and

the Wa States ; on the east by the Wa States, Chinn, and the Southern Shan States of Kengtung (from which it is separated by the Xam Hka river); on the south by Mongnawng; on the west by Mongnawng, Monghsu, Kehsi Mansam, and South Hsenwi. The State proper is divided into East and West Manglon by the Salween ; and the Sawbwa has control over the sub-States of Mothai in the extreme north and Mawhpa in the extreme south (both lying almost entirely east of the Salween), also of Manghseng on the left bank of the Salween, and Ngekting east of it. The country east of the Salween consists, in the south, of the broad mountain mass separating the valleys of the Salween and its important tributary the Nam Hka. The northern part is drained by short tributaries of the Salween, and is composed of steep hills and deep narrow valleys. West Manglon is a narrow strip of hill country, little wider than the ridge following the Salween river, and cut up by a number of narrow valleys.

The authentic history of Manglon begins about eighty years ago with the rise of a Wa chief, Ta Awng, who retained his hold on the State by becoming tributary to Hsenwi. At the time of annexation, trans-Salween Manglon was in charge of a Sawbwa named Ton Hsang, the cis-Salween territory being administered by the Sawbwa's brother, Sao Maha. Considerable difficulty was experienced by the British in dealing with the latter, who refused to attend the *darbdr* at Mongyai in 1881. Acting under the influence of Sao Weng, the ex-Sawbwa of Lawksawk, he persistently refused to come in, and deserted his State in 1892 when a British party marched through it. Ton Hsang was then put in charge of West Manglon as well as of his own country east of the Salween, but had to suffer an attack by Sao Maha immediately afterwards. One more chance of reforming was given to the latter and he was then definitely expelled, and West Manglon has since remained undisturbed in Ton Hsang's charge. East Manglon has suffered from time to time from raids on the part of the independent Wa chiefs to the east, but the State as a whole is gradually settling down. The exact population is not known, as the State was wholly omitted from the census operations in 1901 ; but it is probably not below 40,000. The inhabitants of East Manglon and of the sub-States are mainly Was, the Shans being confined to the valleys; West Manglon is almost wholly Shan. Lisaws and Chinese are found on both sides of the Salween, and Palaungs in West Manglon. The capital, Takiit, is situated in the mountains of East Manglon, but some of the officials reside at Pangyang a few miles to the south. The revenue consists entirely of *thathamda*, amounting in 1903-4 to Rs. 11,000. Of this Rs. 4,200 went to the privy purse, and Rs. 4,200 towards administration and salaries, and Rs. 2,000 was spent on public works. The tribute to the British Government is only Rs. 500.

MANGO LI

Mangoli.—Village in the Bagevadi *taluka* of Bijapur District, Bombay, situated in $16^{\circ} 40'$ N. and $75^{\circ} 54'$ E.. 15 miles south-east of Bijapur town. Population (1901), 5,287. It was formerly the headquarters of the Bagevadi *taluka*, but has now declined in importance. The country round Mangoli is very fertile, and the village exports a good deal of wheat, cotton, linseed, and *jowar*.

Mangrol (*Mangarol Bandar*, apparently the *Monoglossum* of Ptolemy) (1).—Seaport in the State of Junagarh, Kathiawar, Bombay, situated in $21^{\circ} 8'$ N. and $70^{\circ} 14'$ E., on the south-west coast, a mile and a half north-east from the *bandar*, which is washed by the Arabian Sea. Population (1901), 15,016. The mosque here is the finest in Kathiawar. A tablet in one part of the building records the date of its foundation as 1383. The town belongs to a petty Musalman chief, styled the Shaikh of Mangrol, who pays a tribute of Rs. 11,500 to the Nawab of Junagarh. The harbour is much exposed, being open to all but north-east and north-west winds, and will not admit more than three or four *kotiyehs* or native vessels at a time. Soundings are regular, over a muddy but rocky bottom, from one to one and a half mile off shore. There is a manufacture of ivory and sandal-wood inlaid boxes, and the ironsmiths are famous for their skill. The muskmelons grown here are celebrated. A lighthouse, 75 feet above high-water mark, shows a fixed light visible 4 miles at sea. The shrine of Kamnath Mahadeo, situated about 5 miles from the town, is visited annually on the 15th of the bright half of the month of Kartik (November) and the last day of the dark half of the month of Sbravan (August). 'There is a well at a distance of about 200 yards. The land surrounding this well forms a tract of about 5 or 6 miles in circumference, and is called Labur Kua. Excellent cotton is grown here, which finds a ready sale in the Bombay market. Betel-vine plantations have been in existence for about thirty years.

Mangrol (2).—Head-quarters of the district of the same name in the State of Kotah, Rajputana, situated in $25^{\circ} 20'$ N. and $70^{\circ} 31'$ E., on the right bank of the Banganga, a tributary of the Parbati, about 44 miles north-east of Kotah city. The town is a commercial mart of some importance, with a population in 1901 of 5,156. It possesses a post office, a vernacular school, and a hospital with accommodation for six in-patients. Mangrol is the site of a battle fought in 1821 between Maharao Kishor Singh of Kotah and his minister Zalim Singh, assisted by a detachment of British troops. The Maharao was defeated, and his brother Prithwi Singh was killed. A mausoleum constructed where the body of the latter was burnt still exists close to the river, while to the east of the town are the tombs of two British officers (Lieutenants Clarke and Read of the 4th Light Cavalry) who fell in this engagement. Three miles to the south is the village of Bhatwara,

where the Kotah troops defeated a much stronger army from Jaipur in 1761, and captured the latter's five-coloured banner. The valour and skill of Zalim Singh (then Faujdar of Kotah) contributed greatly to the victory, which put an end to Jaipur's pretensions to supremacy over the Hara Rajputs. Ten miles to the west of Mangrol is the ancient village of Siswali, said to have been founded by the Gaur Rajputs of Sheopur. The Chhipas of the place carry on a fairly large trade in dyed cloths.

Mangrul Taluk.—Formerly a *taluk* of Basim District, but since August, 1905, the south-eastern *taluk* of Akola District, Berar, lying between 20° 4' and 20° 50' N. and 77° 9' and 77° 42' E., with an area of 630 square miles. The population rose from 82,446 in 1891 to 91,062 in 1901, its density, 144 persons per square mile, being the lowest in the District. The *taluk* contains 202 villages and only one town, MANGRUL PIR (population, 5,793). The demand for land revenue in 1903-4 was Rs. 1,68,000, and for cesses Rs. 13,000. The *taluk* lies in the Balaghat, or southern plateau of Berar, and its most fertile tracts are those in the valleys of the streams running southwards to the Penganga river.

Mangrul Town(i).—Head-quarters of the *taluk* of the same name, Akola District, Berar, situated in 20° 19' N. and 77° 24' E. Population (1901), 5,793. The town is distinguished from many other places of the same name by the epithet *Pir*, which has reference either to the shrine of Hayat Kalandar. or to the shrines of several minor saints buried here. The real name of Hayat Kalandar is said to have been Shah Badr-ud-din. and he was also known as Baba Budhan and Saiyid Ahmad Kablr. His native place is said to have been Bataih in Rum (Asia Minor), and he is said to have died in 1253. The shrine at Mangrul must therefore be a cenotaph ; and it is believed not to be more than about four hundred years old. Of the minor saints buried here, none has any celebrity beyond the neighbourhood.

Mangrul Town (2).—Town in the Chandur *taluk* of Amraotl District, Berar, situated in 20° 36' N. and 77° 52' E. Population (1901), 6,588. The town is distinguished from other towns and villages of the same name by the epithet *Dastgir*.

Maniar.—Town in the Bansdlh *tahsil* of Ballia District, United Provinces, situated in 25° 59' N. and 84° n' E., on the right bank of the Gogra. Population (1901), 9,483. The houses of Maniar cluster round high artificial mounds, formerly the sites of the fortified residences of the principal *zamitidcirs*, but now waste and bare. It has no main thoroughfares, nor does it possess any public buildings. Its importance is derived from its position as a port on the Gogra, through which rice and other grains are imported from Gorakhpur, Basti, and Nepal, while sugar and coarse cotton cloth of local manufacture

and oilseeds are exported to Bengal. Maniar is administered under Act XX of 1856, with an income of Rs. 1,500. There is a school with 50 pupils.

Manihari.—Village in the head-quarters subdivision of Purnea District, Bengal, situated in 25° 20' N. and 87° 37' E., on the north bank of the Ganges. Population (1901), 3,759. It is a terminus of the Bihar section of the Eastern Bengal State Railway, connected by ferry steamer with the East Indian Railway station at Sakrigali Ghat, and a place of call for river steamers.

Manikarchar.—Village in the extreme south-west of Goalpara District, Eastern Bengal and Assam, situated in 25° 32' N. and 89° 53' E., near the Garo Hills frontier. Population (1901), 3,870. The village contains a large bazar, and a bi-weekly market, where a considerable trade is carried on in cotton and other products of the Garo Hills, jute, and mustard. The principal merchants are Marwaris from Rajputana and Muhammadans from Dacca. The public buildings include a dispensary.

Manikcheri.—Village in the Chittagong Hill Tracts, Eastern Bengal and Assam, situated in 22° 51' X. and 91° 51' E., on a stream of the same name. Population (1901), 1,356. It is the residence of the Mong Raja.

Manikganj Subdivision.—Western subdivision of Dacca District, Eastern Bengal and Assam, lying between 23° 37' and 24° 2' N. and 89° 45' and 90° 15' E., with an area of 489 square miles. The subdivision is a level alluvial plain, bounded on the west and south by the Padma. The population in 1901 was 468,942, compared with 448,927 in 1891, the density being 959 persons per square mile. It contains 1,461 villages, but no town. Since 1861, when the town of Manikganj was swept away by flood, the head-quarters have been at DASARA, a village 2 miles to the south of the old site. There is a large mart at Jagir Hat, 2 miles from the subdivisional head-quarters.

Manikiala.—Village and group of ruins in the District and *tahsil* of Rawalpindi, Punjab, situated in 33° 27' X. and 73° 17' E., midway between Hassan Abdal and Jhelum. Population (1901), 734. The remains consist of a great tope or *stupa* south of the modern village, together with fourteen smaller buildings of the same class, fifteen monasteries, and many isolated massive stone walls. Local tradition connects these ruins with the name of an eponymous Raja, Man or Manik, who built the great *stupa*. According to the current legend, an ancient city named Manikpur stood upon the site, inhabited by seven Rakshasas or demons. Rasalii, son of Salivahana, Raja of Sialkot, was the enemy of these demons, who daily devoured by lot one of the people of Manikpur. Accordingly. Rasalu once took the place of the victim, went out to meet the demons, and slew them all

save one, who still lives in the cavern of Gandgarh. In this legend Sir Alexander Cunningham saw a Hinduized version of the Buddhist story, in which Gautama Buddha offers up his body to appease the hunger of seven tiger cubs. Hiuen Tsiang places the scene of this legend south-east of Shahdheri, which agrees with the bearing of Manikiala from the latter ruins. At this spot stood the famous *stupa* of the 'body-offering,' one of the four great *stupas* of North-Western India. The *stupa* was explored by General Court in 1834, and Cunningham states that the inscription on it twice makes mention of the sacrifice of Buddha's body. All the existing remains present the appearance of religious buildings, without any trace of a city or fortress. The people point to the high ground immediately west of the great *stupa* as the site of Raja Man's palace, because pieces of plaster occur there only among the ruins ; but the Satraps of Taxila may very probably have taken up their residence upon this spot when they came to worship at the famous shrine. A town of 1,500 or 2,000 houses may also have extended northward, and occupied the whole rising ground now covered by the village of Manikiala. But the place must be regarded as mainly an ancient religious centre, full of costly monasteries and shrines, with massive walls of cut stone. The people unanimously affirm that the city was destroyed by fire, and the quantity of charcoal and ashes found among the ruins strongly confirms their belief. Manikiala is one of the sites for which is claimed the honour of being the burial-place of Alexander's horse Bucephalus.

Maniktala.—Town in the District of the Twenty-four Parganas, Bengal, situated in 22° 35' N. and 88° 23' E. Population (1901), 32,387, of whom Hindus numbered 22,792, Musalmans 9,512, and Christians 65. Maniktala is the great eastern industrial suburb of Calcutta, wedged in between the Circular Canal on the west, the New Cut on the east, and the Beliaghata Canal on the south. Beliaghata in the south of the town is the seat of an extensive trade in rice imported from the eastern Districts, while along the frontage of the Circular Canal a brisk business is done in firewood, loose jute, and rice. The other important wards are Ultadanga and Narikeldanga. Factories are numerous, including a jute mill, a silk factory, bone-crushing mills, shellac, saltpetre, castor-oil, and soap factories, and four tanneries. The nursery gardens of two Calcutta florists are situated in the town, which is within the jurisdiction of the Commissioner of Police, Calcutta, and forms part of the 'Suburbs of Calcutta' sub-division. Maniktala was comprised in the Suburban municipality until 1889, when it was constituted a separate municipality. The income during the decade ending 1901-2 averaged Rs. 63,000, and the expenditure Rs. 59,000. In 1903-4 the income was Rs. 2,14,000, including a loan of Rs. 25,000 from Government, Rs. 31,000 derived

from a tax on houses and lands, Rs. 18,000 from a conservancy rate, and Rs. 7,000 from a tax on vehicles. The incidence of taxation was Rs. 2-1-10 per head of the population. In the same year the chief items of expenditure were Rs. 5,000 spent on lighting, Rs. 3,000 on drainage, Rs. 23,000 on conservancy, Rs. 1,500 on medical relief, Rs. 16,000 on roads, and Rs. 1,300 on education ; total, Rs. 74,000.

Manipur. — Native State lying to the east of the Province of Eastern Bengal and Assam, between 23° 50' and 25° 41' N. and 93° 2' and 94° 47' E., with an area of 8,456 square miles. It is bounded on the north by the Naga Hills District and by hilly country inhabited by tribes of independent Nagas; on the east by independent territory and Burma; on the south by Burma and the Lushai Hills ; and on the west by the District of Cachar. The State consists of a great tract

Physical

country, and a valley about 30 miles long and

aspects. 20 m^es wide, shut in on every side. The general

direction of these ranges is north and south, but in

places they are connected by spurs and occasional ridges of lower elevation. The greatest altitude is reached to the north-east, about fifteen days' journey from the Manipur valley, where peaks rise upwards of 13,000 feet above sea-level. To the north of this the hills gradually decrease in height till they sink into the flat plains of the Assam Valley. Southwards, too, there is a gradual decline in altitude till the sea is reached near Chittagong and Arakan. The general appearance of the hill ranges is that of irregular ridges, occasionally rising into conical peaks and flattened ridges of bare rocks. Sometimes, as in the western ranges of hills overlooking the Manipur valley, the summit of the hills presents a more open and rolling character.

The journey through the hills from Cachar to Manipur is one of great interest. The path crosses five considerable ranges, covered with forest and separated from one another by deep river valleys, and thus possesses all the attractions which are conferred by stately timber, luxuriant undergrowth of bamboos, creepers, and giant ferns, bold cliffs, and rivers rushing through wild gorges. The general appearance of the valley, as the traveller descends from the hills, has much to please the eye. On every side it is shut in by blue mountains. To the south the waters of the Loktak Lake sparkle in the sun, and all the country in the neighbourhood is covered with waving jungle grass. Farther east the villages of the Manipuris are to be seen buried in clumps of bamboos and fruit trees, and lining the banks of the rivers that meander through the plain. The jungle gives way to wide stretches of rice cultivation, interspersed with grazing grounds and swamps, and to the north-east are the dense groves which conceal the town of Imphal.

The principal rivers of the valley are the Imphal, Iril, Thobal,

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Nambal, and Nambol. The last-named river falls into the Loktak Lake, from which it emerges under the name of Kortak. This stream eventually joins the Imphal and the Nambal, and their united waters, which are known as the Achauba, Imphal, or Manipur river, finally fall into the Kendat and thus into the Chindwin. The chief rivers crossed in the hills by the traveller from Cachar are the Jiri, the Makru, the Barak, the Irang, the Lengba, and the Laimatak. The Jiri, which forms the boundary between British territory and Manipur, is about 40 yards wide where it is crossed by the Government road, and is fordable in the dry season. The Makru, which runs parallel with the Jiri, has a very clear stream, and is also fordable in the dry season. The Barak is the largest and most important river in the Manipur hill territory; it receives the Makru, the Irang, the Tipai river, which flows north from the Lushai country, and finally the Jiri. It is said to be navigable for canoes for about one day above its junction with the Tipai. The rivers in the plains are navigable by dug-out canoes at all seasons of the year. It was at one time thought that the Manipur valley originally consisted of a large lake basin, which gradually contracted in size until nothing remains but the Loktak, a sheet of water about 8 miles long and 5 miles wide, which occupies the south-eastern corner of the valley. Further investigations by competent geologists have shown that this hypothesis is not correct.

The soil of the valley is an alluvial clay washed down from the surrounding hills. The mountains to the north are largely composed of Pre-Tertiary slates and sandstones, with Upper Tertiary deposits on the higher ridges and on the hills overhanging the Chindwin valley.

The inner hills are clothed with forest, but the slopes of the Laimatol range, which overlook the valley on the west, are only covered with grass. In the valley itself there is little tree growth. A great portion of the plain is cultivated with rice, but near the Loktak Lake there are wide stretches of grass jungle.

Wild animals are fairly common, and include elephants, tigers, leopards, bears, deer, and wild hog. Rhinoceros and bison (*Bos gaums*) are also found in the hills to the south-east, but are not common, and serow or goat-antelope are occasionally met with on the higher ranges. Hog, leopards, and deer are the only animals to be seen in large numbers in the plains. Elephants used at one time to be regularly hunted, but the herds have been considerably reduced in numbers, and these operations are no longer profitable. Large flocks of wild geese and ducks are to be found on the Loktak Lake, and partridge, pheasant, and jungle-fowl are common.

The valley lies about 2,500 feet above the level of the sea, and the climate is cool and pleasant. At the hottest season the nights and mornings are always cool. In the winter there are sharp frosts at

night, and heavy fogs often hang over the valley till the day is well advanced. The annual rainfall at Imphal town averages about 70 inches; in the hills it is believed to be as much as 100 inches.

Manipur, like the neighbouring Province of Assam, is subject to seismic disturbances. A severe shock occurred in 1869; but the earthquake of 1897, which did so much damage in other parts of Eastern India, was only slightly felt.

The origin of the Manipuri people is obscure, and the written records, having been mainly composed since they became Hindus, are

History, and credit. From the most trustworthy traditions, the valley appears originally to have been occupied by several tribes, which came from different directions. Although the general facial characteristics of the Manipuris are Mongolian, there is great diversity of feature among them, some showing a regularity approaching the Aryan type. The kingdom of Manipur first emerges from obscurity as a neighbour and ally of the Shan kingdom of Pong, which had its capital at Mogaung. The regalia of the royal family are said to have been bestowed by king Komba of Pong. The history of Manipur contains nothing of special interest until about A. D. 1714. In that year a Naga named Panheiba became Raja of Manipur, and adopted Hinduism, taking the name of Gharib Nawaz. His people followed his example, and since that date have been conspicuous for the rigidity with which they observe the rules of caste and ceremonial purity.

Gharib Nawaz made several successful invasions into Burma, but no permanent conquest. After his death, the Burmans invaded Manipur, and the ruler, Jai Singh, having sought the aid of the British, a treaty of alliance was negotiated in 1762. The force sent to assist Manipur was, however, recalled, and after this little communication passed between the British Government and the State for some years. On the outbreak of the first Burmese War in 1824, the Burmans invaded Cachar and Assam, as well as Manipur, and Gambhir Singh of Manipur asked for British aid, which was granted. A force of sepoy and artillery being sent towards Cachar, and a levy of Manipuris being formed under British officers, not only were the Burmans expelled from the Manipur valley, but the Kachin valley down to the Ningthi river, situated to the east of the old boundaries, and peopled by Shans, was added to the State. In 1826 peace was concluded with Burma, and Manipur was declared independent. Until 1834, when Gambhir Singh died, the country remained quiet and prosperous. On his death, his son being at the time only one year old, Nar Singh, his uncle and great-grandson of Gharib Nawaz, was appointed regent. In 1834 the British Government decided to restore the Kachin valley to Burma, the government of which had never ceased to remonstrate against its

separation from that country. The valley was given back, and a new boundary laid down by an agreement dated January 9, 1834. The British Government at the same time bound itself to pay to the Raja of Manipur an annual allowance of Rs. 6,370, in compensation for the loss of the Kubo valley. In 1835 a Political Agent was appointed to act as a medium of communication between the State and the British Government.

An unsuccessful attempt was made on Nar Singh's life in 1844, and the Raja's mother, being implicated, fled with her son, Chandra Kirti Singh, to Cachar. Nar Singh upon this assumed the throne, which he retained until his death in 1850. Debendra Singh, his brother, was then recognized as Raja by the British Government. Three months afterwards, Chandra Kirti Singh invaded Manipur, and Debendra Singh, who was unpopular, fled towards Cachar. Chandra Kirti Singh, having established his authority, was in February, 1851, recognized by the British Government; and though numerous attempts were made by other members of the royal family to head a rebellion, the leaders were all defeated, and either killed, imprisoned, or placed under surveillance in British territory. In 1879, when the Angami Nagas killed Mr. Damant, the Deputy-Commissioner of the fciága Hills, and besieged the stockade at Kohlma, the Maharaja dispatched a force under Colonel Johnstone, the Political Agent, who raised the siege. In recognition of this service, the Government of India bestowed upon the Mahārājá the dignity of K.C.S.I. During the Burmese War of 1885, which ended in the annexation of king Thlbaw's dominions, a small force under Colonel Johnstone succeeded in rescuing a number of British subjects and Europeans in Northern Burma. In the course of these operations the Political Agent was seriously wounded, and compelled to take leave; and his successor, Major Trotter, was shortly afterwards treacherously attacked near Tammu, and received a wound which caused his death two months later.

In 1886 Chandra Kirti Singh died, and was succeeded by his son, Sür Chandra Singh. As on previous occasions, a series of attempts were made by other claimants to the throne to oust the lawful heir. The first two expeditions were led by Bora Chaoba Singh, a son of the Nar Singh who ruled Manipur from 1844 to 1850, but proved unsuccessful. Two more attempts were made in 1887, but the pretenders were defeated and killed and their followers dispersed. In September, 1890, two of the Maharaja's brothers attacked the palace, and Stir Chandra Singh fled to the Residency for protection. He then announced his intention of resigning the throne, and left Manipur for Cachar *en route* for Brindaban. His younger brother, Kula Chandra Singh, proclaimed himself Maharaja, though the real power seems to have lain in the hands of his brother Tikendrajit Singh, who was Senápati, or commander-in-chief of the Manipur forces.

On reaching British territory, Sur Chandra Singh repudiated his abdication, and applied for help. It was decided that the Jubraj, Kula Chandra Singh, should be recognized as Maharaja, but that the Senapati should be removed from the State and punished for his lawless conduct; and the Chief Commissioner was directed to visit Manipur early in March, 1891, to give effect to these orders. Mr. Quinton was accompanied by an escort of 400 men from two Gurkha battalions, which, in addition to the Political Agent's guard of 100 men, was thought sufficient to check any attempt at opposition. After much deliberation, the Chief Commissioner determined to hold a *darbar*, at which the orders of the Government of India were to be announced and the Senapati arrested. The latter, however, refused to appear, and it was decided to arrest him on March 24. Troops were accordingly sent to his house, but were attacked, and Lieutenant Brackenbury, one of the officers in command, was killed. Fighting went on throughout the day, but at evening an armistice was agreed to and the Senapati invited the Chief Commissioner to meet him. Mr. Quinton, accompanied by other British officers, proceeded to the rendezvous and then into the fort, where they met the Senapati, but no agreement was concluded. As the party were leaving, their way was barred, Mr. Grimwood was fatally speared, and Lieutenant Simpson severely wounded. Mr. Quinton and the officers with him were detained for two hours, and were then marched out to an open space, and beheaded by the public executioner. The attack upon the Residency was renewed, but after a short interval the British force drew off towards Cachar, which they reached without serious misadventure. The Superintendent of Telegraphs, Mr. Melvill, who had left Impbal for Koblma before the outbreak, was pursued by the Manipuris, and both he and a European signaller who accompanied him were killed.

As soon as news of the disaster was received at Kohima, the Deputy-Commissioner marched down the road to the Manipur boundary and drove back the rebels. Lieutenant Grant also advanced from Tammu with 80 men to within 14 miles of the capital, but was unable to proceed farther and was recalled. Three British columns entered the State from Burma, Cachar, and the Naga Hills, and arrived before the palace on April 27, to find that the Jubraj and the Senapati had taken flight. They were, however, captured ; and the Senapati and several of the actual murderers were tried and hanged, while Kula Chandra Singh and the other ringleaders were deported to the Andamans. Chura Chand, a boy belonging to a collateral branch of the royal house, was then placed on the *gaddi*. During his minority the State has been administered by the Political Agent, and numerous reforms have been introduced. In 1907 the young Maharaja, who had been educated at the Ajmer College, was formally installed.

The disturbances of 1891 led to an outbreak of lawlessness among the hill tribes subject to Manipur. No less than eight raids were committed by various villages on one another within the year, in the course of which 104 lives were lost. Murders along the road running from Manipur to Kohima were common; and in 1893 Naga village of Swemi was raided by Kukis, who professed to have been incensed at the failure of the Nagas to compensate a Kuki chief for an alleged theft of rice. The attack was delivered at dawn, and 99 men and 187 women and children were put to the sword. In 1901 the State was visited by Lord Curzon as Viceroy, on his way from Cachar to Burma.

The first Census of Manipur, which was taken in 1881, disclosed a population of 221,070. The census papers of 1891 were destroyed in the rising that took place in that year. The population in 1901 was 288,465, giving a density of 34 Population, persons per square mile. The whole of this increase was due to natural growth, there being practically no immigration into the State. Women exceed men in numbers. They enjoy a position of considerable importance, and most of the trade of the valley is in their hands. Of the population in 1901, 60 per cent, were Hindus, and 36 per cent, aboriginal tribes still faithful to their own primitive forms of belief. Muhammadans formed nearly 4 per cent, of the whole. Manipuri is the ordinary language of the valley, and was returned by 64 per cent, of the population, but in the hills Naga (21 per cent.) and Kuki (14 per cent.) are the common forms of speech. The State contains one town, IMPHAL (population, 67,093), and 467 villages.

The mass of the Hindu population describe themselves as members of the Kshatriya caste (161,000), though the Manipuris have been converted within comparatively recent times to Hinduism; the majority of the remainder are Brahmans.

The hill tribes fall into two main sections, Kukis and Nagas. Kuki is a generic term applied to tribes whose home is in the mountainous tract lying between Burma, Manipur, Cachar, and Arakan. These tribes have been steadily moving northwards, and have crossed the Cachar and Manipur valleys and settled in the hills beyond. The total number of Kukis in the State in 1901 was 41,000. The hills that surround the valley are inhabited by various tribes of Nagas (59,000), of whom the Tankuls (20,000) are the best known. The men of this tribe, when working in the fields or on the roads, are often stark naked except for a small bone ring, through which the foreskin is drawn. Other Naga tribes are the Kabui, Koirao, and Maring. The Lois are a low caste, not even dignified by the name of Hindu. They are probably descended from one of the hill tribes, but under native rule the degradation of a Hindu Manipuri to the class of Loi was a not uncommon form of punishment. Agriculture is the main occupation of the people.

The soil of the valley is a reddish clay of considerable depth, which is enriched every year by deposits of silt from the rivers, and yields

luxuriant crops of rice. The system of cultivation does not differ materially from that followed in the plains of Assam. The staple crop is rice, of which there are two main kinds: one sown on high land in March or April and cut in July or August: and the other sown in April to June, transplanted about two months later into beds of liquid mud, and reaped in December. Most of the rice grown belongs to the second, or transplanted variety. Other crops include mustard and sugar-cane, which do extremely well, pulses of various kinds, and tobacco. The poppy is cultivated to a small extent by Muhammadans. English vegetables are grown in the cold season, and oats and wheat have been tried with success. Fruit trees include oranges, limes, pine-apples, plantains, jack-fruit, and mangoes. The last are injured by the worm, which also ruins this fruit in Assam. Various kinds of English fruit trees have been tried, but have not proved successful. The areca palm does not grow in Manipur, and large quantities of the nut are, in consequence, imported from Cachar. The rainfall renders any general system of irrigation unnecessary, but when the rivers rise small channels are often cut to bring water to the fields.

Most of the hill tribes practise the *jki/m* system of cultivation. Jungle is cut down and burned, and seeds are sown among the ashes. The crops thus grown include hill rice, cotton, pulses, pepper, tobacco, ginger, vegetables of various kinds, potatoes, and maize. The same *jhum* is seldom cropped for more than two years in succession, and is then allowed to lie fallow for as long a time as possible, the minimum period of rest being four years. The Tankul Nagas, who live in the hills east of the valley, grow transplanted rice. The sides of the -hills are cut out into a succession of terraces, built up with stone retaining walls, over which the water from the hill streams is distributed through small irrigation channels. It is from this tribe that the AngamT Nagas are said to have learned the art of terracing the hill-sides. The advantages of the system are twofold. It enables the villagers to obtain their supplies from fields close to their own homes, while the grain raised is of a better quality than that grown in the *jhums*.

It is impossible to trace the extension of cultivation, as an accurate system of land measurement has only recently been introduced. A strong stimulus has, however, been given to agriculture by the construction of the cart-road through the hills to the Assam Valley, and by the completion of the railway line from Gauhati to Dimapur; and there is now a large export of rice along this route.

The cattle are strong, hardy little animals, and when exported outside the State command a ready sale. There is abundance of excellent

grazing in the rich grass of the *jhils*, and the live-stock of the farm are carefully tended by their owners. The cows, like those of Assam, are poor milkers. The buffaloes are much superior to those imported into the Surma Valley from Bengal. The Manipuri ponies are well-known. They do not, as a rule, stand as much as 12 hands high, but they have remarkable endurance, courage, and speed. Unfortunately, the mares have been recklessly sold, and many were carried away after the expedition of 1891. Good ponies in consequence are now very scarce, and there is serious risk of the breed disappearing. In 1839 an Arab stallion and 8 mares were supplied to the Raja, but the climate did not suit them and their progeny soon died out.

The whole of the hill ranges lying between the valleys of Cachar and Manipur, and far to the north and south, are densely clothed to their summits with tree jungle. Almost the only exceptions to this are the hill slopes facing the Manipur valley, which have been denuded of timber. The trees are of great variety, and in the ranges lying west of the Manipur valley large tracts contain *nahor* (*Mesua ferrea*), *jantl* (*Lagerstroemia Flos Reginae*), india-rubber, *tun* (*Cedrela Toona*), oak, ash, &c. Bamboo jungle is everywhere plentiful. Towards the north, in the valleys dividing the hill ranges from one another, the trees attain an immense size and height; and where this kind of forest exists the bamboo is uncommon. The tea plant is found wild in the Hirok range between Manipur and Burma, and on the hills to the north. Teak is common on the slopes overlooking the Kubo valley. There are fine pine forests in the Tankul hills and on the ranges which stretch northward to the Lanier river. Rubber used formerly to be obtained in considerable quantities, but most of the trees have been killed by excessive and improper tapping. The forests lying between Manipur and Cachar are worked by the Assam Forest department, which retains 25 per cent, of the profits.

Rents are usually paid in kind, the ordinary rate being about 4f cwt. of unhusked rice per acre. The rate of wages for unskilled labour is 4 annas a day. Owing to difficulties of transport, the price of rice is low. The opening of the cart-road has developed a considerable export trade to the Assam Valley, but in spite of this common rice is often sold for less than a rupee a maund.

The valley and the surrounding hills have not yet been sufficiently explored for their mineral resources to be fully known. There are patches of coaly matter in the Kassom ridge, but experts are of opinion that there is little hope of discovering workable coal in these hills. Iron is found in the shape of small pisolitic nodules of hydrated oxide of iron, covered with alluvial deposits to the depth of 4 or 5 feet. At Kakching, to the south of the valley, the ore is dug up, smelted, and made into *duos* and farm implements. At Hundong, near Ukrul, and

at Palel, limestone deposits are worked for the use of the State. A large part of the salt used in Manipur was formerly obtained from the brine wells which exist in the valley and in the adjoining hills, but since the opening of the cart-road Liverpool salt has to a great extent succeeded in ousting the home-made article. The only other mineral of interest is an unctuous clayey rock found in a small hill to the left of the main road leading northwards from Imphal town. This rock is believed to possess medicinal properties and is eaten by the people.

Silk is obtaine'd from a worm that feeds on the mulberry. The climate and soil of Manipur are favourable to the growth of this tree, and a European firm has recently submitted proposals for communications. ^{Posa^s>} "hich, if accepted, will lead to the investment of a large sum of money in sericulture. The rearing of the silkworm is at present confined to the degraded class of Manipuris known as Lois, a fact which in itself is enough to account for the stagnation of the industry. A certain amount of rough pottery is manufactured, and the Manipuris make the simple agricultural implements they require, and brass and metal vessels. The supply of these commodities does not, however, equal the demand, and has to be supplemented by imports from other parts of India. The people manufacture neat cane baskets and reed mats, and are fairly expert carpenters and wood-carvers. Native jewellery is also made, but the designs are rough, and possess little artistic merit. The skins of deer and calf are tanned, and saddles, shoes, belts, pouches, and other articles are manufactured. This leather is often tastefully enamelled in black.

The internal trade of the State is carried on at markets which are held in the neighbourhood of the larger villages. Two large markets are held daily at Imphal, at which the principal articles offered for sale are cotton and silk cloths and wearing apparel, pillows, rugs, Naga cloths, dried and fresh fish, vegetables, rice, reed mats, oil, and treacle. Almost all the business is transacted by the women, who are shrewd and capable, the men thinking it beneath their dignity to come and traffic at the bazar. Very frequently no money changes hands, but goods are exchanged by barter. External trade is carried on with Kohima and the Assam Valley, with Cachar, and to a small extent with Burma. The principal exports are rice, which goes by cart to Kohima and to the Assam-Bengal Railway at Dimapur; and forest produce, which is carried down the Barak into Cachar. At one time there was a brisk trade in tea-seed, a considerable quantity of which came from Burma and merely passed through Manipur. The trade has, however, been killed by the depression in the tea industry, which has checked any tendency to extend the area under cultivation, and by the unscrupulous conduct of the contractors, who injured the repu-

tation of Manipur seed by plucking and selling it before it was ripe. Cattle and buffaloes are exported in considerable numbers, but restrictions are from time to time imposed to prevent the State from being denuded of its live-stock. The principal articles of import are mineral oil, betel-nuts, dried fish, salt, and cotton piece-goods and yarn. Dried fish, oil, and tea-seed come from the Burma frontier, but the bulk of the State trade is with Assam. Although the Manipuri women are keen and energetic shopkeepers, most of the wholesale business is in the hands of the Marwari merchants, who have practically monopolized the trade of Assam. The dealers in cattle and forest produce are generally Muhammadans from the Surma Valley.

The most important line of communication in the State is the cart-road from Manipur through the Naga Hills, which meets the Assam-Bengal Railway at Dimapur; 67 miles of this road lie in State territory. The gradients are very easy, and commodious resthouses have been erected at convenient stages; but as the road is unmetalled, it is practically closed for cart traffic during the rains. Excellent bridges, which for the most part are of solid masonry, have been thrown across all the rivers. There is a good bridle-path from Cachar to Imphal, which passes over the five ranges dividing the State from British territory. Altogether twelve wire suspension bridges have been erected along this route, while the Jiri is crossed by a ferry. A third road leaves the valley to the south, and passing through Tammu reaches the valley of the Chindwin in Upper Burma. The first 29 miles are fit for wheeled traffic, but after this point the gradients become very steep, and in places riding is barely possible. Numerous driving roads in the valley are kept up by the State, each village being held responsible for the repair of a certain section. These roads resemble those found in Assam, and consist of earthen embankments raised above the level of the rice-fields. They are unmetalled, and thus incapable of carrying much cart traffic in the rains, so that at this season of the year the rivers are used for the transport of produce. The only boats employed are canoes hollowed out of the trunks of trees. Three lines of post leave Imphal—to Tammu, to Kohima, and to Silchar. The first two are maintained by the State, the last by the Assam Administration.

No famine has occurred in Manipur for many years, though a poor harvest sometimes causes a slight scarcity. Prior to the construction of the cart-road, it was almost impossible to export grain from the State, and there was nearly always a large supply in hand. These stocks have now been to some extent depleted, and a complete failure of the harvest would be attended by serious results, as it would be impossible to throw much grain into the valley. The chances of a serious famine occurring are, however, slight.

The State has never been divided into any minor administrative

units. Since 1891 it has been administered by a Political Agent, as the Raja who was placed on the *gaddi* after the outbreak is still

a minor. A junior member of the Assam Commission is usually deputed to act as Assistant to the Political Agent. The Medical officer in charge of the regiment at Manipur discharges some of the functions of a Civil Surgeon, and public works are carried out by the State Engineer. The land records establishment is in charge of a Sub-Deputy-Collector lent by the Assam Government.

Petty civil and criminal cases are tried by *panchayat* courts sitting at Imphal and at nine places in the valley, which can impose sentences of fine but not of imprisonment. Appeals lie from these courts to the Chirap, a court sitting at Imphal, which exercises the ordinary powers of a first-class Magistrate. The Superintendent of the State hears appeals from the Chirap, and is invested with powers of life and death subject to confirmation by the Chief Commissioner. He also hears all cases in which hillmen are concerned. Civil and criminal cases to which European British subjects are a party are tried by the same officer in his capacity as Political Agent, or by his Assistant. Serious crime is not common, except among the hillmen, whose sense of the sanctity of human life is still somewhat undeveloped. Since the administration of the State has been placed upon a more satisfactory basis, raids upon villages have happily become less common ; but murders, though not on such a wholesale scale, still take place. Civil suits are generally of a petty character.

Under native rule, the ryots paid revenue in kind and labour. Officials, instead of receiving salaries in cash, were remunerated by allowances in land and rice; and public buildings, bridges, and roads were constructed or repaired by unpaid labour. Since the administration has been controlled by the British, the system of forced labour has been almost entirely abolished, and land revenue has been assessed at the rate of Rs. 2 per acre. The valley has been divided into five divisions or *pannahs*, each in charge of a collecting officer. A survey establishment has been organized, and the occupied area is being gradually measured, the result of these operations being to disclose a large area of unassessed cultivation. House tax is levied in the hills, and no attempt is made to ascertain the area actually under cultivation.

There are practically no excise arrangements in the State. The Manipuris abstain from both liquor and intoxicating drugs. A little opium is used by Muhammadans; and the hill tribes prepare alcoholic liquors, both fermented and distilled, but no restriction is placed upon this practice. Salt is obtained from brine wells leased from the State, and is also imported from Bengal in considerable quantities.

The total revenue and expenditure of the State in 1903-4 and the

principal items were as follows, in thousands of rupees. Receipts : total, 3,95 ; including land revenue 2,77, house-tax 46, fisheries 24, forests 26, salt 6. Expenditure : total 3,88; including State works 1,48, Raja's civil list 50, police 60, tribute 50, land revenue 28, education 15.

A police station at Imphal town is the centre of the whole investigating agency. The civil police force consists of 19 men under a sub-inspector. In addition to the regular police, one *chaukidar* has been appointed to every hundred houses. A battalion of military police is kept up by the State. The Assistant to the Political Agent acts as commandant, and the sanctioned strength is 13 native officers and 364 non-commissioned officers and men. Thirteen outposts along the main roads and in the hills are held by this force. There is one jail in the valley, at Imphal.

Education has made very little progress in Manipur. At the Census of 1901 only 1.9 per cent, of the male population was returned as literate. An English middle school is maintained at Imphal; and in 1903-4 there were 29 primary schools in the State, two of which are located in the hills. The total number of pupils on March 31, 1904, was 1,629. [^]11 except 46 of these were reading in primary schools. The girls' school has recently been closed, as it was considered that the advantages it conferred were out of all proportion to the cost of its maintenance.

There is one hospital at Imphal town, with accommodation for 14 in-patients. In 1904 the number of cases treated was 10,000, of which 300 were in-patients, and 400 operations were performed. The total expenditure amounted to Rs. 4,000.

Vaccination is not compulsory, but the Kukis are the only inhabitants of Manipur who object to the process, and even their dislike is wearing off. The number of successful vaccinations in 1903-4 represented 58 per 1,000 of the population, which was considerably above the proportion in Assam as a whole.

[E. W. Dunn, *Abridged Gazetteer of Manipur* (Calcutta, 1891) ; Dr. R. Brown, *Annual Report of the Manipur Political Agency for 1868-9*; Sir J. Johnstone, *My Experience in Manipur and the Xdgd Hills* ; B. C. Allen, *Gazetteer of Manipur* (1905).]

Manjarabad.—Western *taluk* of Hassan District, Mysore, lying between 12° 40' and 13° 3' N. and 75° 33' and 75° 57' E., with an area of 438 square miles. The population in 1901 was 59,304, compared with 55,862 in 1891. The *taluk* contains one town, Sakleshpur (population, 2,140), the head-quarters; and 277 villages. The land revenue demand in 1903-4 was Rs. 1,78,000. The whole *taluk* lies in the Malnad, and contains some of the finest scenery in Mysore, flanked by the stupendous mountain range of the Western Ghats,

whose slopes are covered with magnificent forest. The Hemāvati flows through the east, and, after receiving the Aigur and Kotehalla, turns east along the southern border*. East of this river the country is more open. Streams from the Western Ghāts run west to the Netrāvati in South Kanara. The soil on the hills is generally a rich red, in the valleys red or nearly black. The principal cultivation is rice, which grows luxuriantly in the valleys and on the terraces cut on the hill-sides. The abundant rain makes irrigation unnecessary as a rule. 'Dry' cultivation is found to the east of the Hemāvati. In the west *rāgi* is grown in small patches once in two or three years, or at longer intervals. During the past half-century coffee cultivation has spread over the whole *tālitk*, and through the investment of European capital and the settlement of European planters has changed the face of the country, revolutionizing its old feudal customs. Cardamoms are also grown on the Ghāts.

Manjeri.—Village in the Ernad *taluk* of Malabar District, Madras, situated in $n^{\circ} 7'$ N. and $76^{\circ} 7'$ E. Population (1901), 4,000. It is the head-quarters of the *tahsildār*, of a stationary sub-magistrate, and of a District Munsif, and is notable as the scene, in 1849, of one of the worst of the Māppilla outrages. The native troops sent against the rioters were routed and Ensign Wyse was killed. Another outbreak occurred here in 1896, when 99 fanatics were shot.

Mānjha.—A tract of country in the Lahore and Amritsar Districts of the Punjab, lying between $30^{\circ} 52'$ and $21^{\circ} 35'$ N. and $73^{\circ} 45'$ and $75^{\circ} 21'$ E., and forming a portion of the uplands of the Bari Doāb. In shape it is, roughly speaking, a triangle, whose base may be taken as the grand trunk road crossing Lahore and Amritsar Districts from the Rāvi to the Beās, and whose sides are the high banks marking the ancient courses of those rivers. From the point where the Beās now joins the Sutlej, the old Beās bank diverges from the present course of the Sutlej and approaches the old bed of the Rāvi near the borders of Montgomery District. This is the apex of the Mānjha, for, though the upland ridge is continued as far as Multān, from this point it bears the name of the Ganji Bār. Before the construction of the Bāri Doāb ('anal the Mānjha was an ill-watered and infertile expanse, described by the Settlement officer of Lahore in 1854 as a jungle in which only the poorer cereals and pulses could be grown. Now, however, the Bāri Doāb Canal runs through the whole length of the tract, which is second in fertility to none in the Province. The Sikhs of the Mānjha are some of the finest specimens of the Jat race, and the tract is one of the most important recruiting grounds for Sikh regiments. The expression 'Sikhs of the Mānjha' is, however, sometimes loosely used to denote all Sikhs recruited north of the Sutlej. Punjābi of the Mānjha is the phrase used to express the dialect of Punjābi spoken

in and about the Manjha, as contrasted with Western Punjabi, the Punjabi of the submontane tract, the Punjabi of the Jullundur Doab, and Malwa Punjabi, or that spoken south of the Sutlej.

Manjhand.—Town in the Kotri *tdluka* of Karachi District, Sind, Bombay, situated in 25° 55' N. and 68° 17' E., close to the Indus, on the North-Western Railway, 43 miles north of Kotri. Population (1901), 2,862. Coarse cloth and shoes are manufactured here. The municipality, which dates from 1856, had an average income during the decade ending 1901 of Rs. 2,400. In 1903-4 the income was also Rs. 2,400. The town contains one boys' school, with an average daily attendance of 92 pupils.

Manjhanpur.—South-western *tahsil* of Allahabad District, United Provinces, comprising the *parganas* of Karari and Atharban, and lying north of the Jumna, between 25° 17' and 25° 32' N. and 80° 9' and 81° 32' E., with an area of 272 square miles. Population fell from 131,688 in 1821 to 129,798 in 1901. There are 269 villages and one town, Manjhanpur (population, 3,221). The demand for land revenue in 1903-4 was Rs. 2,38,000, and for cesses Rs. 38,000. The density of population, 477 persons per square mile, is considerably below the District average. A high cliff scored by deep ravines borders the Jumna. The upland country beyond is at first sandy, but contains small *jhills* used for irrigation, the largest being the Alwara *jlul*. The soil then changes to the ordinary fertile loam of the Doab, where wells supply most of the irrigation. In 1903-4 the area under cultivation was 180 square miles, of which 51 were irrigated. The Fatehpur branch canal supplies about one-fourth of the irrigated area ; and tanks or *jhills* and wells the remainder in almost equal proportions.

Manjra.—River of Hyderabad State, rising on the plateau of Patoda in Bhlr District. After flowing through or along the Districts of Osmanabad, Bldar, and Medak, generally in a south-eastern direction, it takes a sudden turn 10 miles east of Kalabgtir in the last-named District and thence flows almost due north, forming the boundary between Nander and Indur Districts, till it joins the Godavari from the right near Kondalwadi, after a course of 387 miles. During its course it receives the Tirna on the right bank in the Nilanga *taluk* of Bldar District, and 15 miles farther down, the Karanja on the same side. In Nander two smaller streams, the Lendi and the Manar, join it on the left bank. The banks of the Manjra are nowhere steep, and are earthy. Several ferries are maintained, and its waters are largely used for irrigation. Two new projects, known as the Manjra and the Manjra Extension, which are in course of construction, comprise extensive schemes for irrigating lands in Medak District.

Mankachar.—Trade centre in Goalpara District, Eastern Bengal and Assam. See Maxikarchar.

Mankarnacha.—Highest peak in the Orissa State of Bonai, Bengal, situated in $21^{\circ} 47'$ N. and $85^{\circ} 14'$ E., and rising to a height of 3,639 feet above sea-level.

Mankera.—Village in the Bhakkar *tahsil* of Mianwali District, Punjab, situated in $31^{\circ} 23'$ N. and $71^{\circ} 27'$ E. It lies in the heart of the Thai, the desert of the Sind-Sagar Doab. A large fort, said to have been founded by the Sials of Jhang, still exists in the village. Mankera was once the great stronghold of the Jaskani Baloch, who in the beginning of the seventeenth century held the country from the Indus to the Chenab, and from Bhakkar to Leiah on the Indus. They appear to have lost Mankera to the Bhangi Sikhs about 1772, but to have soon recovered it. In 1792 it became the capital of the Pathan Nawab, Muhammad Khan Sadozai, who governed the Sind-Sagar Doab, and subsequently also Dera, for the Durrani kings of Kabul, Bhakkar being his second capital. Muhammad Khan gradually became independent, and was not molested by the Sikhs; but after his death in 1815 Ranjit Singh invaded his territories, and in 1821 took Mankera by siege. Mankera then became the seat of a Sikh governor, and at the annexation of the Punjab was made the headquarters of a *tahsil* till 1853-4.

Manki.—Village in the Honavar *tduka* of North Kanara District, Bombay, situated in $14^{\circ} 11'$ N. and $74^{\circ} 32'$ E. Population (1901), 6,008. The remains of several Jain temples point to the fact that Jain influence was formerly paramount in Manki, while several inscriptions show that the place was once of considerable importance. A dilapidated fort on the coast is traditionally reported to have been the former stronghold of the Karagars (now a degraded class); but more probably it was held on behalf of the rulers of Vijayanagar by the Sheorogars, a class claiming Kshatriya descent, who are more numerous in Manki than in any other part of the District. After the fall of Vijayanagar, Manki was possessed by the chiefs of Bednur and eventually passed into the hands of Hyder Ali. The downfall of Tipu added it with the rest of Kanara to British territory. Manki contains three old Hindu temples of uncertain date. It formerly possessed a large export trade in rice, raw sugar, and coco-nuts; but at present the annual imports amount to only Rs. 1,270 and the exports to Rs. 150.

Mankur.—Village in the head-quarters subdivision of Burdwan District, Bengal, situated in $23^{\circ} 26'$ N. and $87^{\circ} 34'$ E. Population (1901), 7,206. Mankur is a station on the chord-line of the East Indian Railway, 90 miles from Calcutta, and has a considerable trade; it is also a local seat of the silk-weaving industry. The Church Missionary Society maintains a medical mission, at which 11,000 patients were treated in 1901.

Manmad. -Town in the Chandor *tdluka* of Nasik District, Bombay, situated in $20^{\circ} 15' N.$ and $74^{\circ} 26' E.$, on the north-eastern line of the Great Indian Peninsula Railway. Population (1901), 7,113. Manmad is the junction of the Dhond-Manmad State Railway with the Great Indian Peninsula Railway, and also the starting-point of a metre-gauge railway to Hyderabad. Much cotton from Khandesh and Malegaon is carried by rail here. A remarkable pyramidal hill near Manmad, about 750 feet high, is notable for a tall, obelisk-like rock on its summit, at least 60 feet high, known locally as Ram-gulhni. At the back of this hill are the peaks known as Ankai and Tankai. The town contains an English school and two dispensaries, one of which is maintained by the Great Indian Peninsula Railway.

Mannargudi Subdivision. — Subdivision of Tanjore District, Madras, consisting of the *taluks* of MANNARGUDI and TIRUTTURAIPPUNDI.

Mannargudi Taluk.—Central *taluk* of Tanjore District, Madras, lying between $10^{\circ} 26'$ and $10^{\circ} 48' N.$ and $79^{\circ} 19'$ and $79^{\circ} 38' E.$, with an area of 301 square miles. The population in 1901 was 188,107 : and this has remained practically stationary since 1891, when it was 188,112. It contains 193 villages, besides the municipal town of MANNARGUDI (population, 20,449), the head-quarters. The demand for land revenue and cesses in 1903-4 amounted to Rs. 6,28,000. The south-western part of the *taluk* is unirrigated, while the remainder lies within the Cauvery delta, though it contains no alluvial soil.

Mannargudi Town (also called *Mannarkovil* or *Raja Mannarkovil*).—Head-quarters of the *taluk* of the same name in Tanjore District, Madras, situated in $10^{\circ} 40' N.$ and $79^{\circ} 27' E.$, on the bank of the Pamaniyar river, 9 miles south of the railway station of Nidamangalam. The population in 1901 was 20,449, of whom 651 were Musalmans, 540 Christians, and 153 Jains, the rest being Hindus. This is one of the centres of the Wesleyan Mission, which maintains a second-grade college, called the Findlay College, affiliated to the Madras University in 1898. The average attendance in the advanced classes during 1903-4 was 58, and in the lower classes 533. In addition, a high school is maintained by private agency. Mannargudi was constituted a municipality in 1866. The receipts and expenditure during the ten years ending 1902-3 averaged Rs. 27,000, and in 1903-4 amounted to Rs. 29,000. The chief sources of income are tolls, and house and land taxes. A channel from the Vadavar, about 12 miles long, supplies twenty-two tanks in the town with good water. Mannargudi is noted for the manufacture of metal ware and cloths, and exports rice in large quantities. Of the many temples in the town, the most important is that to Rajagopalaswami, which was founded by Kulottunga Chola I in the eleventh century. Two other shrines bear

Chola names and inscriptions of Chola, Pandya, and Hoysala kings. Mannargudi itself was formerly called Rajadhiraja Chaturvedimangalam, obviously a name of Chola origin. An old Jain temple stands in the town, and a mile to the west is a ruined fort said to have been built by a Hoysala king.

Manne.—Village in the Nelamangala *taluk* of Bangalore District, Mysore, situated in 13° 15' N. and 77° 18' E. Population (1901), 748. Under the name of Manyapura it was the residence of the Ganga kings in the eighth century. It was taken by the Cholas at the beginning of the eleventh century. The city is said to have extended over 8 miles to the east, but only some ruins of temples now remain.

Manohar (*Jfanohargar/i*).—Fort in the State of Savantvadi, Bombay, situated in 16° N. and 74° 1' E., 14 miles north-east of Vadi, and on the south of the Rangna pass. Manohar is a solid mass of rock about 2,500 feet high, said to have been fortified since the time of the Pandavas. In the disturbances of 1844 the garrison of Manohar espoused the cause of the Kolhapur insurgents. In the beginning of 1845 the fort was taken by General Delamotte.

Manoharpur.—Chief town of an estate of the same name in the Sawai Jaipur *nizamat* of the State of Jaipur, Rajputana, situated in 27° 18' N. and 75° 57' E., about 28 miles north-by-north-east of Jaipur city. The holder of the estate is termed Rao, and serves the Darbar with 65 horsemen. The population in 1901 was 5,032. The town contains a fort, and a primary school attended by 60 boys.

Manoli.—Town in the Parasgad *tdluka* of Belgaum District, Bombay, situated in 15° 51' N. and 75° 7' E., 42 miles east of Belgaum town. Population (1901), 5,308. Manoli had a once considerable, but now declining, industry in dyeing yarns. It is famous as the spot where General Wellesley, afterwards the Duke of Wellington, overtook the notorious freebooter Dhind-deva Wagh (better known as Dhundia), after a long pursuit from Mysore territory. The freebooter with his followers had encamped on the banks of the river Malprabha, opposite the town, where he was surprised by General Wellesley at the head of a body of cavalry. The town contains eight temples dedicated to Panchalinga Deo, built of coarse-grained stone, without any remarkable carving; and a ruined fort. There is a boys' school with 97 pupils.

Manora.—Cape in Karachi District, Sind, Bombay, situated in 24° 48' N. and 66° 59' E. A lighthouse on the cape, with a fixed light 148 feet above high water, is visible upwards of 20 miles, but only from 10 to 15 miles during the south-west monsoon. Manora forms a cantonment, and contains the Persian Gulf Telegraph department cable factory and a recently constructed dry dock, known as the Giles Graving Dock. The Karachi Port and Pilot establishments, the

Port Officer and Port Engineer, and a portion of the Indo-European Telegraph establishment are resident here. An annual fair is held in March in honour of a *pir* or saint, said to have been buried under miraculous circumstances. Manora hill is a very healthy place, and an occasional resort for invalids from Karachi; it is 100 feet high at its east end, descending to 40 feet at the west end. At the distance of 2,310 feet to the east of Manora is a breakwater, which forms the protection of the entrance to Karachi harbour in that direction. Opposite the north end of this breakwater is the landing-place, with three jetties on the island of Kiamari: the Commissariat, the Passenger, and the Customs jetty. About 3 miles from the jetties is an island, on which is a meteorological observatory. There are fortifications and barracks, a dispensary, and a middle school for European and Eurasian girls at Manora Point. The entire peninsula has now been constituted a cantonment.

Manpur.—An isolated British *pargana* in Central India, situated in the Bhopawar Agency. The *pargana*, which has an area of 60 square miles, is bounded on the north, south, and east by portions of the Indore State, and on the west by the petty holding of Jamnia. It lies on the edge of the Vindhyan scarp, and is intersected by numerous spurs of that range, covered with jungle. In the valleys the soil is of high fertility. The climate is temperate, the temperature ranging between 100° and 72°. The annual rainfall averages 33 inches.

Manpur was originally a part of the Mandu *sarkar* of the *Subali* of Malwa. In the eighteenth century it fell to Sindhia. In 1844 Manpur was included in the tracts assigned by Sindhia for the maintenance of the Gwalior Contingent, and under the subsequent treaty of 1860 it was one of the districts of which possession was retained by the British Government.

Population fell from 5,342 in 1891 to 4,890 in 1901, Hindus forming 53 per cent, and Animists 37 per cent, of the total. The inhabitants consist mainly of Bhills, a fact not entirely brought out by the census figures, as many were returned as Hindus. Native Christians numbered 241, chiefly belonging to the Roman Catholic Mission station at Khurda.

Of the total area, 11 square miles, or 18 per cent., are cultivated, of which only 332 acres are irrigated. About 15 square miles, or 25 per cent, of the total area, are capable of cultivation; 30 square miles, or 50 per cent., are under forest; and the rest is waste. Maize occupies 7 square miles, *jotvdr* and wheat 2 square miles each, and poppy 127 acres.

The *pargana* is in charge of a *kamdsdar*, who exercises the powers of a third-class magistrate. All civil cases and serious crimes are dealt with by the Political Agent. The total revenue is l\s. 19,800, of which

Rs. 12,500 is derived from land, Rs. 3,500 from forests, and Rs. 2,800 from excise. The chief heads of expenditure are: Rs. 4,700 on the collection of revenue, Rs. 1,900 on administrative establishment, and Rs. 1,600 on public works. The land is assessed in two classes, lower rates being given to the Bhll cultivators as an inducement to settle. A twenty years' settlement of seven villages was made in 1867, which was renewed in 1887 for the whole *pargana* and extended to the remaining villages. The Bhll rates are Rs. 8-8 per acre for irrigated and Rs. 1-12 to R. 0-6-4 for unirrigated land; other cultivators pay Rs. 12 for irrigated and Rs. 1-8 to R. 0-11-2 for unirrigated land. The incidence of the land revenue demand is Rs. 2-5 per acre of cultivated land, and R. 0-11-2 per acre of the total area. The revenue is collected in cash in British currency, which has been legal tender since 1861. The *pargana* is watched by a detachment of the Central India Agency police. Two schools, one at Manpur village and the other at Sherpur, are situated in the *pargana*.

Manpur, the head-quarters of the *pargana*, is situated in 22° 26' N. and 75° 40' E., on the Bombay-Agra high road, 13 miles from Mhow and 24 from Indore. Population (1901), 1,748. The place is said to derive its name from Raja Man Singh of Jaipur. The story goes that, after suffering a defeat, certain Rajputs of Man Singh's army were ashamed to return home, and settled in the district, where they founded Manpur, and called it after their chief. Forming connexions, as time went on, with the Bhll women of the neighbourhood, they lost caste and became merged in the general population. The Bhlls of Manpur claim a mixed descent equal to that of the Bhilala, and consider themselves superior to other Bhlls. A British post office, the residence of the Political Agent, a school, a dispensary, and a public works inspection bungalow are situated in the place.

Mansa State.—Petty State in MAHI KANTHA, Bombay.

Mansa Town.—Chief town of the State of the same name in the Mahi Kantha Agency, Bombay, situated in 23° 26' N. and 72° 43' E. Population (1901), 9,530. It has a large and wealthy community of merchants, and is considered the richest town in Mahi Kantha.

Mansehra Tahsil (*Mansahra*).—*Tahsil* of Hazara District, North-West Frontier Province, lying between 34° 14' and 35° 10' N. and 72° 55' and 74° 6' E., with an area of 1,486 square miles. Shaped like a cone, the *tahsil* runs in a north-easterly direction, comprising the deep glen of Kagan and the mountain ranges on either hand. The population in 1901 was 182,396, compared with 165,312 in 1891. The *tahsil* contains the town of BAFFA (population, 7,029) and 244 villages, including the large village of MANSEHRA, its head-quarters. The land revenue and cesses in 1903-4 amounted to Rs. 1,03,000. The AGROR valley is situated in this *tahsil*.

Mansehra Village (*Mansahra*).—Head-quarters of the *tahsil* of the same name, Hazara District, North-West Frontier Province, situated in 34° 20' N. and 73° 13' E., on the right bank of an affluent of the Siran, north of Abbottabad, and on the main road from Kala-ki-Sarai to the Kashmir border. Population (1901), 5,087. A few resident Khattri traders do a considerable business in grain and country produce. The chief institutions are an Anglo-vernacular middle-school maintained by the District board, and a Government dispensary. Near the village are two rocks on which are inscribed in the Kharoshthi character thirteen of the edicts of Asoka.

Manthani.—Head-quarters of the Mahadeopur *taluk*, Karlmnagar District, Hyderabad State, situated in 18° 39' N. and 79° 40' E., about one mile south of the Godavari river. Population (1901), 6,680. The town contains a dispensary, a school, and a post office.

Manu.—River of Assam which rises in the State of Hill Tippera, and, after flowing in a tortuous north-westerly course through Sylhet District, falls into the Kusiara branch of the Surma a little to the east of Bahadurpur. Almost the whole of its course in the plains lies through cultivated land, and it is largely used for the carriage of forest produce of all kinds, tea, rice, and oilseeds. Boats of 4 tons burden can proceed as far as the frontier of Hill Tippera in the rainy season, but during the dry season traffic is carried on in vessels of lighter draught. The river passes a large number of local centres of trade, the most important of which are Lalbag and Maulavi Bazar. A little to the east of the latter place it receives a considerable tributary, the Dholai. The total length of the river is 135 miles.

Manvi Taluk.—*Taluk* in Raichur District, Hyderabad State. Including *jdglrs*, the population in 1901 was 70,773, and the area 573 square miles, while the population was 58,828 in 1891. It contained one town, MANVI (population, 6,253), the head-quarters; and 140 villages, of which 3 were *jdglr*. In 1905 part of the Yergara *taluk* was incorporated in Manvi. It is separated from the Madras District of Kurnool in the south by the Tungabhadra river. The land revenue in 1901 was 2 lakhs. The soil is chiefly *regar* or alluvial.

Manvi Town.—Head-quarters of the *taluk* of the same name in Raichur District, Hyderabad State, situated in 15° 59' N and 77° 3' E. Population (1901), 6,253. It contains temples of Marothi, Ramasimha, and Venkateshwara, and a Jama Masjid. Opposite the temple of Marothi, which is erected on a hill to the west of the town, is a large block of stone bearing a lengthy Kanarese inscription. Another stone bearing an inscription stands near a well in the fort, which is now in ruins.

Manwat.—Town in the Pathri *taluk* of Parbhani District, Hyderabad State, situated in 19° 18' N. and 76° 30' E., five miles south of

the Hyderabad-Godavari Valley Railway. Population (1901), 7,395. It is a busy centre of the grain trade, and contains a State post office, a British sub-post office, and four schools.

Maodon.—Petty State in the Khasi Hills, Eastern Bengal and Assam. The population in 1901 was 296, and the gross revenue in 1903-4 was Rs. 1,490. The principal products are millet, oranges, areca-nuts, pineapples, and bay leaves. Deposits of lime and coal exist in the State, but are not worked.

Maoflang. — Petty State in the Khasi Hills, Eastern Bengal and Assam. The population in 1901 was 947, and the gross revenue in 1903-4 was Rs. 145. The principal products are millet, rice, coal, and potatoes.

Maolang.—Petty State in the Khasi Hills, Eastern Bengal and Assam. The population in 1901 was 1,856, and the gross revenue in 1903-4 was Rs. 300. The principal products are potatoes, millet, and honey. Lime and iron are found in the State, but are not worked.

Maolong.—Petty State in the Khasi Hills, Eastern Bengal and Assam. The population in 1901 was 1,472, and the gross revenue in 1903-4 was Rs. 1,800. The principal products are oranges, millet, areca-nuts, and pineapples. There is some trade in lime, and the coal-mines of the State have been leased to a company for thirty years.

Maosanram.—Petty State in the Khasi Hills, Eastern Bengal and Assam. The population in 1901 was 1,414, and the gross revenue in 1903-4 was Rs. 2,930. The principal products are potatoes, millet, and honey. Lime, coal, and iron are found in the State, but are not worked.

Mapinja.—Chief town in Bardez District, Goa, Portuguese India, situated in 15° 36' N. and 73° 52' E., about 8 miles north of Panjim. Population (1900), 10,733. Mapuja was celebrated in ancient times for the great weekly fair on Fridays. It takes its name, according to some, from *map*, 'measure,' and so, 'to fill up,' that is, the place of measuring or selling goods. It is now one of the most important commercial places in the territory of Goa. The church, dedicated to Our Lady of Miracles, was built in 1594, and is held in great veneration not only by Christian converts but also by Hindus. On the feast of Our Lady of Miracles men of every class and creed come in crowds, bringing offerings to the Virgin. On the same occasion a fair is held, which lasts five days. Besides the church, Mapuja contains six chapels, an asylum for the poor and destitute, a town hall, and a jail. To the west of Mapuja are military barracks, where a regiment was stationed from 1841 to 1871, when it was disbanded. The barracks are now occupied by the police force, post office, and schools.

Marahra (or Marhara).—Town in the District and *tahsil* of Etah,

MARBLE ROCKS

United Provinces, situated in $27^{\circ} 44'$ N. and $78^{\circ} 35'$ E., on the Cawnpore-Achhnera Railway. Population (1901), 8,622. The Musalman residents, who form more than half the total population, have great influence throughout the District. The name is said to be derived from the mythical destruction of a former village {*mar*, 'killing,' and *hara*, 'green,' i.e. jungle). During Akbar's reign the town was the head-quarters of a *dastur*. In the eighteenth century it belonged to the Saiyids of Barha in Muzaffarnagar, and then passed to the Nawabs of Farrukhabad and of Oudh. The town is scattered and of poor appearance, but contains the ruins of two seventeenth-century tombs, and another tomb and a beautiful mosque built in 1729 and 1732 respectively. There is also a dispensary. Marahra was a municipality from 1872 to 1904, with an income and expenditure of about Rs. 5,000, chiefly derived from octroi. It has now been constituted a 'notified area,' and octroi has been abolished. The trade is entirely local, but glass bangles are made. Marahra contains four schools with 100 pupils, and a small branch of the Aligarh College.

Marang Buru.—Hill on the edge of the plateau of Hazaribagh District, Bengal, situated in $23^{\circ} 33'$ N. and $85^{\circ} 27'$ E., on the boundary line between Hazaribagh and Ranchi Districts. It rises 2,400 feet above the valley of the Damodar and 3,445 feet above sea-level. It is an object of peculiar veneration to the Mundas, who regard Marang Buru as the god of rainfall, and appeal to him in times of drought or epidemic sickness.

Marble Rocks.—The well-known gorge of the Narbada river, in Jubbulpore District, Central Provinces, situated in $23^{\circ} 8'$ N. and $79^{\circ} 48'$ E., near the village of Bheraghat, 13 miles from Jubbulpore city by road, and 3 miles from Mlrganj station on the Great Indian Peninsula Railway. The river here winds in a deep narrow stream through rocks of magnesian limestone 100 feet high, giving an extremely picturesque effect, especially by moonlight. One place where the rocks approach very closely is called the Monkey's Leap. Indra is said to have made this channel for the waters of the pent-up stream, and the footprints left on the rock by the elephant of the god still receive adoration. The greatest height of the rocks above water-level is 105 feet, and the depth of water at the same place 48 feet, but the basin near the travellers' bungalow is 169 feet deep. On a hill beside the river are some curious remains of statuary. A modern temple is surrounded by a high circular wall of much more ancient date, against the inside of which is built a veranda supported by columns set at regular intervals. The pilasters built against the wall opposite each of the pillars divide the wall space into panels, and in each of these on a pedestal is a life-sized image of a god, goddess, &c., for the most part in a very mutilated condition. Must

of the figures are four-armed goddesses, and the name of the temple is the Chaunsath JoginI, or 'sixty-four female devotees.' The statues have symbols in the shape of various animals carved on their pedestals. Bheraghat is sacred as the junction of the little stream of the Saraswati with the Narbada; and a large religious fair takes place here in November for bathing in the Narbada, the attendance on the principal day being about 40,000. The marble obtained from these rocks is coarse grained and suitable only for building stone. It is very hard and chips easily, and is therefore not well adapted for statuary. The colours found are canary, pink, white, grey, and black. Soapstone or French chalk is found in pockets in the bed of the Narbada.

Mardan Tahsil.—*Tahsil* of Peshawar District, North-West Frontier Province, lying between 34° 5' and 34° 32' N. and 71° 49' and 72° 24' E., in the centre of the part of the District which lies north of the Kabul river, with an area of 610 square miles. It comprises the greater portion of the Yusufzai plain, and with the Swabi *tahsil* forms the YUSUFZAI subdivision of Peshawar District. The population in 1901 was 137,215, compared with 113,877 in 1891. It contains the cantonment of MARDAN (3,572) and 130 villages, including Hoti and Rustam. The land revenue and cesses in 1903-4 amounted to Rs. 1,76,000.

Mardan Town.—Cantonment in Peshawar District, North-West Frontier Province, and permanent head-quarters of the Queen's Own Corps of Guides. It is also the head-quarters of the Mardan *tahsil* and the Yusufzai subdivision. Population (1901), 3,572. The cantonment is situated in 34° 12' N. and 72° 2' E., on the right bank of the Kalpani river, 33 miles north-east of Peshawar and 15 miles north of Naushahra, on the North-Western Railway. The fort was built by Hodson of the Guides in 1854. The civil lines lie in the southern part of the cantonment on the Naushahra road, and contain the Assistant Commissioner's bungalow, court-house, *tahslli*, Government dispensary, and other public offices. An Anglo-vernacular middle school is maintained by the District board. The village of Hoti, from which the station is sometimes called Hoti Mardan, lies 2 miles from the cantonment.

Margao.—Town in Salsette district, Goa, Portuguese India, situated in 15° 18' N. and 74° 1' E., in a beautiful plain in the centre of the district, on the bank of the Sal river, and about 16 miles south-east of Panjim. It is a station on the West of India Portuguese Railway. Population (1900), 12,126. Margao, according to tradition, was one of the early seats of the Aryan settlers of Goa, and the site of the chief *math* or convent, whence its name Mathagrama, or 'the village of the convent,' corrupted into Margao. Though for some time

exposed to the incursions of Muhammadans and Marathas, Margao was inhabited by many rich families. Of late many public and private buildings have been erected. Christianity was introduced into Margao in 1560, and the first church was built in 1565. The Jesuits in 1574 built a college, which was subsequently removed to Rachol, a village about 6 miles north-east. Margao contains a town hall, Government schools, a theatre, and an asylum. The military barracks, built in 1 Si 1, were formerly occupied by a regiment, but at present by the police, a small military detachment, and the post office. From Margao a good road leads south to Karwar, the chief town of the adjacent British District of North Kanara, distant 44 miles.

Margherita.—Village in the Dibrugarh subdivision of Lakhimpur District, Eastern Bengal and Assam, situated in $27^{\circ} 17'$ N. and $95^{\circ} 47'$ E., on the left bank of the Buri Dihing river. Margherita lies at the foot of the Patkai range, and is surrounded on every side by forest. The village owes its prosperity to the coal-mines in the neighbourhood. The coal measures consist of beds of alternating shales, coal, and sandstones, and are known as the Makum field. Five mines have been opened—the Tikak, Upper Ledo, Ledo Valley, Tirap, and Namdang—which in 1903 gave employment to 1,200 coolies working under 9 Europeans. The output in that year was 239,000 tons. The coal is on the whole fairly hard and compact, but after extraction and exposure to the air it breaks up into small pieces. Mining is conducted on the 'square or panel' system, a modification of the system known in England as 'pillar and stall.' Margherita is connected with Dibrugarh by the Dibru-Sadiya Railway, which crosses the Dihing river by a fine bridge. The Coal Company has opened a large pottery, in which bricks, pipes, and tiles are made. A police station and stockade are held by military police in the vicinity. The weekly market is much frequented by the hill tribes, who bring down rubber, amber, wax, and vegetables.

Mari.—Village in the District and *tahsil* of Mianwali, Punjab, situated in $32^{\circ} 57'$ N. and $71^{\circ} 39'$ E., on the east bank of the Indus. Population (1901), 1,490. Mari is the terminus of a branch line of the North-Western Railway, and serves as a depot for the salt and alum of KALABAGH. Near it are the ruins of several Hindu temples, similar to those at KAFIRKOT in Dera Ismail Khan, but larger and better preserved.

Mariahu.—Southern *iahsil* of Jaunpur District, United Provinces, comprising the *pargana* of Mariahu and *tappas* Barsatln and Gopalpur, and lying between $25^{\circ} 24'$ and $25^{\circ} 44'$ N. and $82^{\circ} 24'$ and $82^{\circ} 44'$ E., with an area of 321 square miles. Population fell from 253,402 in 1891 to 243,792 in 1901. There are 676 villages and only one town, Mariahu (population, 3,626), the *iahsil* head-quarters. The

demand for land revenue in 1903-4 was Rs. 3,21,000, and for cesses Rs. 44,000. The density of population. 759 persons per square mile, is slightly below the District average. Mariahu is divided into two nearly equal portions by the Basuhi river, while the Sai and Barna form its north-eastern and southern boundaries. The area under cultivation in 1903-4 was 212 square miles, of which 116 were irrigated. There are about 1,200 small tanks; but wells are by far the most important source of irrigation.

Markandi.—Village in the Garhchiroli *tahsil* of Chanda District, Central Provinces, situated in 19° 41" N. and 79° 50' E., 56 miles south-east of Chanda town by road. Population (1901), 211. The village stands on a bluff overlooking the Wainganga, and is remarkable for an extremely picturesque group of temples. They are enclosed in a quadrangle 196 feet by 118, and there are about twenty of different sizes and in different stages of preservation. They are richly and elaborately sculptured, and are assigned to the tenth and eleventh centuries. The wall surrounding them is of a primitive type, and probably much older. The largest and most elaborate temple is that of Markanda Rishi. There are also some curious square pillars sculptured with figures of soldiers, and probably more ancient than the temples. A religious fair is held annually at Markandi in February and March, lasting for about a month. The great day of the fair is the Sivaratri festival, when the attendance amounts to 10,000 persons.

Markapur Subdivision.—Subdivision of Kurnool District, Madras, consisting of the MARKAPUR and CUMBUM *taluks*.

Markapur Taluk. — North-eastern *taluk* of Kurnool District, Madras, lying between 15° 37' and 16° 18' N. and 78° 50' and 79° 34' E., with an area of 1,140 square miles. The population in 1901 was 94,293, compared with 99,971 in 1891; the density is only 83 persons per square mile. It contains 76 villages, 12 of which are 'whole *mams*'. Most of these latter are uninhabited. The demand for land revenue and cesses in 1903-4 amounted to Rs. 1,13,000, which is lower than in any other *taluk* in the District. This *tluk* and Cumbum are situated to the east of the Nallamalais, which separate them from the rest of the District, and their physical aspects are very different from those of their neighbours. The greater part of Markapur is hilly. Several low ranges intersect it : and down the valleys formed by these flow the chief rivers, namely, the Duv-
valeru, the Ralla Vagu, the Tlgaleru, and the Kandleru, which drain the *taluk* and flow into the Gundlakamma river. The soil is mostly rocky and gravelly, about 89 per cent, being red earth of a poor description. There are great natural facilities for impounding rain-water in tanks ; but owing to the sparseness of population and the

consequent dearth of labour, 'wet' cultivation is not popular and the tank projects are unremunerative. The *taluk* contains the largest number of wells in the District, and nearly two-thirds of its irrigated area is watered from these sources. The very large extent of 'reserved' forests (557 square miles) affords ample grazing ground for cattle and sheep, for which Markapur is noted. The cattle of the coast Districts of Nellore and Guntur are driven to the Nallamalais to graze during the hot season. The climate in the western half of the *taluk* bordering upon the Nallamalais is unhealthy, but that of the eastern half is comparatively salubrious. The annual rainfall averages 25 inches.

Marmagao.—Peninsula, village, and port in Salsette district, Goa, Portuguese India, and the terminus of the West of India Portuguese Railway, situated in 15° 25' N. and 73° 47' E. The peninsula of Marmagao is situated on the southern side of the harbour of Goa, on the left bank of the Zuari river, and is connected with the mainland by a narrow strip of sand about a quarter of a mile broad, and elevated about 10 feet above the sea. The whole peninsula is composed of laterite, and the shore is fringed with heavy boulders, which have crumbled and fallen from the cliff. The summit of the peninsula is a table-land, about 180 to 200 feet high, composed of bare laterite covered with loose stones, with patches of grass. The slopes of the hill, which are steep, and present a bold appearance seaward, are covered with thick jungle and scrub.

The village and port of Marmagao are situated at the eastern extremity of the peninsula, about 5 miles south of Panjim. Population (1900), 750, mostly Christians. In the last half of the seventeenth century the Portuguese Viceroy, the Count of Alvor, resolved to abandon Goa, and transfer the seat of the government to the peninsula of Marmagao. In 1684-5 the foundations of a new capital were laid and the work progressed favourably. In 1686 the works were stopped by his successor. During the next fifteen years orders were repeatedly received from Portugal to demolish the public buildings of Goa, and to apply the materials to the construction of new ones at Marmagao, while the Viceroys were directed to transfer their residence to that place. During the Viceroyalty of Caetano de Mello e Castro, the works were pushed on with vigour, and several buildings were completed, among which may be mentioned the palace and the hospital. The Viceroy himself resided at Marmagao for a few months in 1703. Suddenly the works were stopped by a royal letter of March 8, 1712. In 1739, when Goa was in danger of falling into the hands of the Marathas, the nuns and other helpless members of the population sought refuge at Marmagao.

The Government buildings are now mere heaps of ruin. The only relic of importance is a fine old church. The fortress has been

converted into an hotel. In anticipation of the trade which, it is hoped, will be developed, now that goods can be shipped direct from Marmagao to Europe, measures have been taken to improve the harbour. Since 1903 the management of the port, as well as of the railway, has been entrusted to the Southern Mahratta Railway Company. The imports in the year 1903-4, by sea and land, amounted to close on 35 lakhs, while the exports were valued at 17 lakhs.

Marot.—Ancient fort in the Khairpur *tahsil* of Bahawalpur State, Punjab, situated in 29° 10' N. and 72° 28' E., on the south bank of the Hakra depression. It was probably erected by Mahrut, king of Chitor, an opponent of Chach, the Brahman usurper of the throne of Sind. It was a place of some importance in the early Muhammadan period, lying on the direct road from Multan to Delhi via Sarsuti (Sirsa). It was wrested by the Nawab of Bahawalpur from Jaisalmer in 1749.

Marri.—*Tahsil* and town in Rawalpindi District, Punjab. See MURREE.

Marri-Bugti Country.—A tribal area in Baluchistan, controlled from Sibi District, lying between 28° 26' and 30° 4' N. and 67° 55' and 69° 48' E., with an area of 7,129 square miles. The northern part, the area of which is 3,268 square miles, is occupied by the Marris, and the southern part, 3,861 square miles, by the Bugtis. The country is situated at the southern end of the Sulaiman range. It is hilly, barren, and inhospitable, and supplies are scarce. Here and there are good pasture grounds, and a few valleys and plains are gradually being brought under cultivation. The valleys and plateaux include Nisau (3,000 feet), Jant All (2,847 feet), Kahan (2,353 feet), Mawand (2,620 feet), and Marav (2,195 feet). The rainfall is scanty and is chiefly received in July.

The Marris and Bugtis are the strongest Baloch tribes in the Province. The total population of their hills was 38,919 in 1901, or about five persons to the square mile. The Marris, including those living in the British *tahsil* of Kohlu, numbered 19,161, with 140 Hindus and 1,090 other persons living under their protection (*hamsayah*). The population of the Bugti country amounted to 18,528, comprising 15,159 Bugtis, 272 Hindus, 708 *hamsayahs*, and 2,389 *maretas* or servile dependants. The population are essentially nomadic in their habits, and live in mat huts. The total number of permanent villages decreased from eight in 1901 to five in 1904; the most important are Kahan (population, about 400) in the Marri country, and Dera Bugti (population, about 1,500) in the Bugti country.

Both tribes are organized on a system suitable to the predatory transactions in which they were generally engaged in former times. Starting from a small nucleus, each gradually continued to absorb

various elements, often of alien origin, which participated in the common good and ill, until a time arrived when it was found necessary to divide the overgrown bulk of the tribe into clans (*takkar*), the clans into sections (*phalli*), and the sections into sub-sections (*para* or *firka*). At the head of the tribe is the chief (*tumanddr*), with whom are associated the heads of clans (*mukaddam*) as a consultative council. Each section has its *wadera*, with whom is associated a *mukaddam*, who acts as the *wadera's* executive officer and communicates with the *motabars* or headmen of sub-sections. Each tribe was thus completely equipped for taking the offensive. In pre-British days a share of all plunder, known as *panjoth*, was set aside for the chief; headmen of clans then received their portion, and the remainder was divided among those who had taken part in an expedition. Side by side with this system there still exists, among the Marris and the Pairozani Nothani clan of the Bugtis, a system of periodical division of all tribal land. The three important clans of the Marris are the Gaznis (8,100), to whom the Bahawalanzai or chief's section belongs; the Loharani-Shirani (6,400); and the BijrSni (4,700). The Bugtis include the clans of Pairozani Nothani (4,700), Durragh Nothani (1,800), Khalpar (1,500), Massori (2,900), Mondrani (500), Shambani (2,900), and Raheja (880). The chief's section belongs to the latter. The chiefs levy no revenue, but usually receive a sheep or a goat from each flock when visiting different parts of their country.

The early history of both tribes is obscure. The Marris are known to have driven out the Kupchanis and Hasnis, while the Bugtis conquered the Buledis. Owing to the great poverty of their country, both tribes were continuously engaged in plunder and carried their predatory expeditions far into the adjoining regions. They came in contact with the British during the first Afghan War, when a force under Major Billamore penetrated their hills. In April, 1840, a small detachment was sent, under Captain Lewis Brown, to occupy Kahan and guard the flank of the lines of communication with Afghanistan ; but it was invested for five months and two attempts at relief were beaten off. The fort was, however, only surrendered after a safe retreat had been secured from Doda Khan, the Marri chief. In 1845 Sir Charles Napier conducted a campaign against the Bugtis, who fled to the Khetrans, and the expedition was only a qualified success. General John Jacob, after much trouble with both tribes, but especially with the Bugtis, settled some of the latter on irrigated lands in Sind in 1847, but many of them shortly afterwards fled to their native hills. Both tribes were subsidized by the Khan of Kalat after the treaty of 1854; but in 1859 Mir Khudadad Khan was obliged to make an expedition against the Marris, accompanied by Major (afterwards Sir Henry) Green. Another unsuccessful campaign followed in 1862.

Anarchy ensued; and in 1867 Captain (afterwards Sir Robert) Sandeman, then Deputy-Commissioner of Dera Ghazi Khan, entered into direct relations with them and took some of them into the service of Government. The result of the Mi thankot conference, which took place between Punjab and Sind officials in 1871, was to place Sandeman in political control of the Marri-Bugti country under the orders of the Superintendent, Upper Sind Frontier.

On the establishment of the Baluchistan Agency in 1877, British relations with the Marris and Bugtis became closer, and service and allowances were given to them. The Bugtis have throughout behaved well. The Marris, in August, 1880, plundered a convoy marching along the Harnai route and killed 42 men, whereupon a punitive expedition was dispatched under General Sir Charles Macgregor, to whom the Marri chief and his headmen tendered their submission. They paid Rs. 1,25,000 in cash, out of a fine of Rs. 1,75,000 inflicted on them, and agreed to surrender half of the revenue of the Kuat-Mandai valley until the balance of Rs. 50,000 had been paid off. Since then the Marris have given little trouble, with the exception of the part they took in the Sunari outrage in 1896, when they killed 11 men, and some unrest which occurred in 1898 and ultimately ended in the son of the Marri chief emigrating temporarily to Afghanistan.

Both tribes are under the control of the Political Agent in Sibi, with the Extra-Assistant Commissioner of the Sibi subdivision in subordinate charge. Direct interference in the internal affairs of the tribes is, so far as possible, avoided, the chiefs being left to decide all such cases in consultation with their sectional headmen and in accordance with tribal custom. The task of the Political officers is chiefly confined to the settlement of intertribal cases either between the Marris and Bugtis themselves, whose relations are frequently strained, or with the neighbouring tribes of Loralai District and the Punjab. A code of penalties for the infliction of particular injuries, such as murder, the loss of an eye or tooth, *Szc.*, was drawn up between the Marris and Bugtis in 1897, and is followed in ordinary circumstances. Cases of extraordinary importance are referred to the *Shahi jirga*, and the Political Agent sees that the award is carried out. Large services have been given to both tribes, to enable the chiefs to secure control over their followers. The Marri tribal service consists of 1 headman, 206 mounted levies, 5 footmen, and 8 clerks and menials; 35 of these men are stationed at seven posts in Loralai District and 109 at thirteen posts in the Administered area of Sibi District. The remainder hold three posts in the Marri country. The total monthly cost amounts to Rs. 5,600. The Bugti service includes 3 headmen, 136 mounted levies, 4 footmen, and 6 clerks, costing Rs. 3,800

monthly. The posts on the south of the Bugti country are controlled from the NasTrabad *tahsil*.

Marriw.—Petty State in the Khasi Hills, Eastern Bengal and Assam. The population in 1901 was 2,289, and the gross revenue in 1903-4 was Rs. 380. The principal products are rice, millet, and maize. Lime is found in the State, but is not worked.

Martaban.—Ancient Talaing capital in Thaton District, Lower Burma. See THATON DISTRICT.

Marutvamalai.—Isolated hill, forming the southernmost extremity of the Western Ghats, in the Agastiswaram *tahuk* of Travancore State, Madras, situated in 8° 8' N. and 77° 35' E., about 5 miles north-west of Cape Comorin. Tradition regards it as having been dropped from the Oshadhi Parvatam, or 'medicine hill,' while this latter was being taken by Hanuman from the Himalayas to cure the wound of Lakshmana sustained during the battle with Ravana's forces. It is still believed to be the abode of sages and to contain many species of rare medicinal herbs.

Marwar.—Another name for the JODHPUR STATE in Rajputana, but in former times applied to about half of the Agency. Marwar is a corruption of Maru-war, classically Marusthala or Marusthan, also called Marudesa, whence is derived the unintelligible Mardes of the early Muhammadan writers. The word means the 'region of death,' and hence is applied to a desert. Abul Fazl thus described it in 1582 : 'Marwar is in length 100, and in breadth 60 kos. The *sarkars* of Ajmer, Jodhpur, Sirohi, Nagaur, and Bikaner are dependent on it. The Rathor tribe have inhabited this division for ages past. Here are many forts, of which the following are the most famous: namely, Ajmer, Jodhpur, Bikaner, Jaisalmer, Umarkot, and Jainagar.' In Tod's *Rajasthan* it is said that 'its ancient and appropriate application comprehended the entire desert from the Sutlej to the ocean.' The tract has given its name to the numerous enterprising traders known as Marwaris or Marwari Banias, who have spread far and wide over India, and acquired an important share in the commerce of the country.

Marwat Tahsil.—*Tahsil* of Bannu District, North-West Frontier Province, lying between 32° 16' and 32° 53' N. and 70° 23' and 71° 16' E., with an area of 1,198 square miles. The whole *tahsil* is one large sandy plain. Its population in 1901 was 96,332, compared with 84,145 in 1891. It contains the town of LAKKI (population, 5,218), the head-quarters; and 145 villages. The land revenue and cesses in 1903-4 amounted to Rs. 1,30,000.

Masar.—Village in the head-quarters subdivision of Shahabad District, Bengal, situated in 25° 33' N. and 84° 35' E., a little to the south of the East Indian Railway, about 6 miles west of Arrah.

Population (TQOI), 3,073. Masar has been identified with the Mo-ho-so-lo of the Chinese pilgrim Hiuen Tsiang, and from his account must then have stood close to the Ganges. The river now flows 9 miles to the north, but traces of the high banks of its old channel still remain. The old name of Masar, as proved by seven inscriptions in the Jain temple of Parasnath, was Mahasara; but the original name is said to have been Sonitpur, famous as the residence of Bana Raja, whose daughter Usha was married to a grandson of Krishna¹. There is a Jain temple here with several Brahmanical images and an inscription dated 1386. Dr. Buchanan-Hamilton discovered some Buddhist images in a heap of mud and bricks to the west of the village, which he assigned to the Cheros. There are fourteen fine old wells and numerous tanks. The population of the old town has been estimated at about 20,000. At present it is only a straggling village. A colossal image found at Masar was in 1882 removed to Arrah, and the fragments being pieced together, it was set up in the public garden at that place; it appears to be of the Gupta period. Among other statues, those of Mahamaya and Bhairab are noteworthy.

Masein.—Southern township of the Upper Chindwin District, Upper Burma, extending from the Yoma in the west across the Chindwin river to Shwebo District in the east, between 23° 10' and 23° 35' N. and 94° 15' and 94° 58' E., with an area of 1,334 square miles. The population, which is wholly Burman, was 12,646 in 1891, and 14,365 in 1901, distributed in 156 villages. Masein (population, 1,118), on the Chindwin river, about 30 miles below Kindat, is the head-quarters. The whole of the township is a network of small hills and narrow valleys. The area cultivated in 1903-4 was 26 square miles, and the land revenue and *thathameda* amounted to Rs. 40,000.

Maskhal:—Island in Eastern Bengal and Assam. *See* MAISKHAL.

Mastuj.—Village, fort, and district subject to Chitral, in the Dir, Swat, and Chitral Agency, North-West Frontier Province, situated in 36° 17' N. and 72° 33' E. The village lies on the left bank of the Mastuj river, near its confluence with the Laspur, at an elevation of 7,800 feet above sea-level. Mastuj is not, properly speaking, part of Chitral State. It has often been conquered by Chitral and has at times conquered it. At present Mastuj is governed by a Mehtarjao, an uncle of the Mehtar of Chitral, who is independent of him, though Mastuj is part of the Chitral Agency. The climate in winter is severe, owing to the cold winds which blow down the valleys. An inscription at Barenis, a neighbouring village on the right bank of the Mastuj river, shows that Chitral was included in the kingdom of Jaipal, king of Kabul, about A. D. 900, and that its inhabitants were then

¹ Te?pur in Assam also claims to have been called Sonitpnr, and to have been the capital of this Raja.

Buddhists. Its history is that of CHITRAL, and it has a population of about 6,000.

Masulipatam Subdivision. — Subdivision of Kistna District, Madras, consisting of the BANDAR *taluk*.

Masulipatam Town (in Hindustani *Machhlipatan* = ‘ fish-town ’; popularly known as Bandar = ‘ the port ’). — Head-quarters of the Kistna District, Madras, situated in 16° n' N. and 81° 8' E., on the Bay of Bengal, 215 miles north of Madras City. The town is made up of three parts : the fort, the native quarter, and the European quarter. Of these the fort, which is situated close to the sea, is now little more than a memory. The barracks and arsenal, which fell into decay after the withdrawal of troops (first in 1834 and finally in 1864), have now been pulled down; the churches are in ruins, and the private houses that formerly stood here were destroyed by the great cyclone of 1864. Round the fort stretches a vast expanse of waste land, swamp during the rainy season but firmer in summer, over which a causeway about two miles in length, running in a westerly direction, leads to the native town. In this part of Masulipatam it is still possible to distinguish the separate stations of the various nationalities which traded here centuries ago. French-pettah, occupying a space of about 1,300 square yards, the ownership of which (though not the sovereignty) is vested in the French Government, and English-palem are here; while some distance to the north-west lies Valanda-palem (Hollander-town) with the old Dutch graveyard. Close at hand is the former council chamber of the Netherlands East India Company, now used as a court-house. North of the native quarter along a sand ridge are built the houses of the European residents.

Unless the railway recently sanctioned from Bezwada should revive its commercial importance by connecting it again with the outside world, the interest of Masulipatam will continue to lie in the past. Its manufactures, principally chintzes and coloured cloths, have been crushed out of the market by English piece-goods; and, since the opening of the railway to Bombay, that city has superseded Masulipatam as the port for the Nizam's Dominions. The East Coast Railway has also contributed to the extinction of the sea-borne traffic formerly carried on between Masulipatam, Cocanada, and the southern coast of India. The annual imports are now valued at only Rs. 7,11,000, and the exports at Rs. 10,31,000.

As to the origin of Masulipatam we have no certain information, and its real history begins early in the seventeenth century. In 1611 the East India Company dispatched the ship *Globe*, commanded by Captain Hippon, to open a trade with the Coromandel coast; and in 1612 the vessel took a cargo of cotton goods and other fabrics to Bantam and Siam, returning to Masulipatam in the following year.

With Captain Hippon sailed, in the capacity of a .supercargo, Peter Floris, a Dutchman, who has left a diary describing how English trade was begun at the place. For many years disputes raged between the new-comers and the Dutch. In 1628 the English were compelled to remove to ARMAGON on the Nellore coast, but in 1632 they returned to Masulipatam, having obtained a *farmdn* from the Sultan of Golconda. By this time the town had become of much importance ; and it is described by a Dominican friar, who visited it in 1670, as being 'famous all along the coast of Coromandel,' and as 'resembling Babel in the variety of tongues and the differences of garbs and costumes.'

In 1686 the Dutch seized the government of Masulipatam and ordered the English not to trade outside the town. The English, undaunted, warned the Dutch not to interfere with their trade ' o11 account of the ill consequences that may be'; and in 1690 the Madras Government obtained a *farmdn* from the Mughal emperor authorizing them to reopen their factories along the coast. Trade, however, appears to have been on a very small scale; for in 1726 the Masulipatam and Madapollam factories were maintained at a cost of 628 pagodas per annum, while the Vizagapatam factory at the same date cost 6,000 pagodas.

In 1750 Masulipatam was seized by the French under the orders of Dupleix, and continued in their possession until 1759. In 1758, with a view to divert the attention of the French, who were then preparing for a strenuous effort in the Carnatic and the siege of Madras city, an expedition, consisting of 300 Europeans and 1,400 sepoy under Colonel Forde, was dispatched by Clive from Calcutta to Vizagapatam. This force speedily found itself hampered on all sides, and it seems to have been a counsel of despair that prompted Colonel Forde to march on Masulipatam. Arrived there, he found a means of escape in the ship *Hardzvicke*, which, with two other vessels, was at anchor in the roads. Before resorting thereto, however, Colonel Forde resolved on the desperate enterprise of endeavouring to storm the fort. Although it was held by a force superior to his own, and a French corps with native auxiliaries manoeuvred in his rear, fortune favoured him, and the attack, delivered early in 1759, was successful. The Subahdar of the Deccan, the most powerful auxiliary of the French, was shortly afterwards forced to negotiate with the English, owing to the attack made on his kingdom by his brother Nizam Ali; and under a treaty signed on May 14, 1759, Masulipatam with the adjacent territory passed to the Company. Thereafter its political history was uneventful.' It became the headquarters of a Chief and Council. These were abolished in 1794, and a Collector was appointed. In 1834 the occupation of the fort by European troops was discontinued, and the native garrison was

withdrawn in 1864. The trade of the port has steadily diminished. The opening of the Bezvada-Masulipatam canal in 1863 gave promise of a revival, but these hopes were dashed to the ground by the tidal wave of 1864, which practically wiped much of the town off the face of the earth. As many as 30,000 people perished in this catastrophe.

In 1901 the population of Masulipatam was 39,507: namely, 34,126 Hindus, 4,635 Musalmans, 714 Christians, and 32 'others.' It was constituted a municipality in 1866. During the ten years ending 1902-3 the municipal receipts and expenditure averaged Rs. 56,000. In 1903-4 they were Rs. 62,000 and Rs. 57,000 respectively. Most of the income is derived from house and land taxes, tolls, and fees from markets and slaughter-houses.

The Masulipatam carpet industry, formerly famous, is now almost extinct; and the beautiful carpets which used to be largely exported to England are seldom seen. Printed cloths are still manufactured, but the lessening demand for them will soon kill the industry. There is a tannery in the town, which sends out annually skins worth from Rs. 50,000 to Rs. 60,000. The principal educational institution is the Church Missionary Society's first-grade college, called after its founder, Dr. Noble. The Hindu high school is a private institution teaching up to the matriculation standard.

Masura.—Town in the Malvan *taluka* of Ratnagiri District, Bombay, situated in 16° 10' N. and 73° 32' E., 8 miles north-east of Malvan. Population (1901), 8,855. It has been identified as the Muziris of Ptolemy and the *Periplus*, one of the chief marts of Western India; but the identification is disputed.

Mat (*.Mant*).—North-eastern *tahsil* of Muttra District, United Provinces, conterminous with the *pargana* of the same name, lying between 27° 35' and 27° 58' N and 77° 31' and 77° 50' E., with an area of 223 square miles. Population rose from 89,451 in 1891 to 97,370 in 1901. There are 142 villages, but no town. In 1903-4 the demand for land revenue was Rs. 2,65,000, and for cesses Rs. 43,000. The density of population, 437 persons per square mile, is much below the District average. The Jumna forms the western boundary of the *taluk*, and parallel to its course lie a series of depressions marking an old bed. Nohjhl, the most northern of these, was formerly a lake 6 miles long by a mile broad, but it has been drained. The Moti *jheel* in the south, which is smaller, still contains water, and is celebrated for the number of fish caught in it. A small stream called the Patwaha is used as a canal escape. Eight and sandy soil prevails in the *tahsil*, which forms a long strip of land stretching along the Jumna, the valley being narrow and badly defined. Up to 1903 canal-irrigation was confined to very few villages, and in 1903-4 only 53 square miles were irrigated (chiefly by wells), out of a cultivated area of 170 square miles.

MAT

The new Mat brunch of the Upper Ganges Canal now commands a considerable area.

Matabhanga River (or Hauli).—One of the three NADIA RIVERS of Bengal, the other two being the BHAGIRATHI and JALANG!. All these rivers are offshoots of the GANGES, and form the head-waters of the HOOGLY river. The Matabhanga has its principal off-take from the Ganges in $24^{\circ} 4' \text{ N.}$ and $88^{\circ} 48' \text{ E.}$, about 10 miles below the point where the Jalangl diverges from it. The off-take is subject to the same shifting and changing as that of the Bhagirathi. Lower down, the Matabhanga is a comparatively narrow stream with well-defined banks throughout. It flows first in a south-easterly, and afterwards in a tortuous south-westerly direction, to Krishnaganj, due east of Krishnagar, the head-quarters of Nadia District. During the past century it has had many vicissitudes. It had formerly an outlet to the east of the delta ; but, owing to the gradual silting up of this tract, it subsequently left its bed and turning west occupied in turn parts of the channels of the KUMAR, ICHAMAT! (2), and Churni rivers. It now joins the Hooghly near Chakdaha, in $23^{\circ} 9' \text{ N.}$ and $88^{\circ} 29' \text{ E.}$, after a course of 129 miles. For the first 40 miles after leaving the Ganges it is still known as the Haul! or Kumar, while the true Kumar river, locally known as the Pangasi, is now connected with it only during the rains. The Ichamatl is now merely an offshoot of the Matabhanga. During the rainy season the Matabhanga is navigable by large boats and river steamers, but during the dry season it is almost always closed to traffic.

Matabhanga Village.—Head-quarters of a subdivision of Cooch Behar State, Bengal, situated in $26^{\circ} 23' \text{ N.}$ and $89^{\circ} 50' \text{ E.}$, on the emigration road to Assam. Population (1901), 1,283. ^ contains a high school.

Matamuhari. —River of Eastern Bengal and Assam. Rising in the range of mountains dividing Arakan from Chittagong, in $21^{\circ} 14' \text{ N.}$ and $92^{\circ} 36' \text{ E.}$, it flows north-west through the Chittagong Hill Tracts, and, turning westward as it leaves the hills, forms a broad delta as it pours into the Bay of Bengal, in $21^{\circ} 45' \text{ N.}$ and $91^{\circ} 57' \text{ E.}$, after a course of 96 miles. It was up the mouths of this delta that the storm-wave of October, 1897, rushed with tremendous violence, destroying every living creature within its range. The delta is of Sundarban character, consisting of groups of islets intersected by a network of tidal creeks and covered by mangrove jungle. This is rapidly being cleared ; the lands are being embanked to exclude the salt water, and the creeks are silting up, and rich crops of rice are grown with but scanty tillage on these virgin soils built up by river silt. The principal place on its banks is Chakiria, a good-sized village where there is a police station.

Matar. Western *tdluka* of Kaira District, Bomba)-, lying between $22^{\circ} 26'$ and $22^{\circ} 50'$ N. and $72^{\circ} 30'$ and $72^{\circ} 47'$ E., with an area of 216 square miles. Besides the main portion, some isolated villages lie separated from the rest by belts of Baroda and Cambay territory. The *tdluka* contains one town, Matar (population, 4,001), the headquarters ; and 81 villages. The population in 1901 was 61,522, compared with 79,285 in 1891. The density, 285 persons per square mile, is much below the District average. The land revenue and cesses in 1903-4 amounted to more than 3 lakhs. The country lacks natural drainage, so that the climate is malarious during the rains. Rice lands are found in many parts.

Matari.—Town in the Hala *tdluka* of Hyderabad District, Sind, Bombay. *See* MATIARI.

Mathabhanga.—River in Bengal. *See* MATABHANGA.

Mathabhanga.—Town in Cooch Behar State, Bengal. *See* MATABHANGA.

Matheran ('The wooded head,' or 'the mother's wood').—Hill sanitarium in the Karjat *tdluka* of Kolaba District, Bombay, situated in $18^{\circ} 55'$ N. and $73^{\circ} 16'$ E., 2,460 feet above sea-level, about 30 miles east of Bombay city. The hill was explored in May, 1850, by Mr. Hugh Malet, of the Bombay Civil Service, and to him belongs the credit of making its advantages known. It is delightfully situated on an outlier of the Western Ghats, commanding noble views of the plain which separates the mountain chain from the sea. The traveller proceeds from Bombay by the Great Indian Peninsula Railway to Neral station (54 miles), at the north-east foot of the hill, and thence to Matheran (7 miles) by palanquin or pony. The road winds upwards through rich forests, and though broad enough for two ponies is unfit for carriages or carts. Matheran has recently been connected with Neral station by a 2-ft. gauge mountain railway, similar to the Siliguri-Darjeeling line.

The summit, which has an area of about 8 square miles, consists of a main central block and two smaller side ridges or wings, thickly wooded and affording good riding ground. The central block has an average breadth of about half a mile, and stretches nearly north and south from the narrow ridge of Hart Point to the rounded bluff of Chauk in the south. It may be roughly divided into three parts : a north, middle, and south section. For about a mile from Hart Point to the Church plateau the northern section is thinly peopled, with only a broken line of houses separated by stretches of wood. On the Church plateau the houses stand closer together, and along the edge of the eastern cliff groups of huts and small shops cluster round the marketplace. The slopes of the central portion are the thickest peopled part, with rows of closely grouped houses stretching across nearly the whole breadth of the hill.

The peculiar charm of Matheran is its Points. These form, as it were, rocky promontories jutting into mid-air, from which the spectator looks down upon the valleys more than 2,000 feet below. In the morning the mist lies over the plains, and, as it gradually melts before the rising sun, discloses one by one the villages and fields which it has concealed beneath. The six leading Points or headlands are the Hart at the north and Chauk at the south of the central hill; Panorama Point at the north and Garbat at the south of the east wing; and Porcupine Point at the north and Louisa at the south of the west wing. In addition to these, three other spots are known as the Artist, Sphinx, and Bartle Points. Of the several smaller bluffs the seven most important are : Alexander, Little Chauk, One Tree Hill, Danger, Echo, Landscape, and Monkey.

A very striking view is obtained, especially in the evening light, from Panorama Point. The level plain extends from the foot of the hill to the broken coast-line, about 40 miles off. The great city of Bombay, with its towers and shipping, lies under the sunset, and the ocean stretches beyond. Besides the beauty of the summit and of its views, a great charm in Matheran is the plateau or terrace that almost encircles the hill from 200 to 300 feet below its crest. This belt has a rich soil, yearly freshened by mould washed down from the higher land. The hill sides are scarred by several small streams, which, though dry during the greater part of the year, bear in their clean-swept rocky channels traces of the strength of their monsoon floods. The rides through the woods have a special freshness from the sea-breeze; and, although the elevation is not lofty enough to counteract the heats of summer, it suffices to render Matheran a cool and salubrious retreat for the citizens of Bombay during the spring and autumn months.

In spite of the heavy rainfall, even the largest streams cease to flow soon after Christmas. Of eleven springs, only two—Harrison's on the east and Malet's on the west of the main hill-top—last throughout the year. The latter has never been known to fail, and supplies the only drinking-water used by European visitors. Matheran is singularly free from malaria; there is no marsh on any part of the hill, every stream bed is a bare rock, and in almost all seasons the forest can be entered without risk. This freedom from malaria makes Matheran a healthy place to most visitors. The returns for the ten years ending 1903 give an average yearly rainfall of 251 inches. The thermometer readings show that, on an average, December and January are the coldest months, with a mean maximum of 66°, and May and June the warmest, with a mean of 82°.

According to the Census of 1901, the total number of inhabitants, inclusive of the local hill-men, was 3,060, rising to 4,738 in the hot season. The majority of visitors to Matheran are Parsis, of whom the

greatest number come from Bombay. As a place of resort Matheran has two seasons : after the rains in October and November, and from April i to the middle of June. The management of the station is entrusted to the Civil Surgeon, who, with the title of Superintendent, has within its limits the powers of a first-class Magistrate. Subject to the Collector of Kolaba, he has the entire management of the station, looking after the repairs of roads, settling the charges of palanquin-bearers, pony-keepers, and porters, and regulating the use of water, the conservancy arrangements, and the market. A municipality was established in 1905. The receipts are estimated at Rs. 15,000.

The chief public buildings are the post and telegraph offices, the Bairamjl Jlibhoy Hospital, the Superintendent's residence, the police lines, the resthouse, the hotels, market, the library, gymkhana, a church, and a Catholic chapel. There is one school. The leading Points 011 the hill-top may be comfortably seen in three rides or walks from one of the hotels. Excursions may also be made to Prabal Point, where there is a fort of the same name, which signifies ' mighty.' For this place the excursionist starts from Louisa Point, which overlooks a majestic cliff, whence in the rainy season a cataract 100 feet in width falls into the valley below by a single leap of 1,000 feet. Until within the last fifty years, Mathcran hill was inhabited solely by wild forest races of non-Aryan origin and predatory habits—Dhangars, Thakurs, and Kathkaris. These still linger on the slopes and at the foot of the hills, but their little communities have considerably declined in numbers. Some of them may still be seen at the weekly Sunday bazar on the hill. Interesting accounts of Matheran have been published by J. Y. Smith, M.D. (Edinburgh, 1871), and by Mrs. A. K. Oliver (Bombay, 1905).

Mathura.—District, *tahsil*, and city in the United Provinces. See MUTTRA.

Mathwar.—*Tluikurat* in the BHOPAWAR AGENCY, Central India.

Matiari (Matari).—Town in the Hala *ialitka* of Hyderabad District, Sind, Bombay, situated in 25° 36' N. and 68° 29' E., on a slight eminence, 20 miles south of Hala town, and r6 miles north of Hyderabad. Population (1901), 6,608. The local trade includes grain, oilseeds, cotton, silk piece-goods, and sugar. Matiari is said to have been founded in 1322, and possesses, besides a fine Jama Masjid, built in 1803, the tombs of two saints of renowned sanctity. At these shrines annual fairs are held in September and October, and each is attended by from 2,000 to 3,000 Muhammadans. The municipality, established in 1868, had an average income during the decade ending 1901 of Rs. 9,000. In 1903-4 the income was Rs. 3,650. The town contains a dispensary and four schools, of which one is for girls.

Matla.—Village in the District of the Twenty-four Parganas, Bengal.
See CANNING, PORT.

Matra Timba.—Petty State in KATHIAWAR, Bombay.

Mattancheri.—Commercial capital of Cochin State, Madras, and head-quarters of the Cochin *taluk*, situated in 9° 57' N. and 76° 15' E., on the backwater opposite to Ernakulam and adjoining the British town of Cochin. Area, 2½ square miles ; population (1901), 20,061, of whom 9,466 are Hindus, 5,607 Christians, 4,489 Musalmans, and 474 Jews. It is the centre of a considerable export and import trade, which is almost entirely in the hands of Banias and Cutchi Memons from the Bombay Presidency. There are several steam oil-mills in the neighbourhood, and a hydraulic press in the centre of the town. Mattancheri is said to have been formerly the capital of the State, and contains a spacious old palace of quaint Dutch design, where the Rajas of Cochin are still installed. Historically the most interesting part of the place is what is known as the Jews' Town, which is exclusively inhabited by the White and Black Jews. They settled here after their expulsion from Cranganur by the Portuguese in the sixteenth century, and formed a prosperous colony. But of late years they have been declining in both numbers and affluence. They have three old synagogues in the town. Among modern institutions of note are the large and richly endowed Konkani temple of Tirumala Devaswam, and the women and children's hospital, which contains accommodation for 20 in-patients.

Mau Tahsil (1).—Eastern *tahsil* of Banda District, United Provinces, conterminous with the *pargana* of Chhlbun, lying along the Jumna, between 25° 5' and 25° 24' N. and 81° 7' and 81° 34' E., with an area of 316 square miles. It is included in the Karwi subdivision of the District. Population fell from 73,658 in 1891 to 64,921 in 1901. There are 164 villages and one town, RAJAPUR (population, 5,491). The demand for land revenue in 1903-4 was Rs. 86,000, and for cesses Rs. 14,000. The density of population, 205 persons per square mile, is slightly below the District average. In the south the outer range of the Vindhya crosses the *fahsil* in three terraces. The forests and jungles are gradually diminishing, owing to the export of wood to Allahabad. In 1903-4 less than one square mile was irrigated, out of 132 square miles under cultivation.

Mau Tahsil (2).—*Tahsil* of Jhansi District, United Provinces, conterminous with the *pargana* of the same name, lying between 25° 6' and 25° 29' N. and 78° 49' and 79° 19' E., with an area of 439 square miles. Population fell from 115,724 in 1891 to 100,298 in 1901. There are 164 villages and only one town, MAU-RANIPUR (population, 17,231), the *tahsil* head quarters. The demand for land revenue in 1903-4 was Rs. 1,23,000, and for cesses Rs. 21,000. The density of

population, 228 persons per square mile, is considerably above the District average. The *tahsil* is bounded on the east by the Dhasan river, but towards the south and west is much intermixed with portions of Orchha State. The southern portion is generally wild and hilly, dotted with artificial lakes and fertile irrigated valleys, but displaying also great tracts of barren waste. In the centre the country is more open and there is little irrigation. Farther north again the soil is chiefly black soil, deteriorating near the wild nullahs which fringe the Dhasan ; this part has suffered much from the inroads of *kans* (*Saccharum spontaneum*). In 1902-3 the area under cultivation was 190 square miles, of which 13 were irrigated, wells supplying more than three-fourths of the irrigated area.

Mau Town (1).—British cantonment in Indore State, Central India. See MHow.

Mau Town (or Maunath Bhanjan) (2).—Town in the Muhammad, abad *tahsil* of Azamgarh District, United Provinces, situated in 25° 57' X. and 83° 34' E., on the right bank of the Tons and on the Bengal and North-Western Railway, at the junction of the branch from Shahganj through Azamgarh town with the line from Gorakhpur to Benares. Population (1901), 17,696. The town is of some antiquity, though the date of its foundation has not been ascertained. It is mentioned in the *Ain-i-Akbari* as the head-quarters of a *mahal* or *pargana* ; and during the reign of Shah Jahan that emperor bestowed the town upon his daughter, Jahanara Begam, and it received in a special decree the royal favour. A *sarai* built by this lady still exists. At that period the town is said to have contained 84 *niuhals*, or wards, and 360 mosques. At the time of the cession to the British, Mau was held in *jdglr* by one of the Oudh Begams; but the town had suffered severely from previous misrule, and has never regained its former prosperity. A commercial resident was appointed for Mau and Azamgarh in 1802 ; and in addition to the ordinary country traffic, investments in Mau cloths were made for some years on behalf of the Company. Private enterprise, kept up the trade for a time after the abolition of the Company's monopoly; but the introduction of English-made yarn and cloth gave a great blow to it. Since the opening of the railway, however, trade has revived to some extent, and fewer weavers leave the town to seek employment in the mills of Bombay and Calcutta. The population largely consists of fanatical Julahas (Muhammadan weavers), and religious friction is always present. In 1893 Mau was the scene of sanguinary riots, arising from the agitation against the slaughter of kine. There are no public buildings besides the dispensary, police station, and post office ; but Mau is an important railway centre, and contains the head-quarters of an Engineer, a District Traffic Superintendent, and a Locomotive Superintendent. It is administered under Act XX

of 1856, with an income of about Rs. 3,000. Muslin and satin are largely woven, and there is a small manufacture of silk. There are two schools for boys with 83 pupils, and two for girls with 77.

Mau Aimma.—Town in the Soraon *tahsil* of Allahabad District, United Provinces, situated in 25° 42' N. and 81° 56' E., on the metalled road from Allahabad city to Fyzabad and on a branch of the Oudh and Rohilkhand Railway. Population (1901), 6,769. This was the first place in the District in which plague broke out in 1899, having been imported direct from Bombay. Mau Aimma is administered under Act XX of 1856, with an income of about Rs. 1,000. It was once celebrated for its cotton cloth ; but the industry has declined and many of the Julaha inhabitants (Muhammadan weavers) now seek work in Bombay. There is, however, a flourishing local traffic in grain, cloth, cotton, sugar, and tobacco, which is likely to increase since the opening of a railway. The school has about 64 pupils.

Ma-ubin District (*Ma-i* tree, *Nauclea Cadamba*).—District of the Irrawaddy Division, Lower Burma, lying between 16°30' and 17°25' N. and 95° 15' and 95° 55' E. It is bounded on the north by Henzada District; on the east by Hanthawaddy; on the west by Myaungmya and Bassein ; and on the south by Pyapon. The District is at the head of the lower delta of the Irrawaddy, which enters it on the north, and shortly afterwards, at the upper end of what is known as Ma-ubin

Physical Island, sends an important offshoot called the To aspects of China Baklr river to the east. The main stream, under the name of the Yazudaing, passes on to the south-west, and divides into a number of other tidal channels in Myaungmya and Pyapon Districts. The surface of the country is generally low, the greater part being subject to annual inundation, except where protected by embankments. During the rains the Irrawaddy rises about 25 feet higher than in the dry season, and, where unhindered by dikes, spreads over the country and forms vast lakes, out of which the higher lands emerge like islands. As is the case with all silt-depositing rivers, the surface of the country close to the banks is higher than it is inland, so that between the main streams there is not a watershed but a depression. These low-lying plains are covered with long grass interspersed with trees, and, though very fertile, are generally too deeply flooded to be cultivable. Lying within the main banks of the river are numerous large sandbanks and islands, flooded during the rains, but furnishing excellent ground for vegetable gardens in the dry season and extensive grazing grounds for the cattle. The permanent cultivation, except where there are embankments, is practically confined to the land immediately adjoining the main banks of the river.

The District is an alluvial flat, unbroken by any rising ground, and it cannot be said to possess any geological features worthy of record. The vegetation, which is largely swamp, resembles that in HAXTHAWADDY DISTRICT, in the tracts farther from the sea. The fauna is similar to that of MVAUNGMYA and PVAPON. The elephant and tiger are scarce, but leopards are not uncommon and crocodiles abound.

The climate is generally healthy, but at the same time most enervating. The approximate mean temperature is about 82° Low-lying and moist, the District swarms with mosquitoes. The European houses at the head-quarters are provided with rooms of which the doors and windows are made of perforated zinc to keep out these pests, and in places the villagers have to protect not only their own bodies but those of their cattle at night by means of gauze curtains. Though the District is wet and flat, disastrous floods are extremely rare, owing to the embankments ; and when they occur, they are restricted to small areas.

The rainfall is heaviest in the south, averaging 92 inches at Ma-ubin, 83 inches at Pantanaw, 80 inches at Yandoon, and 72 inches at the northernmost station, Danubyu, or an annual average of 82 inches for the District altogether. In the north it is more variable than in the south, but on the whole it is fairly regular and seldom insufficient.

Danubyu, in the north of the District, on the western bank of the Irrawaddy, is the only place of historical importance. It is famous for the stand made against the British by the uistor Burmese general, the Maha Bandula, in 1825.

The side of the fort facing the river was nearly a mile long, and behind it was a garrison of 20,000 men. This position was unsuccessfully attacked by two columns under General Cotton, the greater part of the troops engaged being killed or wounded. Reinforcements were applied for, and the Commander-in-Chief, Sir Archibald Campbell, brought up his batteries. On the first day of the bombardment the Maha Bandula was killed by the bursting of a shell, and the Burmans thereupon evacuated the place. In the War of 1852 no attempt was made to hold Danubyu ; but after the occupation of Prome a force was gathered by an *tx-thugyi* named Xga Myat Tun, who repeatedly drove back, with considerable loss, the small detachments sent against him. After some delay his stronghold was carried by a larger British force, and the country gradually settled down. Part of the fort walls are still to be seen at Danubyu, occupied by monasteries; and under the shadow of the Nandawgon pagoda is a small cemetery containing the remains of those who fell in the second War.

MA-UB IN DISTRICT'

Originally part of Henzada and Rangoon, a new District, embracing the present Ma-ubin District, and called after the village of Thongwa near Ma-ubin, was formed in 1875. This area was divided, in consequence of the rapid spread of cultivation and large increase in the population, first in 1893 on the formation of Myaungmya District, and again in 1903 when the District of Pyapon came into existence. At the last change the name of Ma-ubin was substituted for that of Thongwa.

The population of the area now forming Ma-ubin District was 176,000 in 1881 ; 216,930 in 1891 ; and 283,122 in 1901. Its distribution in 1901 is shown in the following table:—

Township.	Area in square miles.	Number of		Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
		Towns.	Villages.				
Ma-nbin . .	522	1 1	18	77,79 ²	149	+ 58	21,800
Pantanaw . .	453	1 92		62,37.1	1 29	+ 29	16,416
Yandoon . .	331	1 81		57,923	175	- 1	14,285
Danubyu . .	305	1 127		85,033	278	+ 39	18,087
District total	1,641	4 4	8	283,122	173	+ 30	70,588

The chief towns are YANDOON and MA-UBIN, the District headquarters. The decrease of population in the Yandoon township during the ten years ending 1901 is largely due to a falling off in the inhabitants of Yandoon town, the trade of which was killed by the opening of the railway to Mandalay. Elsewhere the growth during the decade in question has been conspicuous, being largely due to the attractions presented by the rich delta areas to the inhabitants of the poorer tracts farther north. The stream of immigration flows mainly from the Districts of Magwe, Alyingyan, Mandalay, Pakokku, and from the Upper and Lower Chindwin. By far the greater part of the population is Buddhist ; in 1901 Musalmans numbered 3,500 and Hindus 4,800. In all 200,000 of the population spoke Burmese, and 70,000 Karen.

Between two-thirds and three-fourths of the population are Burmans; of the balance the greater part is made up of Karens, who numbered 70,000 in 1901, forming nearly half of the population of the Pantanaw township, one-fourth of that of the Yandoon township, and a fifth of that of the Ma-ubin township. Not quite 60 per cent, of the population is agricultural. Owing to territorial changes, it is not possible to show from the census figures the occupations of the remainder, most of whom are doubtless petty traders or fishermen.

The native Christian population in 1901 numbered 5,100 (mainly

Karen converts). The American Baptist Mission works among the Karens (Pwos and Sgaws), and Roman Catholic missionaries have stations at Ma-ubin and Yandoon. Both these missions maintain schools.

The soil is a stiff yellow clay, deficient in lime, but well adapted to the cultivation of rice. It is so rich that systematic ploughing is rarely resorted to. Large areas, especially in the Agriculture inundated tracts, are not ploughed at all, but the long grass is cut down and burnt, and the rice sown broadcast without transplanting. The lands along the margins of the rivers, enriched by an annual deposit of silt, produce tobacco, chillies, and other crops. The whole of the Danubyu and most of the Ma-ubin township, with parts of Pantanaw and Yandoon, are protected by embankments. The largest of these is the Ma-ubin Island embankment, nearly 80 miles in length, which encloses a large area to the west of the town of Ma-ubin. A somewhat smaller area to the east is protected by the Thongwa Island embankment, between 30 and 40 miles in length. In the north of the District is the southern end of the Henzada embankment, which extends along the western bank of the Irrawaddy for nearly 40 miles, ending near the town of Pantanaw. The area thus protected is approximately 360 square miles. On unprotected lands the deposit of silt is artificially increased by cutting channels through the high banks, at right angles to the river, to the low-lying country beyond. This artificial raising of the level enables crops to be grown on stretches which would otherwise be too low for cultivation.

The cropped area increased from 312 square miles in 1890-1 to 562 in 1900-1. For 1903-4 the main agricultural statistics (in square miles) are as follows :-

Township.	Total.	Cultivated.	Irrigated.
Ma-ubin . . . □	522	216	0-2
Pantanaw . . .	453	125	01
Yandoon . . .	331	109	0-3
Danubyu . . .	308	178	0-4
T total	1,641	628	1

The area under rice (all *kaiikkyi*) in 1903-4 was 533 square miles, and that under plantains and other fruit trees 17,000 acres. Tobacco, mostly in Danubyu, covered 3,500 acres, and chillies in Pantanaw 6,300 acres. The average rice holding measures a little over 20 acres. Holdings are smaller in the north than in the south.

There is a certain amount of cattle-breeding. Few ponies are kept, as there is little use for them. Reserves for grazing are more than 45,000 acres in extent.

The fisheries are usually in fresh-water lakes and streams connected with the Irrawaddy, and subject to tidal influence, but affected to a much greater extent by the monsoon floods.

Fisheries

They are mostly in the southern townships of Pantanaw and Ma-ubin. All but a small part of the revenue is derived from leased fisheries, which realized more than lakhs in 1903-4, almost one-third of the total revenue in the Province from this source. The waters leased are carefully demarcated and mapped, and the right to fish is let by auction every three years. Licences for netting are also issued and are made use of in the navigable waterways. These yielded in the same year Rs. 12,800. The leased fisheries are usually worked by means of weirs and bamboo traps. An exhaustive inquiry made by Major Maxwell between 1897 and 1899 resulted in the larger fisheries being subdivided, and none now yields much over Rs. 7,000 a year. The fresh fish is taken to Rangoon and other places by boat. A great deal is made into fish-paste (*ngapi*), and exported to all parts of Burma. The industry has declined with the spread of cultivation, the rule being that where the interests of the fisherman and the cultivator are irreconcilable those of the former must yield. The construction of embankments, the chief enemy of the fisherman, has now probably reached its limit, and to avoid disputes the spheres of interest of the fisherman and the cultivator have been delimited. The fisherman's average profits are lower than the cultivator's, partly because the industry is highly speculative and, though the takings are occasionally enormous, losses are very common; partly because fishing is the hereditary occupation of the earlier Talaing inhabitants, who cling to it for sentimental reasons. The fisheries are looked after by a special staff of two *inkunwuns* and four inspectors.

The forests are unimportant, consisting of five small Reserves in the Vandoon subdivision, with an area of only 20 square miles.

No artistic work is produced in the District. The manufacture of fine mats from the reed called *thin* (*Phrynium dichotomum*) gives employment to a number of women in the north.

Trade and communications. The rice, after being steeped in water, is split and the rind peeled off into two layers. The outer rind is smoother than the rest and is woven separately into a fine mat, under which a coarser one, made of the inner rind, is placed. The two are then tacked together and the result is the *thinbyu*, the Hurman's ordinary bed. A smart mat-weaver can turn out a mat 6 feet by 2½ feet in one day. A few rice-mills are worked in the

District.

The principal exports are rice, fish-paste (*tygapi*) dispatched from Vandoon to all parts of Burma, and horns and hides. They are

practically all river-borne. A good deal of firewood goes to Rangoon. The imports consist for the most part of hardware, piece-goods, and kerosene oil.

In 1903-4, 48 miles of metalled roads and 18 miles of unmetalled roads were maintained from the District cess fund. In addition, a number of unmetalled roads are kept up from Provincial funds, but the numerous waterways provide the chief communications. The majority of the larger creeks and streams, with which the southern areas are intersected, are navigable by light-draught steamers, launches, and boats. Ma-ubin is well served by the steamers and launches of the Irrawaddy Flotilla Company, and to a small extent also by launches and boats belonging to natives. There are 14 licensed ferries.

For administrative purposes the District is divided into two subdivisions : Ma-ubin, comprising the MA-UBIN and PANTANAW townships ; and Yandoon, comprising the Yandoon and DANUBYU townships. These are under the Administration, usual executive officers, assisted by 422 village headmen. The District forms a subdivision of the Myaungmya Public Works division, and is included in the Henzada-Thongwa Forest division.

Ma-ubin forms part of the Delta (judicial) Division, and the Divisional Judge tries sessions cases. Till recently the judicial work was performed by the executive staff ; but the new scheme has provided a special District Judge, with head quarters at Myaungmya, who exercises jurisdiction in Ma-ubin, Myaungmya, and Pyapon, a subdivisional judge for Ma-ubin, and three township judges, one for Ma-ubin, one for Pantanaw and Yandoon, and one for Danubyu. The crime of the District presents no special features.

The method of assessing land revenue under the Burmese régime varied in different localities, but the recognized demand was based on the number of yoke of plough cattle used by the cultivator, and amounted to about half the gross out-turn. The first settlement was made in 1868, when a uniform rate of Rs. 1-12 per acre was levied on all classes of cultivation in the Danubyu township. In 1869 70 further portions of the District were settled. The rates of assessment then imposed ranged from Rs. 1-4 to Rs. 2-4 per acre, according to the distance of the land from Rangoon and the fertility of the soil. In 1879-80 these were summarily enhanced in certain circles by amounts varying from 6 to 25 per cent. ; and in 1889 91 the rates ranged from Rs. 1-8 to Rs. 2-8. The first regular settlement of the whole District was made between 1888 and 1891, when rates were fixed ranging from Rs. 1-8 to Rs. 3 per acre for rice cultivation, and from Rs. 2 to Rs. 3 for orchards ; vegetables, tobacco, &c., were assessed at Rs. 2 per acre.

The following table shows, in thousands of rupees, the growth of the District revenue since 1881 :—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue . . .	3,00	6,00	8,00	9,53
Total revenue . . .	14,00	15,00	16,00	26,64

The District cess fund is made up of a rate of 10 per cent, on the land revenue, with receipts from markets and other sources, bringing the total to 1-4 lakhs in 1903-4. About a fourth of this is contributed to Provincial funds, and Rs. 17,300 is spent on education, Rs. 10,000 on District launches, Rs. 13,500 on postal communications, Rs. 5,300 on hospitals, and the balance mostly on roads and resthouses. YANDOON and MA-UBIN are municipalities, and DANUBVU is managed by a town committee.

Under the District Superintendent of police are 2 Assistant Superintendents in charge of the two subdivisions, with a subordinate force consisting of 4 inspectors, 7 head constables, 30 sergeants, and 203 constables, distributed in 6 police stations and 8 outposts. The total strength of military police is 155 of all ranks, with 3 native officers. Of these, 90 are stationed at the District head-quarters, the rest being distributed at the three outlying township head-quarters; their duties are mainly the escort of prisoners and treasure.

Ma-ubin possesses a District jail, with accommodation for 389 prisoners. The usual industries are carried on ; but special reference may be made to the manufacture of jute money-bags, which are supplied by Ma-ubin to all the Government treasuries in the Province. The jail is almost self-supporting, as it grows its own rice and manufactures its own *ngapi*.

The percentage of literate persons in Ma-ubin District in 1901 was 41 in the case of males and 7 in that of females, or 25 for both sexes, which for a delta District with a considerable Indian immigration is fairly high. In 1904 the District contained 11 secondary, 185 primary, and 167 elementary (private) schools, with a total attendance of 7,394 boys and 1,377 girls. The expenditure on education amounted to Rs. 28,600, including Rs. 17,300 from Local funds, Rs. 4,300 from municipal funds, Rs. 5,100 from fees, and Rs. 1,700 from Provincial funds. Subscriptions amounted to only Rs. 200.

There are hospitals at Ma-ubin, Yandoon, and Pantanaw, and a dispensary at Danubyu. The hospitals have accommodation for 52 in-patients. In 1903 the number of cases treated was 22,420, including 659 in-patients, and 873 operations were performed. The income amounted to Rs. 11,000, towards which municipal funds contributed Rs. 8,000, and the District cess fund Rs. 2,500.

Vaccination is compulsory within the limits of the Yandoon and Ma-ubin municipalities. In 1903-4 the number of successful vaccinations was 6,136, representing 13 per 1,000 of population.

[H. M. S. Mathews, *Settlement Report* (1893); Major F. D. Maxwell, *Report on Inland and Sea Fisheries* (1904); B. Samuelson, *History of Embankments, Henzada Division* (1899).

Ma-ubin Subdivision. Subdivision of Ma-ubin District, Lower Burma, consisting of the MA-UBIN and PANTANAW townships.

Ma-ubin Township.—Township of Ma-ubin District, Lower Burma, lying between 16° 30' and 16° 56' N. and 95° 27' and 95° 52' E., with an area of 522 square miles. The head-quarters are at MA-UBIN (population, 6,623), ^{also} the head-quarters of the District. In addition to the town of Ma-ubin, it contained 118 villages in 1901, and at the Census of that year had a population of 77,792, compared with 48,200 in 1891. The township, which is a dead level throughout, lies in the heart of the delta country, being bounded on the west by the Irrawaddy and traversed by the To or China Bakir river. The great majority of the population are Burmans, about one-fifth being Karens. The area cultivated in 1903-4 was 216 square miles, paying Rs. 3,44,000 land revenue.

Ma-ubin Town.—Head-quarters of the District of the same name, Lower Burma, situated in 16° 44' N. and 95° 42' E., along the right bank of the China Bakir stream, in the heart of the delta country. Population (1901), 6,623. Approximately three-quarters of the population are Burmans. Hindus number rather less than 1,000, and Musalmans are about half as numerous as Hindus. The town is of comparatively recent creation and had achieved no notoriety before 1874, when it was chosen as the head-quarters of the new delta District of Thongwa. It is flat and barely above flood-level, and during the greater part of the year swarms with mosquitoes. The jail and the usual public buildings stand near the river bank. Ma-ubin was constituted a municipality in 1888. The receipts of the municipal fund during the ten years ending 1900-1 averaged Rs. 24,500, and the expenditure Rs. 24,600. In 1903-4 the municipal income amounted to Rs. 54,000, the chief sources being markets, &c. (Rs. 18,000), and area and frontage tax (Rs. 2,500) ; and the expenditure amounted to Rs. 34,000, including conservancy (Rs. 7,300), hospital (Rs. 4,500), and education (Rs. 2,500). The principal schools are those maintained by the American Baptist and Roman Catholic Missions, while the municipality keeps up a hospital. Ma-ubin is one of the principal ports of call in the delta for the steamers of the Irrawaddy Flotilla Company, and is a thriving trade centre for paddy and *ngapi*.

Maudaha Tahsil. - *Tahsil* in Hamirpur District, United Provinces, comprising the *parganas* of Maudaha and Muskira, and lying

between 25° 30' and 25° 52' N. and 79° 43' and 80° 21' E., with an area of 452 square miles. Population fell from 103,900 in 1891 to 87,322 in 1901, or by 19 per cent. There are 130 villages and one town, MAUDAHA (population, 6,172), the head-quarters. The demand for land revenue in 1904-5 was Rs. 1,76,000, and for cesses Rs. 36,000. The density of population, 193 persons per square mile, is below the District average. On the east the *tahsil* is bounded by the Ken, and on the west by the Birma. It contains a large proportion of fertile black soil; but the north-west is very inferior, and the land near the rivers is cut up by ravines. In 1902-3 the area under cultivation was 230 square miles, of which only 2 were irrigated.

Maudaha Town.—Head-quarters of the *tahsil* of the same name, in Hamirpur District, United Provinces, situated in 25° 40' N. and 80° 7' E., on the Cawnpore-Saugor road. Population (1901), 6,172. According to tradition a Muhammadan, named Husain, with the help of some Parihar Rajputs, expelled the Kols who resided here and took possession of the place. In 1730 Diler Khan, a son of the governor of Allahabad, was slain here, and his tomb attracts a considerable number of votaries. The fort was first built by Khuman Singh and Guman Singh of Charkhari, and on the same site All Bahadur of Banda afterwards erected a stone fort. The town contains a *tahslli*, and is administered under Act XX of 1856, with an income of about Rs. 1,100. The silver ware produced here in small quantities has some merit. There is a branch of the American Mission, and a middle school with 101 pupils.

Mauganj Tahsil.—North-eastern *tahsil* of Rewah State, Central India, lying between 24° 32' and 24° 54' N. and 81° 41' and 82° 20' E., north of the Kaimur range, with an area of 784 square miles. Most of the *tahsll* is part of the alluvial plain on which the town of Rewah stands, and is covered with fertile soil. To the north it is traversed by the easternmost section of the Panna range, known locally as the Binjh hills. The population fell from 123,486 in 1891 to 99,534 in 1901, giving a density of 127 persons per square mile. There are 609 villages, the head-quarters being at MAUGANJ. The land revenue is 2-i lakhs.

Mauganj Village.—Head-quarters of the *tahsil* of the same name in Rewah State, Central India, situated in 24° 40' N. and 81° 52' E. Population (1901), 1,804. The village is composed of the two separate hamlets called Mau and Ganj. It stands on the great Deccan road, 40 miles to the east of Rewah town, 61 from Mirzapur, and 80 from Satna. An inspection bungalow, a school, and a British post office are situated at Mauganj.

Maulavibazar.—Head-quarters of the South Sylhet Subdivision, Sylhet District, Eastern Bengal and Assam. See SYLHET, SOUTH.

Maulmain.—Town in Amherst District, Lower Burma. See

MOULMEIX.

Maungdaw.—Westernmost township of Akyab District, Lower Burma, lying between 20° 18' and 22° 27' N. and 92° 11' and 92° 43' E., with an area of 426 square miles. It consists of a strip of coast land on the shore of the Bay of Bengal, abutting on the southern end of the Chittagong District of Bengal. The population was 65,407 in 1891 and 83,247 in 1901, giving a density of 195 persons per square mile. There are 377 villages. It is a favourite resort for immigrants from Chittagong, and about three-fourths of its inhabitants profess the Musalman faith. This foreign element has caused the population of the township to increase during the last decade 27 per cent. The head-quarters are at Maungdaw (population, 1,735), on the eastern shore of the Naaf estuary, which separates Burma from Bengal. Away from the coast the land is hilly. The area cultivated in 1903-4 was 128 square miles, paying Rs. 1,80,000 land revenue.

Mau-Ranipur.—Head-quarters of the Mau *tahsil* of Jbansi District, United Provinces, situated in 25° 15' N. and 79° 9' E., on a branch of the Great Indian Peninsula Railway. Population (1901), 17,231. The municipality includes two towns, Mau and Ranipur, separated by a distance of about four miles. Mau was a small agricultural village till the latter part of the eighteenth century, when the exorbitant demands of the Raja of the neighbouring State of Chhatarpur led to an exodus of merchants and others who settled here. The place became noted for its manufacture of the coarse red cotton cloth known as *kharua*. It was for long the chief town in the District, but the restoration of Jhansi city to the British and the alteration in trade routes made by railways have increased the importance of the latter place. Mau is also losing its trade in *kharua*, as the vegetable dye which was used in its preparation is giving way to aniline. Besides the ordinary offices Mau contains a dispensary. It is a remarkably picturesque town ; its houses are built with deep eaves between the first and second storeys, and hanging balcony windows of unusual beauty. The principal temple is that of the Jains (who form an important commercial body), which is very little enclosed, and presents a fine appearance with its two solid spires and many cupolas. Mau has been a municipality since 1869. During the ten years ending 1901 the income and expenditure averaged Rs. 16,000. In 1903-4 the income was Rs. 21,000, chiefly from octroi (Rs. 15,000); and the expenditure was Rs. 18,000. As stated above, the trade in cloth is decreasing, but agricultural produce is still largely exported. There is a small manufacture of brass, and an important cattle fair is held here. Six schools have about 209 pupils.

Maurawan.—"Town in the Purwa *tahsil* of Unao District, United Provinces, situated in 26° 26' N. and 80° 53' E., on the road from Unao town to Rae Bareilly. Population (1901), 7,911. The place first became of importance early in the nineteenth century as the residence of a Khattri banker, who gradually acquired a large *taluka*. During the Mutiny the *fahtkddr*, Gauri Shankar, behaved with unshaken loyalty and was one of the five *talukddrs* whose estates were exempted from confiscation. He was rewarded with the title of Raja and a permanent settlement at a reduced revenue. Maurawan contains a dispensary and three schools with 150 pupils, one school being maintained by the *talukddr*. There is little trade, but the jewellery and carpentry produced here have some reputation.

Maval.— *Taluka* of Poona District, Bombay, lying between 18° 36' and 18° 59' N. and 73° 20' and 73° 46' E., with an area of 385 square miles. It contains two towns, LONAULI (population, 6,686) and Talegaon-Dabhade (5,238); and 162 villages. The population in 1901 was 65,176, compared with 66,876 in 1891. The density, 169 persons per square mile, is below the District average. The demand for land revenue in 1903-1. was 1-2 lakhs, and for cesses Rs. 8,000. Three leading spurs from the Western Ghats cross the *taluka*. The largest passes east and west across its whole length in the south, a second penetrates to the centre, and the third forms the north-east boundary for about 20 miles. Maval is fairly wooded. The principal soils are red and grey; black soil is found only on the banks of rivers and large streams, of which the chief are the Indrayani and Andhra. Rice is everywhere the principal crop. The rainfall varies greatly in different parts. It is heavy close to the Ghats and considerably lighter near the eastern boundary. Hot winds are almost unknown, and the climate is generally cooler than in the east of the District. The south-east line of the Great Indian Peninsula Railway and the Bombay road both cross the *taluka*. The villages, along or at short distance from the road, derive considerable advantage from the sale of grass for the numerous droves of cart- and pack-bullocks that daily halt at the different stages. The head-quarters are at Wadgaon, a small village near the station of the same name on the Great Indian Peninsula Railway.

Maw (Burmese, *Baw*).—The northernmost and second largest of the States of the Myelat division of the Southern Shan States, Burma, lying between 21° 12' and 21° 43' N. and 96° 19' and 96° 50' E., with an area of 550 square miles. It is bounded on the north by the Yeyaman tract of the Kyaukse District of Upper Burma; on the east by Lawksawk; on the south by Yengan; and on the west by Kyaukse District. The State falls into two natural divisions: the valley of the Zawgyi, its only important waterway, with the hills to the north of that

stream : and the Myelat plateau to the south. On the north, east, and west the State is bounded by mountain ranges, with peaks exceeding 5,000 feet in height. Rice, the chief crop, is grown in *taungyas* and on irrigated land in the Zawgyi valley; garden crops and *thanatpet* are also cultivated, but the total area under cultivation is not much more than 2,300 acres. The population in 1901 was 7,743 (distributed in 70 villages), of whom 6,884 were Burmese-speaking Danus, the rest Shans, Taungthus, and Palaungs. The principal village, where the Ngwegunhmu resides, is Myogyi (population, 1,002), close to the borders of Kyaukse. The revenue in 1904-5 amounted to Rs. 11,000, and the tribute to the British Government is Rs. 5,750.

Mawa.—Petty State in KATHIAWAR, Bombay.

Mawana Tahsil.—North-eastern *ta/isil* of Meerut District, United Provinces, comprising the *parganas* of Hastinapur and Kithor, and lying between 28° 50' and 29° 16' N. and 77° 47' and 78° 8' E., with an area of 431 square miles. The population rose from 177,868 in 1891 to 200,399 in 1901. There are 248 villages and four towns, the largest of which are MAWANA (population, 9,207), the *tahsil* head-quarters, PARICHHATGARH (6,278), and PHALAUDA (5,214). In 1903-4 the demand for land revenue was Rs. 3,56,000, and for cesses Rs. 57,000. The *tahsil* is the most sparsely populated in the District, containing only 465 persons per square mile against an average of 654. It consists of two distinct portions. The greater part lies in the upland area, which descends by a series of ravines to the Ganges *khddar* on the east. The uplands are intersected by well-marked ridges of sand, and have profited enormously by the irrigation supplied from the Anfipshahr branch of the Upper Ganges Canal, as wells are difficult and costly to make. The *khddar* is damp, and immediately below the edge of the upland lies a series of swamps marking an old bed of the Ganges, which now flows on the eastern boundary ; a great part of it is fit only for grazing. In 1903-4 the area under cultivation was 273 square miles, of which 89 were irrigated.

Mawana Town.—Head-quarters of the *tahsil* of the same name in Meerut District, United Provinces, situated in 29°6'N. and 77° 57'E., 17 miles north-east of Meerut city. Population (1901), 9,207. The town, according to tradition, was founded by Mana, a huntsman employed by the Kauravas. It contains a large brick-built tank, and on the banks of another, now ruined, stands a fine temple built in the sixteenth century. The municipality was constituted in 1886. During the ten years ending 1901 the income and expenditure averaged Rs. 5,000. In 1903-4 the income was Rs. 7,000, chiefly from a tax on circumstances and property (Rs. 3,000); and the expenditure was Rs. 8,000. There is little trade, and most of the inhabitants are cultivators. The town contains two middle schools with 136 pupils,

besides six primary schools with 164 pupils. The American Methodist Mission has a branch here.

Mawksai (Burmese, *Maukme*).—State in the extreme south of the eastern division of the Southern Shan States, Burma, lying astride the Salween river, between 19° 35' and 20° 26' N. and 97° 25' and 98° 32' E., with an area (including the trans-Salween dependencies of Mongmai and Mehsakun) of 2,787 square miles. The State is bounded on the north by Mongsit and Mongnai; on the east by Mongpan and its trans-Salween dependencies, which lie between it and Siam; on the south by Siam and Karenni; and on the west by Hsahung. The central portion of the State proper is a wide fertile rice plain, to the east of which are hills extending to the cultivated Nam Teng valley. The lower part of this valley is chiefly given up to rice cultivation, and the upper part to tobacco, though considerable quantities of sesamum and sugar-cane are grown as well. Over the east of the State *taungya* (shifting) cultivation prevails. A large area is covered with forests, which in 1904 gave a revenue of Rs. 18,500. The Mehsakun dependency across the Salween is comprised in the basin of the Nam Hsakun, and is inhabited by Shans. West of it is the Mongmai dependency, a mountainous tract only the south-eastern corner of which has any population. The title to these two dependencies was finally affirmed by the Anglo-Siamese Boundary Commission of 1892-3. The total population in 1901 was 29,454, distributed in 443 villages. About 23,000 were Shans, about 5,000 Taungthus, and the remainder Karens and other tribes. The head-quarters of the Sawbwa are at Mawksai (population, 1,375), on the Nam Nyim, a tributary of the Nam Teng. The revenue in 1903-4 amounted to Rs. 42,000 (mainly from *ihaihameda*); the chief items of expenditure were Rs. 18,000 tribute to the British Government, Rs. 10,000 officials' salaries and general administration charges, Rs. 9,700 privy purse, and Rs. 4,000 public works.

Mawlu.—Northern township of Katha District, Upper Burma, lying between 24° 15' and 25° 7' N. and 95° 50' and 96° 36' E., on both sides of the Sagaing-Myitkyina railway, with an area of 1,344 square miles. The population was 6,206 in 1891, and 17,178 in 1901, distributed in 281 villages. The head-quarters are at Mawlu (population, 581), on the railway. The township is situated in the Meza and upper Namyin (or Mohnyin) valleys, and is separated from Katha by the Gangaw range, on which the Kachin population lives. The rapid increase of population and cultivation apparent since 1891 is due to the railway, which has brought in a large number of immigrants. The township contained 18 square miles under cultivation in 1903-4, and the land revenue and *ihaihameda* amounted to Rs. 46,400.

Mawnang (Burmese, *Baw/i/i*).—Small State in the Myelat divi-

sion of the Southern Shan States, Burma, lying between 20° 38' and 20° 44' N. and 96° 44' and 96° 51' E., with an area of 40 square miles. It borders on Hsamonghkam on the west, and on the other sides on Yawngghwe. Rice is grown in the swampy ground in the north, but the rest of the State is rather arid, and the total cultivated area is only about 700 acres. The population in 1901 was 3,755 (distributed in 43 villages), of whom more than 2,000 were Taungyos, and the rest Taungthus, Shans, and Burmese-Shans. The residence of the Myoza is at Mawnang (population, 198), a little south of the Thazi-Fort Stedman road. The revenue in 1904-5 amounted to Rs. 3,900, and the tribute to the British Government is Rs. 2,000.

Mawson (Burmese, *Bawzaing*).—Small State in the Myelat division of the Southern Shan States, Burma, lying between 20° 52' and 21° 3' N. and 96° 43' and 96° 50' E., with an area of 40 square miles. It is bounded on the north by Lawksawk ; on the east by Yawngghwe; on the south by Poila ; and on the west by Pangtara. The country consists of open rolling downs, like the greater part of the Myelat. The population in 1901 was 3,557 (distributed in 31 villages), of whom about 1,500 were Danus, 1,300 Taungthus, and the rest Taungyos. The residence of the Ngwegunhmu is at Mawson (population, 203), in the south of the State. The revenue in 1904-5 amounted to Rs. 2,900, and the tribute to the British Government is Rs. 1,500.

Mayavaram Subdivision. — Subdivision of Tanjore District, Madras, consisting of the *taluks* of MAYAVARAM and SHIYALI.

Mayavaram Taluk.—Coast *taluk* in the north-east of Tanjore District, Madras, lying between 10° 58' and 11° 15' N. and 79° 31' and 79° 52' E., with an area of 283 square miles. The population in 1901 was 247,0x9, compared with 244,835 in 1891. In density it stands sixth of all the *taluks* in the Presidency, this being due to its great agricultural advantages. It is situated wholly in the delta of the CAUVERY river, and more than 99 per cent, of the arable land is under occupation. Moreover, as it lies near the sea, it receives as much as from 50 to 53 inches of rain. Most of the land is irrigated, and on this rice is usually grown, though ground-nuts and gingelly are also raised in fair quantities. MAYAVARAM TOWN, which is the head-quarters of the *taluk*, is a municipality with a population of 24,276. The old Danish settlement of TRANQUEBAR, which lies 18 miles south-east and is now a declining port, has a population (inclusive of its suburb Poraiyar) of 13,142. Besides these two towns, there are 186 villages in the *taluk*. The demand for land revenue and cesses in 1903-4 amounted to Rs. 8,88,000.

Mayavaram Town (*Mayuram*).—Head-quarters of the *taluk* of the same name and the station of a Deputy-Collector, Tanjore District,

Madras, situated in $11^{\circ} 6' N.$ and $79^{\circ} 39' E.$, on the banks of the Cauvery, and at the junction of the South Indian Railway main line with the District board railway. Population (1901), 24,276. The town is held particularly sacred by Hindus. During the Tula Cauvery festival (October and November) pilgrims gather from all parts of the Presidency to bathe in the holy river simultaneously with the idol of the local shrine. A large Vishnu temple stands on the northern bank of the Cauvery in Tiruvilandur. The principal shrine, dedicated to Mayuranathaswami, is a mile to the south of the river. Here Parvati is said to have worshipped Siva in the form of a peacock (*mayura*), and the name of the town is supposed to have been derived from this incident. Kornad, a suburb of Mayavaram, has long been famous as a weaving centre. The cloths woven here are worn by women of the higher classes throughout India. They are made of a mixture of silk and cotton thread, and are dyed in durable dark blue, red, and other colours. The industry is not prosperous, owing to the inability of the vegetable dyes used to hold their own against imported mineral dyes; and with its decline Mayavaram is tending to become a mere market for agricultural produce. The town was constituted a municipality in

1866. The receipts and expenditure during the ten years ending 1902-3 averaged Rs. 39,000. In 1903-4 the income, most of which was derived from school fees and house and land taxes, was Rs. 43,200; and the expenditure was Rs. 42,300. The municipal high school is a flourishing institution, and the fees derived from it now amount to more than a third of the total income of the municipality. Sanitation is hindered by the fact that the place lies low and has no proper drainage.

Maymyo Subdivision.--South-eastern subdivision of Mandalay District, Upper Burma, containing the PYINTHA, MAYMYO, and WETWIN townships.

Maymyo Township.--Hill township of Mandalay District, Upper Burma, lying between $21^{\circ} 48'$ and $22^{\circ} 6' N.$ [and $96^{\circ} 24'$ and $96^{\circ} 46' E.$, with an area of 396 square miles, composed almost entirely of stretches of undulating scrub-covered upland. The population was 7,993 in 1891, and 13,730 in 1901, distributed in 101 villages and one town, MAYMYO (population. 6,223), head-quarters. The inhabitants are mostly Danus. The *thathameda* collections in 1903-4 amounted to Rs. 30,000.

Maymyo Town.--Principal hill station of Burma, in Mandalay District, situated in $22^{\circ} 1' N.$ and $96^{\circ} 28' E.$, on the Mandalay-Lashio railway, at an elevation of 3,500 feet, and 422 miles by rail from Rangoon. The station occupies an undulating plateau, surrounded by hills covered with thin oak forest and bracken, and enjoys a temperate and, on the whole, a salubrious climate. The clearing of the jungle in

the immediate neighbourhood, and the draining of the swamps which used to occupy its low-lying areas, have made Maymyo much healthier than it was when first occupied ; but even now it is not free from sickness at the beginning and end of the rains. As regards temperature, the average maxima in May, July, and December are 86° 77°, and 67°, and occasionally the thermometer reaches 90°. The average minima during the three months mentioned are 66°, 66°, and 38°, but as much as six degrees of frost has been recorded in the winter. The rainfall is comparatively light for a hill station. It averages 58 inches per annum, and is heaviest in May, June, September, and October.

Maymyo (formerly Pyinulwin) was the seat of a *ne-ok* (practically a township officer) under the government of Ava, and after its occupation by British troops in 1886 frequent operations were necessary to pacify the surrounding country, the last being in 1890. Since that date the town has prospered, the population in 1901 being 6,223 (including 2,016 Hindus and 821 Musalmans), compared with 1,665 in 1891. The rapid extension of the station has attracted many Chinamen and natives of India, the former chiefly as carpenters and masons, the latter as general traders and coolies. There are now 23 miles of metalled roads, including a portion of the main road from Mandalay to Lashio which passes through the town, and a large number of buildings, public and private, all the more pretentious of which are of brick. The latter include a residence for the Lieutenant-Governor, a circuit-house, the Secretariat, and several *dak* and inspection bungalows, besides offices for the subdivisional officer and the various officials of the Public Works and Forest departments who have their permanent head-quarters at Maymyo. Maymyo is now the head-quarters of the Lieutenant-General commanding the Burma diu'sion. The cantonment extends on both sides of the railway, partly on the high ground at the foot of the hills lying west of the town, where quarters are to be built for a British regiment. The permanent garrison consists of a Gurkha battalion.

The affairs of the town are administered by a committee, the income of which in 1903-4 was Rs. 83,000, devoted largely to conservancy. The cantonment fund had an income of Rs. 5,000 in the same year. A trade registration station is situated on the Mandalay-Lashio road to the east of the town. A reservoir in the hills to the west was completed in 1902, and the town is now supplied with excellent water. An additional reservoir is being constructed. When it is finished, the reserve water-supply will exceed 20 million gallons. Educational institutions include a Government high school, a girls' school supported by the Church of England, and a Roman Catholic school. The civil hospital, a collection of brick buildings built in 1903-4, has accommo-

dition for 20 in-patients. Near the hospital is the bazar, where a market is held once every five days.

Mâyni.—Town¹ in the Khatao *tâluka* of Sâtàra District, Bombay, situated in 17° 26' N. and 74° 35' E., 40 miles south-east of Sâtàra town. Population (1901), 5,312 (including 1,622 persons returned in a famine relief camp). The municipality, which was established in 1867, had an income during the decade ending 1901 averaging Rs. 1,400. In 1903-4 the income was Rs. 1,650. The small stream on which Mâyni stands has been dammed about a mile to the east, to increase the water-supply of the inhabitants as well as for irrigation purposes.

Mayo Mine.—Salt mine in the Pind Dâdan Khân *tahsil* of Jhelum District, Punjab, situated in 32° 39' N. and 73° 3' E. The mine lies in the SALT RANGE at the village of Khewra, 5[^] miles north-east of the town of Pind Dâdan Khân ; and the mineral occurs in vast quantities, the deposits extending towards the summit of the hill above the village (1,650 feet above sea-level) and going down to a great depth below the present floor-level of the mine. When the salt was first worked is not known ; but excavations existed on the spot as far back as the time of Akbar, and the miners have a tradition that their first settlement dates from the sixth century of the Muhammadan era. The existing mine was named after Lord Mayo in 1870. Under Sikh rule several mines were working in the hill ; but the excavations were not made with any regard to economy or safety, and in consequence they have all either fallen in or are in danger of so doing. In 1869-70 a qualified mining engineer was appointed and a scientific system of working was introduced.

It is estimated that 534,512 tons had been excavated up to 1850, and from that year to the end of March, 1904, the out-turn was 2,572,705 tons. It is calculated that a further supply of 8[^] million tons is easily accessible in the part of the hill which has been explored, and that large quantities exist in its unexplored parts beyond the limits of the existing mine. The mine has a maximum length of 1,405 feet, and is 2,691 feet broad at its widest part.

A bridge across the Khewra gorge carries a tramway by which the salt is conveyed to the dépôt from which it is issued. This bridge is 929 feet above sea-level, and as the mine is higher than the bridge, the working is greatly facilitated. Ample space for extension exists on the north, south, and east, but on the west the gorge precludes tunnelling without going much deeper than the existing floor. West of the gorge, however, stands a hill with four times the mass of the mine hill, and undoubtedly, containing rich deposits as yet untouched.

In 1903-4 the mine gave daily employment to 1,205 persons, chiefly

¹ Mâyni was not treated as a town at the Census of 1901.

belonging to the mining community, whose occupation is hereditary. They work in family parties, the women and children over twelve years of age assisting in the carriage of the salt from the excavations to the loading stations. A few outsiders are employed as porters and in loading or moving the trucks. The miners receive 10[^] pies per cubic foot of space excavated, the payment covering the stacking of salt at the loading stations on the tramway. Government paid 1-4 lakhs in wages during 1903-4 for the mining and issuing of salt at Khewra and the special work connected therewith. For mining purposes the hill is divided into parallel blocks not exceeding 45 feet in width and running in the direction of the prevailing dip of the salt strata, alternating with similar blocks not less than 25 feet wide, in which no excavation is permitted except for tunnels, travelling ways, and loading stations for the tramways. These blocks, or pillars, which support the mine roof, are now generally 30 feet thick, and they are further strengthened by beds of marl which lie between the salt seams, and which are not removed when the salt is being excavated. The marl is impure salt, lying in beds of varying thickness between the seams of salt and thinning out as it dips down in the hill until eventually its place is taken by salt. Three tramways run through the mine, two of them being connected by a self-acting incline on which the loaded trucks draw the empty trucks up. The whole of the salt is carried to the dépôt outside the gorge in trucks which run by gravitation, but are hauled back empty by mules and ponies or are pushed back by men. The mine is intersected with tunnels which serve for ventilation as well as travelling ways. Rain-water is kept out by a network of drains at the surface, and most of the little water that percolates into the mine is caught up inside in masonry drains and flows out. In 1903-4 the Mayo Mine supplied 2,264,187 maunds, or 87.6 per cent, of the salt issued from the Cis-Indus and Kâlâbâgh Mines division. Of this, 98.8 per cent, was removed by the North-Western Railway, which runs to the salt dépôt at Warthganj at the mouth of the Khewra gorge, for distribution over the Punjab (including Kashmir and other Native States), the United Provinces of Agra and Oudh, Bihâr and (in small quantities) Lower Bengal, Sind, Baluchistan, and the Central Provinces. The revenue (duty) realized from the sale of Mayo Mine salt in 1903-4 amounted to 46.9 lakhs.

Mayûrbhanj.—The most northerly of the Tributary States of Orissa, Bengal, lying between 21° 17' and 22° 34' N. and 85° 40' and 87° 10' E. It is by far the largest of the Orissa States, and has an area of 4,243 square miles. It is bounded on the north by the Districts of Singhbhum and Midnapore ; on the east by Midnapore and Balasore : on the south by Balasore and the Nilgiri State ; and on the west by Keonjhar.

Mayurbhanj presents every variety of soil and scenery. A block of hills occupies an area of about 1,000 square miles in the centre of the State, and abounds in rich valleys and dense timber forests. This region is almost unexplored at present, but efforts are being made to open it out by roads. In the south the Meghasani hill attains a height of 3,824 feet above the sea. Large herds of elephants roam through the mountains and forests, and successful *khedda* operations are carried on from time to time.

It is related in native chronicles that the principality of Mayurbhanj was founded about 1,300 years ago by a relative of the Raja of Jaipur in Rajputana. The family title is Bhanja ('breaker'), which, it is said, was assumed after the overthrow of a chieftain named Mayuradhwai, an event which is also believed to account for the present name of the State. The chiefs emblem is a peafowl (*maytir*), and there is another tradition which alleges that his family originally sprang from a peafowl's eyes; the killing of this heraldic bird is strictly prohibited throughout the State. The remains of ruined temples, tanks, &c., at KHICHING, near Udaipur, indicate a condition of considerable prosperity in the past. The State came under British control with the conquest of Orissa in 1803, prior to which it had been feudatory to the Marathas; and in 1829 a treaty engagement was entered into between the British and the Raja.

The enumerated population rose from 258,680 in 1872 to 385,737 in 1881, to 532,238 in 1891, and to 610,383 in 1901. A great deal of this remarkable increase must be ascribed to the defective character of the earlier enumerations. In the last decade the growth amounted to 14·7 per cent., and in 1901 the density was 144 persons per square mile. The climate is on the whole fairly healthy, except in the hills and jungle tracts, which are very malarious. The inhabitants are contained in one town, BARIPADA (population, 5,613), and 3,593 villages, of which the most important are BAHALDA and KAUANJIA, the head-quarters of the Bamanghati and Panchpir subdivisions. Hindus number 507,738, Animists 98,485, and Muhammadans 3,785. The majority of the people are of aboriginal origin; the most numerous castes are Santals (185,000), Hos (68,000), Bhumijs (56,000), Kurmis (36,000), Bhuiyas (32,000), Gaurs and Bathudis (30,000 each), Pans (25,000), and Khandaits (15,000). A Baptist mission is at work at Baripada and a Roman Catholic mission at Nangalkata, 8 miles from Baripada on the Balasore road.

The people are almost entirely agricultural and lead an uneventful and contented life, so long as the harvests are good. About one-third of the State is under cultivation, and the remainder is either forest or waste. There is ample room for the extension of tillage, and large tracts are reclaimed each year under leases granted by the State. Rice

is the staple crop ; *rabi* crops and peas and pulses are cultivated along the river banks, and sugar-cane and tobacco are also grown. Experiments are being made in the growth of long-stapled cotton. Forest conservancy now forms an important branch of the administration, but the forests are suffering severely from the ruthless destruction of former times.

A geological survey of the Slate was recently undertaken, and it is reported that its iron ores are possibly the richest and most extensive in India. They occur in all parts of the State, but especially in Bamanghati, where there are a considerable number of smelters working with crude apparatus. It is proposed to construct a branch line to carry the ore to Sini on the Bengal-Nagpur Railway, where large iron and steel works are to be built. Limestone in the shape of tufa or travertine is found in several localities, also red and yellow ochres ; and the clays underlying the laterite near Baripada constitute an excellent material for pottery. Gold is washed for in the Subarnarekha river on the northern confines of Mayurbhanj proper, and in the Kadkai and Bonai rivers in the Bamanghati subdivision ; at the head-waters of the latter river there is a tract of about 2 square miles where almost the entire alluvium is auriferous, and separated from it by a low range of hills is another area of placer deposit of similar extent. In these two localities about 70 families obtain a livelihood by gold-washing, but they only scrape the surface soil ; nuggets weighing as much as 2 or 3 *tolas* are said to be found occasionally. Mica occurs extensively in both the Mayurbhanj and Bamanghati subdivisions, but the plates obtained are small; and agate, flint, and jasper are found in some profusion in the latter subdivision.

- The rearing of *tasar* cocoons and the cultivation of lac are extensively carried on, especially in Bamanghati. There is a considerable trade in forest produce, such as timber, lac, myrabolams, nux-vomica, honey, resin, and fuel. Horns and hides, rice, oilseeds, and cereals are also exported.

A narrow-gauge branch line connecting Baripada town with Rupsa junction on the Bengal-Nagpur Railway, a distance of 32 miles, was opened in 1905. The town is also connected by metalled roads with Bahalda and Karanjia, the head-quarters of the outlying subdivisions, and with the towns of Balasore and Midnapore; and several fair-weather roads lead from it to other parts of the State.

The head-quarters are at BARIPADA TOWN, which contains the residence of the chief and the seat of the administration. There are two outlying subdivisions, Bamanghati and Panchpir, with head-quarters at BAHALDA and KARANJIA respectively.

The administration of the State is conducted on British lines under the personal supervision of the chief, who has been vested with higher

criminal powers than any of the other tributary chiefs, being empowered to pass sentences of imprisonment for five years. He is assisted by a Diwan and three Assistant Diwans, and the judicial officers include a State Judge, a Subordinate Judge, and two Munsifs; of the latter the Subordinate Judge and one Munsif have the powers of a magistrate of the first class, while the other Munsif has second-class powers. The subdivisional officers are vested with limited revenue, criminal, and civil powers. The Educational department is controlled by a Superintendent, the Public Works department by a State Engineer, and the police and jails by a Superintendent; the ' reserved ' forests are under the management of a Forest officer, while the protected forests are under the revenue authorities. The State has a revenue of 9[^] lakhs, the current land revenue demand being 7 lakhs; and the tribute payable to the British Government is Rs. 1,068.

The police force consists of 33 officers and 201 men, in charge of a European officer. A masonry jail has accommodation for 89 prisoners. Education has made rapid progress during the last twenty years, and in addition to a high school at Baripada 284 schools of all kinds are scattered over the State. The State contains six dispensaries; the people are beginning to appreciate them, and the number of patients is gradually rising.

Mayureswar.—Village in the Rampur Hat subdivision of Birbhum District, Bengal, situated in 23° 59' N. and 87° 46' E., on the road from Suri to Murshidabad. Population (1901), 2,535. The inhabitants are principally engaged in rearing silkworms, and in silk-spinning and weaving.

Mazalgaon Taluk.—North-eastern *taluk* of Bhir District, Hyderabad State, with an area of 775 square miles. The population in 1901*, including *jdgirs*, was 222,135, compared with 132,658 in 1891, the decrease being due to the famines of 1897 and 1899-1900. The *taluk* contains one town, MAZALGAON (population, 5,698), the head-quarters; and 223 villages, of which 51 are *jdgir*. The land revenue in 1901 was 3 lakhs. The country is very fertile, being composed of black cotton soil. The Godavari river flows through the northern portion.

Mazalgaon Town.—Head-quarters of the *taluk* of the same name in Bhir District, Hyderabad State, situated in 19° 9' N. and 76° 13' E., on the left bank of the Sindphana, a tributary of the Godavari. Population (1901), 5,698. It is a rising town, the principal trade being in grain, while indigo was once largely dealt in.

Mazar-i-Sharif.—Capital of the province of Afghan-Turkistan, situated in 36° 43' N. and 67° 7' E., 318 miles from Kabul; 1,235 feet above the sea. The place is held sacred as the alleged burial-place of All, the son-in-law and cousin of Muhammad ; and a tomb consisting of two lofty cupolas was built to him by Sultan All Mirza in the first

half of the fifteenth century. As a matter of fact, All was not buried at Mazar, but at Najaf, in Turkey. In the early half of the last century Mazar was subject to Murad Beg of Kunduz. In 1852 it was taken by the governor of Balkh and has since remained in Afghan hands. The present prosperity of the town dates from the time of Muhammad Alam Khan, Amir Sher All's governor. Since 1869 it has become the seat of government of Afghan-Turkistan and a not unimportant commercial centre. The old portion of the town is enclosed by a thin wall, now in ruins, and is mainly occupied by the tomb and a large straggling bazar. Around this the new town has grown rapidly, and buildings and gardens have sprung up on all sides in the neighbourhood. Mazar now resembles a mass of inhabited gardens and orchards rather than a regular town. The population of the town and suburbs is about 6,000 families, mainly Uzbeks, but including a few Hindu traders.

Medak District.—District in the Medak Gulshanabad Division of Hyderabad State, lying between 17° 25' and 18° 19' N. and 77° 48' and 78° 31' E., with a total area of 2,005 square miles, including 856 square miles of *jdgir* and *paigdh* lands¹. It is bounded on the north-east and north by Karlmnagar and Nizamabad; on the east and south by the Atraf-i-balda District; and on the west by Bldar District and *paigdh* estates. There are numerous low hills. One range extends from Ramayampet in the north to the southern

portion of Nizamabad, and then turning to the south aspects,

1 ^ hyql po 1

again enters the District. Another range extends

from the north-western corner to the east. The fort of Medak stands

on the summit of one of these hills to the west of the town.

The most important river is the Manjra, which enters Medak from Bidar, and passes through its western and north-western *taluks*, its total length in the District being 60 miles. The Haldi or Paspaver, a tributary of the Manjra, which enters the District from the north, flows under Medak town; its length is only 10 miles.

The rock formation is the Archæan gneiss.

The trees commonly found are teak, *bijdsdl* (*Pterocarpus Marsit-pium*), *na/lmdaddi* (*Terminalia tomentosa*), *eppa* (*Hardwickia binata*), *mohwa* (*Bassia latifolia*), *nlm* (*Melia Azadirac/ita*), mango, tamarind, *tarvar* (*Cassia atriculata*), and various species of *Ficus*.

The District contains large tracts of woody and scrubby jungle, where *nilgai*, spotted deer, *sdmbar*, and wild dogs are found. Partridge, quail, duck, teal, snipe, &c., abound everywhere. •

The climate is very healthy from September to June; but during the rainy season malarial fevers and agues prevail, the *tdluks* of

¹ Except where otherwise stated, the statistics in this article relate to the District as it stood before the changes of 1905 referred to in the section on Population.

Ramayampet, Medak, and Baghat being especially liable to these ailments, owing to the excessive humidity of the atmosphere. The temperature during the winter falls to 45° while in May it rises to 100°. The annual rainfall averages 31 inches; but in 1899 the amount received was only 17·1 inches, and in 1902 about 13 inches.

This District formed part of the ancient kingdom of Warangal. In 1309 Ala-ud-din's general, Malik Kafur, marched with a large army

History. against the Raja of Warangal, and took Medak on

his route. In the fourteenth century Medak formed part of the Bahmani kingdom, and subsequently passed to the Kutb Shahi dynasty of Golconda. On the fall of Golconda, it was annexed to the Mughal empire, from which it was detached in the early part of the eighteenth century on the foundation of the Hyderabad State.

The District contains many places of archaeological interest. The fort of Medak stands about 300 feet above the surrounding plain. Patancheru, 16 miles north-west of Hyderabad, contains some old Hindu underground temples, where ancient coins have recently been discovered. Andol and Komatur have old mosques of note; and Chatkur, Kalabgur, Kandi, Nandi, Patancheru, and Venkatapur, ancient Hindu temples. At Yedupailu, south-east of Medak, where seven tributaries of the Manjra meet, a large religious fair is held annually.

There are 634 towns and villages in the District. The total population at each Census in the last twenty years was: (1881) 326,720,

Population. (1891) 364,735, and (1901) 366,722. The towns are

MEDAK and LINGAMPET in the Medak taluk, SIDDIPET and SADASEOPET. SANGAREDDIPET is the District head-quarters. About 90 per cent, of the population are Hindus, and nearly all the rest Muhammadans. Telugu is the language chiefly spoken. The following table shows the distribution of population in 1901:—

Number of				Taluk.			

In T905 Tekmal was merged in Ando), and Ramayampet partly in Medak and partly in the Kamareddipet *taluk* of Nizamabad (Indur) District. Ibrahmpatan was transferred from Mahbubnagar District and added to Baghat, while Siddipet was transferred to this District from Karimnagar (Elgandal). In its present form the District consists of five *taluks*: Medak, Siddipet, Baghat, Kalabgur, and Andol, besides the four large estates of Hatnura, Narsapur, Narsingi, and Nawabpet, and other minor *jaghrs*.

The most numerous caste is that of the Kapus (69,000). Next come the Madigas or leather-workers (40,300), and the Malas or Dhers (32,400), both of whom work also as agricultural labourers. There are 37,400 Brahmans, 32,300 Gollas or shepherds, and 13,600 Komatis, who form the trading and money-lending caste. Nearly 42 per cent, of the population depend directly upon agriculture, and n per cent, on general labour and earthwork.

The total number of Christians, according to the last Census, was 373, of whom 327 were natives. A Wesleyan mission at Medak town was started in 1887, and has a staff of 8 Europeans and 45 natives. The adherents are chiefly of the Mala caste. The mission maintains a school and a hospital. The former was opened in 1887 and the latter in 1895, a large *zanana* ward being added in 1902.

There is hardly any difference in the agricultural condition of the several *taluks*. The soils on the highlands are mostly sandy and gravelly, while black soil is found in small patches in hollows or depressed areas.

Agriculture,

The tenure of lands is chiefly *ryotwari*. In T901 the District contained 1,149 square miles of *khalsa* lands, of which 489 were cultivated. Of the remainder, 1T4 were cultivable waste and fallows, 387 were forests, and 159 were not available for cultivation. The staple food-crops are rice, *bdjra*, and *jowdr*, the areas under which were 106, 207, and 168 square miles respectively. The rice in this District compares favourably with the finest qualities produced elsewhere. Next in importance are *kodro*, *lachna*, and various pulses. Sugar-cane is grown in all the *taluks*, covering about one square mile.

The cattle are of the ordinary kind, and buffaloes are extensively employed in rice and sugar-cane cultivation. No special breed of ponies or horses is indigenous to the District, those found being very inferior. At Rajampet, near Sangareddipet, there is a State stud farm, where several stallions are kept with the object of improving the breed, but ryots are slow in taking advantage of the facilities offered them in this respect. Sheep and goats of the ordinary description are reared.

The total area of irrigated land in 1900-1 was 109 square miles, or more than 22 per cent, of the cultivated area. The different sources of irrigation and the areas supplied by each are as follows : Canals and

channels, 17 square miles; tanks, 68; and wells, 24. Tank-irrigation is the mainstay of the District, which contains 351 large and 1,658 small tanks. The number of wells is 2,018; and the other sources of irrigation are small anicuts, called *mathris*, of which there are 74. The Malkapur tank irrigates the lands of 12 villages. Generally two crops of rice are raised with tank and well irrigation. Water is raised from wells in leathern buckets. A large canal taking off from the Manjra has been constructed at a cost of over 10 lakhs, which is estimated to irrigate 10,000 acres of land, and to yield a revenue of 2 lakhs. It was opened in 1904. Another project, called the Manjra Extension, when completed will cost 6½ lakhs and irrigate 7,000 acres, securing a revenue of 2 A- lakhs. The District has always been immune from famine, owing to the large number of tanks it contains.

Medak contains no protected forests, but there are 387 square miles of unprotected forest.

No minerals of any value are found. In the hills of Lingampet nodular ironstone is smelted, and the iron is largely employed in the local manufacture of agricultural implements.

There is no important hand industry in the District. Cotton cloth is printed with fast dyes for use as screens, tablecloths, floor-cloths, &c. Coarse cotton cloth and silk stuffs of superior

Trade and quality are made, the latter after European patterns, communications.

and are largely used for coats, *sans*, *dzc*. brass vessels are made at Lingampet and Ramayampet. Sivanagar and Jogipet contain tanneries, whence leather is exported to Hyderabad, Bombay, and Madras. The Chamars prepare leather for the manufacture of water buckets and sandals for the ryots. The Hyderabad Spinning and Weaving Mill is situated near Mushlrabad, in the Baghat *taluk*, north of the city of Hyderabad.

The main exports are rice, both fine and coarse, unrefined sugar, jaggery, *jozvdr*, tobacco, *mahud* oil, cotton, gram, other cereals and pulses, brass and copper vessels, cattle, and leather; while the chief imports are salt, opium, salted fish, gold and silver, copper, brass, sulphur, kerosene oil, refined sugar, silk and cotton piece-goods. Rice is sent to Hyderabad and other parts of the State, and leather to Madras and Bombay. Imported articles are brought to Sadaseopet from Shankarpalli, on the Nizam's Guaranteed State Railway; and from Mirzapalli, on the Hyderabad-Godavari Valley Railway to Ramayampet, and thence distributed to Sangareddipet, Jogipet, Lingampet, Medak, *See.*, whence they find their way to distant parts through weekly bazars. Komatis, Marwaris, and Baljawars are the trading castes, and they also lend money.

The Nizam's Guaranteed State Railway enters Medak from the west at Gullaguda and passes out at Lingampalli in the east, a distance of

22 miles. The Hyderabad-Godavari Valley Railway runs almost due north and south through Manoharabad, Masaipet, and Mirzapalli on the eastern border of the District.

The total length of roads is 183 miles, of which 81 miles are metalled. The metalled roads are in three sections : Sadaseopet to Kukatapalli, 32 miles; Shankarpalli to Sangareddipet, 14 miles; and part of the old Nagpur road, 35 miles. Unmetalled roads lead to the remaining head-quarters of *taluks*.

This District, though a small one, has been divided into three subdivisions. The Medak and Siddipet *taluks* are under a Third Talukdar, Andol under the Second Talukdar of Andol, and Kalabgur and Baghat under another Second Talukdar. There is also another Third Talukdar who acts as Assistant to the First Talukdar, the First Talukdar or Collector overlooking the revenue and magisterial work of his subordinates. Each *taluk* is under a *tahsildar*.

The District civil court at Sangareddipet is presided over by the *Nazim-i-Diwani* or Civil Judge, who is also a Joint-Magistrate in the absence of the First Talukdar from head-quarters. The First Talukdar is the chief magistrate. The *tahsildars* exercise third-class civil and magisterial powers, and preside over *taluk* civil courts. The Second and Third Talukdars exercise second-class magisterial powers. There is not much serious crime in ordinary years, but dacoities and cattle-thefts increase in number during the dry season when the roads are open.

Little information is available as to the revenue history of the District. Formerly groups of villages or *taluks* were farmed out by the State to contractors, who received 10 per cent, for collection. This was followed by the *batai* or share system, under which the State received three-fifths of the produce of lands irrigated from tanks, and an equal share from lands supplied by wells. In 1866 the *ryotwari* system was introduced, and revenue was collected in cash from individual ryots. Kalabgur was regularly settled in 1892, Andol in 1898, Ramayampet and Medak in 1900, Tekmal in 1901, and Baghat *taluk* in 1905. Sugar-cane was charged Rs. 200 per acre under the old system, but now water rates are levied for 'wet crops' according to the class of land. Before the commencement of the survey, the records showed an area of 67,400 acres of 'wet' lands and 119,463 acres of 'dry.' The result of the survey was a decrease of 3 per cent, in the 'wet,' and an increase of 103 per cent, in the 'dry' lands, while the settlement raised the revenue by 2 lakhs or 16 per cent, in the five *taluks* surveyed. The average assessment on 'dry' land is Rs. 2 (maximum Rs. 4, minimum Rs. 0-4), and on 'wet' land Rs. 13 (maximum Rs. 20 minimum Rs. 6). The rates given for 'wet' lands

are for the *dbt* (rainy season) crop, the *tdbi* (hot season) crop rates being Rs. 35 maximum, Rs. 10 minimum, and Rs. 20 average.

The land revenue and the total revenue of the District for a series of years are shown below, in thousands of rupees :—

	1881.	1891.	1901.	1903.
Land revenue .	8.50	8.50	12.12	8.97
Total revenue .	11.45		17.75	13.63

Owing to the changes in area made in 1905, the revenue demand is now about 14*6 lakhs.

There is a municipality at SANGAREDDIPET, and each of the other *taluk* head-quarters has a small conservancy establishment. The District board manages both the municipal and local affairs of the head-quarters, and also supervises the work of the outlying *taluk* boards. The expenditure in 1900-1 was Rs. 12,600, of which Rs. 497 was laid out on roads. The income was, as usual, derived from a portion of the land cess, levied at one anna in the rupee on the land revenue assessments.

The First Tâlukdâr is the head of the District police, with the Superintendent (*Mohtamim*) as his executive deputy. The force consists of 67 subordinate officers, 499 constables, and 25 mounted police, under 6 inspectors and one sub-inspector, distributed among 32 police stations. There is a District jail at Sangareddipet, but only short-sentence prisoners are kept there, the rest being sent to the Central jail at Nizâmâbâd.

The District takes a medium position in point of literacy, 2-6 per cent. (4-6 males and 0-35 females) of the population being able to read and write in 1901. The total number of pupils under instruction in 1881, 1891, 1901, and 1903 was 774, 2,293, 2,907 and 2,044 respectively. In 1903 there were 25 primary schools and one middle school, with 159 girls under instruction. The total expenditure on education in 1901 was Rs. 13,100, and the fee receipts amounted to Rs. 731.

The District contains 4 dispensaries, with accommodation for 11 in-patients. The total number of cases treated at these during 1901 was 200 in-patients and 31,422 out-patients; and the number of operations performed was 920. The total expenditure amounted to Rs. 11,200. The number of persons successfully vaccinated in 1901 was 540, or only 1*47 per 1,000 of population.

Medak Taluk.— *Tâhik* in Medak District, Hyderabad State, with an area of 359 square miles. Its population in 1901, including was 65,852, compared with 63,066 in 1891. The *taluk* contains two towns, MF.DAK (population, 8,511), the head-quarters, and LINGAMPET (5,102) ; and 89 villages, of which 19 are *jâgîr*. The land revenue

MEDCHAL

in 1901 was 3'2 lakhs. The *taluk* is somewhat hilly, and its soils are mostly sandy. Rice and sugar-cane are largely raised by tank-irrigation. The Hyderabad-Godavari Valley Railway passes through the eastern portion. The *paigah taluks* of Narsapur, Hatnura, and Nawabpet lie to the south, with populations of 15,567, 14,183, and 6,179 respectively. The two former consist of 39 villages each, and the latter of 8 villages. Their respective areas are about 130, 128, and 26 square miles. The *jdgir taluk* of Narsingi, with 11 villages and a population of 8,093, also lies to the south, and has an area of about 36 square miles. In 1905 some villages were added to the *taluk* from Ramayampet, while others were transferred from it to Kamareddipet and Yellareddipet in Nizamabad.

Medak Town.—Head-quarters of the *taluk* of the same name in Medak District, Hyderabad State, situated in 18° 3" N. and 78° 26' E. Population (1901), 8,511. The town is built on the northern and eastern sides of a high hill, which was at one time strongly fortified. The fortifications are said to have been built originally by a Warangal Raja, but the present fort was constructed about the middle of the sixteenth century. It contains a brass gun 10 feet long, cast at Rotterdam for the Dutch in 1620. A Persian inscription on a slab in the *taluk* office alludes to the building of a mosque in 1641, on the ruins of a demolished temple. A large mission school, with 180 pupils, and several mission buildings stand north-east of the town.

Medak Gulshanabad Division.—Division of the Hyderabad State, formed in 1905 from the old BIDAR DIVISION. It includes four Districts, as shown below : —

District.	Area in square miles.	Population, 1901.	Land revenue and cesses, in thousands of rupees.
Nizamabad (Indur)	3,282	467,367	16,11
Medak . . .	3,447	536,027	15,52
Mahbubnagar .	5,842	613,771	8,86
Nalgonda . .	4,913	823,121	15,53
Total	17,484	2,440,286	56,02

The density of population is 1,396 persons per square mile ; and the Division contains 11 towns and 2,747 villages. The chief places of commercial importance are the towns of NIZAMABAD, MEDAK, SADASFO-PET, SIDDIPET, MAHBUBNAGAR, NARAYANPET, NALGOXDA, and BHOX-GIR. Medak, Nalgonda, and Bhonglr are also places of historic interest. The head-quarters of the Subahdar or Commissioner are at Patancheru.

Medchal.—Crown *taluk* in the north-east of the Atraf-i-balda Dis-trict, Hyderabad State, also called the *Shimdlī* or ' northern ' *taluk*, with an area of 634 square miles. The population in 1901, including

jdgirs, was 80,520, compared with 91,1x3 in 1891. The *taluk* contains 167 villages, of which 106 are *jdgir*; and Medchal (population, 3,019) is the head-quarters. The land revenue in 1901 was one lakh. Medcha] is well supplied with tanks from which much rice is irrigated. The *jdgir taluk* of Aliabad, with a population of 3,201, 2 villages, and an area of about 8 square miles, lies to the east of Medchal.

Medinipur.—District, subdivision, town, and canal in Bengal. See M IONA PORK.

Meeanee (1).—Village in the District and *taluka* of Hyderabad, Sind, Bombay. See M IANI (2).

Meeanee (2).—Town in the Dasuya *tahsil* of Hoshiarpur District, Punjab. See M IANI (3).

Meeanee (3).—Town in Shahpur District, Punjab. See M IANI (4).

Meean Meer.—Former name of LAHORE CANTONMENT, Punjab.

Meerut Division.—Division on the north-western border of the United Provinces, extending from the outer ranges of the Himalayas across the valley of the Dun and its southern boundary, the Siwalik range, to the middle of the Doab. It lies between 27° 29' and 31° 2' N. and 77° 2' and 78° 38' E., and is bounded throughout by the Jumna on the west and the Ganges on the east. The head-quarters of the Commissioner are at MEERUT CITY. The total population of the Division increased from 5,141,204 in 1881 to 5,326,833 in 1891, and 5,979,711 in 1901, the increase during the last decade having been greater than in any other Division of the Provinces. The total area is 11,302 square miles; and the density of population is 529 persons per square mile, compared with 445 for the Provinces as a whole. The Division is the fifth largest in area and the third in population. In 1901 Hindus numbered 75 per cent, of the total and Musalmans 23 per cent.; other religions include Jains (37,941), Aryas (33,718), Christians (29,294, of whom 22,864 were natives), and Sikhs (4,148). The Division contains six Districts, as shown below :—

District.	Area in square miles.	Population, 1901.	Land revenue and cesses, 1903-4, in thousands of rupees.
Dehra Dun . . .	1,209	175,995	1,09
Saharanpur . . .	2,228	1,045,230	17,76
Muzaffarnagar . . .	1,666	877,188	17,57
Meerut	2,354	540,175	32,61
Bulandshahr . . .	1,899	1,138,101	23,31
Aligarh	1,946	1,200,822	27,97
Total	11,302	5,979,711	1,20,31

Dehra Dun lies chiefly between the Siwaliks and the Himalayas, stretching up into both ranges; Saharanpur reaches the Siwaliks, but

lies chiefly in the great plain ; and the other Districts are entirely separated from the hills. The Division contains 112 towns and 7,713 villages. The largest towns are MEERUT (population, 118,129 with cantonments), ALIGARH (70,434), SAHARANPUR (66,254), HATHRAS (42,578), KHURJA (29,277), DEHRA (28,095 with cantonments), HARDWAR (25,597), MUZAFFARNAGAR (23,444), and DEOBAND (20,167).

The chief places of commercial importance are Meerut, Saharanpur, Aligarh (Koil), Hathras, Khurja, and Muzaffarnagar; but many other smaller towns are important centres of the grain trade. HARDWAR and GARHMUKTESAR are famous for their religious associations. Hastinapur, now a tiny hamlet, is reputed to have been the capital of the Pandava kingdom. At KALSI there is a rock inscription of Asoka; Baran or BULANDSHAHR, ALIGARH or Koil, and SARDHANA have special associations, referred to in the articles on those places, while Meerut city was the place where the great Mutiny first broke out in Northern India in May, 1857.

Meerut District (*Merath*).—District in the United Provinces, lying between 28° 33' and 29° 18' N. and 77° 7' and 78° 12' E., with an area of 2,354 square miles. It is bounded on the north by Muzaffarnagar District and on the south by Bulandshahr, while the Ganges divides it on the east from Moradabad and Bijnor, and the Jumna on the west from the Punjab Districts of Kamal and Delhi. On the banks of these great rivers are stretches of Physical inferior low-lying *khadar* land. The rest of the District is, for the most part, a level upland, the edges of which are scored by ravines. This may be divided into three main tracts. The western division, stretching almost to the Upper Ganges Canal, has an extraordinarily rich and uniform soil, except immediately above the rivers Jumna and Hindan. East of this lies a shallow depression with poor natural drainage. The third tract, extending to the high banks of the Ganges, is characterized by the presence of sandy dunes, which are scattered in various directions in the eastern portion, but form a well-defined ridge in the west.

Besides the Jumna and the Ganges, the most important river is the Hindan, which runs through the west of the District and has a considerable area of *khadar* land. Two small streams called Chhoiya, and a cut called the Abu Nala, carry off part of the drainage of the central depression and the eastern tract into the ill-defined bed of the East Kali Nadi. In the extreme east of the District the Burhanga, or 'Old Ganges,' forms a chain of swamps close below the old high bank.

Meerut is situated entirely in the Ganges alluvium, and *kankar* and saline efflorescences are the only minerals.

The botany of the District presents no peculiarities. There is very little natural jungle, and grazing land is chiefly found in the Ganges

and Jumna *khadars*, and to a less extent along the Hindan. The District is, however, well wooded, and groves cover 21 square miles. The commonest tree is the mango ; but the *bel* and guava are largely grown for fruit, and the *shisham* is planted in the road and canal avenues.

Leopards are fairly common in the Ganges *khddar* and ravines, but tigers are extremely rare. Antelope are numerous in most parts of the District; Meerut is famous for wild hog, and the pig-sticking competition held annually for the Kadir (*khadar*) Cup in March or April is well-known. Other animals found include the wolf, fox, jackal, hog deer, and *nilgai*. Game-birds are numerous. Duck and teal are found along the Burhganga and other rivers, and in the larger swamps in the interior. Snipe, geese, black and grey partridges, quail, pigeons, and sand-grouse are also common.

The comparatively high latitude and elevated position of Meerut make it one of the healthiest Districts in the plains of India. From November to March the weather is cool and invigorating, hoar-frost being frequently found in January at an early hour of the day. The hot westerly winds begin in April, and the rains set in about the end of June. The mean temperature is about 77° ranging from 57° in January to 91° in May or June.

The District is practically the meeting-place of the Bengal and Bombay monsoon currents. The annual rainfall for thirty years has averaged 29 inches; but it varies in different parts, and the south-west of the District receives less than the north-east. Considerable fluctuations occur; during the five years ending 1895 the rainfall averaged as high as 47 inches, while it sometimes falls below 20 inches.

The District is connected with the earliest traditions of the Lunar race of the Hindus. A small hamlet on the high bank of the Ganges

is believed to mark the main site of Hastinapur, the

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capital of the Kauravas and Pandavas, which was

washed away by the Ganges. The Asoka pillar, now standing on the Ridge at DELHI, is said to have been removed from near Meerut city, and remains of Buddhist buildings have been discovered near the Jama Masjid. In the eleventh century A.D. the south-western part of the District was held by Har Dat, the Dor Raja of Baran or BULAND-SHAHR, who was defeated by Mahmud of Ghazni in 1018. According to tradition, the north of the District was held by the Tagas, who were driven south and east by the Jats. The Meos were called in by the Gahlots and expelled the Dors. The first undoubted Muhammadan invasion was that of Kutb-ud-din, the general of Muhammad Ghorl, in 1192, when the city of Meerut was taken and all the Hindu temples were converted into mosques. Under succeeding Sultans we hear little of the District, which may therefore be considered to have escaped

any notable misfortune, until the Mongol invasion of 1398. Timur swooped down upon Meerut with more than ordinary barbarity, and was met with equal Hindu obstinacy. At the fort of LonI, many of the Rajputs burned their houses, with their women and children within, and then sallied out to sell their lives as dearly as they could. After the capture, Timur ordered the massacre of all the Hindu prisoners in his camp, whom he himself represents as numbering 100,000 persons. He then went on to the sack of Delhi, and returned to the town of Meerut, then ruled by an Afghan chief named I lias. Timur first made his approaches by mining, and on the second day carried the walls by storm. All the males were put to the sword, and the fortifications and houses of the Hindus razed to the ground. Thence his army proceeded northward along the two great rivers, taking eveiy fort, town, and village they passed.

The firm establishment of the Mughal dynasty in the sixteenth century, and the immediate neighbourhood of their court, gave Meerut a period of internal tranquillity and royal favour. The valley of the Jumna became a favourite hunting resort for the imperial family and their great officers. Pleasure-gardens and game-preserves were established in the low-lying tracts just opposite Delhi; while it was for the purpose of watering one of these that the Eastern Jumna Canal was first designed. After the death of Aurangzeb, Meerut, though nominally subject to the Delhi emperor, was really ruled by local chieftains : the Saiyids of Muzaffarnagar in the north, the Jats in the south-east, and the Gujars along the Ganges and in the south-west. It was also exposed to the same horrors of alternate Sikh and Maratha invasions which devastated the other parts of the Upper Doab; while the Jats and Rohillas occasionally interposed, to glean the remnant of the plunder which remained from the greater and more fortunate hordes.

From 1707 till 1775, Meerut was the scene of perpetual strife; and it was only rescued from anarchy by the exertions of a European military adventurer, Walter Reinhardt or Sombre, one of the many soldiers of fortune who were tempted to try their destinies in Upper India during the troubled decline of the Delhi dynasty. After perpetrating the massacre at PATNA, 1763, Reinhardt established himself at SARDHANA in one of the northern *parganas* of Meerut; and on his death in 1778 left his domains to his widow, generally known as the Begam Sumru, from the assumed name of her husband. This remarkable woman was of Arab descent, and originally followed the trade of a dancing-girl. After her marriage with Reinhardt, she was baptized into the Roman Catholic Church, to which she became a considerable benefactress. Meanwhile, the southern portion of the District still remained in its anarchic condition under Maratha rule, until the fall of Delhi in 1803, when all the country in the possession of Sindhia

between the Jumna and the Ganges was ceded to the British. The Begam, who had up till that time given assistance to Sindhia, there-upon made submission to the new Government, to which she remained constantly faithful till her death in 1836.

Meerut has few historical incidents to show during the early British period; but it has been rendered memorable by the active part which it took in the Mutiny of 1857, being the place where the first outbreak occurred in Upper India. From the beginning of the year disquieting rumours had been afloat among the native troops, and the 'greased-cartridge' story had spread widely through their ranks. In April a trooper named Brijmohan informed his comrades that he had used the new cartridges, and all would have to do so shortly; but within a few days Brijmohan's house was set on fire, and from that time acts of incendiarism became common. On May 9 some men of the 3rd Bengal Cavalry, who had refused to use the cartridges, were condemned to ten years' imprisonment. Next day, Sunday, May 10, their comrades took the fatal determination to mutiny; and at 5 p.m. the massacre of Europeans in the city began.

The subsequent events belong rather to imperial than to local history, and could not be adequately summed up in a brief *résumé*. It must suffice to say that, throughout the Mutiny, the cantonments remained in the hands of the British forces, and the District was on the whole kept fairly clear of rebels. Meerut was more than once threatened by Walídád Khan, the rebellious chieftain of Málágarh in Bulandshahr District; but his demonstrations were never very serious. The greatest peril lay in the threatened attack by rebels from Rohilkhand, which was successfully warded off. Indeed, it is a noticeable fact that the very city where the Mutiny broke out, and where the first massacre took place, was yet held by a small body of Europeans, surrounded by thousands of disaffected natives, under the very shadow of Delhi, from the beginning to the end of that desperate struggle.

Though many places are connected by tradition with the events related in the Mahábhárata, such as Hastinapur, BÁGHPAT, GARHMUKTESAR, PARICHHATGARH, Püth, and Barnáwa, very ancient temples or other archaeological remains have not been discovered. A mosque built by Balban stands at Garhmuktesar, and there are a few Muhammadan buildings dating from the Mughal dynasty at MEERUT CITY.

The District contains 27 towns and 1,494 villages. The population is rising steadily. The number at the last four enumerations was as

Population. follows: (1872) 1,276,167, (1881) 1,313,371, (1891) 1,391,458, and (1901) 1,540,175. The increase in

the last decade (10·6 per cent.) was six times as great as the Provincial average. There are six *tahsils*—Meerut, Ghaziábád, Mawaná, Bagiipat, Sakdhana, and Hapur—the head-quarters of each being

at a town of the same name. The chief towns are the municipalities of MEERUT, the District head-quarters, HAPUR, SARDHAXA, GHAZIABAD, and MAWANA, and the 'notified areas' of BARAUT, BAGHPAT, PILKHUA, and SHAHIJARA. The principal statistics of population in 1901 are shown below:—

Tahsil.	45		Number of	Populatic	13.		o Number persons read and write.
	Area in sq miles.	Towns.			Population square in	Percentajj< variation population between 18 and 1901	
Meerut . .	364	5	2 80	342,143	940	+ 4.9	18,048
Ghaziabad .	493	9	332	276,518	562	H I 1-9	7,122
Mawana . .	431	4	248	200,399	465	+ 12.7	3,391
Baghpat . .	405	6	218	297,506	735	+ 4-4	7,285
Sardhana . .	250	1	124	180,141	721	+ 6-8	5,191
Hapur . .	41	2	292	243,468	592	- 14-8	6,910
District total	■354 27	1,494	1,75	1,75	654	+ 10-7	47,961

Of the total population, 74 per cent, are Hindus, 23 per cent. Musalmans, 1 per cent. Jains, 5 per cent. Christians, while Aryas number 5,000. The great density in the Meerut *tahsil* is due to the large city of Meerut, while Mawana, which has the lowest density, includes a considerable area of Ganges *khaddar*. More than 99 per cent, of the inhabitants speak the Hindustani dialect of Western Hindi.

Among Hindus the most numerous caste is that of the Chamars (leather-dressers and labourers), who number 223,000, and form 20 per cent, of the Hindu population. They are followed by the Jats, 184,000, who are the most industrious agriculturists and hold a larger area both as proprietors and cultivators than any other caste. Brahmans number 121,000; Rajputs, 79,000; Baniyas, 59,000; Gujars, 58,000; Tagas, 41,000; Ahlrs, 25,000; and Bhangis or sweepers, 44,000. The Jats, Gujars, and Tagas are not found in the centre and east of the Provinces, and the Tagas (agriculturists) are more numerous here than in any other District. The most numerous Muhammadan tribe is that of the Shaikhs, 50,000; followed by Rajputs, 46,000; Julahas (weavers), 33,000; Pathans, 19,000; Saiyids, 15,000; and Tagas, 20,000. More than 49 per cent, of the population are supported by agriculture, 11 per cent, by general labour, 10 per cent, by personal services, 3 per cent, by weaving, and nearly 3 per cent, by grain-dealing.

In 1901 there were 9,315 native Christians in the District, of whom 7,400 were Methodists and 1,100 Roman Catholics. The four missions at work are the Roman Catholic, the Church Missionary Society, the American Methodist, and the Reformed Presbyterian Churches. Sardhana is the chief station of the Roman Catholics, who commenced

MEERUT DISTRICT

work there at the end of the eighteenth century under the Begam Sumru. The Church Missionary Society's Mission dates from 1815, and the other two missions are of recent institution. The latter admit converts easily, and chiefly labour among the lower classes.

As is usual in the Upper Doab, the Jats are the best cultivators, and all good land is manured whether near the village site or not. The

soil varies from sand to thick clay; but the greater

Agriculture. *pōrtiōn* is a fertile loam, and most of the District is capable of irrigation from canals or wells. The Ganges and Jumna and, to a smaller extent, the Hindan *khddars* are precarious tracts ; but the District as a whole ranks as one of the finest in the United Provinces.

The tenures are those common in the United Provinces. More than 50 per cent, of the total area is held in *bhaiyachara* tenure; nearly 22 per cent, in imperfect *pattiddri*; and the rest in perfect *pattliddri* and *zanundari* in equal proportions. The main statistics of cultivation for 1903-4 are shown below, in square miles

<i>Tahsil.</i>	Total, j	Cultivated.	Irrigated.	Cultivable waste.
Meerut . . .	364	277	122	29
Ghaziabad . . .	493	349	150	69
Mawana . . .	431	273	89	94
liaghat . . .	45	336	100	22
Sardhana . . .	20	201	82	18
Hapur . . .	411	320	112	34
Total	2,354	1,756	775	266

Wheat and gram are the most important food-grains, covering an area of 634 and 241 square miles respectively, or 36 and 14 per cent, of the net area cropped. Maize and *jowdr*, with 189 and 164 square miles, are also important. The most valuable of the other crops are sugar-cane (179 square miles) and cotton (60 square miles).

In the *k/iddar*, cultivation depends chiefly on the season, and in dry years considerable areas may be sown. The striking feature of the District during the last thirty years is the increase by about 50 per cent, in the area under sugar-cane, which is now the crop from which the tenants pay their rent and the *zamndars* their revenue. The area cropped in two consecutive harvests in the same year, especially with maize in the autumn and wheat mixed with peas, &c., in the spring, is also increasing. The area under cotton has declined, and indigo is grown only by a few of the large *zamuiddrs*. There is a small, but steady, demand for loans under the Agriculturists' Loans Act, amounting to about Rs. 2,000 annually; but advances under the Land Improvement Loans Act are rarely taken. Out of Rs. 16,000 lent during

the ten years ending 1900, Rs. 11,000 was advanced in the last year. A great deal has been done to improve the drainage of the District, by deepening and straightening some of the rivers, such as the East Kali Nadi and its tributaries, the two Chhoiyas, and by making cuts in other places. In the south-west of the District an embankment has been made to prevent flooding from the Jumna.

Private enterprise has done something to improve the ordinary inferior breed of cattle, and several *zaminddrs* have imported good bulls from Hissar. The best of the cattle have been imported from the same place, but many good animals are now bred locally. Horse-breeding has become an important business. Stables for a Government stud were established at Babugarh near Hapur in 1823, and many *zaminddrs* turned their attention to horse-breeding. The mares were subsequently disposed of, though stallions are still kept by Government. There has been a considerable improvement in the last thirty years, and chargers are bred for the native cavalry and mounted police. Besides the stallions at Babugarh, twelve others were maintained by Government in 1903, when the supervision of horse-breeding was transferred from the Civil Veterinary to the Remount department. Good mules are also bred from Government donkey stallions. The sheep and goats of the District are of the ordinary inferior breed.

About 40 to 60 per cent, of the cultivated area is irrigated according to the season. In 1903-4 canals irrigated 494 square miles, wells 271, and other sources 10. The west of the District is supplied by the EASTERN JUMNA CANAL, the centre by the UPPER GANGES CANAL, and the east by the Anupshahr branch of the latter. Canals have to a large extent superseded wells ; and the area irrigated in the eastern tract has benefited especially, as well-irrigation was rare. It is only in parts of the Sardhana and Hapur *tahsils* that well-irrigation supplies a larger area than canals.

The chief mineral product is *kankar*, which occurs in blocks as well as in nodules, and is used for road-metalling and for making lime, as well as for building purposes. Up to 1833 salt was largely manufactured, and a little saltpetre is still prepared. The saline efflorescence called *reh*, which contains carbonate of soda, is used for making country glass, and also in dyeing and washing clothes.

The most important industry is tanning, though there is 110 large tannery. Much of the out-turn is exported to Cawnpore and Calcutta, but a fair amount is made up on the spot into shoes and sent to Delhi. Cotton-weaving is carried on _____ communications. largely at Meerut and several other places, but only for the local market. More than half the raw cotton grown is exported to Cawnpore and Calcutta. Two cotton-presses at Hapur employed 263 persons in 1904. A European company for soap manufacture

at Meerut employs about 40 hands, and an ice factory about 20. There are also eleven indigo factories, and a small flour-mill and oil-mill. Blankets are made at Nirpura in the Sardhana *tahsil*, ornamental pottery at Bahadurgarh in the Hapur *tahsil*, and cheap cutlery, glass bangles, jewellery, and furniture are turned out at a few centres.

The exports consist chiefly of wheat, sugar, oilseeds, and cotton, while the imports are metals, cotton cloth, building materials, *ghi*, drugs, and spices. The municipalities are the chief centres of trade, especially Meerut, Hapur, and Ghaziabad. Internal traffic is very large. The sugar goes largely to the Punjab and Rajputana, while wheat is exported to Europe. A large proportion of the trade finds its way to Delhi. Timber and bamboos are brought to Meerut from the forests farther north by the Upper Ganges Canal and the Ganges.

Trade has been greatly fostered by the improvement of communications. The oldest railway is the East Indian, which just cuts across the south-west corner of the District. It was followed by the North-Western, which passes through the middle. In 1900 a branch of the Oudh and Rohilkhand Railway was opened, which traverses the southern part. Another important branch of the same line connects Meerut city with Hapur, and will be continued through Bulandshahr to Khurja. The rich tract between the North-Western Railway and the Jumna is to be opened up by a light railway from Shahdara on the East Indian Railway opposite Delhi to Saharanpur.

The total length of metalled roads is 216 miles, which is only exceeded in one District in the Provinces; of these, 92 miles are Provincial and the rest local. There are also 392 miles of unmetalled roads, maintained from Local funds. There are avenues of trees along about 180 miles. The western part of the District is most in need of better communications, which will be supplied by the light railway referred to above.

The Upper Doab was ravaged by famine at frequent intervals before British rule, and the disorders of the eighteenth century frequently

p. caused distress; but Meerut is not specially men-

tioned by the native historians. There was frequent distress in the early years of the nineteenth century, and the famine of 1837 was exceptionally severe. In 1860, after the disastrous effects of the Mutiny, famine was imminent; but the railway works in the south-east of the District gave employment to thousands. The famines of 1868 and later years hardly affected the District adversely, and relief works have chiefly been required for starving immigrants. This result is largely due to the extensive system of canal-irrigation and the sturdy nature of the peasantry. In 1896-7, when famine raged elsewhere, the Jats of Meerut prayed openly for a continuance of the high prices which gave them such handsome profits.

The Collector is usually assisted by a Joint and Assistant Magistrate belonging to the Indian Civil Service, and by five Deputy-Collectors recruited in India, all residing at Meerut.

Meerut. There is a *tahsildar* at the head-quarters of each of the six *tahsils*.

The District and Sessions Judge has jurisdiction over the whole District, and also civil jurisdiction over the Sikandarabad *tahsil* of Bulandshahr District. He is aided by an Assistant Judge, a Subordinate Judge, and two Munsifs. In 1904 there were two additional Munsifs, and an additional Judge was sanctioned for three years. A few Village Munsifs have also been appointed. There is a special Cantonment Magistrate, with an assistant, at Meerut. As usual, the most common forms of crime are burglary and petty theft; but murder, robbery, and dacoity are more frequent than in most Districts. Cases of rioting and criminal trespass are very common, and the Gujars in the Ganges and Jumna *khadars* are notorious cattle thieves. Female infanticide was practised by Gujars and Jats, especially the former, but has nearly died out.

The area comprised in the District was acquired in 1803, and was at first administered as part of Saharanpur, of which it eventually formed the southern division with a Collector at Meerut. In 1818 a separate District was made, which was further subdivided in 1824 by the removal of parts of what are now Bulandshahr and Muzaffarnagar. The early land revenue settlements were simply based on the previous demands, and consisted of two for a year each and two for three years each, the last being extended up to 1815, when a settlement was effected for five years. No records exist of the subsequent arrangements till the first regular settlement was made between 1835 and 1837. There were signs of the coming competition for land, but rents were still mostly in kind. The assessment was based on rates ascertained by converting average produce at market values, the rates being modified according to the condition of villages. A large part of the District had formed the *jagir* of the Begam Sumru, which lapsed in 1836. Her system had been one of rackrent, qualified by an intimate knowledge of the cultivators and liberal advances. The total demand fixed for the whole District was 18·3 lakhs. The second settlement was made between 1865 and 1870, when the demand was raised to 21·8 lakhs, though the share of the rental 'assets' taken had been reduced from 70 to 50 per cent. In this settlement, also, rates were calculated on produce, having regard to soil classification. The last settlement was completed in 1901. It was based on the rental 'assets,' but involved a careful soil classification and the fixing of standard circle rates, which were of special importance, as nearly half of the area was not subject to cash rents, most of it being under proprietary

cultivation. A very minute analysis of the rents actually paid was thus required, and the proportionate rental value of different soils was ascertained. The rents paid by occupancy tenants were enhanced in many cases, and the revenue finally fixed was 29·9 lakhs, representing 48 per cent, of the corrected rental 'assets.' The incidence per acre of cultivation is Rs. 2-14, being the highest for any District in the Provinces. It varies in different parts from Rs. 2 near the Ganges *khadar* to more than Rs. 4 in the west.

The collections on account of land revenue and total revenue are shown below, in thousands of rupees:—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue .	22,925	22,11	26,30	27,95
Total revenue .	27,04	34,00	42,57	44,21

Besides the five municipalities, MEERUT, GHAZIABAD, HAPUR, SAR-DHANA, and MAWANA, four other towns which were formerly municipalities became 'notified areas' in April, 1904. There are also eighteen towns administered under Act XX of 1856. Beyond the limits of these places, local affairs are managed by the District board, which has an income of more than 2 lakhs. In 1903-4 the expenditure amounted to 2·6 lakhs, of which 1·1 lakhs was spent on roads and buildings.

The District Superintendent of police is aided by an assistant and six inspectors. There are 160 other officers and 633 men belonging to the regular police, 439 municipal and town police, and 2,267 village and road police. The District jail contained a daily average of 574 prisoners in 1903.

In 1901 the percentage of the population able to read and write was 3·1 (5·6 males and 0·3 females), which is exactly the Provincial average. The proportion is, however, unduly raised by the considerable number of Jains, Aryas, and Christians in the District, and is distinctly lower in the case of Hindus (2·7) and Muhammadans (2). In 1880-1 there were 214 public institutions with 6,677 pupils, and these had increased to 248 institutions with 9,849 pupils in 1900-1. In 1903-4, 277 such schools contained 12,850 pupils, of whom 550 were girls; and there were besides 391 private institutions with 5,235 pupils. MEERUT CITY contains an Arts college, a normal school, and three high schools. Of the public institutions, 162 are managed by the District or municipal boards and only 2 by Government. About half the total expenditure on education of Rs. 96,000 is met from Local and municipal funds, and a quarter from fees.

In 1903 there were 14 hospitals and dispensaries, with accommodation for 183 in-patients. In the same year 134,000 cases were treated,

of whom 1,539 were in-patients, and 10,214 operations were performed. The expenditure was Rs. 19,000, chiefly met from Local and municipal funds.

More than 50,000 persons were successfully vaccinated in 1903-4, showing a rate of 33 per 1,000 of population. Vaccination is compulsory only in the municipalities and in the cantonment of Meerut.

[H. R. Nevill, *District Gazetteer* (1904); R. H. Gillan, *Settlement Report* (1901).]

Meerut Tahsil.—Central northern *tahsil* of Meerut District, United Provinces, co-extensive with the *pargana* of Meerut, and lying between 28° 52' and 29° 14' N. and 77° 27' and 77° 52' E., with an area of 364 square miles. On the west the Hindan divides it from Baghpat and part of the Sardhana *tahsil*, but other boundaries are artificial. The population rose from 326,054 in 1891 to 342,143 in 1901. There are 280 villages and five towns, of which MEERUT (population, 118,129), the District and *tahsil* head-quarters, and LAWAR (5,046) are the most important. In 1903-4 the demand for land revenue was Rs. 5,22,000, and for cesses Rs. 87,000. The *tahsil* has the highest density of population (940 persons per square mile) in the District (average 654), owing to the inclusion of Meerut city. Along the Hindan there is a narrow stretch of *khadar* which is liable to deterioration, but more than half the *tahsil* is a level upland of first-class soil. The eastern portion is intersected by the East Kali Nadi and its tributaries the two Chhoiyas and the Abu Nala, which flow in badly-defined channels. The channel of the Kali Nadi has been deepened and straightened, and other cuts have been made; but the drainage is still defective, and in this tract cultivation is continually interrupted by patches of *reh*. It is sandy towards the north, and a well-defined sandy ridge strikes from north to south on the eastern border. Between the Hindan and the Kali Nadi the Upper Ganges Canal provides ample means of irrigation; but east of the Kali Nadi the villages depend chiefly on wells, most of which are of masonry. In 1903-4 the area under cultivation was 277 square miles, of which 122 were irrigated.

Meerut City.—Administrative head-quarters of Meerut District, United Provinces, and military cantonment, situated in 29° 1' N. and 77° 43' E., 970 miles by rail from Calcutta and 931 miles by rail from Bombay. The city is the seventh largest in the United Provinces, and its population has risen considerably during the last thirty years. The numbers at the four enumerations were as follows: (1872) 81,386, (1881) 99,565, (1891) 119,390, and (1901) 118,129. The population in 1901 included 62,700 Hindus, 50,317 Muhammadans, and more than 4,000 Christians. Of the total, 78,740 persons reside in the municipality and 39,389 in cantonments.

The derivation of the name is uncertain. According to one account

it is derived from an architect named Mahi, in the time of King Yudhishtira. The Jats allege that it was founded by a colony of their caste belonging to the Maharashtra *gotra*. The Asoka pillar now standing on the Ridge at Delhi was removed from Meerut, and remains of Buddhist buildings have been found near the Jama Masjid. Meerut is said to have been captured early in the eleventh century by Saiyid Salar Masud ; and about the same time Har Dat, Raja of Baran (**BULANDSHAHR**), built a fort here, which was one of the most celebrated in Hindustan for its strength. The fort was captured by Kutb-ud-din in 1192, and all the Hindu temples were converted into mosques. In 1327 a Mongol chief, Tarmshirin Khan, made an unsuccessful attempt on the city, but it was completely sacked and destroyed by Timur in 1399. Under Mughal rule the place revived and several fine buildings were erected. The brick fort is mentioned in the *Ain-i-Akbari*, and Akbar struck copper coin at Meerut. The troubled times of the eighteenth century were unfavourable to the growth of towns in the Upper Doab, and in 1805 Meerut was described as 'a ruinous, depopulated town, and a place of little trade.' In 1806 cantonments were first established, and population grew rapidly to 29,014 in 1847 and 82,035 in 1853. Meerut obtained an unenviable notoriety in 1857 as the spot where the Mutiny broke out in Upper India. Disquieting rumours had been abroad for some time, and in April the troopers of the 3rd Cavalry refused to use the new cartridges. On May 9, eighty-five men were condemned to long terms of imprisonment; and the next afternoon, Sunday, May 10, a cry was raised that the Europeans were going to seize the magazines of the native infantry. The men of the 20th Native Infantry took up arms, and the Mutiny commenced. Several Europeans were shot down at once, and the bad characters of the city gathered together, armed with any weapons they could find. The convicted troopers were released from jail without the slightest opposition by the guards, and the rest of the prisoners broke out. The infuriated mob of sepoys, police, hangers-on about the bazars, servants, and convicts burned and plundered the cantonments, murdering every Christian they met. In the civil station, which lies some distance away, nothing was known of the outbreak until close on 7 p.m., when the people going to church saw the blaze of burning bungalows. Even the native troops posted there remained steady till relieved. The British troops cantoned near the civil lines included a regiment of cavalry, Soo infantry, and a large force of artillery; but nothing was done by the superior military authorities, and the general organization was defective. Many of the Carabineers could not ride, and there was a want of horses. Much time was wasted in a roll-call, and when the sepoys' lines were reached after dark, they were found deserted. No pursuit was attempted, and

the mutineers were allowed to reach Delhi in safety. The city was, however, held throughout the disturbances, and was the base of a small volunteer force known as the Khaki Risala, which helped materially in the restoration of order.

The native city lies south of the cantonments and east of the railway line. The streets are generally of mean appearance, and are badly arranged. The oldest monuments are a mausoleum and *dargah* erected by Kutb ud-din in 1194, the former in the city, and the latter about a mile away on the site of a famous temple to Nauchandl Dehl. The Jama Masjid is said to have been built in 1019 by Hasan Mahdl, Wazir of Mahmud of Ghazni, and was repaired by Humayun. A fine *dargah* of red sandstone was erected by Nur Jahan, wife of the emperor Jahangir, in 1628, in memory of a *fakir* named Shah Pir; and there are some other seventeenth-century mosques and tombs. The great tank called the Suraj Kund, or 'sun tank,' constructed in 1714, is surrounded by numerous small temples and *sad* pillars.

The town hall, containing the Lyall Library, is an imposing building, the foundation-stone of which was laid in 1884 by the Duke of Connaught, then commanding the Meerut military district. In the cantonments the finest building is the church, which was built in 1821, and has a handsome spire. There are also a Roman Catholic church and a mission chapel, an asylum for the relief of distressed European and native Christians, and a club. The Mall is one of the finest station roads in India. Besides being the head-quarters of the ordinary District staff, Meerut is the residence of the Commissioner of the Division of the same name, Superintending Engineers of both the Roads and Buildings and Irrigation branches of the Public Works department, and two Executive Engineers in charge of divisions of the Upper Ganges Canal. The Church Missionary Society and the American Methodists have their principal stations here, besides several branches in the District.

Meerut was constituted a municipality in 1864. During the ten years ending 1901 the income and expenditure averaged about 2-3 lakhs; but the receipts include a loan of lakhs for water-supply in 1895, and the expenditure includes the cost of the works and an annual sum on account of capital and interest. In 1903-4 the total income was 2-2 lakhs, chiefly derived from octroi (1-4 lakhs) and municipal property, fines, «See. (Rs. 41,000). The expenditure of 2-5 lakhs included : general administration (Rs. 2,000), collection of taxes (Rs. 31,000), water-supply (Rs. 21,000), conservancy (Rs. 21,000), public safety (Rs. 15,000), and repayment of loans with interest (Rs. 65,000). A house tax has recently been sanctioned.

The water-works were completed in 1896. The supply is taken from the Upper Ganges Canal, 9 miles away, at a place called Bhola.

The engines by which the supply is raised are worked by turbines turned by the water in the canal falls. In 1903-4 the daily consumption of water amounted to between 4 and 5 gallons per head. The drainage of the city is good, and all channels have been lined with masonry and the whole system recast within the last few years.

The normal garrison in the cantonments consists of four regiments of British and Native cavalry and infantry, and two horse and two field batteries. The income of cantonment funds in 1903-4 was 1·4 lakhs, and the expenditure 1·2 lakhs. The chief taxes are octroi and a house tax.

The prosperity of the city was originally due to the presence of a large cantonment, and the population was in fact larger in 1853 than in 1872. The extension of the North-Western Railway in 1867 and 1869, however, laid the foundation of a more extended trade than the supply of local needs. In 1887 a bonded warehouse was opened about a mile from the city station, with which it is connected by a branch line, and 8 or 9 lakhs of maunds of grain, and nearly as much sugar, pass through this every year. Cotton cloth, building materials, oilseeds, spices, and *ghi* form the chief imports. Manufactures are not yet of much importance, but there are a large soap factory and a flour- and oil-mill. An important agricultural show is held annually near the Nauchandi temple, a mile from the city. The exhibits include 1,800 horses, besides cattle, agricultural products and implements, *See.*; and valuable prizes are given.

The chief educational institutions are the Meerut College and the normal school. The former was founded in 1892 at a cost of 2 lakhs raised by subscriptions, and receives an annual grant of Rs. 8,000 from Government. It had 123 pupils in 1903-4, of whom 15 were reading for a degree and 35 were in the First Arts classes. The oldest school belongs to the Church Missionary Society and has 129 pupils. There are eight other secondary schools with about 800 pupils, and four primary schools with 159 pupils, of whom over 100 are girls. Among the secondary schools may be mentioned that supported by the Arya Samaj, which is very strong here. The municipality spends about Rs. 10,000 annually on education.

Meghasanl.—Mountain peak in Mayurbhanj, one of the Orissa Tributary States, Bengal, situated in 21° 38' N. and 86° 21'E. Its height is 3,824 feet; there is a plateau on the top of the hill.

Meghna, The.—Great estuary of the Bengal delta, which conveys to the sea the main volume of the waters of both the GANGES and the BRAHMAPUTRA, and thus forms the outlet for the drainage of half India. The name is properly applied only to the channel of the old Brahmaputra, from Bhairab Bazar downwards, after it has received the SURMA or Barak from Sylhet, in 24° 2' N. and 90° 59' E.; but some

maps mark the head-waters of the Meghna as a small stream meandering through the centre of Mymensingh District, and joining the Brahmaputra near Bhairab Bazar. At the present time the main streams of the Brahmaputra or JAMUNA, and of the Ganges, unite at Goalundo in Eastern Bengal, and, under the name of the PADMA, enter the estuary of the Meghna opposite Chandpur. The Meghna proper runs almost due south, and forms the boundary between the Dacca Division to the west and the Chittagong Division. It nowhere flows between clearly defined banks; and it enters the sea in $22^{\circ} 25' \text{ N.}$ and $91^{\circ} 16' \text{ E.}$, after a course of 161 miles, by four principal mouths, enclosing the islands of DAKHIN SHAHBAZPUR, HATIA, and SANDWIP.

The general characteristics of the Meghna are everywhere the same—a mighty rolling flood of great depth and velocity, sometimes split up into half a dozen channels by sandbanks of its own formation, sometimes spreading out into a wide expanse of water which the eye cannot see across. It is navigable by native boats of the largest burden, and also by river steamers all the year round; but navigation is difficult and sometimes dangerous. At low tide the bed is obstructed by shifting sandbanks and snags; and when the tide is high or the river is in flood, and especially when the monsoon is blowing, the surface often becomes too boisterous for heavy-laden river craft to ride in safety. The most favourable season for navigation is between November and February; but even in those months the native boatman fears to continue his voyage after nightfall. Alluvion and diluvion are constantly taking place, especially along the sea-board, where the antagonistic forces of river and ocean are ever engaged in the process of land-making. In Noakhali District the mainland is steadily advancing seawards; while the islands fringing the mouth are annually being cut away and re-deposited in fresh shapes. For some years past the Meghna has shown a tendency to shift its main channel gradually towards the west.

The tidal phenomena of the Meghna surpass those of any other Indian river. The regular rise of the tide is from 10 to 18 feet; and at spring-tides the sea rushes up in a single wave, known as the 'bore.' On the Meghna the bore is no mere spectacle for admiration, but a justly dreaded danger to boatmen. It may be witnessed in its greatest development at the time of the equinoxes, when navigation is sometimes impeded for days together, especially when the wind blows from the south. Before anything can be seen, a noise like thunder is heard seawards in the far distance. Then the tidal wave suddenly comes into view, advancing like a wall topped with foam, of the height of nearly 20 feet, and moving at the rate of 15 miles an hour. In a few minutes all is over, and the brimming river has at once changed from ebb to flood-tide.

A still greater danger than the bore is the storm-wave which occasionally sweeps up the Meghna in the wake of cyclones. These storm-waves also are most liable to occur at the break of the monsoons in May and October. In the cyclone of May, 1867, the island of HATIA was entirely submerged by a wave which is estimated to have reached a height of 40 feet. But the greatest of these disasters within the memory of man occurred on the night of October 31, 1876. Towards evening of that day the wind had gradually risen till it blew a gale. Suddenly, at about midnight in some places, and nearer dawn in others, the roar of the bore was heard drowning the noises of the storm. Two and three waves came on in succession, flooding in one moment the entire country, and sweeping before them every living thing that was not lucky enough to reach a point of vantage. The destruction of human life on that memorable night is credibly estimated at 100,000 souls in the mainland portion of Noakbali District and on the islands of Sandwip and Hatia, or about 19 per cent, of the total population of these places. As usually happens in such cases, the mortality subsequently caused by cholera and a train of dependent diseases equalled that due directly to drowning.

[A full account of this calamity will be found in the *Report on the Vizagapatam and Backergunge Cyclones*, 1876.]

Mehar Subdivision.—Subdivision of Larkana District, Sind, Bombay, composed of the MEHAR, NASIRABAD, and KAKAR talukas.

Mehar.—*Tdluka* of Larkana District, Sind, Bombay, lying between 27° 2' and 27° 21' N. and 67° 30' and 68° 8' E., with an area of 328 square miles. The population in 1901 was 58,434, compared with 48,320 in 1891. The *tdluka* contains 64 villages, of which Mehar is the head-quarters. The density, 178 persons per square mile, greatly exceeds the District average. The land revenue and cesses in 1903-4 amounted to 2·8 lakhs. The *tdluka* is irrigated by the Western Nara and one of its feeders, the staple crops being *jowdr* and rice. Prior to the floods of 1874 Mehar was very fertile, but the water has now become brackish and all the gardens have perished. Cultivation near the hills on the west depends entirely upon the rainfall.

Meherpur Subdivision.—Northern subdivision of Nadia District, Bengal, lying between 23° 36' and 24° 11' N. and 88° 15' and 88° 53' E., with an area of 632 square miles. The subdivision is a deltaic tract, bounded on the north by the Jalangi; a considerable portion consists of a low-lying tract of black clay soil. The population increased from 336,716 in 1891 to 348,124 in 1901, the density being 551 persons per square mile. The subdivision contains the town of MEHERPUR (population, 5,766), the head-quarters; and 607 villages.

Meherpur Town (*Miharpur*).—Head-quarters of the subdivision of the same name in Nadia District, Bengal, situated in 23° 47' N. and

88° 38' E., on the Bhairab river. Population (1901), 5,766. Meherpur was constituted a municipality in 1869. The income during the decade ending 1901-2 averaged Rs. 4,400, and the expenditure Rs. 3,500. In 1903-4 the income was Rs. 3,900, half of which was obtained from a tax on persons; and the expenditure was Rs. 3,800. The town contains the usual public offices; the sub-jail has accommodation for 13 prisoners. The Church Missionary Society has a branch at Meherpur. Good bell-metal ware is manufactured.

Mehidpur Zila.—District of the Indore State, Central India, lying between 23° 5' and 23° 48' N. and 75° 32' and 76° 35' E., in the Sondhwar division of MALWA, with an area of 840 square miles. It consists of two separate sections : the main block, and the Sundarsi *pargana* which lies south-east of the former. The country is typical of Malwa, consisting of an open undulating plain covered with black cotton soil. It is watered by the Sipra, Kali Sind, and Chhoti Kali Sind, and has an annual rainfall of 25 inches. The population decreased from 120,869 in 1891 to 91,857 in 1901, giving a density in the latter year of 109 persons per square mile. The District contains two towns, MEHIDPUR (population, 6,681), the head-quarters, and TARANA (4,490); and 432 villages. The one-third village is due to the curious tripartite possession of Sundarsi by the Gwalior, Dhar, and Indore Darbars, each State having an equal portion of the place.

For administrative purposes the district is divided into five *parganas*, with head-quarters at Mehidpur, Jharda, Tarana, Makron, and Sundarsi, each in charge of an *amhi*, while the whole is in charge of a *Subah*, whose head-quarters are at Mehidpur. The total revenue is 4-8 lakhs. The principal routes lead to Nagda on the Ujjain-Ratlam and Tarana Road on the Ujjain-Bhopal Railways. The Nagda-Muttra branch of the Bombay, Baroda, and Central India Railway, now under construction, will pass through Godapur, 10 miles from Mehidpur. Metalled roads run from Tarana to Sumrakhera and from Mehidpur to Patparsi, and a portion of the Ujjain-Agar high road also traverses the district. Several new roads are under construction.

Mehidpur Town (also *Mahatpur* or Mahidpur).—Head-quarters of the district and *pargana* of the same name in Indore State, Central India, situated in 23° 29' N. and 75° 40' E., on the right bank of the sacred Sipra river, 24 miles north of Ujjain, 1,543 feet above sea-level. Population (1901), 6,681. The town is divided into two separate sections, known as the *kila* or fort and the *punva* or hamlet. The *kila* is an isolated quarter, surrounded by a bastioned stone wall, and situated on the river bank. It was built in the eighteenth century by the Vagh Saranjami *sarddrs*, locally known as the Vagh Rajas. Its streets are dark and narrow, with tall stone houses on either side, often ornamented by graceful balconies and windows of carved wood.

Throughout the *kila* and on the *ghats* along its western front are numerous remains of Hindu temples, destroyed during the Muhammadan occupation. The *purwa* is also enclosed by a stone wall, and, though formerly a place of importance, is entirely lacking in buildings of merit or interest. To the east stands the tomb of Godar Shah, a Muhammadan saint, from which a fine view of the town and river and the surrounding country is obtained. To the south, along the steep eastern bank of the river, lie the remains of the old cantonment, with its long avenue of lofty Millingtonias and the remains of the picturesquely situated bungalows; to the west stands the *punva* with the *kila* beyond it, and across the stream a wide open plain, the field of the battle referred to below.

Mehidpur is supposed by Hindus to stand in the Mahakalban or great sacred forest of Mahakal, which is said to have formerly covered all the country round Ujjain. From this circumstance it derives special sanctity; and in 1897, when cholera interfered with the attendance at the great Sinhast religious fair at Ujjain, about 5,000 *sadhus* performed their ablutions in the Sipra at Mehidpur instead. After the occupation of Malwa by the Muhammadans, it was renamed Muhammadpur and appears under that name in local documents, and in the *Ain-i-Akbari*, where it is shown as the chief town of a *mahal* in the Sarangpur *sarkar* of the *Si/bah* of Malwa. This name, however, has never come into general use. About 1740 it was assigned as a *saranjdnu jagir* by Malhar Rao Holkar I to his feudatories the so-called Vagh Rajas, who until 1817, when Malhar Rao II confiscated their holding, virtually ruled this part of Malwa. The descendant of the Vagh Rajas still lives in the fort and holds a small grant of land.

About 2 miles to the south-west across the river the battle-field of Mehidpur is still marked by a small cemetery, containing the graves of nine officers who fell on that occasion. Sir John Malcolm, who commanded the forces engaged in this battle, arrived at Gannia village, 20 miles south of Mehidpur, on December 19, 1817. On the morning of the 20th Tulsi Bai was murdered by Ghafur Khan, and all negotiations fell through. Malcolm then pushed on along the right bank of the Sipra. The enemy were drawn up on the left bank, so as to form the chord of a bend in the stream. The river was forded under a heavy fire and the position carried at the point of the bayonet. Except the artillerymen, who, as usual, stood to their guns till they were bayoneted, Holkar's troops offered no effective resistance. The losses, which were entirely due to the fire of Holkar's guns, amounted to 174 killed, including 9 British officers, and 606 wounded. Malcolm moved on to Mandasor, where a treaty with Holkar was signed on January 6, 1818.

Mehidpur was selected as a station for the Mehidpur Contingent raised under the treaty of 1818, and remained a military station till

1882. On November 8, 1857, the troops were attacked by a number of Rohillas from the town, the Muhammadans in the Contingent joining with the mutineers. Two British officers were killed, the European sergeant escaping to Indore, escorted by some Hindu troops of the corps. After the Mutiny, Mehidpur became the head-quarters of the Western Malwa Political Charge until 1860, when they were transferred to Agar.

Trade is declining for want of good communications, though a considerable amount of poppy is grown in the neighbourhood, and crude opium is sent to Ujjain for manufacture. A municipality has recently been constituted. Mehidpur contains the *zila* and *pargana* offices, a British post office, several schools, a hospital, and an inspection bungalow.

Mehkar Taluk.—Southern *taluk* of Buldana District, Berar, lying between 19° 52' and 20° 25' N. and 76° 2' and 76° 52' E., with an area of 1,008 square miles. The population fell from 153,046 in 1891 to 120,792 in 1901, the density in the latter year being 120 persons per square mile. The *taluk* contains 313 villages and one town, MEHKAR (population, 5,330), the head-quarters. The demand for land revenue in 1903-4 was Rs. 2,73,000, and for cesses Rs. 21,000. The /□allies in the Balaghat, in the south-western corner of Berar; but the valleys of the Penganga and the southern Puma, which traverse it, contain fertile tracts.

Mehkar Town.—Head-quarters of the *taluk* of the same name in Buldana District, Berar, situated in 20° 10' N. and 76° 37' E. Population (1901), 5,330. According to a legend, it takes its name from Meghan Kara, a demon who was overpowered and slain by Sarangdhar, an incarnation of Vishnu. A Muhammadan poet informs us that Mehkar is 795 years older than the Hijri era. A fine specimen of a Hemadpanti temple is situated here. Mehkar is mentioned in the *Ain-i-Akbari* as the head-quarters of a *sarkar*, or revenue district. In 1769 Madhu Rao Peshwa, accompanied by Rukn-ud-daula, the Nizam's minister, encamped here with the intention of punishing Janoji Bhonsla, who had assisted Raghunath Rao's insurrection. General Doveton also encamped here in 1817 on his march to Nagpur against Appa Sahib Bhonsla, who had broken the Treaty of Deogaon. Mehkar formerly contained many weavers, Hindu and Muhammadan. The latter were so rich that they not only undertook to fortify the place, but could afford to build up the fallen rampart, as appears from an inscription dated 1488 on the Mamins' Gate, still standing. Pindari inroads reduced the town to great distress, and its ruin was completed by the great famine of 1803, after which only 50 huts remained inhabited. Excellent *dhotis* were formerly woven at Mehkar, but the cheapness of European fabrics has lessened the demand for these.

Mehmadabad Taluka.—North-western *taluka* of Kaira District,

Bombay, lying between 22° 44' and 22° 55' N. and 72° 36' and 72° 57' E., with an area of 171 square miles. It contains 66 villages and two towns, MEHMADADAD (population, 8,166), the head-quarters, and KAIRA (10,392), the District head-quarters. The population in 1901 was 75,926, compared with 92,367 in 1891. The density, 444 persons per square mile, is almost equal to the District average. The land revenue and cesses in 1903-4 amounted to nearly 2-4 lakhs. The *tdhika* consists of a rich level plain, mostly open and thinly wooded. The land is poor, light, and sandy, but a portion is suited for rice cultivation. The Meshvo and Vatrak are shallow streams running south-west.

Mehmadabad Town (*Mahmuddbdd*).—Head-quarters of *\hetahtka* of the same name in Kaira District, Bombay, situated in 22° 50' N. and 72° 46' E., on the Bombay, Baroda, and Central India Railway, 17 miles south of Ahmadabad. Population (1901), 8,166. It was founded in 1479 by Mahmud Begara, who ruled in Gujarat from 1459 to 1511, and improved by Mahmud III (1537-54), who built a deer-park with an enclosure 6 miles long. At each corner of the park was a palace with gilded walls and roof. On the right-hand side of the gates leading to the palaces were placed bazars. Of the existing objects of interest, the most notable are two tombs in the village of Sojale, about 2 miles to the north-east of the town, built in 1484 in honour of Mubarak Saiyid, one of the ministers of Mahmud Begara, and of his wife's brothers. Mehmabad has been a municipality since 1863, with an average income of Rs. 9,500 during the decade ending 1901. In 1903-4 its income was Rs. 9,600. The town contains a dispensary and four schools, three (including an English middle school with 57 pupils) for boys and one for girls, attended by 427 and 102 pupils respectively.

Mehndawal.—Town ' in the Khalllabad *tahsil* of Basti District, United Provinces, situated in 26° 59' N. and 83° 7' E., 27 miles north-east of Basti town. Population (1901), 10,143. Mehndawal is administered under Act XX of 1856, with an income of about Rs. 1,000. It is the chief commercial centre in the District, being a great mart for trade with Nepal; but it has suffered from the opening of railway stations elsewhere. Most of the town consists of mud hovels, but there are several fine market-places. It also contains a dispensary and a school with 88 pupils.

Mehsana Taluka.—*Taluka* in the Kadi *prdn*t, Baroda State, with an area of 195 square miles. The population fell from 83,651 in 1891 to 75,254 in 1901. The *taluka* contains one town, MEHSANA (population, 9,393), the head-quarters; and 83 villages. Its aspect is sometimes that of an even plain, sometimes that of a gently undulating country. The Rupen and Kh5ri flow through the northern portion.

J/E HUAS ESTATES

The surface soil is generally light and sandy. In 1904-5 the land revenue was Rs. 2,51,000.

Mehsana Town.—Head-quarters of the *taluka* of the same name, *Kadipnlitit*, Baroda State, situated in 23°42' X. and 72° 37' E. Population (1901), 9,393. The town is chiefly important as a railway centre, for here the Gaikwar's State railways from Khernlu, Patan, and Viramgam converge to meet the main line of the Rajputana-Malwa Railway. It is the most central town in the *prant*, and in 1904 became the head-quarters in place of Kadi. A magnificent building, which forms a conspicuous object close to the town, has recently been erected, partly for the purposes of public offices and partly as a palace for the Gaikwar. Otherwise there are no buildings of any great mark. Mehsana is administered by a municipality, receiving an annual grant of Rs. 4,700. It possesses Anglo-vernacular and vernacular schools, a dispensary, a magistrate's court, and local offices.

Mehwas Estates.— A group of six estates in the West Khandesh District of Bombay, lying between 21° 30' and 22° X. and 74° 10' and 74° 50' E., in the extreme west of Khandesh, situated partly among the western extremities of the Satpuras, and partly on the low ground below the hills, spanning the interval between the Xarbada and Tapti rivers. Population (1901), 14,639. The estimated gross yearly revenue is Rs. 70,000. The tract is broken and wild, and more or less covered with forest; it is abundantly watered by mountain streams flowing into the Narbada and Tapti. The climate is unhealthy and feverish from October to March. The estates are inhabited chiefly by BhTls, with a sprinkling of Pavras. In all parts there is a great deal of rich black soil, but cultivation has much decreased since the famine of 1900. As the supply of grain does not meet the local demand, the people eke out a living on fruits, roots, and other forest produce. The main articles of trade are timber, *mahud* flowers and seed, and myrabolams. The chieftains settle petty cases, but all important matters go before the Collector and Assistant Collector, who are respectively Agent and Assistant Agent. Civil and criminal justice are regulated by rules framed under Act XI of 1846. The six estates are:—

Estates.	Area in square miles.	Number of villages.	Population. 1901.	Gross receipts.	Tribute paid to Government.
				Rs.	Rs.
Chikhli . .	200	38	3,579	₹5>Si3	133
Kāthi . .	500	96	7,789	22,298	
Raisingpur .	200	80	2,258	19,706	
Singpur . .	20	4	524	8,129	
Nāla	23	6	232	3,444	
Nawalpur .	20	5	257	645	
Total	963	229	14,639	70,031	133

The ancestors of the Chikhli chieftain originally held lands from RajpTpla; Jiva, the founder of the family, taking advantage of the turbulent times, established his power over 84 villages. A sum of Rs. 3,000, assigned by Government as an hereditary allowance, made mainly for foot and horse police in lieu of the blackmail formerly levied, was discontinued in the time of Ramsing (1854-74). The ancestors of the Raisingpur (Gauli) chieftain were feudatories of RajpTpla, and are said to have been ruined on its subversion by the Gaikwar (1763-1813). The remaining four chieftains were originally dependants of the chief of Budhawal; but in 1845 the latter was removed on suspicion of conniving at robberies in the neighbouring British territories, and his lands have since lapsed to Government.

Meiktila Division.—South-eastern Division of Upper Burma, lying wholly in the dry zone, between 19° 27' and 22° 1' N. and 94° 43' and 96° 54' E., with an area of 10,852 square miles. It comprises four Districts: Kyaukse, Meiktila, Yamethin, and Myingyan. Kyaukse, Meiktila, and Yamethin lie, one south of the other in the order named, on each side of the Mandalay-Rangoon railway, while Myingyan extends westwards from the borders of Kyaukse and Meiktila to the Irrawaddy. The Division is bounded on the north by Mandalay and Sagaing; on the east by the Southern Shan States; on the south by Toungoo and Magwe; and on the west by Minbu, Pakokku, and Sagaing. The population was 901,924 in 1891 and 992,807 in 1901. The distribution in the latter year is shown in the following table :—

District.	Area in square miles.	Population.	Land revenue and <i>thathameda</i> , «903-4, in thousands of rupees.
Kyaukse ...	1,274	141,253	8,62
Meiktila ...	2,183	252,305	5,13
Yamethin ...	4,258	243,197	5,20
Myingyan...	3,137	356,052	11,68
Total	10,852	992,807	25,63

There are 4,415 villages and 6 towns: MYINGYAN (population, 16,139), PYINMANĀ in Yamethin District (14,388), YAMETHIN (8,680), MEIKTILA (7,203), NYAUNGO-PAGAN (6,254), and KYAUKSE (5,420). The head-quarters are at Meiktila, situated near the centre of the Division, and connected by rail with the three outlying District head-quarters. Myingyan is a commercial centre of some importance, and Yamethin and Pyinmanā are trade centres. The population is almost exclusively Burmese, the total number of Burmans in 1901 being 963,228. The only other indigenous races found in any strength are the Shans, inhabiting the hills on the borders of the Shan States, who

numbered 2,071 at the last Census, and the Karens (2,718), who approach their northernmost limit in Burma proper in the Yamethin hills. There were 14,536 Musalmans and 5,143 Hindus in 1901, of whom the greater number, though not all, were natives of India.

Meiktila District.—District in the Meiktila Division of Upper Burma, lying between 20°40' and 21°25' N. and 95°28' and 96°35' E., with an area of 2,183 square miles. It is the most easterly of the Districts forming the dry zone of Burma, and is bounded on the north by the Districts of Kyaukse and Myingyan; on the south by Yamethin and Magwe; on the east by various small States of the Myelat division of the Southern Shan States; and on the west by Myingyan and Magwe. The District slopes generally from west to east until the Samon river is reached, after which it gradually rises again to meet the flanks of the outermost Shan hills. The central portion of the western boundary runs along the crest of a ridge of moderate altitude, with parallel ridges of lesser height on either side. Here the ground is rocky and boulder-strewn, and the vegetation scanty, consisting mainly of stunted trees and scrub. To the north and south of these ridges the country in the west, though still high, becomes flatter, and for a considerable distance east of the border the District is scored from north to south by deep watercourses with precipitous sides. The Mahlaing township, occupying the north-western quarter, has an undulating surface, characterized by ridges running north and south. It has few level plains, and the valleys are often so narrow that the fields look like a winding river of grain. The south-western corner, comprising the Meiktila township, is also of a rolling character, though here the broken ground extends to a greater distance from the western boundary than farther north. Bounding the Mahlaing township on the east, and bisecting the District, is a ridge called the *Minwin ko/idan*, extending from the northern boundary of the District to a little south of Meiktila town. The town of Meiktila itself is built on this ridge, at an altitude of about 800 feet. Nearly parallel to the *kondan* and about 12 miles distant from it on the east is another ridge, known as the *Pwemingyi kondan* in the north, and the *Tetbyindaung* in the south. Both ridges have a gravelly and practically uncultivable soil. The intervening valley, 12 to 15 miles in width, runs the whole length of the District, and is level and waterlogged in parts. Low hills and stretches of rising ground, composed in part of nodular limestone, are met with here and there, chiefly on the west. Meiktila is almost the only District of Burma which possesses no navigable waterways. Its most important river is the Samon, which, rising in Yamethin, enters Meiktila in the south-east near the foot of the Shan hills, and flows due north into Kyaukse. It is not, however, navigable within

the limits of the District, being more or less dry, except during the rains. Between it and the Pwemingyi ridge is a valley, 6 or 7 miles in width, which gradually rises towards the south, and is irrigated by numerous tanks. The Thinbon *chaung* rises on the eastern slopes of Popa, flows in a north-easterly direction through the Mahlaing and Wundwin townships, and falls eventually into the Samon at the extreme northern end of the District. Within the limits of Meiktila the Panlaung is merely a mountain brook.

One of the main features is the Meiktila lake, situated on the Minwin ridge, about 800 feet above sea-level. This artificial stretch of water is about 7 miles long and 3¹/₂ square miles in extent, and at the centre, near Meiktila, is so narrow as to be practically divided into two sections, north and south. The northern lake is diminishing in capacity yearly, owing to the deposit of silt from its feeder streams, the Shanmange and the Mondaing ; and both sections are subject to very rapid rises after heavy rain over their area of supply. Another important piece of water is the Nyaungyan-Minhla tank or lake, situated near the southern border of the District. It derives its water from the Chaunggauk and Chaungmagyi streams, both of which rise in the west, the former bounding the District on the south, the latter watering a considerable area of Yamethin District. The Nyaungyan and Minhla tanks were originally separated, but have now been joined by a canal.

The whole of the District is occupied by rocks of Upper Tertiary (pliocene) age, covered to a great extent with alluvium. In the western portion of the Mahlaing township the abrupt dip of the strata, visible to the naked eye by reason of the erosive action of the streams, appears to indicate that the tract has been the scene of violent volcanic upheavals, the slopes in some cases being not less than 70° to 80° from the horizontal. In the western areas the trunks of large petrified trees are found in the alluvium, and in some cases large areas are strewn with fragments of fossilized wood.

The vegetation of the District resembles that of KYAUKSE. In the plains it is of a very dry type; and sparse scrub jungle, with cactus, tamarind, cutch, and several species of capers, covers the greater part of the non-cultivated area. On the hills in the east the growth is more luxuriant, and the bamboo is found. Its main features are described under the head of Forests below.

Tigers, bears, bison, elephants, and *sdmbar* are all found, but only to the east of the Samon near the hills. Leopards are said to be increasing in numbers. Other kinds of deer besides the *sdmbar* are shot in the plains, and in the cold season ducks and snipe are plentiful. As in most of the dry zone Districts, snakes (including the cobra, the *karaif*, and the Russell's viper) are very common.

Meiktila lies along the eastern edge of the dry zone of Upper

Burma. The climate is dry but very healthy, except in the *tarai* east of the Samon river, where malarial fever is always prevalent. The cold season begins in November and ends in February, while the hot season lasts from February to June and the rains from June to October. The most unhealthy period is at the close of the rains. The great heat during the hot months is tempered by high winds, which blow continually from the south and south-west from March to May, and during a large portion of the rainy season as well, and the daily range of temperature is considerable. The minimum temperature in 1902 was 62° in January, while the maximum was 101° in May, and the mean for the year was 73° minimum and 89° maximum.

The rainfall is extremely capricious and always scanty. Only in three years since annexation (1886) can it be said to have been timely and abundant. Generally speaking, the annual amount received varies from 25 to 30 inches over the whole District. In 1891-2, however, only 21 inches fell throughout the year, while in 1896-7, though the total was 28 inches, more than half fell in June and July. The rainfall is not only capricious in time but in the choice of localities, some tracts being left quite unwatered in some years, while others receive more than their due share.

It is reported that in 1872 there was a flood caused by the overflowing of the Samon river, which inundated a large portion of the country and destroyed all the crops. It is seldom, however, that the District suffers from an excess of water.

A tradition of doubtful authenticity relates that the name *Matila* (meaning 'it does not reach') was given by Anawrata, king of Pagan,

to the present town of Meiktila to commemorate the death from exhaustion of a horseman sent to report

History,

whether the lake extended to Popa, who returned with a negative answer on his lips. From the earliest times the District formed an integral part of the kingdom of Upper Burma, whether centred at Pagan, Ava, Amarapura, or Mandalay. The first place of note in the District mentioned in the Burmese chronicles is Pindale, now a village in the Wundwin township, which is said to have been founded by Sulathanbawa, a king of the Tharekhetra dynasty (see PROME DISTRICT). Later, in the eleventh century, Anawrata is reported to have visited Meiktila, and to have made the north embankment of the lake. The same monarch is credited with the foundation of Hlaingdet (1030). On the break up of the Pagan kingdom the country came under Shan dominion, and formed a portion of the principalities that strove for mastery in Upper Burma till the rise of the Toungoo dynasty. In due course it was absorbed into the Burmese empire of Pegu and later into the kingdom of Ava, of which it formed a part at the time of the annexation of Upper Burma. The country was disturbed during the

cold season of 1885-6, but was occupied by troops from Pagan in March, 1886, when a force advanced through Mahlaing and Meiktila to Yamethin, a civil officer being left at Mahlaing and a military post being established at Meiktila, which was for the time made over to Yamethin District. At that time the Mahlaing township formed part of Myingyan, but the present District was constituted in October of the same year. The garrison of Meiktila was engaged during 1886 with the Yamethin dacoits on the one side and the Kyaukse dacoits on the other, while in the District itself were rebel leaders who had served the Myinzaing prince (see KYAUKSE DISTRICT). These were driven out again and again from their head-quarters at the foot of the Shan hills, whence they were in the habit of retiring to the Yengan and Lawksawk States on being pressed. A former Burmese cavalry officer, one Tun E, rendered valuable service at this time with a strong force of horse and foot, which he raised and maintained at his own expense. As time went on the outposts were gradually advanced, and the bands were dispersed, with a loss, however, of about 11 officers and 80 men during the year. In 1887 the dacoits at the foot of the Shan hills were attacked by a combined expedition from Kyaukse and Meiktila, and were driven with some loss from a strong position ; and after that the District remained undisturbed, with the exception of the south-east portion, bordering on Myingyan District, which was raided from time to time by the cattle-lifters of Popa and the neighbouring country. By 1888 the District was practically settled.

There are a number of notable pagodas in the Mahlaing, Wundwin, and Thazi townships, the fame of some of which extends far beyond the District limits. The chief of these is the Shwezigon at Pindale, to which pilgrimages are made from all parts of Upper Burma. Others are the Shwesissw'e, the Sutaungbyi, the Shwemoktaw, and the Shweyinhmyaw. Legend credits king Narapadisithu of Pagan with having built the Sutaungbyi. The Meiktila township contains six remarkable shrines, the Shwesawlu, the Nagayon, the Shwelehla, the Sigongyi, the Nandawya, and the Shwemyindin. When Anawrata, king of Pagan, came to repair the banks of the lake, he is said to have founded the Shwelehla and Nagayon pagodas, while his son, Saw Lu, built the Nandawya pagoda to the north of the Meiktila fort. This last is called, indifferently, the Saw Lu or Nandawya pagoda, because in 1796 Bodawpaya, the consolidator of Alaungpaya's conquests, built a temporary palace (Burmese, *nandaw*) at the lake side opposite the pagoda. At the same time his son founded the Sigongyi pagoda, north of the lake.

The population of Meiktila District was 217,280 in 1891 and 252,305

in 1901. Its distribution in the latter year is shown

Population. . . . in the table on the next page.

The only District from which there has been any considerable

immigration is Myingyan. The greater part of the emigration is directed to Kyaukse and Yamethin Districts and to Lower Burma. In the hills in the east the villages are few and far between, but elsewhere the population is thick enough to raise the density in the District as a whole to over 100 persons per square mile. There are a certain number of representatives of the religions of India, but 98 per cent, of the community are Buddhist, and about the same proportion are speakers of Burmese. Shan is spoken far less than in the adjoining District of Yamethin.

Township.	Area in square miles.	Number of		Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
		Towns.	Villages.				
Meiktila ..	466	I	39°	76,656	164	+ 17	147°3
Mahlaing ..	426		250	62,890	148	+ 13	115 9 2 5
Thazi ..	696		316	49,824	72	+ 27	8,035
Wundwin ..	595		277	6=, 935	106	+ 11	7,0°4
District total	2,183	1	>233	2 5 2..305	116	+ 16	41,667

The number of Burmans in 1901 was 245,900, or slightly over 97 per cent, of the total population. In the hills in the east of the District are about 1,300 Danus, who are regarded as Shans by the Burmans and as Biirmans by the Shans ; they are of mixed Shan and Burmese blood, and talk bad Burmese. At Ywagyi a village is inhabited by *payàkywns* or pagoda slaves, alleged to be the descendants of 400 men assigned to the pagoda by king Anawrata. The Indian immigrants in 1901 numbered 2,700, out of a total of 2,600 Musalmāns and 1,600 Hindus, so that about 1,500 of the representatives of these Indian religions must have been born in the country. In the Thazi township is a colony of Burmese-speaking Muhammadans, who account for a large proportion of this last total. They are the reputed descendants of a regiment in the army of king Mindon, who were said to be the offspring of a force of 3,000 men sent to Burma by the emperor of Delhi in the seventeenth or eighteenth century. About half the Indian population is domiciled in Meiktila town and cantonment. In 1901 the number of persons directly dependent upon agriculture was 178,370, representing 71 per cent, of the total population.

There are about 500 Christians, largely British soldiers, the majority of whom are Anglicans or Roman Catholics. There is not much active mission work in the District. The total of native Christians is 234.

The agricultural conditions are typical of the dry zone, Meiktila

MEIKTILA DISTRICT

being probably the poorest of all the Districts lying in that area. Rice is grown in suitable tracts; where it cannot be raised, the ordinary

Agriculture . . , crops of the dry zone are cultivated. The soil in the valleys near the two ridges described above is covered with *kyatti*, a yellowish soil, greasy and slightly clayey when wet, hard when dry, and fit only for rice, of which it produces the poorest crops. The best rice tract is composed of black cotton soil (*sane net*), a stiff, tenacious, and adhesive clay. An ample supply of water is, however, a more important factor in the production of rice in Meiktila than a good quality of soil; and the only good crops are obtained on the lands irrigated from the numerous tanks in the Meiktila and Nyaungvan-Minhla systems, and the weirs thrown across the Thinbon *chaung*. A considerable area of rice land, especially the valley between the two ridges mentioned above, is impregnated with natron or soda (*satpya*), an element which necessitates constant supplies of clean water to the crops. The beds of some of the streams unfortunately show abundant traces of the presence of natron, and the evil is spreading. Even when fresh water is constantly supplied, a *satpya*-impregnated field will not produce the full crop of an ordinary field; and if the water stands for long it turns the colour of congealed blood, and the rice stalks are apt to bend over and break and assume a bedraggled and rusty appearance. The methods of rice cultivation do not differ from those in use in Upper Burma generally. Practically all the *kaukkyi* (wet-season) rice is transplanted from nurseries. *Jowar* takes the place of *kaukkyi* on rice lands in years of scanty rainfall. Cotton is cultivated for the most part on the high ground in the north-west, and is only grown as a rule once on the same ground in three years, sesamum, *jowar*, or beans intervening. Early sesamum (*hnanyin*) is reaped between June and September; late sesamum and *joivar* between October and January. Other crops cultivated in the District are chillies, peas and beans, tomatoes, maize, onions, gram, sweet-potatoes, cucumbers, pumpkins, brinjals, Goa beans, betel-vines, sugar-cane, and toddy-palms.

The following table gives the main agricultural statistics of the District for 1903-4, in square miles:—

Township.	Total area.	Cultivated.	Irrigated.	Forests.
Meiktila . .	466	150	32	))
Mahlaing . .	426	M3	5	
Thazi . .	696	103	47	
Wundwin . .	595	117	52	
Total	2,183	543	136	405

The staple crop is rice (practically all *kaukkyi* or wet-season rice), grown on 202 square miles, a figure approached only by that for *joivar*,

which covers 188 square miles. A large area (135 square miles) is under sesamum, a crop generally followed by a second harvest of rice, *joivar*, maize, or beans. Nearly 52 square miles in the Meiktila township alone produce early sesamum. In 1903-4 about 40 square miles were under cotton. Of this area, 31 square miles lay in the Mahlaing township, adjoining the main cotton-producing area in Myingyan District. Meiktila grows the largest chilli crop in the Province, 17 square miles being devoted to the cultivation of this condiment. The other crops referred to in the preceding paragraph are produced on a smaller scale. Toddy-palms are planted to a large extent in the north-western part of the District. The average area of a holding is about 7 acres in the case of rice land, and about 11 in the case of *ya* or uplands.

No loans have been made under the Land Improvement Loans Act. Free recourse was had to the Agriculturists' Loans Act during the scarcity of 1896-7, and since then the utility of this enactment has been proved more than once. About Rs. 9,000 was advanced in 1900-1, and the system was so much appreciated by the villagers that during the following three years the loans averaged nearly Rs. 30,000 per annum.

Cattle-breeding is carried on to a considerable extent. Buffaloes have been introduced from Lower Burma in small numbers, but are not bred in the District.

There are no reserved grazing grounds, sufficient pasturage being afforded by fallow and uncultivable lands, broken and hilly ground, and scrub jungle. No difficulties are experienced in feeding live-stock, except during a period of drought, when cultivators usually emigrate to areas where there is no distress. The only expenditure incurred by the owners of breeding cattle is the hire of the herdsman who takes the beasts out to graze. Goats and sheep are reared with success by natives of India in Meiktila town and in a few villages. Hogs are also bred, but only in small numbers.

The chief sources of irrigation are the Meiktila lake, the Nyaungyan-Minhla tank, the Inyin *se* (or dam), the Wundwin *se*, and the Nyaung-binhla *se*. The Meiktila lake draws its supplies from the high land east of Popa, having a catchment area of over 200 square miles. The area irrigated from the system of tanks and distributaries fed by it extends north-eastwards to Wundwin, and eastwards to Thazi, and the total at present commanded by the lake is 43 square miles. The portion of this total actually irrigated varies considerably from year to year. The Nyaungyan-Minhla tank, described above, is really composed of two tanks joined by a channel. New irrigation works have considerably diminished its catchment area, which is now estimated at 200 square miles, the area commanded being 30 square miles, though only 6,000 acres are at present actually irrigated. The Inyin *se* is a

stone crib-work weir (with flanking banks), thrown across the Thinbon *chaung* near Chaunggon, a village to the north of Meiktila town. It is capable of watering nearly 10,000 acres, but usually irrigates about half that amount. The water passing over the weir is dammed below by numerous temporary *ses*, which distribute the water over a considerable area. The dam was seriously breached in September, 1905. The Wundwin *se* is situated close to Wundwin, its supply being derived chiefly from the Meiktila lake system and a watercourse known as the Natmyaung. It irrigates as a rule about 4,500 acres. The Nyaung-binhla *se* consists of a crib-work weir thrown across the Sanion river just below where it enters the District in the south. It diverts the water to the north-east, and serves on an average about 3,000 acres. The District contains hundreds of small tanks, fed by weirs which hold up the freshes in the streams ; they are, however, maintained by the cultivators themselves, and are not Government works. Altogether 136 square miles were returned as irrigated in 1903-4. Of this total, 50,500 acres were served by the numerous private tanks scattered over the country, and 35,600 acres by Government tanks and canals. The irrigated land is almost wholly given up to rice cultivation.

Several types of forest occur in the District. The western areas are covered with dry scrub growth, in which the principal species are *sha* (*Acacia Catechu*), *kan* (*Carissa Carandas*), *pyinzin* (*Rhus paniculata*), *dahat* (*Tectona Hami/toniana*), and here and there a *tanaung* (*Acacia leucophloea*), or a group of tamarinds. The only species of any importance is the *sha*, yielding the cutch of commerce, but this has been overworked in the past. Along the banks of the Samon *chaung* the growth improves, and in places which have escaped the attention of contractors supplying fuel to the railway it approaches the condition of high forest. The chief species in this belt are *than* (*Terminalia Oliven*), *dahat* (*Tectona Hamiltoniana*), *thamon* (*Niebithria* sp.), *nabe* (*Odina Wodier*), and *tapauk* (*Daibergia paniculata*), with the *myimva* (*Dendrocalamus strictus*) as the common bamboo. None of these is of any commercial importance, though the extract prepared from the bark of the *than* has been reported on very favourably as a tanning material. On the slopes of the hills draining into the Samon *chaung* the forest is of the familiar *indaing* type, the principal species being in (*Dipterocarpus tubercu/atus*), *thitya* (*Shorea obtusa*), and *i?igyin* (*Pentacme siamensis*), all yielding building timber. Still farther to the west, in the basin of the Panlaung *chaung*, mixed dry forests predominate, containing valuable timber trees, such as teak, *padauk*, and *pyingado* (*Xylia dolabriformis*), as well as the *thitya*, *ingyin*, and other growths. In 1903-4 the total area of ' reserved ' forests was 105 square miles, of which 49 square miles were cutch Reserves ; and it was estimated that the unclassified forests covered

a further 300 square miles. With the exception of about 30 acres of paddy-fields acquired at settlement in the Aingtha and Thinbon *chaung* Reserves, which were ploughed and sown broadcast with cutch seed, no planting operations have been undertaken. The total forest receipts in 1903-4 amounted to only Rs. 2,500.

Meiktila possesses few minerals of economic importance. Limestone appears in small quantities in many parts of Mahlaing, but is said to have no industrial value, though a very fair lime can be obtained from it. The natron that accumulates on the soil in the -ra^a-laden tracts is collected and used as a cosmetic. Coal has been found in the Kyetkauk hill south-east of Hlaingdet in Thazi, and also in the Suban circle³ and brine-springs occur in a few places in the Wundwin township.

The District is essentially agricultural, and the great majority of the population depend wholly on husbandry for a livelihood, so that there are few manufactures. Bamboo basket- and mat-work is carried on to a limited extent, but the output Trade and is not more than sufficient for local requirements.

The only special industry is the manufacture of rough pottery, carried on in the Wundwin, Mahlaing, and Thazi townships. The experiment of weaving cotton cloth by machinery is being tried in the villages of Shawbin and Aingtha in Wundwin. A cotton-ginning factory has been established at Mahlaing, and the cotton, after being ginned, is exported to Lower Burma and Bhamo. Butter is manufactured at Meiktila, and goes to Rangoon and Mandalay.

The District carries on a steady trade with the Southern Shan States by way of the Thazi-Taunggyi Government road. A good deal of the traffic that starts from Taunggyi is diverted into Yametbin; a fair portion of it, however, reaches Meiktila District and is registered at Kywelebin. The imports from the Shan States by the Kywelebin route were valued at 4 lakhs in 1903-4, the chief items being potatoes (valued at Rs. 74,600), lac (Rs. 1,08,000), ponies, vegetables, and various other articles, the most important of which is *thanatpet* for cigar wrappers. The exports to the Shan States by the same route were valued in the same year at 13*4 lakhs, including European cotton piece-goods (6-8 lakhs), betel-nuts (Rs. 36,800), cotton twist and yarn (Rs. 96,000), salt (Rs. 26,200), petroleum (Rs. 34,000), woollen goods, wheat, iron-work, salted fish, *ngapi*, *g/il*, and sugar. To other Districts in Burma Meiktila exports cutch and cotton, mainly to Rangoon and Mandalay by train, and to Bhamo via Mandalay by steamer. Cotton and silk goods and various manufactured commodities are brought in by the railway.

Though absolutely without navigable waterways, Meiktila is exceptionally well off in the matter of land communications. The railway line from Mandalay to Rangoon passes from north to south through

the District for 39[^] miles, and has four stations within its limits. The Myingyan branch from Thazi to the boundary at Ywatha runs diagonally north-westwards for 40[^] miles, with six stations, including those at Meiktila and Mahlaing. Thus, except in the extreme east, no portion of Meiktila is out of touch with the District head-quarters or the outside world.

The chief roads maintained by the Public Works department are : from Meiktila to Thazi (15^{-^} miles, metalled), and thence via Hlaindet into the Shan States, crossing the Shan States border near Nampandet; from Wundwin to Mahlaing (29 miles) ; from Meiktila to Pindale (20 miles); from Meiktila to Mahlaing (31 miles); and on to Myingyan. All but the first of these are unmetalled. Various tracks, some of them maintained out of the District fund, connect the larger villages with each other and with the railway. The total length of metalled and unmetalled roads in 1903-4 was 24 miles and 107 miles respectively. The rainfall is so light that the village roads can be used practically at all seasons of the year.

The capriciousness of the rainfall is responsible for frequent failure of the harvest. Scarcity occurred in 1891-2 owing to light rains, and

caused considerable emigration to Lower Burma and

Kyaukse, necessitating the opening of relief works.

In severity, however, it was eclipsed by the famine of 1896-7. The previous year had been a lean one, and the rains held off from the middle of July till October, and ceased the same month. The needs of the people were, however, supplied by private enterprise; and though the price of rice at first rose to 7 seers to the rupee, it fell to 8 seers when food-grains were imported. The stringency of prices was not accompanied by any marked increase of crime except cattle-theft. During the period of famine cholera broke out in some parts of the District, but was soon stamped out. The death-rate, however, ordinarily between 25 and 30 per 1,000, rose in 1897 to 42 in March, April, and May, dropping gradually to normal in the autumn. The works undertaken for the relief of distress were the Thazi-Myingyan railway, and the Wundwin-Pindale and Meiktila Lake roads. In addition to other measures, advances were made in 1896-7 under the Agriculturists' Loans Act to the amount of Rs. 41,000, and in the following year to the amount of Rs. 53,000. The whole District was affected, and many of the villagers migrated to other parts of Burma. When the assessment of *thathameda* was made, it was found necessary to abstain from levying anything from 3,863 households, while the rest of the people were taxed at reduced rates of Rs. 3 and upwards. The total number of units relieved from October, 1896, to November, 1897, was 3! millions, the largest number in a month being 600,000 in January.

ADMINISTRATION

The District is divided for administrative purposes into two subdivisions : Meiktila, comprising the Meiktila and Mahlaing townships ; and Thazi, comprising the Thazi and Wundwin townships. They are in charge of the usual executive officers, under whom are 468 village headmen. At head-quarters are an *cikunwun* (in subordinate charge of revenue), a treasury officer, and a superintendent of land records, with a staff of 5 inspectors and 50 surveyors. The District forms, with the rest of the Division, the Meiktila Public Works division, and contains two subdivisions. An Assistant Engineer is in charge of the Southern or Meiktila subdivision of the Eastern Irrigation division. The District forms part of the Kyaukse subdivision of the Mandalay Forest division.

The Commissioner is Sessions Judge for the District, and the Deputy-Commissioner is District Magistrate and District Judge. Four township courts and two subdivisional courts are subordinate to the District court. The township officers dispose of both civil and criminal work, as well as revenue business. It has been found necessary to appoint one additional judge (who is also treasury officer and head-quarters magistrate) to the Meiktila township court, and a second to assist the township officers of Thazi and Mahlaing in their civil work. A third additional judge spends half his time at Wundwin and half at Pyawbwe in Yamethin District. Besides the additional township judges, an additional judge (usually an Extra Assistant Commissioner) has been posted to Meiktila and Yamethin Districts, to relieve the District court of the greater part of its civil and criminal work. He sits half the month at Meiktila and half at Yamethin. A Cantonment Magistrate disposes of petty criminal cases within the limits of Meiktila cantonment. Cattle-theft is one of the most prevalent offences, the facilities for this form of crime being great.

Under native rule the District revenue was derived from *thathameda*, an irrigation tax, crown-land rents, bazars, and various law receipts. State land at that time covered a comparatively small area. The water revenue was collected by *myaunggaungs* or canal-keepers, who superintended the distribution of the water under the *kan-ok* or superintendent of the Meiktila lake. The *mycuiggaungs* received neither pay nor commission, but doubtless took advantage of their position to levy extensive blackmail. At annexation the revenue on most of the state land was fixed at Rs. 16 per *pe* (1.75 acres), which was supposed to represent the value of one-quarter of the actual produce, but it was not long before this rate was reduced by about half. The irrigation tax was continued at a maximum rate of Rs. 2 per acre, and *thathameda* was collected at Rs. 10 a house, or the same rate as before. Survey operations went on from 1891 to 1895; and the settlement of the surveyed area, which included all the District west of the

Samon, was begun in 1896 and completed in 1898. In 1901-2 the rest of the District up to the foot of the Shan hills was sun eyed, and settlement rates will shortly be introduced there also. At the settlement of 1896-8 the District was divided into two tracts: one comprised the greater part of the District from the Samon westwards; the other consisted of a strip of relatively poor upland bordering on Myingyan District in the west, containing very little state land, and only about 4,500 acres of cultivation. On the completion of the settlement, the *thathameda* was reduced from Rs. 10 to Rs. 3 a household, and fixed rates were introduced on state land, the rates on non-state land being levied at three-fourths of the rate on corresponding state land. In the first tract, rice land now pays from R. 1 to Rs. 5 per acre ; other crops on rice land, R. 1 ; *ya* or upland crops, from 8 annas to Rs. 1-8 per acre; onions and chillies, Rs. 3 ; garden crops, from Rs. 2-8 (on plantain groves) to Rs. 15 (on betel-vines); sugar-cane, Rs. 10 per acre ; and solitary fruit trees, 4 annas each. In the second and poorer tract, the rates on rice land vary from 7 annas to Rs. 3-8 ; and on *ya* lands from 4 annas to Rs. 1-2 per acre.

The following table gives the revenue, in thousands of rupees, for a series of years :—

	1890-1.	1900-1.	1903-4.
Land revenue . . .	10	5.20	3.59
Total revenue . . .	4.00	7.83	6.35

At one time *thathameda* was the main source of revenue, but on the introduction of settlement rates the receipts from this source fell below those from land revenue.

The income of the District fund in 1903-4 was Rs. 59,000, and the chief item of expenditure was public works, to which Rs. 52,000 was devoted. There are no municipalities.

The District Superintendent of police has a force of 3 inspectors, 8 head constables, 23 sergeants, and 289 constables, 24 of whom are mounted. There are 90 military police stationed at Meiktila and 30 at Thazi. Meiktila contains a District jail, with accommodation for 198 prisoners. The industries carried on are wheat-grinding, oil-pressing, cactus and *surkhi* pounding, carpentry, rope-making, and bamboo- and cane-work.

The standard of literacy according to the figures of the last Census is somewhat low for Burma. The number of Indian immigrants and backward hill tribes is not large, yet the proportion of literate males in 1901 (33 Per cent.) was below that of any other District in the dry zone of Upper Burma, and the female percentage (1-7) was higher only than that of Magwe and a few of the most backward areas of the Pro-

vince. For both sexes together the proportion was 16 per cent. The number of pupils was 030 in 1891, and 6,903 in 1901. In 1904 the District contained 7 secondary, 52 primary, and 576 elementary (private) schools, with an attendance of 8,399 pupils, including 495 girls. The expenditure amounted to Rs. 21,700, Provincial funds supplying Rs. 16,900, fees Rs. 3,000, and subscriptions Rs. 1,800.

There are 2 hospitals, with a total of 33 beds; and 10,664 cases, of whom 444 were in-patients, were treated in 1903. The number of operations in the same year was 242. The expenditure amounted to Rs. 11,500, mostly derived from Provincial funds. Subscriptions realized Rs. 600.

In 1903-4 the number of persons successfully vaccinated was 9,130, representing 36 per 1,000 of population.

[R. A. Gibson, *Settlement Report* (1900).]

Meiktila Subdivision.—Western subdivision of Meiktila District, Upper Burma, comprising the MEIKTILA and MAHLAING townships.

Meiktila Township.—South-western township of Meiktila District, Upper Burma, lying on both sides of the Meiktila-Myingyan railway, between 20° 40' and 21° 0' N. and 95° 31' and 96° 2' E., with an area of 466 square miles. The population was 65,612 in 1891, and 76,656 in 1901, distributed in one town, MEIKTILA (population, 7,203), the head-quarters of the District and township, and 390 villages. The country is undulating and badly watered for the most part, except in the neighbourhood of the Meiktila lake. In 1903-4 the area cultivated was 180 square miles, and the land revenue and *thathamda* amounted to Rs. 1,38,000.

Meiktila Town.—Head-quarters of the Division and District of the same name in Upper Burma, situated in 20° 53' X. and 95° 52' E., on the Myingyan branch of the Burma Railway, 320 miles from Rangoon and 57 from Myingyan. It stands on the margin of a large artificial lake, with an irregular indented margin. The lake is practically divided into two bodies of water, the north and the south lake. Over the strip of water uniting the two run the railway bridge and a narrow wooden bridge which connects the town on the east with the civil station on the west. The population of Meiktila was 4,155 in 1891 and 7,203 in 1901, including over 2,000 persons of Indian origin. The town is built on irregular broken ground. On the highest point east of the southern lake lie the cantonments, from which a road runs along the embankment of the lake, passing through the town, near the railway station, and crossing the bridge to the civil lines, whence it is continued round the margin of the southern lake to the barracks again, thus forming a circular road of 7 miles in length. The town is not picturesque, and the number of flat-topped brick houses give it an Eastern, but quite un-Burmese, appearance. Only the *pongyi kyanngs*

and pagodas remain unchanged. There are trees in Meiktila itself ; but the general impression on first arriving by train from Thazi is of bare, broken, stony ground, with scrubby jungle growing in patches, and the lake, with its diversified shores, comes as a pleasant surprise. The north lake has few buildings on its banks. West of it lies a small suburb called Kanna ; and on its eastern shore are the military police lines, the American Baptist Mission, the bazar, and the Musalmân mosque. All these are divided by the railway line from the town proper.

There are no manufactures, but a fair trade in hides and other commodities is done with the surrounding villages. Cattle-breeding is carried on to some extent. Butter manufactured here is exported to Rangoon and Mandalay. Nearly all the *pongyi kyaungs* contain saw-pits, and new houses are constantly being built. Leases have lately been issued in the town, and the consequent security of land tenure encourages the growth of good wooden and brick buildings. There is a large bazar, where a market is held every fifth day, resorted to by all the country-side.

Most of the public buildings have been constructed within the last ten years. The main Government vaccine dépôt for Burma is located at Meiktila. It was started in 1902, and new buildings are to be erected in connexion with it. The expenses of the dépôt in 1903-4 amounted to Rs. 8,500, provided out of Provincial funds. The circuit-house is unusually large ; and the club, built in one of the best positions on the shore of the lake, is a convenient and capacious building. The station contains two churches, for the Roman Catholic and Anglican communities, a jail, and a hospital. The usual strength of the garrison is one wing of British infantry and a regiment of Native infantry. Meiktila is also the head-quarters of a company of the Upper Burma Volunteer Rifles. The income of the cantonment funds in 1903-4 was Rs. 5,700, and the expenditure Rs. 5,600.

The lake is reserved for drinking and household purposes, and is carefully protected from possible pollution. The reputation of Meiktila as a healthy station is supposed to be largely due to its good supply of drinking-water. The depth of water in the lake varies very much, and the under-currents are strong. During the hot season it is occasionally swept by violent gusts of wind, which have caused several fatal boating accidents. The town has not yet been constituted a municipality ; but a conservancy scheme for the urban area is now working well, and should increase the healthiness of this thriving and growing centre.

Mejâ.—South-eastern *fahsil* of Allahabad District, United Provinces, conterminous with the *pargana* of Khairâgarh, lying between 24° 47' and 25° 19' N. and 81° 45' and 82° 19' E., with an area of 650 square miles. Population fell from 195,221 in 1891 to 167,014 in 1901, the

rate of decrease being the highest in the District. There are 579 villages and two towns, including SIRSA (population, 4,159). The demand for land revenue in 1903-4 was Rs. 2,86,000, and for cesses Rs. 48,000 ; but the land revenue has since been reduced to Rs. 2,13,000. The density of population in the whole *tahsil* is only 257 persons per square mile, but in the northern Doab portion it rises to 469. The southern part of the *tahsil* is a precarious tract, which has recently been brought under a system of fluctuating assessments. North of a low range of hills, which crosses the *tahsil* from east to west at a distance of 5 to 10 miles south of the Ganges, conditions resemble those of the Doab. A great plain of *mār* or black soil like that of Bundelkhand, and with low detached hills here and there, stretches south to the Belan. Beyond the Belan there is a tract of *mār* on the east, and on the west a small fertile valley of much better quality. In the extreme south rises the northern scarp of the Kaimurs.

Meja.—Chief place in an estate of the same name in the State of Udaipur, Rājputāna, situated in 25° 25' N. and 74° 33' E., about 80 miles north-east of Udaipur city, and 6 miles south-west of Māndal station on the Rājputāna-Mālwa Railway. Population (1901), 1,027. The estate is of recent creation and consists of 16 villages, held by a noble who has the title of Rāwat and belongs to the Chondāwat family of the Sesodia Rajputs. The income is about Rs. 25,600, and a tribute of Rs. 2,500 is paid to the Darbār.

Mekong.—One of the main rivers of Indo-China, rising in Tibet and flowing with a general south-easterly course into the China Sea in French Cochinchina. The greater portion of its channel lies in China, Siam, and the French possessions in Indo-China. For 50 or 100 miles between about 20° 30' and 21° 30' N. the river, however, borders on the Shan State of Kengtung, separating that State from French territory ; and it may therefore be said to form a portion of the river systems of Burma. Its channel is impeded by rapids, and for navigation it is of no more value than the Salween. Its main tributaries in British territory are the Nam Lwi and the Nam Hkoc.

Mekran.—Division of Kalāt State, Baluchistan. See MAKRAṆ.

Melghāt.—Northernmost *taluk* of Berār, formerly part of Ellichpur District, but since August, 1905, incorporated in Amraoti District, lying between 21° 10' and 21° 47' N. and 76° 38' and 77° 40' E., with an area of 1,631 square miles. The population fell from 46,849 in 1891 to 36,670 in 1901, the decrease being due to the famine of 1899-1900, which led very many of the Korkiis to emigrate northwards. The density of the population, 22 persons per square mile, is lower than in any other *taluk* of Berār. ^ illages, many of which are small collections of Korkü dwellings, number 330, and the *taluk* contains 110 town. Its head-quarters are at the sanitarium of CHIKALDA.

The inhabitants are principally KORKUS ; and the *taluk*, a very large proportion of which is state forest, lies entirely in the Gawtlgarh hills, a branch of the Satpura range. The land assessment is based, not on acreage, but on ox-gangs, or the area which can be ploughed by a pair of bullocks. The demand for land revenue and cesses in 1903-4 was Rs. 44,000.

Melukote.—Sacred town in the Seringapatam *Idhtk* of Mysore District, Mysore, situated in 12° 41' N. and 76° 39' E., on the Yadugiri hills, 16 miles north of French Rocks railway station. Population (1901), 3,129. It is the seat of the Srlvaishnava Yatiraja *math*, founded by the reformer Ramanuja, who, fleeing from persecution by the Chola king, took up his residence here for twelve years at the beginning of the twelfth century. He converted the Hoysala king, Bitti Deva of Mysore, from the Jain faith, and received from him a grant of all the country north and south of the Cauvery, afterwards known as ASHTAGRAMA. In the fourteenth century Melukote suffered at the hands of the Musalmans on their destruction of Dorasamudra, the Hoysala capital. The king retired to Tondanur, now TONNUR, at the southern foot of the Yadugiri hills. The place was rebuilt about 1460 by the chief of Nagamangala, but in 1771 was sacked by the Marathas after their defeat of Haidar at Chinkurali. The principal temple, a large square building and very plain, is that of Cheluvapillerava or Krishna. More striking is that of Narasimha, placed on the very summit of the rock. From the early part of the seventeenth century Melukote was under the special patronage of the Rajas of Mysore. The inhabitants are mostly Brahmans, of whom 400 are attached to the great temple, some of them being men of learning. There are also numerous temple servants of Sudra extraction, musicians, dancing-girls, and Satanis. Some weavers and shopkeepers are the only persons who live by industry. Two classes of Holeyas or outcastes, called Tirukula and Jambavakula, have the privilege of entering the temple once a year to pay their devotions, in return for their people having helped Ramanuja to recover the image of Krishna when it was carried off to Delhi by the Muhammadans. Cloths of good quality are made here, and fragrant fans of *khas-khas* grass. A fine white clay, said to have been discovered by Emberumanar or Ramanuja, is used for making the *nama* or sect-mark on the forehead, and is exported to distant places for that purpose, even to Benares. The municipality dates from 1881. The receipts and expenditure during the ten years ending 1901 averaged Rs. 1,400 and Rs. 1,600. In 1903-4 they were Rs. 1,600 and Rs. 1,400.

Melur Taluk.—*Taluk* and subdivision in the east of Madura District, Madras, lying between 9° 52' and 10° 30' N. and 78° 8' and 78° 29' E., with an area of 485 square miles. The population in

MERCARA TALUK

1901 was 154,381, compared with 148,656 in 1891. It contains one town, MELUR (population, 10,100), the head-quarters; and 98 villages. The demand for land revenue and cesses in 1903-4 amounted to Rs. 4,60,000. In the north are the irregular masses of the Alagar, Nattam, and Karandamalai hills. The more northern villages, known as the Arumaganam, which are situated among these hills, are difficult of access owing to the lack of roads. The soil is chiefly red sand. One-half of the *taluk* is supplied with water from the Periyar Project, and some of the best varieties of rice produced in the Presidency are grown in this part. The remaining portion is irrigated by the Palar, the Tirumanimuttar, and the Uppar streams, which, however, are not perennial, and by numerous small tanks which these rivers supply or which are rain-fed. The *taluk* has been greatly transformed and enriched by the Periyar water.

Melur Town.—Head-quarters of the *taluk* of the same name in Madura District, Madras, situated in $10^{\circ} 2' N.$ and $78^{\circ} 20' E.$, on the main road between Madura and Trichinopoly. It is a Union with a population (1901) of 10,100; and since the extension of irrigation in the neighbourhood by means of the Periyar Project, the place has risen in wealth and importance as an agricultural centre. The American Mission has a station here.

Memadpura.—Petty State in MAHI KANTHA, Bombay.

Memari.—Village in the head-quarters subdivision of Burdwan District, Bengal, situated in $23^{\circ} 10' N.$ and $88^{\circ} 7' E.$ Population (1901), 1,674. Memari is a station on the East Indian Railway and an important trade centre. Silk *saris* and *dhotis* are manufactured.

Mengni.—Petty State in KATHIAWAR, Bombay.

Mercara Taluk.—Central *taluk* of Coorg, Southern India, lying between $12^{\circ} 56'$ and $12^{\circ} 36' N.$ and $75^{\circ} 36'$ and $75^{\circ} 57' E.$, with an area of 216 square miles. The population in 1901 was 28,620, compared with 34,088 in 1891, the decline being due to the falling off in the coffee industry and consequent depression in trade. The *taluk* contains one town, MERCARA (population, 6,732), the head-quarters; and 56 villages. The Mercara table-land, whose elevation is 3,809 feet above the sea at the fort, occupies the west centre. From it the Ghat ranges extend westwards towards Bengunad and the Sampajl valley, northwards lies a range which includes Kotebetta (5,375 feet), on the east a range runs towards Fraserpet, and south-east a range which culminates in Nurokkalbetta. The Cauvery runs along the southern boundary, receiving from this *taluk* the Muttarmudi and the Chikkahole. The north is drained by the Hatti or Harangi, which for some distance forms the boundary. Within the *taluk* are thus comprised all the essential features of Coorg. The north and west are occupied by

valuable and extensive coffee plantations, and the soil generally is fertile and productive for both 'wet' and 'dry crops.'

Mercara Town (properly *Madikeri*, 'clean town'). — Chief town of Coorg, Southern India, situated in 12° 25' N. and 75° 44' E., on an elevated plateau, points on which are 3,961 feet above the sea in the south, 4,155 in the west, 4,267 in the north-east, and 4,345 in the south-east. It consists of the native town of Mahadevapet and the fort, which is 3,809 feet above the sea. Population (1901), 6,732 (4,496 Hindus, 1,635 Muhammadans, 559 Christians, and 42 others). For the reasons given in the article on the *taluk*, the numbers have fallen from 8,383 in 1891. An efficient water-supply has been provided, chiefly from private contributions. In 1903-4 the municipal income was Rs. 18,000, including taxes on houses and lands (Rs. 6,200), professions and trades (Rs. 2,300), and grants and loans (Rs. 4,500). The expenditure amounted to Rs. 20,000, the chief items being hospitals and dispensaries (Rs. 5,300), conservancy (Rs. 3,000), and education (Rs. 1,700).

Mercara was selected by Muddu Raja on account of its central and inaccessible position as the site of his fort and capital, and thither in 1681 he moved the royal residence from Haleri, a few miles to the north. The present fort, which is of stone, was built by Tipii Sultan, and named by him Jafarabad. On the approach of the British force marching against Seringapatam under Abercromby in 1790, the fort was evacuated by Tipu's troops, and delivered over with all its guns and ammunition to the Raja of Coorg. It surrendered to the British without opposition in 1834, and is still in pretty good preservation, but of little strategical value, being commanded by hills all round within short range of cannon. It consists of a rampart 8 feet thick, and from 15 to 20 feet high outside, with battlements 2 feet thick and 5 feet high. The fortress is an irregular hexagon, and nearly conforms to the shape of the hill-top, leaving enough space for a ditch all round, and on the north side for a glacis. There are bastions at the six angles, and the whole is built of strong masonry. The circuitous entrance is on the east, and guarded by three successive gates. Within the fort is the palace, erected of brick in 1812 by Linga Raja. The ground plan is that of a Coorg house, with a superstructure in European fashion. It forms a large square of 200 feet, with an open space in the centre, and is two storeys high. In the fort also are the Commissioner's residence and the public offices. In the inner fort, to the southern front of the palace, is the English church, built on the site of a Vrabhadra temple removed in 1855. In the opposite corner of the courtyard is (or was) the figure of an elephant, in masonry, life size. It is said that the Raja used to stand on the balcony of the palace with a rifle and cause prisoners to run across

the yard while he fired at them, with the promise of their lives if they escaped to the elephant, which however seldom occurred.

The native town of Mahadevapat, so named after Vlra Rajendra's second Rani, runs along a ridge which stretches northwards from the fort, being separated from it by a narrow rice valley. It consists of three streets, two of which are nearly parallel. At the farther end of the town, on a rising ground, are the picturesque tombs of the Coorg Rajas. A market is held in the *petta* every Friday. In a hollow to the east of the fort is the Omkaresvara temple, around which are the residences of the principal native officials. But the Coorgs in Mercara seldom have their families with them; these remain on the farms. More to the north are the central school-buildings, erected on the site of the ruins of the palace built by Linga Raja for the reception of European visitors. To the south of the fort are the parade ground and promenade, at the farther end of which is the Raja's Seat, a public garden from which a fine panorama is obtained of Coorg scenery.

Mergui Archipelago.—A collection of islands in the Bay of Bengal, stretching along the coast of the Tenasserim Division of Low'er Burma between, roughly, 9° and 13° N. The Archipelago numbers in all about 800 islands, which are almost uninhabited except by the Salons or sea-gipsies, who wander from fishery ground to fisher)' ground in their boats. The largest is King Island, one of the few that possess regular villages. The large island of Kisseraing (Kitthayi), though now a waste of jungle, contains traces of an old Siamese town, mentioned in the archives of Tenasserim. Others are Tavoy Island, off the south-west corner, on which are the most important of the bird's-nest caves; Ross and Elphinstone, the nearest pearling-ground to Mergui; Sellore, protecting the fisheries of Auckland Bay; Domel, between which and Kisseraing is the difficult channel of Celerity Passage; Bentinck, farther out, and the Great Western Torres, farther still to sea in 97° 30' E.; Malcolm and Owen, off which are the richest pearling-grounds; Sullivan's, little known except to the Salons; and St. Luke's and St. Matthew's, forming, with Hastings Island, a fine natural harbour, and also frequented by Salons. Of the islands at the mouth of the Pakchan river and southwards, the outer ones generally are British and those near the coast Siamese.

Mergui District.—Southernmost District of Burma and of the Tenasserim Division, extending on the mainland from Myinmoletkat mountain (13° 28' N.) on the border of Tavoy District in the north to the mouth of the Pakchan river (9° 58' N.) and the Isthmus of Kra in the south, and including the islands of the Mergui Archipelago from Tavoy Island to the Aladdin Isles in 9° 38' N. On the east it is continuous with Siam, and at one point, in 99° 40' E., the Gulf of Siam

is only 10 miles distant. On the west the islands stretch out as far as $97^{\circ} 30'$ E. The total area is 9,798 square miles.

North of Mergui town the valley of the Great Tenasserim river is separated from the sea by a mountain range, culminating in Myin-moletkat, 6,800 feet high, on the northern border.

Physical Aspects. Between this range and the coast is a fertile plain, intersected by small streams running east and west, and to a great extent cultivated. The rest of the District is of a very different character. There are no mountain ranges of any importance, and such level lands as exist are mostly covered by the sea at high tide or, if inland, flooded during the rains. With the exception of the valleys of the two Tenasserim rivers and the Upper Pakchan, this part of the District is generally a network of low hills fringed with mangrove swamps.

The principal rivers are the Great Tenasserim, rising far to the north, in Tavoy, and entering the District about 140 miles above Tenasserim village, where it doubles back on itself and flows into the sea, forming a delta round Mergui town; its tributary, the Little Tenasserim, which joins it at Tenasserim village after a northerly course from the Siam border; the Lenya, to the south-west of the Little Tenasserim, and nearly parallel with it, but flowing direct into the sea south of Mergui after a bend to the north-west; and the Pakchan, rising in the same neighbourhood as the Lenya, but flowing south to Victoria Point. The District is thus, with the exception of the Palaw township, where a few streams run from east to west, a system of rivers flowing from north to south or south to north, except where a bend is needed to enable them to reach the sea. The MERGUI ARCHIPELAGO, which stretches down the entire length of the coast, numbers 804 islands of every size, from King Island, with an area of 170 square miles, to mere rocks rising abruptly from the sea. Nearly all are forest-clad, and most are hill', often fringed with mangrove swamps, but occasionally displaying a yellow beach of sand or pebble. With the exception of King Island, which is partly cultivated by Burmans and Karens, and some fishing villages, more or less deserted during the monsoon, on the shores of Kisseraing and Sellore, the islands are almost uninhabited, but for the Salons or sea-gipsies who wander among them. A remarkable feature of the coast scenery is the presence of limestone cliffs, towering sheer out of the water for several hundred feet, and forming caves which recall the interior of a Gothic cathedral, while others enclose lakes accessible only at low tide through a tunnel in the rock. They are the home of the tiny swift that builds the edible bird's-nest of commerce.

Coal, tin, gold, and other minerals are found in the District. They are referred to in detail in a later paragraph. The coals of Theindaw

and Kawmapyin on the Great Tenasserim are found in association with shales, sandstones, and conglomerates, which form a Tertiary basin. The Moulmein group of beds constitute the greater portion of the sedimentary rocks. Under these is the Mergui group, a series of essentially pseudomorphous sedimentary beds, with imbedded fragments of felspar which have so far been noticed only near Mergui. Rocks of the gneissic series with granite, &c., also occur. It is from the disintegration of this granitic rock that the tin ores are derived.

The flora resembles generally that of the adjoining District of TAVOY. There is a good deal of swamp vegetation. Canes are abundant. The *thin* reed grows in the valley of the Little Tenasserim. The principal timber trees are referred to under the head of Forests below.

The District swarms with monkeys, especially the fisher-monkey (*Macacus cynomolgus*), which may be seen in great numbers on the banks of the Palaw river cracking cockle-shells by means of stones; and the white-handed gibbon (*Hylobates lar*), usually black but sometimes light brown, with whose cries the forests everywhere resound at sunrise. Elephants, tigers, *sdmbar*, barking-deer, and hog are plentiful, and rhinoceros and bison are also found. The Malay tapir, which is hardly known north of the Tavoy river, has been seen in Tenasserim. Game-birds are less plentiful than in the delta Districts. The Archipelago abounds with fish, prawns, and shrimps, especially in the muddy waters between Mergui and the mouth of the Lenya river. The clearer waters yield the pearl mollusc and other shell-fish of economic value. Whales are frequently seen among the islands, and have given its name to Whale Bay in the middle of the Archipelago.

The District is unusually healthy for a tropical country. Malaria is little known, even in the lowlands at the foot of hills, where its most deadly form is usually looked for. Situated on a peninsula between two great seas, with no high mountain range to keep off the winds from the Gulf of Siam, its climate is always mild and moist. The mean maximum temperature at Mergui town is highest in April (93°) and lowest in August (85°), and the mean minimum ranges from 68° in December to 75° in April and May.

The rainfall at Mergui town during the five years ending 1901 averaged 103 inches, and at Victoria Point about the same. A strip of the District, about 10 miles wide, from Bokpyin to Ross and Elphin-stone Islands, was devastated on May 4, 1902, by a cyclone, which denuded the hills of forest and utterly destroyed any village that lay in its path. Fortunately the tract is thinly populated; but many fishing-boats were lost, and a part of the pearling fleet anchored near Ross Island was destroyed.

Mergui has for most of its known history been a Siamese province,

with its capital at Tenasserim. The latter may possibly be identical with Tun Sun, mentioned in the Chinese annals of the Liang dynasty

(A.D. 502-56) as the terminus of a trade route on the western side of the Malay Peninsula. It is certain that for hundreds of years Tenasserim was the gateway of the most direct route to the Far East, commodities being brought to it by sea from India and the Persian Gulf to meet those carried overland from Siam and China. From early in the fifteenth century, when the port was visited by Nicolo de' Conti the Venetian, till the massacre of 1687 described below, the place is constantly mentioned by travellers and merchants as a great port. Abdur Razzak of Samarkand includes the inhabitants of Tenasserim among the people to be seen at Ormuz in 1442. Early in the sixteenth century it is described in the voyages of Tristan d'Acunha as the first mart for spices in India, and Duarte Barbosa says its ships were to be seen at Cape Guardafui. Large vessels were then apparently able to reach Tenasserim, though it is 44 miles up the river; and goods were carried thence overland to Ayuthia and the Siamese Gulf. Mergui, however, seems always to have been its seaport, for it is mentioned by Cesare de' Federici in 1568.

Mergui has ever been a battle-ground of the rival kingdoms of Burma and Siam. Cesare said in 1568, 'it of right belongeth to the kingdom of Sion,' but whenever there was a strong Burmese king it became a Burmese province. The earliest record is an inscription recently found near the Shinkodaw pagoda, about 10 miles from Mergui. It is dated 631 u. E. (A.D. 1269), and records a gift to the pagoda by Nga Pon, the Royal Usurer of Tayokpyemin ('the king who fled from the Chinese'), who reigned at Pagan from 1248 to 1285.

Siam was repeatedly invaded by the Burmans under Bayin Naung, first as general and then as king, between 1548 and 1569, and in the last year the capital, Ayuthia, was sacked. It is during this period that Cesare de' Federici refers to Tenasserim as being in the kingdom of Pegu. In 1587 Bayin Naung's son, the Yuva Raja, attempted to imitate the exploits of his father; but his army was destroyed, and another expedition ended in disaster in 1593. Soon after this the Burmese kingdom was broken up, and Siam enjoyed peace, so far as the Burmans were concerned, for 150 years, until the rise of Alaung-paya. In 1683 the king of Siam appointed Richard Burneby, an ex-servant of the East India Company, as governor of Mergui, with Samuel White as *Shahbandar*, or Port Officer, of Mergui and Tenasserim. A number of English traders were attracted to the place, and there were also French, Dutch, and Portuguese settlements. But the East India Company at that time claimed the monopoly of all trade by Englishmen with the East, and the Council at Madras determined to

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ject the interlopers. At the same time King James II was growing anxious at the establishment of French influence at the Siamese capital; and in 1687 the *Curtana* arrived outside Mergui with letters declaring war on Siam pending payment of compensation for injuries done to the Company's trade, and requiring Burneby and White to send all the English in Mergui on board the frigate. A truce of sixty days was at the same time allowed. During the truce the Siamese, under White's direction, strengthened their defences and staked the river. An attempt by the commander of the *Curtana* to remove the stakes resulted in a general massacre of the Englishmen in Mergui, only three escaping out of sixty. After this the French became supreme, and fortified themselves in the town; but in 1688, as the result of a palace revolution, they were attacked and driven out. For the next seventy years Siam was torn by incessant civil war, and a further blow was inflicted on the trade of Mergui by the presence of pirates of all nationalities. By 1757 Alaungpaya had become all-powerful in Burma, and had founded the city of Rangoon. The usual invasion of Siam followed at the end of 1759 by way of Mergui and Tenasserim, which were occupied without resistance. Ayuthia was reached, but the siege was abandoned owing to the illness of Alaungpaya, who died on the march back to Burma. In 1775, however, another army was sent by his son Sinbyushin under the Burmese general Maha Thihathura, and after a siege of fifteen months the city was utterly destroyed. The Siamese founded a new capital at Bangkok, and Tavoy and Mergui remained in possession of the Burmans.

In 1786 Siam was invaded by Bodawpaya, but without success, and in 1792 the people of Tavoy rebelled and delivered up the town to the Siamese. It was soon retaken, and Mergui, which had been successfully held by the Burmese governor, was relieved. Another rebellion was crushed in 1808. Soon after this, friction arose between the British and Burmese Governments. War was declared in 1824, which resulted in the annexation of the Arakan and Tenasserim provinces in 1826. In October, 1824, the East India Company's cruiser *Mercury*, with Lieutenant-Colonel Miles and 370 men of the 89th Regiment, appeared before Mergui, and the fort was carried with a loss of six men killed and two officers and twenty-two men wounded. In 1825 a Siamese force ravaged the country about Tenasserim, but was driven off; and the present Mergui subdivision, almost depopulated by incessant wars and rebellions, at last enjoyed a long period of tranquillity.

The principal pagodas are the Legyunsimi at Mergui, built in 1785 over a smaller one erected soon after Alaungpaya's invasion; and the Zedawun pagoda, said to date from 1208, situated on a hill

10 miles up the Tenasserim river and commanding a fine view of the valley.

The population of Mergui District has increased steadily from 47,192

Population. in 1872 to 55,559 in 1881, 73,748 in 1891, and
* 88,744 in 1901.

The principal statistics of area and population in 1901 are given below:—

Township.	Area in square miles.	Number of		Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
		Towns.	Villages.				
Mergui . .	1°S 79	1		43,070	23	+ 33	10,890
Palaw . .	785		> 5	22,442	29	+ 15	2,728
Tenasserim .	48°33		" 4	10,712	3	+ 28	1,405
Bokpyin .	2,103		63	7>255	3	+ 26	1,856
Maliwun .	989		41	5 j 2 5 5	5	-32	854
District total	9,789	1	485	88,744	9	+ 20	17,733

There is little immigration, and the mining coolies brought from China do not as a rule settle in the country. A large proportion of the population in the extreme south is made up, however, of temporary immigrants, and the fluctuations in this source of supply account for the diminution that took place in the sparsely populated Maliwun township between 1891 and 1901. Except along the coast, the inhabitants are very scattered. Burmese is almost universally spoken in the Mergui township, where even the people who admit, in other parts of the District, kinship with pure Siamese call themselves Burmans. They speak a dialect understood with difficulty by an ordinary Burman, with some Siamese words and idioms, the most remarkable of the latter being the inversion of the parts of compound verbs. The hard consonants are retained as in Arakanese, but the *r* and *h* and final consonants practically disappear. In Palaw an even less intelligible dialect of Burmese is spoken by two-thirds of the population, the other third speaking Karen. In Tenasserim, out of every 100 persons 43 talk Burmese, 40 Siamese, and 16 Karen. Farther south Burmese tends to disappear entirely, Siamese, Malay, and Chinese being the languages most heard. According to religion, about 87 per cent, of the people are Buddhists. There are a few Animists and Hindus, but most of the non-Buddhist population are Musalmans, who numbered about 7,000 in 1901.

There were nearly 57,000 Burmans in 1901, about 2,000 Chinese, and nearly 9,000 Siamese. A considerable proportion of the population in the town and the mines is Baba or half-Chinese, the men retaining the pigtail, but talking Burmese or Siamese, and the women wearing the dress of their mothers. Of the Musalmans, between 2,000 and 3,000 are Malays and the rest nearly all Zairbadis.

Living in boats among the islands is a wild people of obscure origin

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called by the liurmese Salons, by the Malays Orang Basin, by the Siamese Chaunam (* waterfolk '), and by themselves Mawken ('drowned in the sea '). The Salons are expert divers and swimmers, and the supply of green snails and *bcche-de-mer* is obtained entirely through them. Their language has hitherto generally been regarded as akin to Malay, but according to a recent view it is an entirely independent form of speech, most nearly related to the Cham of Cambodia.

Two-thirds of the total population of the District are agricultural. Outside Mergui the Burmans are husbandmen or fishermen, the Siamese mostly agriculturists with a few miners, the Chinese usually miners, and the Karens all agriculturists.

The Christian population in 1901 numbered 2,215. Of these, 2,135 were natives, mostly Karens in the Palaw and Mergui townships, where the American Baptist Union started work in 1837.

There is little of special interest to note in connexion with the agricultural methods obtaining in the District. The use of the plough is practically unknown. In some parts a harrow with Agriculture a single tooth is used; but the Siamese of the Pakchan and other parts do nothing but tread out the soil with buffaloes, and this practice is followed by the Burmans on low-lying lands. Fruit trees are planted in pits filled with burnt earth, which is also, with cattle-dung, used as manure after the young tree has been planted out.

The area permanently cultivated is small. About one-third of it lies in the Palaw township, rather more than a half in the basin of the Tenasserim river, and the rest in the valley of the Pakchan.

The following table shows the main agricultural statistics for 1903-4, in square miles :—

Township.		Total area.	Cultivated.	Forests.
Tenasserim.	Mergui . . . □ .	1,879	64	) 〇〇〇
	Palaw	785	37	
	Bokpyin	4,033	22	
	NTaliwun	2,103	9	
	Total	9,789	139	1 〇〇

In the area under rice, which comprises about three-fourths of the whole, the soil is generally rich, except in the Tenasserim township, where it is inclined to be sandy. About 7 per cent, of the cultivated area is planted with the *dani* palm (*Nipa*), which is at its best in this District. It is grown on mud-banks in tidal creeks, which are covered with water, more or less salt, at high tide. The leaves of this palm are used for the roofs and walls of houses, and its juice for making toddy and jaggery sugar. About 18 per cent, of the cropped land consists

of fruit orchards, usually on undulating land or the lower slopes of hills. The soil is particularly well suited for areca palms and durians. There are 12,640 rice holdings and 14,200 assessed orchards, but to the latter must be added a very large number of gardens of less than a quarter of an acre, which are not assessed. Of the area under rice, nearly half is in the Mergui township and one-fourth in Palaw. More than 6,000 acres, of which 4,800 are in the Mergui township, are under the *dani* palm. Nearly 2,000 acres in Palaw, and about the same area in Mergui, are planted with areca palms. Durians cover a similar area in the Mergui township, and coco-nuts 1,600 acres in the District as a whole.

Very little is done to improve the methods of husbandry, but considerable progress has been made in bringing fresh land under cultivation. The cultivated area was 62 square miles in 1881, 81 in 1891, 134 in 1901, and 139 in 1903-4. The area under rice has more than doubled, and that of orchards nearly trebled, during the past twenty years. The increase has been most marked in Palaw.

Buffaloes are practically the only cattle known outside Mergui town. They are bred locally and are of a good quality.

The number of persons engaged in or dependent upon fishing is between 10,000 and 11,000, or about one-eighth of the population. All

the fisheries are in the sea. The principal implements are the *sanda* (the hauling net) and the *gawa*. The first is a lofty rectangular structure of wooden piles, often supporting a small house in one corner, and provided with long wings of saplings, which sometimes extend for half a mile. An immense net is lowered from it by means of pulleys, and into this fish or prawns are swept by the tide. The larger fish are dried on bamboo platforms; the prawns are boiled and similarly dried, after which the shells are removed by being beaten in a bag, and go to feed the pigs or to manure the land of the Chinese in the Straits. Long rows of *sandas* stand in the fair season across the vast shallows of Whale and Auckland Bays, and as many as 120 may be seen at once. The *gawa* is a triangular net forming a kind of scoop, which a man pushes before him in shallow water, towing a canoe at the same time. It is used only for collecting shrimps, which are made into a paste and exported largely to Rangoon, where this paste is regarded as the finest kind of *ngapi*.

Next to sea-fishing proper, the principal maritime industry is pearling. Before 1893 a certain number of pearls were obtained by the Salons, who are capable of diving to a depth of 5 fathoms or more without apparatus. The richness of the beds was little suspected, however, until a Singapore company obtained a lease in that year of part of the Archipelago, and started operations with diving gear and Filipino, Malay, and Japanese divers. This attracted a number of pearlers from the Australian fisheries, to whom they sublet their rights. Meantime

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Chinese pump-owners began work in other parts of the Archipelago, and in 1898 a Chinese syndicate obtained a lease of the entire area. The white pearlers continued work for a time under this syndicate; but the supply of shell, on which, rather than the pearls, they depended for their profits, had greatly diminished, and by 1900 all had left. Their place was taken by Chinese, Zairbadis, and Burmans of Mergui, who were attracted by the gambling nature of the industry, were content with smaller average profits, and above all were better able to check their divers. It is impossible for the pump-owner to prevent speculation unless he, or some one he can trust, travels in each diving-boat. Ostensibly the shells are opened only in the owner's presence, but it is a very easy matter for the diver to test one for pearls and reclose it.

Since 1900 licences have been issued at a fixed fee of Rs. 400 per pump, the licensee working where he pleases; and this system has proved more satisfactory than the old one of auctioned leases. The exports of shell declined from 414 tons in the year ending March, 1895, to 71 tons in 1905 ; but the price of both shell and pearls had meanwhile risen, and in 1905 there were 77 pumps at work. The finest pearl yet found in the beds, so far as is known, is a drop pearl weighing 34 carats and sold at Singapore for \$16,000 in 1902, but a smaller pearl fetched Rs. 30,500 at Mergui in 1904. The shell is usually found in waters from 15 to 23 fathoms deep. The best grounds are in the neighbourhood of Owen and Malcolm Islands, about 100 miles south of Mergui; but diving is also carried on near Ross and Elphinstone, 30 miles west of the town. Mr. Jardine, an Australian pearler, in a report prepared for Government in 1894, pronounced the shells to be very fine specimens of the true mother-of-pearl shell of commerce (*Meleagria margaritifera*), weighing on the average 600 to the ton. In the month ending January 16, 1894, eighteen boats brought up 20,000 shells weighing 34^ tons, and containing pearls of an estimated value of £2,600.

Other maritime products of the District are green snails (*Turbo mannoraius*) the shells of which are exported for conversion into imitation mother-of-pearl; trochus, a conical shell of smaller size ; and sea-slugs or *beche-de-mer*, which, with the contents of the snail-shells, are exported to the Straits for the delectation of the Chinese palate.

Among maritime products, since they are found in caves far out to sea, may be included edible birds'-nests, of which 20 viss (73 lb.) of the finest quality, valued in Penang at Rs. 4,000, were collected in a single day in April, 1903, from one of the rocky islets near Tavoy Island. The nests, which are milk-white and shaped like the half of a diminutive basin glued to the rock, are, it is believed, made with the saliva of a small species of swift (*Collocalia francicd*), which sleeps in

the caves but spends the day, when not actually at work, high up in the sky. The nests are to be found only in the most inaccessible corners of the caves, at a height sometimes of several hundred feet. Three collections are made during the fair season, lasting respectively four, seven, and three days. The birds rebuild their nests in the intervals, and only the last made are available for rearing their young. The best quality is obtained from the second collection.

Practically the whole District, with the exception of 139 square miles of cultivation and perhaps a similar extent of old *taungya* clearings, is under dense forests; and of this a large part, approaching perhaps 1,000 square miles, is mangrove. The area treated as forest by the department is about 5,600 square miles in extent, but only 330 square miles of this total are 'reserved.' The forests are not generally valuable, and teak is unknown; but the lofty *kanyin*-tree (*Dipterocarpus laevis*) yields an oil largely used in the manufacture of torches; the wood of the *thingan* (*Hopea odorata*) is, owing to its elasticity, unequalled for boats; and *kyathnan* or *pinle-on* (*Carapa moluccensis*), *ancut* (*Fagraea fragrans*), *hm an thin* (*Curcuma Roscoeana*), *kanazo* (*Bassia tongifolia*), and *kokko* (*Albizzia Lebbek*) are all useful timbers. *Pyingado* (*Xylocarpus dolabriformis*) is plentiful in the extreme north. *Kaiamet* (*Santalum sp.*), found on a branch of the Little Tenasserim on the border of Siam, is prized for its fragrance. The precious scented wood-aloes, or eagle-wood, the diseased heart-wood of the *akyaw* tree (*Aquilaria Agallocha*), is still an article of commerce, though not so plentiful as formerly; and *sappan* wood, once the most famous product of the District, exists in the Tenasserim township, but is not now worked. *Pwenyet*, the resinous nest of the *Trigona taeviceps*, or dammer bee, makes valuable caulking for boats when mixed with earth-oil. Rubber exists in a wild state in some parts of the District; and the *Hevea brasiliensis*, introduced by the Government from Kew Gardens in 1878, is yielding good results in an experimental plantation near Mergui. The outside of the stem of the *Phrynium dichotomum*, called by the Burmese *thin*, is exported in large quantities to Danabyu to be made into the mats for which that place is famous. The vast mangrove forests are being utilized, their bark yielding a kind of tannin which is known in Europe as cutch, though inferior to the genuine article, the produce of the *Acacia Catechu*.

The existence of tin in Mergui District came to the notice of the Government of India soon after the annexation of Tenasserim.

Favourable reports were made in 1841-3 by Colonel Trementheere, and in 1855 by Dr. Oldham, but without practical results. In 1873 the mining rights in the Maliwun township were leased to a Rangoon firm, who introduced European

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machinery, but retired in 1877 after incurring heavy loss. This is explained partly by the want of good expert advice and partly by the employment of Indian coolies, who were unable to stand the hard work and exposure. Various officers have since then been deputed to examine and report on the mines. The backward condition of Maliwun, so far as Chinese immigration is concerned, is perhaps due to the unsuitability of our laws, which the Government is reluctant to suspend in so comparatively small an area for the sake of an industry which has as yet attained no great importance. In 1895 the Jelevu Mining Company started operations, but used only Chinese methods for the extraction of the tin, and retired in 1898. In 1901 a concession of 4 square miles was granted, but cancelled in 1903, as the concessionaires had not found sufficient capital to work the lode.

Tin ore may be found: (1) in the original lode; (2) in the masses of decomposed rock on the sides of hills; (3) deposited beneath a layer of silt on low-lying lands, to which it has been carried by the action of water ; and (4) in the beds of streams. Of these four classes, the first can be worked only with the aid of explosives and expensive machinery, which are now being introduced by a European firm. The second class may be worked on a large scale, by sluicing away the side of a hill with water forced through pipes. The Chinese are described as picking out the eyes of the hills with picks and crowbars, thus obtaining a rich out-turn with comparatively little labour, but spoiling the ground for those who come after them. Their usual method, however, is *lampan* working, in which a small stream is diverted to the piece of land to be worked, and the overburden or overlying earth is removed by the force of the water assisted by cross channels cut in the shape of a gridiron. In the third class the overburden has to be removed by manual labour before the ore can be extracted. Here again the ground is apt to be spoilt by the practice of fossicking, in which, instead of the overburden being removed continuously, pits about 6 feet wide are dug in it and allowed to fall in after the wash dirt, or tin-bearing mass, has been removed from the bottom. No objection can be urged against the practice of panning, or washing in the beds of streams, the last of the four classes. This has been compared to gleaning, and is carried on chiefly by Malay and Siamese women, who are said to earn sometimes a dollar a day in this fashion.

The ore, after being cleaned by the action of running water, is smelted at or near the mines in clay furnaces, and exported to Penang or Rangoon in blocks weighing about a hundredweight. The labour is mainly Chinese, but some of the small outlying mines are worked by Siamese. The monthly wage for unattached Chinese coolies is Rs. 20, with board and lodging; but the large mines are worked by labour imported under contract, the usual rate being 100 Straits dollars

a year, all found. The importation is done through the Chinese Protectorate at Penang, the coolies being bound by written contract to work for periods extending from one to three years. The annual out-turn of tin for some years past has been about 60 tons, paying a royalty of rather over Rs. 3,500.

The District yields about 500 tons of salt yearly, produced at Palaw in the Palaw township. More than fifty families are employed in the brine-boiling business. The water of a tidal creek is diverted into fields of impervious clay, in which it is confined by means of small ridges. The fields are of different heights, and the water remains a day or two in each till the evaporation caused by the heat of the sun has converted it into brine. It is then run into a tank, from which it is eventually ladled into an iron pan, 4 feet square, placed over a furnace. The salt is scraped from the bottom of the pan. Duty is levied at 8 annas a maund of 82 lb. The industry was first introduced in 1896.

On the Great Tenasserim river, between 12° 20' and 12° 30' N., is a bed of coal estimated to contain not less than a million tons. It has been calculated that the outside cost of placing the coal at Mergui would be Rs. 7-12 a ton. The coal is said to be superior in quality to most Indian coals; but no serious attempt has yet been made to work the field, though two prospecting licences have recently been issued.

Gold exists in many places, but not, so far as is known, in paying quantities. A practically inexhaustible supply of iron, though not of very good quality, is reported on the island of Kalagyun, about 8 miles west of Mergui by sea. On Maingy Island Mr. Mark Fryar in 1872 discovered the existence of a valuable lode of lead (galena) containing 11 oz. of silver per ton, but most of it below the sea. An outcrop inland, however, has recently been found, and some of the ore has been sent to England for examination. Graphite exists on the almost unexplored island of Kisseraing, and manganese at places on the Great Tenasserim. The Marble Isles, between Kisseraing and Domel, are composed of marble of a coarse quality, suitable for building.

The richness of Mergui in natural products and the sparseness of its population account for the almost total absence of arts or manufactures of any kind. A notable instance of the

Trade and industry of manufacturing enterprise is the fact that *thin*, communications.

the fine reed of which the famous mats of Danubyu are made, is largely exported to Central Burma, and comes back into the District in the form of mats.

The trade of the District is carried on entirely by sea. Nearly all of it passes through the port of MERGUI. Other ports are Palaw and Victoria Point, but their trade is insignificant.

The British India Steam Navigation Company runs a weekly steamer from Rangoon, calling at the mouth of the Tavoy river, and a fort-

nightly coasting steamer from Moulmein. The trade with Penang and intervening ports to the south is very inadequately served by a single boat of 194 tons, belonging to a Chinese firm in Penang. This steamer is the sole means of communication with Victoria Point, the head-quarters of the southern subdivision. A weekly service with Tenasserim is kept up by means of small native boats, and with Palaw by the police boat and the Moulmein coasting steamer, which also runs on to Bokpyin. Road communications hardly exist, mainly owing to the abundance of waterways. Roads from Mergui to Palaw, and from Bokpyin to the newly opened mines at Yanngwa, are in course of construction ; and a survey has been made from Victoria Point to the Maliwun tin mines, which have already 4 miles of metalled road.

The District has two subdivisions, one of which, Mergui, is divided into the townships of MERGUI, PALAW, TENASSERIM, and BOKPYIN, each under a township officer. The other subdivision, . . . called Victoria Point, consists of a single township, Administration. MALIWUN, which has no separate township officer. Below the township officers are 128 village headmen. These are taking the place of the old circle *thugyis*, of whom, however, five still remain. The District forms a portion of the Amherst Public Works division (head-quarters, Moulmein) and of the South Tenasserim Forest division (head-quarters, Tavoy). The Deputy-Commissioner, in addition to his judicial and revenue duties, discharges those of Collector of Customs and Port Officer.

For judicial purposes the District forms part of the Tenasserim civil and sessions division. The Deputy-Commissioner is District Magistrate and District Judge. The Mergui township court is presided over by a judge, who sits for fifteen days in the month at Tavoy and for fifteen at Mergui, but the subdivisional and the other township courts are presided over by the executive officers. Outside Mergui there is not much litigation and but little crime; but assaults of a serious nature are common, and theft is prevalent in the town, where there is a large and turbulent population of Zairbadis. Opium smuggling on a large scale was carried on in former years by junks from Penang, but has been almost entirely suppressed by the excise staff appointed in 1902. Cattle-theft is practically unknown. The Deputy-Commissioner is Political Officer for Renong and other Siamese States; and, owing to the cordial co-operation of the Siamese authorities, the gangs of border robbers who infested the Pakchan river have long since disappeared.

When the British annexed the District the revenue was very small, as might be expected in a country where the original population had been, to a great extent, exterminated within the previous sixty years. In 1854-5, the earliest year for which there are reliable data, the land

revenue was Rs. 26,000. The following table shows, in thousands of rupees, the growth under the main heads of revenue since 1880-1 :—

	1880-1.	1890-1.	1900-1.	'903-4.
1 Land revenue .	33	98	1,58	1,66
Fisheries .	12	22	70	9°
Total revenue .	2,01	2 >77	5,28	5,16

The District has not been settled. A cadastral survey of 577 square miles was made between 1891 and 1894, but there are still about 10,000 acres of permanent cultivation not regularly surveyed. A topographical survey of 3,211 square miles, on the scale of one inch to the mile, embracing most of the tin-mining areas, was carried out between 1889 and 1893. Orchards in the Mergui township pay Rs. 3 per acre; rice land, Rs. 2 or Rs. 1-12; and vegetables, tobacco, <S:c., R. 1. In the thinly populated tracts the rates are less by about half.

The District cess fund had an income in 1903-4 of Rs. 18,700, which is devoted to education and the maintenance of village headmen, roads, and bungalows. MERGUI TOWN is the only municipality.

The civil police force consists of 3 inspectors, 6 head constables, 19 sergeants, and 180 men, under the District Superintendent. Siamese are usually employed in Bokpyin and Maliwun. There are also 100 military police, employed in guarding treasure and escort duty. A police station has been established at every township head-quarters, with additional posts at Palauk, Lenya, and Marang. Besides the training depot at Mergui town, a police school has been established at Victoria Point for Siamese constables. Mergui town has a jail, with accommodation for 74 prisoners. The average number of inmates is about 40. Long-term prisoners are removed to other jails to serve out their sentences.

The standard of education is comparatively low for Burma. In 1901 only 20 per cent. (33-3 males and 5-4 females) were returned as able to read and write. In 1904 there were 7 secondary, 45 primary, and 59 elementary (private) schools, with 3,775 pupils (including 542 girls) on their rolls. The number of pupils has risen to this figure from 1,985 in 1891 and 2,379 in 1901. The total expenditure on education in 1903-4 was Rs. 13,800, of which Provincial funds provided Rs. 4,200; municipal fund, Rs. 3,600; fees, Rs. 3,600; and the District cess fund, Rs. 2,400.

The District contains 2 hospitals, with accommodation for 34 in-patients. In 1903 the number of cases treated was 12,846, of whom 5x2 were in-patients, and 383 operations were performed. The total cost was Rs. 6,000, chiefly met from Local funds.

Vaccination is compulsory only in Mergui town. In 1903-4 the number of persons successfully vaccinated was 4,388, representing 49 per 1,000 of population.

[Captain J. Butler, *Mergui District Gazetteer* (1884).]

Mergui Subdivision.—Subdivision of Mergui District, Lower Burma, consisting of the MERGUI, PALAW, TENASSERIM, and BOKPYIN townships.

Mergui Township.—Township of Mergui District, Lower Burma, comprising the most important islands of the Archipelago and a small piece of the mainland in the neighbourhood of Mergui. It extends from 11° 25' to 12° 47' N. and from 97° 30' to 98° 58' E., with an area of 1,879 square miles. The eastern islands, lying at the mouths of the Tenasserim and Lenya rivers, are in muddy waters teeming with fish. They support a large fishing population, but only King Island is cultivated. The population was 32,448 in 1891, and 43,070 in 1901, when the township contained 152 villages and hamlets, besides MERGUI TOWN (population, 11,987), the head-quarters. Outside the town 90 per cent, of the people speak Burmese, the rest being Karens, Chinese, or Salons. Of the Burmans, nearly half are fishermen. The cultivated area in 1903-4 was 64 square miles, of which about 41 square miles were under rice, and the rest orchards and palm groves. The land revenue in the same year amounted to Rs. 94,400.

Mergui Town.—Head-quarters of the District of the same name in Lower Burma, situated in 12° 26' N. and 98° 36' E., on the Tenasserim coast, just outside the principal mouth of the Tenasserim river, and protected by the little hill-island of Pataw, which helps to form a good natural harbour, and farther out by a ring of islands to the south and west, including King Island, the largest of the Mergui Archipelago. The principal Government buildings are on a ridge parallel to the coast, rising abruptly from the sea, and affording a view of the harbour backed by the pagoda-crowned hills of Pataw and Patet on the islands opposite, and the distant heights of King Island beyond. The inner town is densely packed, the houses being huddled together without much regard for sanitation, especially on the foreshore, where they are built over the mud. In the suburbs the buildings are scattered among orchards, but roads are lacking everywhere.

The population of the town fell from 9,737 in 1872 to 8,633 ^{*n} 1881, but rose again to 10,137 ^{'n} ^91 and 11,987 in 1901. The Census, however, is taken at a time when the fishermen and their families, who number several thousands, are living 'in the islands. During the monsoon they move into the town. The population is very mixed. To a European resident most families seem to have either Chinese or Indian blood in them ; but the census figures show only 1,400 Muhammadans and 700 Hindus in the town, while the total number of persons

in the entire District, including the miners, returning themselves as Chinese, is only 2,100. No doubt most of these are in the town, many Chinese miners being imported for the monsoon only. Practically no persons called themselves Siamese or Karens, but there must be a very large admixture of these races in the population. No Malays reside in the town.

The Burmese name of Mergui is written Mrit, but pronounced Beik. The Siamese write and pronounce the name Marit. The origin of the name used by Europeans (and also by Malays and natives of India) is quite unknown. It is by no means certain that it is connected with the Siamese name, for no plausible explanation of the second syllable has ever been given.

Mergui was formed into a municipality in 1887. The receipts during the ten years ending 1901 averaged Rs. 27,600. In 1903-4 the income was Rs. 34,700, of which Rs. 14,700 was derived from a tax on houses and lands, Rs. 9,200 from market dues, and Rs. 6,800 from lighting and conservancy rates. The chief items of expenditure were conservancy (Rs. 5,800), lighting (Rs. 4,300), hospital (Rs. 3,900), roads (Rs. 3,700), markets (Rs. 3,000), and education (Rs. 3,000). There are two bazars, one of brick on the shore, and the other of wood and thatch, behind the ridge which runs along the centre of the town. The hospital, school, and municipal office are situated on this ridge, near the courthouse and police station.

The Port fund has an income of Rs. 3,500 a year. Passengers and cargo from foreign ports are landed at the main wharf, which was built of stone in 1900, at a cost of Rs. 38,000. Cargo from Rangoon and coast ports usually goes to a smaller wharf in the south of the town, and there are in addition numerous private jetties. The total value of the exports in 1903-4 was 16 lakhs, of which n lakhs went to Indian ports and 5 lakhs to the Straits and England. The imports were valued at 14 lakhs, of which 1 r-| lakhs came from Indian ports.

The principal exports are fish-paste and salted fish, sent mostly to Rangoon and Moulmein, and mother-of-pearl shell, sent to the United Kingdom; cotton piece-goods and husked rice are the two principal imports, coming mainly from Rangoon.

Merkara.—*Taluk* and town in Coorg. *See* MERCARA.

Merta.—Head-quarters of a district of the same name in the State of Jodhpur, Rajputana, situated in 26° 39' N. and 74° 2' E., about 9 miles south-east of Merta Road station on the Jodhpur-Bikaner Railway. Population (1901), 4,361. The town was founded by Duda, the fourth son of Rao Jodha, about 1488, and was added to by Rao Maldeo, who about 1540 built the wall (now somewhat dilapidated) and the fort called after him Malkot. In 1562 Akbar took the place after an obstinate and sanguinary defence, but about twenty years later

he restored it to the Jodhpur chief, Raja Uday Singh. Merta was at one time a great trade centre, and there are still many fine carved stone houses; it possesses a post office, an Anglo-vernacular school, a hospital with accommodation for six in-patients, and a handsome mosque built by Akbar. The principal manufactures are *khas-khas* fans and screens, ivory work, country soap, and earthenware toys. The country around Merta has been the scene of many a hard-fought battle, and is covered with stone pillars erected to the memory of the dead. Here in 1790 the Marathas under De Boigne inflicted a severe defeat on the Rathors; and on the dam of a tank called Dangolai is the tomb of a French captain of infantry, who fell on that occasion.

Mertiparvat (or Mertigudda).—Mountain peak, 5,451 feet high, in the south-west of Kadur District, Mysore, situated in 13° 18' N. and 75° 23' E. To the north it presents a majestic conical aspect. Towards the south-west it is connected with two lower heights, and is so surrounded on all sides with high hills that its true elevation does not appear except at a distance. The top is bare, but the sides are clothed with fine forests, and where the ground admits, terraced for paddy-fields. It is also called the Kalasa hill, being near to that place.

Merwara.—British District in Rajputana, lying between 25° 24' and 26° 11' N. and 73° 45' and 74° 29' E., with an area of 641 square miles and a population (1901) of 109,459. The local name of the District is Magra, which signifies 'hills.'

Beyond the fact that between 1725 and 1816 several unsuccessful attempts were made by Rajputs and Marathas to subdue the country, the history of Merwara is a blank up to 1818, when the British appeared on the scene. Captain Broughton, who accompanied the Maharaja Sindhia in his march from Agra to Ajmer, 1809-10, describes it in his *Letters from a Mahratta Camp* as

'the district of *Mugruolee*, celebrated for its hilly fastnesses and impenetrable jungles. It forms the boundary between the countries of Marwar or Jodhpur and Mewar or Udaipur; but the daring race of robbers who inhabit it acknowledge the authority of neither. They subsist by levying contributions on the inhabitants of the plains around, when they are not checked by the presence of a still greater evil than themselves, a large army of Marathas.'

The District was then an impenetrable jungle, inhabited by outlaws and fugitives from surrounding States. The population, known under the general name of Mers, originally comprised a very heterogeneous mixture of castes: Chandela Gujars, Bhati Rajputs, Brahmans, and Minas. It is said that Visaldev, the Chauhan king of Ajmer, subdued the inhabitants, and made them drawers of water in the streets of Ajmer. Mr. Wilder, the first British Superintendent of Ajmer, entered into agreements with certain villages binding their inhabitants to abstain

from plunder. These pledges were disregarded ; and in 1819 a force was dispatched from Naslrabad which destroyed the offending villages, and established police posts at Shamgarh, Lulwa, and Jhak. In November, 1820, the police officers were murdered, and the country had to be thoroughly subjugated. An expedition started again from NasTrabad, and accomplished its purpose by the end of January, 1821, the campaign having lasted three months. It now became necessary to make arrangements for the administration of this turbulent tract, which was made up of three portions: British Merwara, Mewar-Merwara, and Marwar-Merwara. Captain Tod, the author of *Rajasthan*, undertook the administration of the portion belonging to piewar. The Marwar portion was handed over to the Thakurs of adjoining villages, and the British portion to the Thakurs of Masuda and Kharwa, who were held responsible for its management, under the general superintendence of Mr. Wilder. This arrangement was a complete failure. The District was infested with murderous gangs, criminals from one portion were sheltered in another, and the condition of Merwara became worse than it had been prior to 1818. In 1823 and 1824 the British authorities entered into engagements with Udaipur and Jodhpur, and took over the management of the whole tract. From time to time these treaties were renewed, and the whole District is now, to all intents and purposes, British territory. The first officer appointed to hold charge of the newly acquired tract was Captain Hall, who in 1836 was succeeded by Colonel Dixon. In 1842 Colonel Dixon became Superintendent of Ajmer also, and since then the two Districts have been administratively conjoined. To Hall and Dixon belongs the credit of reclaiming the inhabitants of Merwara from predatory habits to a life of honest industry. Colonel Dixon died at Beawar in 1857, having lived in Ajmer-Merwara for thirty-seven years. A system of government, which may well be called paternal, was established by these officers in Merwara, and was eminently suited to the needs of the people. Civil and criminal administration was carried on by a *panchayat* or assembly of the elders of the village. If two-thirds of the assembly were agreed, the question was settled. Prior to 1851, when a regular settlement was effected by Colonel Dixon, the revenue was settled by an estimate of the crop, one-third of the produce being the share of the Government, except in special cases. Police and revenue duties were combined. The people themselves were made responsible for protecting travellers and trade ; and to this day certain villages provide men to guard some of the passes leading out of Merwara, receiving in return a small remuneration from travellers. In 1822 a corps, designated the Merwara Local Battalion, was raised, which transformed a number of wild mountaineers into brave and disciplined soldiers, and exercised a beneficial effect on the pacification

of the country. In 1858 a second battalion, known as the Mhair Regiment, was raised for service in the Mutiny. In 1861 the two battalions were amalgamated into one, 1,000 strong, called the Mhair Military Police Battalion. This corps was in 1871 retransferred, with a strength of 712 men, to the regular military establishment. It served in the Afghan War of 1878-80, and is now the 44th Merwâra Infantry, with head-quarters at Ajmer. Colonel Dixon's administration was remarkable for the building of a large number of irrigation tanks. The good effect of these works was enormous. Cultivation increased, and the old villages, which had been perched on inaccessible peaks, were deserted for places in the valleys where agricultural operations could be carried on. It thus came about that the inhabitants of Merwara, who had proclivities very similar to those of the Highland caterans, and who lived by plundering in Mewâr, Mârwâr, Kishangarh, and Ajmer, were led into the paths of civilization. As the area under cultivation and the produce of the lands increased, it became apparent that something must be done to attract *mahajaus* (traders) to Merwara, to enable the people to reap the benefits of their industry. Colonel Dixon, therefore, founded in 1835 the town of Nayânagar, better known as BEÂWAR, which is the commercial and administrative capital of the District. By these measures a great social change was wrought in Merwara, and Colonel Dixon had the satisfaction of seeing round him a people whose wants had been supplied, whose grievances had been redressed, and who are described as being 'most prosperous and highly favoured.' The people of Merwara have not forgotten their benefactor. They erected a monument to his memory in the town which he built.

For further information see AJMER-MERWÂRA.

Mesâna.—*Tdluka* and town in Kadi *prnt*, Baroda State. See MEHSÂNA.

Mettancheri.—Town in Cochin State, Madras. See MATTÂX-CHERI.

Mettupâlaiyam.—Village in the District and *tâluk* of Coimbatore, Madras, situated in n° 19' N. and 76° 58' E., on the banks of the Bhavâni at the foot of the Nîlgiri Hills. Population (1901), 10,223. Being the terminus of the Nîlgiri branch of the Madras Railway and the starting-point of the *ghat* road and rack railway which lead up those hills, it is a place of some importance and a *deputy-lahsildâr* is stationed here. Owing to its situation, it is notoriously hot and unhealthy. A tannery owned by a native firm employs 60 hands, and turns out annually nearly 85 tons of leather, valued at over Rs. 50,000. There are more than a hundred dolmens in the fields round the place.

Mevali.—Petty State in REWÂ KANTHA, Bombay.

Mevâsa.—Petty State in KÂTHIÂWÂR, Bombay.

IMewar.—Another name for the UDAIPUR STATE in Râjputâna.

The word Mewar is a corrupted form of the Sanskrit *Med Pat*, meaning the country of the Meds or Meos, a tribe now numerous in Ahvar, Bharatpur, Gurgaon, &c. See MEW AT.

Mewar (or Udaipur) Residency.—One of the eight Political Charges into which Rajputana is divided. Situated in the south of the Agency, it consists¹ of the four States of Udaipur, Banswara, Dungarpur, and Partabgarh, and lies between 23° 3' and 25° 58' N. and 73° 1' and 75° 49' E. It is bounded on the north by the British District of Ajmer-Merwara and the Shahpura chiefship; on the north-east by Jaipur and Biindi; on the east it touches Kotah and an outlying district of Tonk, but the greater part of this boundary is formed by Central India States; to the south are several States belonging to either Central India or the Bombay Presidency; while on the west the Aravalli Hills separate it from Sirohi and Jodhpur. The head-quarters of the Resident are at Udaipur and those of his Assistant ordinarily at Dungarpur. The population at the three enumerations was : (1881) 1,879,214, (1891) 2,310,024, and (1901) 1,336,283. The figures for the two earlier years are, however, unreliable, as, except in Partabgarh, the Bhills who form the majority of the population in the south were not counted, a rough guess only being made of their numbers. But, though the census figures for 1881 and 1891 may have been too high, the loss of population during the last decade was certainly very great, due to the famine of 1899-1900 and the severe epidemic of fever which immediately followed it. In regard to area and population, the Residency stands third among the eight political divisions of Rajputana, while the density is nearly 79 persons per square mile, as compared with 76 for the whole Agency. Of the total population in 190X, Hindus formed nearly 69 per cent., Animists (mostly Bhills) 21, and Jains about 6 per cent. The following table gives details regarding the four States making up the Residency :—

State.	Area in square miles.	Population, 1901.	Normal land revenue <i>okhalsa</i> , in thousands of rupees.
Udaipur . . .	12,691	1,018,805	13)60
Banswara . . .	1,946	165,350	85
Dungarpur . .	M47	100,103	1,00
Partabgarh . .	886	52,025	1,00
T total	16,970	1,336,283	16,45

There are altogether 8,359 villages and 17 towns. Of the latter, only two have more than 10,000 inhabitants: namely, UDAIPUR CITY (45,976) and BHIILWARA (10,346).

¹ It has recently been decided to establish a new Agency, comprising the States of Banswara, Dungarpur, and Partabgarh.

Mewat.—An ill-defined tract lying south of Delhi, and including part of the British Districts of Muttra and Gurgaon, and most of Alwar and a little of Bharatpur State. It takes its name from the Meos, who appear to have been originally the same as the Minas of Rajputana, but say that they have not intermarried with these since the time of Akbar. The origin of the name Meo is disputed, some deriving it from Mewat, which is said to be the Sanskrit *mina-vati*, 'rich in fish,' while the Meos themselves derive it from *maheo*, a word used in driving cattle. Mina is said to come from Amina Meo or 'pure' Meo, a term applied to those who did not become Musalmans. The Hindu Meos and Minas claim to be Rajputs, but are not so regarded by other Hindus, and it is certain that outsiders have often been admitted in the past. Their tribal constitution varies in different places. The Muhammadan Meos call themselves Mewatis. In 1901 there were 10,546 Meos and Minas in the United Provinces, chiefly in the Districts of Meerut (916), Bulandshahr (4,745), Agra (906), Bijnor (1,263), Budaun (884), and Moradabad (1,070); and 51,028 Mewatis, chiefly in the Meerut (22,576), Agra (7,316), and Rohilkhand (16,129) Divisions. The large number in Rohilkhand, which was never part of Mewat, is explained by a migration owing to famine in Mewat in 1761-2. The Meos of Rajputana numbered 168,596, or nearly 2 per cent, of the total population. Practically all are Muhammadans, and they are found in thirteen out of eighteen States. In Alwar there were 113,142, or over 13 per cent, of the population; and in Bharatpur 51,546, or 8 per cent. The Khanzada subdivision is represented by 9,317 members, most of whom are in Alwar. The Mewatis have preserved many Hindu customs, such as exogamous rules and Hindu festivals.

According to tradition, the Meos first crossed the Jumna in the period of anarchy which succeeded the invasion by Mahmud of Ghazni in 10x8-9. The great Rajput clans of Bulandshahr and Etawah state that they dispossessed the Meos at the order of Prithwi Raj of Delhi towards the end of the twelfth century. Throughout the period of Muhammadan rule the Meos were the Ishmaelites of their own country and of the Upper Doab, though harried again and again by the kings of Delhi, from Nasir-ud-din Mahmud (1259) to Babar (1527). During the troubled times of Timur's invasion (1398) Bahadur Nahar, who founded the subdivision of Mewatis called Khanzadas, members of which were, for many years, rulers of Mewat, was one of the most powerful chiefs in this part of India. Under Akbar the tract was divided between the *sarkars* of Alwar and I'ijara in the *Sub ah* of Delhi. The rule of the Mewatis was subsequently challenged by the Jats, who had already risen to importance before the death of Aurangzeb in 1707, and consolidated their power in Southern Mewat in the first half of the eighteenth century; and from this time the history of

Mewat merges in that of Alwar and Bharatpur. The Meos and Mewatis, however, retained their character for turbulence ; and towards the end of the eighteenth century travelling in the Upper and Central Doab was unsafe owing to armed bands of Mewatl horsemen. They gave much trouble to Lord Lake's forces in the Maratha War of 1803, while in the Mutiny they and the Gujars were conspicuous for their readiness to take advantage of disorder.

[W. Crooke, *Tribes and Castes of the North-Western Provinces and Oidh*, vol. iii, p. 485 et seq., where full authorities are quoted.]

Mhasvad.—Town in the Man *tdhika* of Satara District, Bombay, situated in 17° 38' N. and 74° 48' E., 51 miles east of Satara town, on the road to Pandharpur. Population (1901), 7,014. Six miles south-east of the town, at Rajewadi in Aundh State, is the great Mhasvad irrigation lake, covering an area of 6 square miles. An ancient temple of Nath stands near the western entrance of the town. Its courtyard, in which Puranas are read daily by a Brahman, contains an inscription and a black stone elephant, which is greatly venerated. A large fair is held in December, at which cattle and blankets are sold. The municipality, constituted in 1857, had an income during the decade ending 1901 averaging Rs. 4,700. In 1903-4 the income was Rs. 5,300. The town contains a dispensary.

Mhow {*Maii*).—British cantonment in the Indore State, Central India, situated in 22° 33' N. and 75° 46' E., on the southern boundary of the Malwa plateau, and on the Ajmer-Khandwa branch of the Rajputana-Malwa Railway. Population (1901), 36,039. It stands on a somewhat narrow ridge of trap rock, with an average elevation of about 1,800 feet, the highest point near the barracks of the British infantry being 1,919 feet above sea-level. The ridge falls away abruptly on the south and east, but slopes away gradually on the west, forming a broad plain used as a brigade parade ground. Mhow was founded by Sir John Malcolm in 1818, in accordance with the conditions laid down in the seventh article of the Treaty of Mandasor {*see* INDORE STATE), and remained his head-quarters till 1821 while he held general political and military charge in Central India. In 1857 the garrison at Mhow consisted of a regiment of native infantry, the wing of a regiment of native cavalry, and a battery of field artillery, manned by British gunners but driven by natives. An outbreak took place on the evening of July 1, but order was rapidly restored, and only a few lives were lost, the Europeans taking refuge within the fort. The cantonment is now the head-quarters of the Mhow division in the Western Command. The garrison consists of one regiment of British cavalry, two batteries of horse artillery, one regiment of British infantry, one ammunition column, and two regiments of Native infantry.

The population in 1872 was 17,640; in 1881 it was 15,896, the

decrease being due to the withdrawal of the labourers employed in constructing the Rajputana-Malwa Railway in 1875; in 1891, 28,773; and in 1901, 28,457. Mhow has no export trade properly speaking, but the imports are considerable. The total receipts of the cantonment fund in 1903-4 amounted to 1-4 lakhs, including receipts from octroi (Rs. 50,000), *chaukldari* tax (Rs. 22,000), grants-in-aid (Rs. 31,000), and excise (Rs. 18,000). The chief heads of expenditure were medical and conservancy (Rs. 31,000 each), police (Rs. 19,000), public works (Rs. 17,000), general administration and collection of revenue (Rs. 10,000), water-supply (Rs. 3,000), and education (Rs. 1,400). The sanitary condition of the cantonment has been much improved of late years, a regular water-supply having been completed in 1888. The Cantonment Magistrate exercises powers as a District Judge and Judge of the Small Cause Court, his Assistant being a magistrate of the second class and a judge of the Small Cause Court for petty suits. Appeals from the Cantonment Magistrate lie to the First Assistant Agent to the Governor-General, who is Sessions Judge and first Civil Appellate Court, the Agent to the Governor-General being the High Court. The police, who belong to the Central India Agency force, number 107 men under a European Inspector. Three schools in the cantonment—the Parsi school with 400 boys and 60 girls, the railway school, and the convent school—receive grants-in-aid from cantonment funds. Besides the military hospitals, a civil hospital is maintained by local charity and a grant from cantonment funds.

Miani (1).—Port in Las Bela State, Baluchistan. See Soxmiyani.

Miani ('Fishing village') (2).—Village in the Hyderabad *tdluka* of Hyderabad District, Sind, Bombay, 6 miles north of Hyderabad city. Population (1901), 962. It was here that Sir Charles Napier, on February 17, 1843, with a force of 2,800 men and 12 guns, encountered a Baloch army numbering 22,000, strongly posted on the banks of the Fuleli. The enemy were totally routed, 5,000 men being killed and wounded, and the whole of their ammunition, standards, and camp taken, with considerable stores and some treasure. A monument marks the scene of the battle, and on the eastern side of the pillar are inscribed the names of the officers, and the number of rank and file, who fell. The village contains three schools, one of which is for girls.

Miani (3).—Town in the Dasuya *tahsil* of Hoshiarpur District, Punjab, situated in 31° 43' N. and 75° 34' E., on the Beas river. Population (1901), 6,118. It is of no commercial importance. The municipality was created in 1874. The income during the ten years ending 1902-3 averaged Rs. 1,700, and the expenditure Rs. 1,600. In 1903-4 the income was Rs. 1,800, chiefly derived from octroi; and the expenditure was Rs. 2,300. It maintains a Government dispensary.

Miani (4).—Town in the Bhera *tahsil* of Shahpur District, Punjab, situated in 32° 34' N. and 73° 5' E., on the left bank of the Jhelum, opposite Pind Dadan Khan. Population (1901), 7,220. It was formerly the depot to which all the salt from the Khewra mines was brought for dispatch down country, but its trade has been ruined by the extension of the North-Western Railway across the Jhelum to Khewra. The original town, called Shamsabad, having been swept away by a flood, Asaf Khan, father-in-law of Shah Jahan, founded the present one. It was plundered by Nur-ud-din, general of Ahmad Shah, in 1754, taken in 1783 and restored in 1787 by Mahan Singh, father of Ranjit Singh, who reopened the salt mart. The municipality was created in 1867. The income during the ten years ending 1902-3 averaged Rs. 8,000, and the expenditure Rs. 7,600. In 1903-4 the income amounted to Rs. 10,000, chiefly from octroi; and the expenditure was Rs. 8,400. The town possesses an Anglo-vernacular high school, maintained by the municipality, and a Government dispensary.

Mian Mir.—Former name of LAHORE CANTONMENT, Punjab.

Mianwali District.—North-westernmost District of the Multan Division, Punjab, lying between 30° 36' and 33° 14' N. and 70° 46' and 72° 0' E., with an area of 7,816 square miles. Of this vast area about three-fourths are east of the river Indus, comprising the *tahsils* of Mianwali, Bhakkar, and Leiah, which lie in that order from north to south along the river. On the east, the District is bounded by the Districts of Attock, Shahpur, and Jhang, while on the south it adjoins Muzaffargarh. The cis-Indus portion of the District is bounded on the west, for the greater part of its length, by the Indus, which divides it from Dera Ghazi Khan and the North-West Frontier District of Dera Ismail Khan. To the west of that river lies its remaining portion, the *tahsil* of Isa Khel, bounded to the west and north by the Bannu and Kohat Districts of the North-West Frontier Province. This consists mainly of a semicircle of level plain enclosed between the Chichali and Maidani hills and the Indus. North of Kalabagh, and between the termination of the Khattak hills and the Indus, lies the outlying tract of Bhangi Khel, a rugged area broken up by rough lines of hills, irregular but with a main direction from north to south. Vishorgun (4,001 feet above sea-level) is the highest point. The Isa Khel *tahsil* is the only tract with a Pathan population which the Punjab has retained west of the Indus.

The cis-Indus territory has a maximum length from north to south of 180 miles, and attains a width of 70 miles in Bhakkar, its central *tahsil*, which stretches eastwards almost to the

Physical aspects. Jhelum river. Thus the three cis-Indus *tahsils* of

Mianwali comprise the greater part of the Sind-Sagar Doab, the country which lies between the Indus and the

Jhelum. It includes two distinct tracts. Along the Indus lies a strip of riverain land, locally called the Kachhi, which is flooded by that river, and is of great fertility, though the action of the floods is often capricious, fields and hamlets being sometimes swept away in a few hours. About half the area is cultivated, the rest being covered with tall *Saccharum* grass and tamarisk scrub. The other tract is the vast barren upland known as the ^{THAL}, a desolate waste of shifting sandhills on a level surface of hard clay. On this upland brushwood grows sparsely, and the only cultivation is that round the scattered wells sunk amid the sandhills. A great part of this tract will be commanded by the projected Indus Canal. The monotony is unbroken by hills or rivers ; but its north-eastern corner runs up into the western flank of the Salt Range and the south-western slopes of the Sakesar hill, on which stand the summer head-quarters of the officials.

The Indus issues from the hills at Kalabagh in a narrow channel, but rapidly spreads till above Isa Khel its width from bank to bank is nearly 13 miles. The whole of the Kachhi is intersected with straggling branches of the Indus, chief of which is the Puzal.

The District is of considerable geological interest, for it includes both cis-Indus and trans-Indus portions of the ^{SALT RANGE}. The chief points of interest in the series as exposed here are the disappearance of the older palaeozoic beds, and the development of Jurassic and Cretaceous rocks. The salt marl and rock-salt still form the lowest member of the series; but as a rule all overlying formations, found in the eastern part of the range between the salt marl and the boulder-bed, are absent. The Jurassic beds are well seen in the Chichali pass, where they contain ammonites and belemnites, and are overlain by rocks with Lower Cretaceous fossils. Coal of fair quality occurs in the Lower Tertiary beds in the Isa Khel *tahsil*, and salt is quarried at Kalabagh \

The flora is in part that of the Western Punjab, but there is a strong admixture of West Asian and even Mediterranean forms. Trees are scarce, except where planted ; but the *tali* (*Dalbergia Sissoo*) is frequent along the Indus, and the Mesopotamian aspen (*Populus euphratica*) is reported from the south of the District. The Salt Range at Kalabagh has a flora of its own, corresponding to that of like situations on the ranges east of the Indus. The Thai sandhills are an extension of the Great Indian Desert, and their flora is largely that of North-western Rajputana.

An occasional leopard on the Salt Range and a few wolves are the only representatives of the fiercer beasts. *Ur id I* are to be found on

¹ See *Manual of Geology of India, passim* ; Wynne, ' Geology of the Salt Range,' *Memoirs, Geological Survey of India*, vol. xiv, and ' Trans-Indus Extensions of the Salt Range,' *ibid.*, vol. xvii, pt. ii ; C. S. Middlemiss, 'Geology of the Salt Range,' *Records, Geological Survey of India*, vol. xxi, v, pt. i.

MIANWALI DISTRICT

the Salt Range and in the Bhangi Khel hills, where *markhor* are also sometimes seen. 'Ravine deer' (Indian gazelle) are found in numbers in the Thai and along the foot of the hills. Wild hog are met with in a few islands in the south.

The greater part of the District is situated in the Thai, and has a fiercely torrid and long hot season, with extreme cold in the winter months. At Sakesar in the Salt Range the elevation is sufficient to make punkahs a luxury only, but the heat is considerable until the rains break. The District is on the whole healthy, but the neighbourhood of the Indus is malarious. Goitre is not uncommon near Kalabagh, and guinea-worm is prevalent in the Mianwali and Isa Khel *tahsils*. The annual rainfall is slight, varying from n-| inches at Mianwali town to 7 at Leiah.

Nothing is known of the early history. The remains at KAFIRKOT in Dera Ismail Khan and MARI in this District appear to testify to the existence in the north of a Hindu civilization possessed of considerable resources and architectural skill. The only other archaeological remains of any antiquity are some statues of Grecian type excavated at Rokhri, two erections near Namal in shape like sentry-boxes and supposed to be dolmens, and several massive tombs of dressed stone in the Salt Range. There are no remains in the Thai earlier than the fourteenth century, and there is every reason to suppose that this area was previously an uninhabited desert. The country appears to have been colonized in the beginning of the fifteenth century by an immigration of Jats from the south, followed by the Baloch, who came in large bands under recognized leaders and took possession of the country as a military caste and overlords of the Jat cultivators, founding the towns of Karor, Bhakkar, and Leiah. At the beginning of the seventeenth century we find the Jaskani Baloch ruling from the Indus to the Chenab, and from Bhakkar to Leiah, with their capital at Mankera. In the north the earliest inhabitants were the Awans, who were driven back to the Salt Range by the Niazi immigration in the sixteenth century. The Gakhars seem to have exercised an overlordship in the Mianwali *tahsil* as feudatories of the Mughal empire until 1748, when they were expelled by a Durrani army. The rest of the District was incorporated in the Durrani kingdom in 1756, and towards the end of the century became the province ruled over by Nawab Muhammad Khan Sadozai, whose successor annexed Isa Khel in 1818. The cis-Indus portion was seized by the Sikhs in 1822, after the fall of Mankera, and Isa Khel in 1836. On the outbreak of the second Sikh War a force of local levies was raised by Sir H. Edwardes at Leiah, which took part in the siege of Multan. The territories now comprised in Mianwali were annexed in 1849. The cis-Indus portion of the present District, together with the

Sanawan (or Kot Adu) *tahsil* of Muzaffargarh, formed the Leiah District, and Isa Khel formed part of Dera Ismail Khan. Sanawan was transferred to Muzaffargarh in 1859; and in 1861 Leiah District was abolished, the Bhakkar and Leiah *tahsils* going to Dera Ismail Khan, and Mianwali and Isa Khel forming part of the new District of Bannu. In 1901 the present District of Mianwali was constituted, being the original Leiah District without Sanawan and with Isa Khel. During the Mutiny the District was generally quiet; a detachment of irregular cavalry mutinied at Mianwali, but the rising was quickly suppressed.

The population of the area now included in the District at the last three enumerations was: (1881) 365,621, (1891) 400,477, and (1901) 424,588, dwelling in 5 towns and 426 villages. It has increased by 6·1 per cent, during the last decade, Population, the increase being greatest in the Leiah *tahsil*, and least in Isa Khel. The District is divided into the four *tahsils* of MIANWALI, ISA KHEL, BHAKKAR, and LEIAH, the head-quarters of each being at the place from which it is named. The towns are the municipalities of ISA KHEL, KALABAGH, BHAKKAR, LEIAH, KAROR, and MIANWALI¹.

The following table gives the chief statistics of population in 1901 :—

<i>Tahsil.</i>	Area in square miles.	Number of		Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
		e	Villages.				
Mianwali .	1,478		69	111,883	75·7	+ 7·7	3,564
t Isa Khel .	675	2	43	64,224	94·7	+ 0·5	2,227
¹ Bhakkar .	3,212	1	196	125,803	39·2	+ 5·5	5,509
Leiali . .	2,433	2	118	22,678	50·4	+ 8·1	4,345
District total	7,816	5	426	424,508	54·3	+ 6·1	>725

Note.—The figures for the areas of *ta/sils* are taken from revenue returns. The total District area is that given in the *Census Report*.

Muhammadans number 371,674, or over 87 per cent, of the total: Hindus, 50,202 ; and Sikhs, 2,633. Pashto is spoken by some of the Pathan inhabitants of the Isa Khel *tahsil*. Elsewhere various dialects of Western Punjabi are used.

The most numerous tribe is that of the agricultural Jats, who number 138,000, or 32 per cent, of the total population. Next to the Jats come the Pathans (47,000), Baloch (27,000), Awans (23,000), and Rajputs (6,000). But one commercial money-lending caste, the Aroras (42,000), is of numerical importance, the number of Khattris being only 2,000. Saiyids number 10,000. Of the artisan classes, the Julahas (weavers, 13,000), Mochlis (shoemakers and leather-workers, 10,000), Tarkhans (carpenters, 10,000), and Kumhars (potters, 7,000) are the

¹ Mianwali has been cited a municipality since the Census of 1901.

most important; and of the menials, the Machhis (fishermen, bakers, and water-carriers, 8,000), Chhimbas and Dhobis (washermen, 8,000), Chuhra and Kutanis (sweepers, 7,000), and Nais (barbers, 7,000). Kaneras, a caste which is found only in two other Districts, but is strongest here, number 2,000. Their original occupation was plaiting mats from grass and leaves, making string, and generally working in grass and reeds ; but they have now taken to weaving generally, and even cultivate land. Of the total population, 57 per cent, are supported directly by agriculture. The District contained only 16 native Christians in 1901.

The semicircle of plain on the west bank of the Indus enclosed between the river and the hills is level and open, has a good soil,

and where irrigated by hill streams produces excel-

lent crops. The stony hills of the Bhangi Khel

tract, on the other hand, a crop of the coarsest grain can be raised only in favourable seasons. Cultivation in the Kachhi depends entirely on inundation from the Indus, and the westerly trend of the river necessitates increased artificial irrigation by means of water-cuts and dams. The soil of the Thai is light and sandy, and cultivation is impossible without the aid of well-irrigation.

The area for which details are available from the revenue records of 1903-4 is 7,707 square miles, as shown below :—

<i>Tahsil</i>	Total.	Cultivated.	Irrigated.	Cultivable waste.
Mianwali ..	1,478	432	5	614
Isa Khel ..	678	170	30	182
Bhakkar ..		301	47	2,705
Leiah ...	2,412	259	131	2,000
Total	7,707	1,162	183	5,501

The chief crop of the spring harvest is wheat, which occupied 341 square miles in 1903-4. Barley and gram occupied 45 and 119 square miles respectively. Spiked millet (*bajra*) is the principal staple of the autumn harvest (203 square miles). Pulses occupied 87 square miles, and great millet (*jowar*) and oilseeds 45 square miles each. Little cotton, no rice, and practically no sugar-cane are grown.

The area cultivated has increased by 47 per cent, since the settlement of 1878, and tends to rise, owing to the extension of irrigation from wells and cuts from the hill streams or the Indus. Nothing has been done to improve the quality of the crops grown. Advances for the construction of wells and dams are readily taken from Government, about Rs. 29,000 having been advanced during the three years ending 1903-4.

The population of the Thai is largely pastoral : and cattle, sheep.

and goats are bred in large and increasing numbers. The local breed of cattle is, however, not of large size, and for the severe work of well-irrigation bullocks are generally imported from the south. Sheep-breeding is the principal means of livelihood of the inhabitants of the southern Thai; the sheep are of the ordinary thin-tailed breed. Camels are also bred in the Thai in large numbers. Buffaloes are found in all villages of the Kachhi. The people possess a good many horses, and the District board maintains one pony and three donkey stallions. A small cattle market is held weekly at Isa Khel.

Of the total cultivated area in 1903-4, 214 square miles, or 18 per cent., were classed as irrigated. Of this area, 185 square miles were irrigated from wells, and 29 from canals, and in addition 444 square miles, or 40 per cent., are subject to inundation from the Indus. The District possesses 7,310 masonry wells, besides 993 unbricked wells, water-lifts, and lever wells. Nearly the whole of the Kachhi is intersected by branches of the Indus; and in the higher portions dams are thrown across these streams and a few small canals excavated, but for the most part the people trust to inundation and percolation. The Kot Sultan Canal, which belongs to the MUZAFFARGARH INUNDATION CANALS, takes off from the Indus in the extreme south of the District; but with this exception the channels irrigating from the Indus are all private. Canal-irrigation in the Isa Khel *tahsil* consists of cuts from the hill streams, one channel being under the management of the Deputy-Commissioner. Well-irrigation is the great feature of agriculture in the Thai. In the north-east the spring-level is so deep that wells are used only for watering cattle, but in the west and south they supply a good deal of cultivation. In certain parts level strips are found free from sandhills, and these are full of wells. In the two southern *tahstls* the Kachhi is dependent on the overflow from the Indus, and considerable improvements in the management of its irrigation have been made in recent years, the westerly trend of the river necessitating more and more attention to this subject. It has been proposed to irrigate the greater part of the Thai by a perennial canal taking off from the Indus at Kalabagh.

The forest lands comprise 1,235 square miles of ' unclassified ' forest and Government waste under the control of the Deputy-Commissioner. In the Mianwali and Isa Khel *tahsils* these consist chiefly of groves of *shisham* (*Dalbergia Sissoo*), while in the Thai they are patches of waste land leased for grazing. The forest revenue in 1903-4 was Rs. 28,000.

Rock-salt occurs at many places in the Salt Range and in the Maidani range across the Indus. It is, however, worked only along the right bank of the river near KALABAGH, where the salt stands out in the form of solid cliffs and

Minerals

is quarried on the surface. Alum, which is abundant throughout

the whole Salt Range, was formerly manufactured at Kalabagh and Kotki (at the mouth of the Chichali pass), the process being almost identical with that in Europe ; but the industry has almost died out, owing to competition with other sources of cheaper supply. The shale from which alum was extracted was dug from shafts in the hill-side, sometimes of considerable depth. Coal or lignite of the oolitic period occurs at Jaba (cis-Indus), at Kalabagh, Chopri, Chasmian, and Sultan Khel (trans-Indus), and crops out in many other parts of the Salt Range. The largest outcrop is in the hills between Kalabagh and the Chichali pass in Isa Khel. It is found in lumps of various sizes among dark bituminous shales, not in beds, but in detached masses, which appear to be compressed and fossilized trunks of trees. The occurrence of these masses is altogether uncertain and irregular, so that nothing like a systematic working or shaft-cutting would be remunerative. The coal itself is hard and light, very black, but marked with brown streaks, and often encloses nests of half-decomposed wood resembling peat. It is not so easily inflammable as good coal ; it burns quickly, without coking, to a light-coloured ash, and emits a large amount of smoky yellow flame with but little heat. A seam of coal of some value was discovered in 1903 near Malla Khel.

Rock oil or petroleum is found at Jaba in Masan (cis-Indus), near Kundal in the Khisor range, and in lesser quantities elsewhere in the hills of Isa Khel and Mianwali. The Jaba reservoir was tapped scientifically about twenty years ago, and the oil drawn up sent to Rawalpindi for lighting purposes ; but the experiment was not remunerative. It is used for treating itch on camels and sheep, and also to light the Kalabagh mines when men are at work in the tunnels excavating shale for the alum manufactory. The hill at the foot of which the springs lie is said to contain sulphur. Gold is found in minute quantities, mixed with the sand of the Indus, and is extracted by a laborious process of washing; but the yield is very small. Salt-petre is made from the earth of old village sites, and limestone and building stone are found.

Iron vessels and instruments are manufactured at Kalabagh, and striped cotton cloth [*sus'ī*] is made there in considerable quantities.

A particularly excellent form of cotton check (*khes*)

Trade and communications. • made at Leiah. The weaving of baskets and

other articles from the dwarf-palm employs a fair number of workers. Water-mills for grinding corn are worked in large numbers on the hill streams of Isa Khel.

The chief exports are salt, alum, iron vessels, *siisī*, coal, articles made from the dwarf-palm, wheat and other grain, oilseeds, wool, and hides. The principal imports are iron, cotton piece-goods and thread, silk,

sugar, rice, potatoes, and timber. Exports go chiefly by rail and river to Multan and Karachi. The chief centres of trade are Mianwali, Kalabagh, Isa Khel, Bhakkar, Leiah, and Karor.

The line of the North-Western Railway running from Multan to Rawalpindi passes through the District, with a short branch to Mari opposite Kalabagh, and is joined at Kundian by the Sind-Sagar branch from Lala-Miisa. There are 2 miles of metalled road under the Public Works department, and 200 miles of unmetalled roads maintained by the District board. The principal road runs parallel to the railway through Mianwali, Bhakkar, and Leiah. There is no wheeled traffic, camels, mules, and donkeys being the means of conveyance. A great deal of traffic is carried on the Indus to Multan and Sukkur. The Indus is crossed opposite Dera Ismail Khan by a bridge of boats in the cold season, replaced by a steam ferry in the hot season, and by thirteen ordinary ferries. Inflated skins are largely used by the natives for crossing the river.

The District has never suffered seriously from famine. The Kachhi and a large proportion of Isa Khel are rendered secure by irrigation or floods, while the scattered cultivation in the _____ . Famine. 1 hal is entirely dependent on well-irrigation. In _____ the famine year of 1899-1900 the area of crops matured exceeded 70 per cent, of the normal area.

The District is divided for purposes of administration into the four *tahsils* of MIANWALI, ISA KHEL, BHAKKAR, and LEIAH, each under a *tehsildar* and a *jaib-tehsildar*. The two last form _____ the Bhakkar subdivision, under the charge of an _____ Administration, Assistant Commissioner. The Deputy-Commissioner is aided by three Assistant or Extra-Assistant Commissioners, one of whom is in charge of the District treasury. For the prevention of the illicit extraction of salt, a preventive establishment supervised by a European officer is located at selected points among the hills, from which all exposed salt can be seen.

The Deputy-Commissioner as District Magistrate is responsible for criminal justice. The District Judge is in charge of civil judicial work, and both officers are under the supervision of the Divisional and Sessions Judge of the Shahpur Civil Division. There are three Munsifs : one sits at head-quarters, one at Bhakkar, and one at Karor. The Frontier Crimes Regulation is in force throughout the District. The Isa Khel *tahsil* is subject to inroads from trans-border outlaws and their confederates in Kohat and Bannu. Cattle-stealing is the principal crime. Besides the facilities which the great Thai desert affords for transporting cattle into other Districts, the high jungle along the bank of the Indus makes a most effective hiding-place, especially in the flood season. Crime in the Thai also is very hard

to detect, owing to the great distances between police stations. Professional trackers are largely employed, and occasionally accomplish marvellous feats of long-distance tracking.

The fiscal conditions which obtain in the north are very different from those of the southern *iahsils*, and even the two northern *tahsils* have widely different histories. Miánwáli appears to have paid the large sum of ig- lakhs under Sikh rule. Lump assessments were made on annexation and in 1850, until in 1853 the Deputy-Commissioner of Leiah made a summary settlement of all the country west and south of the Salt Range, including the modern *tahsils* of Miánwáli, Leiah, and Bhakkar. Leiah and Bhakkar had been summarily settled once before, and a careful measurement of all the cultivation was made. The demand for the three *iahsils* was more than 3^ lakhs. Various other summary settlements were made in these *tahsils*, but the Leiah District was broken up in 1861.

Isa Khel became subject to the Durránis on the downfall of the Mughal empire, and paid revenue to them, sometimes without, but more often after, coercion. In 1836 the Sikhs established themselves here. The annual amount they realized is not known, but after annexation a quarter of the estimated value of the crops was collected for four years. In 1853 John Nicholson made a summary settlement, based on these collections, imposing a severe assessment which lasted for five years. In 1857 another and more lenient summary assessment was made, which remained in force for eighteen years.

The regular settlement of Bannu District, made in 1871-9, treated the *tahsils* of Miánwáli and Isa Khel very lightly. A fluctuating assessment was generally levied in the riverain tracts, Rs.- 1-4 per acre being charged on all land sown in any year, except land newly broken up, which paid 12 annas. These *iahsils* came under revision of settlement in 1903, and an increase of Rs. 72,000, or 39 per cent., on the old revenue of 1-9 lakhs is expected.

The regular settlement of Dera Ismail Khan District was carried out from 1872 to 1879. The Thai tract of the Bhakkar and Leiah *tahsils* was assessed at a fixed revenue, but the assessment broke down, and since 1887 a semi-fluctuating system has been in force. The Indus valley portion of these two *iahsils* was originally assessed at a fluctuating acreage rate. At the latest settlement, 1898-1904, the same system of semi-fluctuating assessment, somewhat modified in its details, has been continued in the Thai of both *tahsils*. The principle is that, when a share equal to from one-fourth to three-fourths of the area irrigated by a well falls out of cultivation, a corresponding fraction of the assessment will be remitted. The revenue on the ' dry ' cultivation and the grazing revenue are fixed. In the Indus valley a system of fluctuating crop-rates has been introduced, and the whole

revenue varies. The demand, including cesses, for the whole District in 1903-4 amounted to nearly 5-7 lakhs. The average size of a proprietary holding is 57 acres, but some very large holdings raise the average.

The collections of land revenue alone and of total revenue are shown below, in thousands of rupees :—

	1900-1.	1903-4.
Land revenue . .	4,27	4,6
Total revenue . .	6,05	6,07

The District contains six municipalities : MIÂNWĀLI, ISA KHEL, KĀLĀDĀGH, BHAKKAR, LEIAH, and KAROR. Outside these, local affairs are managed by a District board, whose income in 1903-4 was Rs. 40,000, mainly derived from a local rate. The expenditure in the same year was Rs. 45,000, the largest item being Rs. 17,000 spent on education.

The police force numbers 492 of all ranks, including 81 municipal and 8 ferry police, under a Superintendent, who usually has 3 inspectors under him. There are 15 police stations and 5 police posts. The District jail at head-quarters has accommodation for 317 prisoners of all classes.

The District stands sixteenth among the twenty-eight Districts of the Province in respect of the literacy of its population. In 1901 the proportion of literate persons was 3.7 per cent. (6.7 males, 0.3 females). The number of pupils under instruction was 7,589 in 1900-1, and 8,290 in 1903-4. In the latter year there were 4 secondary, 72 primary, and 3 special (public) schools, 1 advanced and 208 elementary (private) schools, with 412 girls in the public and 967 in the private schools. The principal school is the high school at Miânwāli town. Industrial schools for girls are maintained at Isa Khel and Mankerā. The total expenditure on education in 1903-4 was Rs. 27,000, of which Local funds contributed Rs. 15,000, municipal funds Rs. 2,600, and fees Rs. 4,000.

Besides the Miânwāli civil hospital, the District has five out-lying dispensaries. These institutions in 1904 treated a total of 98,407 out-patients and 2,349 in-patients, and 4,962 operations were performed. The expenditure was Rs. 15,000, District and municipal funds contributing Rs. 5,000 each, and Government Rs. 5,000.

The number of successful vaccinations in 1903-4 was 10,464, representing 24.7 per 1,000 of the population. The Vaccination Act has been extended to the towns of Miânwāli, Isa Khel, and Leiah.

[D. C. J. Ibbetson, *District Gazetteers of Bannu and Dera Ismail Khan* (1883-4); S. S. Thorburn, *Settlement Report of Bannu* (1879); H. St. G. Tucker, *Settlement Report of Dera Ismail Khan* (1879).]

Mianwali Tahsil.—Head-quarters *tahsil* of Mianwali District, Punjab, lying between 32° n' and 33° 2' X. and 71° 16' and 71° 58' E., with an area of 1,478 square miles. The population in 1901 was 111,883, compared with 103,909 in 1891. It contains the town of MIANWALI¹ (population, 3,591), the head-quarters; and 69 villages. The land revenue and cesses in 1903-4 amounted to Rs. 72,000. The northern part of the *tahsil* is enclosed between the western slopes of the Salt Range on the east and the Indus on the west, forming a picturesque corner, which contrasts with the monotonous level of the remainder of the cis-Indus territory of the District, in which its southern part lies.

Mianwali Town.—Head-quarters of the District and *tahsil* of Mianwali, Punjab, situated in 32° 35' N. and 71° 31' E., on the high left bank of the Indus, 655 feet above sea-level. It is the residence of a notable Saiyid family, the Mians of Mianwali, descended from a local Muhammadan saint, and themselves possessing a great reputation for sanctity. Population (1901), 3,591. Mianwali was long the head-quarters of the Mianwali subdivision of Bannu District, and was made the head-quarters of the new Mianwali District in 1901. The civil lines are situated about half a mile from Mianwali, which is little more than a village, and has no commercial importance. It was made a municipality in 1903-4, and contains a hospital and a model Government high school.

Michni.—Fort in the District and *tahsil* of Peshawar, North-West Frontier Province, situated in 34° n' N. and 71° 27' E., on the left bank of the Kabul river, close to where it issues from the hills, and 15 miles north of Peshawar city. The fort, which commands an important ferry over the Kabul river, was constructed in 1851-2 on account of the numerous raids by Mohmands from beyond the frontier. Lieutenant Boulnois, in command of the party constructing the fort, was murdered here by Mohmands in 1852; and in 1873 Major MacDonald, the commandant of the post, was murdered in its vicinity. There is no village of Michni; but the Tarakzai Mohmands have settlements all round, those on the south side of the river being in British territory. Fort Michni was formerly under the command of a field officer, subordinate to the Brigadier-General at Peshawar; but in 1885 it was handed over to the border military police, who now hold it with a garrison of twenty men.

Midagesidurga.—Fortified hill, 3,376 feet high, in the north-east of Tumkur District, Mysore, situated in 13° 50' N. and 77° 12' E. It is said to be named after a princess who was burned here with the corpse of her husband. Rani of the same family held it till it was

¹ Created a municipality since the last Census, and hence not shown as a town in the table on p. 319.

taken about 1670 by the Maddagiri chiefs, in whose hands it remained till captured by Haidar All in 1761. The Marathas took it in 1767, but it was recovered by Tipu Sultan in 1774.

Midnapore District (*Medinipur*).—Southernmost District in the Burdwan Division of Bengal, lying between 21° 36' and 22° 57' N. and 86° 33' and 88° 1' V E., with an area of 5,186 square miles. Midnapore is the largest and most populous of the Bengal Regulation Districts ; and it is proposed to subdivide it into two Districts in order to ensure greater efficiency of administration. Its western boundary marches with Balasore District and the Mayurbhanj Tributary State of Orissa and with the Singhbhum and Manbhum Districts of Chota Nagpur, while its southern boundary is the coast-line of the Bay of Bengal. To the east the Hooghly river and its tributary the Rupnarayan separate it from the Twenty-four Parganas, Howrah, and Hooghly Districts, while on the north it is bounded by Bankura.

This extensive District comprises three tracts of well-marked characteristics : the north and west are of laterite formation, the east is deltaic, and the south is seaboard. The Contai

and Tamluk subdivisions, on the sea-coast and the Physical aspects, estuary of the Hooghly, contain the mouths of the 'r',

Rasulpur and Haldl rivers. They are comparatively free from malaria and produce very rich crops of rice. The Ghatal subdivision, farther north, slopes back from the bank of the Rupnarayan ; the soil is a rich alluvium, but much of its area is liable to floods, and, though excellent crops are reaped, the inhabitants suffer greatly from malaria. The head-quarters subdivision consists in the north and west of thinly wooded and rocky uplands forming part of the fringe of the Chota Nagpur plateau ; here the climate is good, though the laterite soil is dry and infertile. Towards the east and south the level dips, and a swampy hollow is formed between the elevated country to the west and the comparatively high ground along the coast. The conditions in this tract are very similar to those in the Ghatal subdivision which it adjoins. In the north-west corner there are several hills over 1,000 feet in height, but the rest of the District is nearly level. The scenery is varied in the north and west, where there are extensive *sd/* forests and the country is undulating and picturesque.

The chief rivers are the HOOGHLY and its three tidal tributaries, the RUPNARAYAN, the Haldl, and the Rasulpur. The Rupnarayan joins the Hooghly opposite Hooghly Point ; its chief tributary is the Silai, flowing in a tortuous course through the north of the District and navigable as far as Ghatal. The Haldl falls into the Hooghly opposite the northern point of Sagar Island. Its principal tributaries are the Kaliaghai and the Kasai, neither of which is navigable ; the latter rises in Manbhum District and flows past Midnapore town. The

Rasulpur rises in the south of the District, and joins the Hooghly a little below Kedgerie and the Cowcolly lighthouse. The SUBARNA-REKHA enters the District from Singhbhum, and passes through the jungle tract of Western Midnapore into Balasore District; it is not navigable.

In the extreme north-west corner of the District there is a low ridge, formed of grey and bluish grey micaceous schists with bands of a more igneous character. The plains are covered in the north and west by lateritic rocks, which gradually give way in the south and east to the ordinary alluvium of the Gangetic delta. At the surface the laterite invariably contains small rounded fragments of other rocks, and in places these become conglomeratic, pebbles of quartz coated with oxide of iron and rounded fragments of other rocks being frequently formed. Close to Midnapore town, where a section is exposed, more than 50 feet of solid laterite are seen superposed in large tabular masses upon a soft soapy greyish white and reddish clay, resembling the kaolin clays which result from the decomposition of felspathic rocks.

In land under rice cultivation are found the usual marsh weeds of the Gangetic plain and many sedges, while the surface of ponds, ditches, and still streams is covered with aquatic plants. The homesteads are embedded in shrubberies of semi-spontaneous growth. Some species of figs, notably the *plpal* and the banyan, make up, along with the red cotton-tree (*Bombax malabaricum*), *Mangifera*, *Moringa*, and *Odina IVodier*, the arborescent part of these thickets, in which numbers of *Phoenix dactylifera* and palmyra palms (*Borassi/s flabeæli-fer*) are often present. Hedges and waste places are covered with climbing creepers and various milkweeds.

Bears and deer are still plentiful in the west, and leopards and hyenas are not uncommon. There are a few wild elephants and wolves, and a tiger is occasionally seen. Wild buffaloes were formerly common in the south, but these have disappeared with the extension of cultivation. Small game is plentiful, including wild geese, ducks, snipe, ortolans, teal, and hares; but, excepting the migratory birds, all game is decreasing. Snakes are numerous.

The climate of the arid tract in the north and west is very different from that of the swamps in the east and south. The average mean temperature for the whole District is about 80°. The coast-line is wetter and cooler than the higher portion. In the north and west, where the surface is of red laterite and the hot westerly winds from Central India penetrate, exceptionally high day temperatures are a feature of the hot months, and the mean maximum temperature rises to 102° in April and May. The monthly rainfall averages less than an inch for November, December, January, and February, and between 1 and 1^ inches in March and April, after which there is a rapid

increase. The rainfall in June averages 9*50 inches, in July 12*42, in August 13*18, in September 9*04, and in October 4*43 inches. The annual total averages 59 inches.

The great cyclone of 1864 caused serious loss of life and property in the south-east; no less than 53,000 deaths were reported, and the returns were far from complete. The immediate losses were equalled, if not exceeded, by the mortality caused by the scarcity and pestilence that resulted from the destruction of the crops and the pollution of the drinking-water supply. Heavy storms, all causing more or less damage to life and property, have occurred on twelve other occasions during the last seventy years. In the alluvial tract the rivers frequently overflow their banks and cause widespread havoc to the crops; owing to silt the mouth of the rivers are obstructed, and large tracts of country remain submerged for weeks after a flood. In 1889 the Bengal Government found it necessary to appoint a Commission to investigate the causes of the frequent occurrence of these floods, and as a result the cross-damming of tidal channels for agricultural purposes has been restricted.

The eastern portion of Midnapore originally formed part of the kingdom of Suhma or Tamralipta, the ancient name of Tamluk, which is now the head-quarters of a subdivision on the Rupnarayan^{TT*} river. It derives its name from *tamra*^r History. ('copper'), which was once an important article of export. The earliest traditional kings of Tamluk were Kshattriyas of the Peacock dynasty, who were succeeded by Kaibarttas. The whole District, with Kalinga or Orissa, came under Buddhist influence in the fifth century B. C. Early in the fifth century A.D. the Chinese pilgrim Fa Hian spent two years at Tamluk and thence took ship for Ceylon. Another Chinese pilgrim, Hiuen Tsiang, wrote of Tamluk in the seventh century as still an important harbour, with 10 Buddhist monasteries containing 1,000 monks and a pillar of king Asoka. Midnapore District nearly coincides with the Muhammadan division known as *sarkdr* Jaleswar, which had for its capital the town of that name now situated in Balasore District, and was included in Orissa at the time of Todar Mai's settlement in 1582. This *sarkdr* paid to the Mughal emperor a revenue of 12½ lakhs, but during the last half-century of Muhammadan rule the Marathas collected revenue from the southern portions of the District.

It was at HijilT, at the mouth of the Rasulpur river, that Job Charnock with a small force defended himself successfully in 1687 against an overwhelming army of Mughals, and it was from this place that he sailed to found Calcutta. The British occupation of the District dates from the year 1760, when Mir Kasim, who had been mdde Subahdar of Bengal by the British, assigned to the East India

Company the three Districts of Burdwan, Midnapore, and Chittagong to meet its military expenses. By a subsequent treaty, dated July 10, 1763, Mir Jafar, who had been reinstated in place of Mir Kasim, confirmed the cession of these Districts, which were then estimated to furnish nearly a third of the whole revenue of Bengal. As a result of the decisive battle of Buxar, the Diwani of Bengal, Bihar, and Orissa was conferred in perpetuity on the East India Company in 1765. The Orissa therein referred to included only the District of Midnapore and a part of Hooghly ; Orissa proper was not conquered from the Marathas until 1803. The principal officer of the Company in this province was the Chief or Resident at Midnapore.

In the early years of British administration much trouble was given by the chiefs of the hilly country within as well as without the boundary, and frequent expeditions had to be made against them. The southern portion of the District, now the Tamliik and Contai subdivisions, was at first administered by a Salt Agent and Collector at Hijili. Tamluk was transferred to Midnapore in 1789; but Hijili remained a separate Collectorate up to 1836, when a quarter of it was amalgamated with Midnapore and the rest with Balasore. Dhalbhum originally formed part of Midnapore, but it was transferred in 1833 to Manbhum and subsequently to Singhbhum; in 1876, however, forty-five outlying villages were again included in Midnapore. In 1872 the *parganas* of Chandrakona and Barda were transferred from Hooghly District.

The principal object of archaeological interest is the temple at TAMLUK, which is of Buddhist origin, but is now dedicated to the goddess Barga-Bhlma, or Kali. In the high lands there are various old *garJis* or forts of the petty jungle Rajas, of which little is left but the sites. Many of the large tanks are of great age, and some of the embankments constructed to restrain the rivers are anterior to the British occupation.

The population fell from 2,542,920 in 1872 to 2,515,565 in 1881, but rose again to 2,631,466 in 1891 and to 2,789,114 in 1901. The decrease in 1881 was due to the prevalence of an

Population. epidemic of malaria known as the 'Burdwan fever,' but since that year there has been a steady increase. During the last decade there was an advance of about 6 per cent. Midnapore is now fairly healthy, with the exception of the low tracts of the Ghatal subdivision and the centre of the District, where malaria is prevalent. Hepatitis is not uncommon, and elephantiasis exists in the swampy parts of the alluvial portion of the District. Cholera has diminished since the opening of the railway, as the pilgrims to and from Purl no longer throng the roads spreading the disease in their train. The principal statistics of the Census of 1901 are shown below :—

Subdivision.	Area in square miles	Number of			Population	Density	Sex ratio
		H	M	F			
Midnapore .	3,271	1	3-78-	1=277.749	391	+ 4.5	95.598
Ghatai . .	372	5	1,042	324,991	874	- 0.9	38,100
Tamluk . .	1,788	1	1,578	583,238	593	+ 9.0	92.139
Contai . .	549		2,062	603,136	710	+10.6	69,227
District total	5,186*	7	8,464	2,789,114	538	+ 6.0	295,064

* Includes 41 square miles returned as uninhabited river-beds.

Five of the towns—Ghatai, Chaxdrakoxa, Kharar, Ramjibanpur, and Khirpai—are situated in the north-east of the District, which suffered from the 'Burdwan fever' epidemic, and they have scarcely yet regained the population they then lost. The remaining towns are Midnapore, the head quarters station, and Tamluk. The pressure of population is greatest along the banks of the Rupnarayan and the estuary of the Hooghly, the maximum density being found in the Tamluk *thana*, where there are 1,156 persons per square mile. Farther inland the climate is bad and the density gradually decreases. In the west the cultivable area is small, and the density steadily diminishes until, on the confines of Singhbhum and Mayurbhanj, it drops to 259 per square mile. The Contai subdivision is the most progressive part of the District, the increase being greatest in the Contai *thana*, which in the course of ten years has added nearly a sixth to its population, and in the other three coast *thanas*. On the other hand, the Ghatai subdivision and the Debra, Sabang, and Narayanagar *thanas* in the head-quarters subdivision are decadent. This is due, not only to the prevalence of fever, but also to a movement of the population from the densely crowded and waterlogged tracts in the north-east and centre of the District to the newly reclaimed lands along the coast and tidal rivers in the Contai and Tamluk subdivisions. There is a small loss by emigration. The railway has attracted coolies and employes, but it has also facilitated temporary migration to Calcutta and Hooghly. Of every 100 persons, 80 speak Bengali, 10 Oriya, 3 Hindi, and the remainder other languages. Oriya is spoken in the Contai subdivision and also in the western *thanas* of the head-quarters subdivision. Hindus number 2,467,047, or 88 per cent, of the total ; Muhammadans, 184,958, or 7 per cent. ; and Animists, 135,050, or 5 per cent. The Hindus and Muhammadans have increased slightly at the expense of the Animists, who are found only in the north and west of the District.

The Kaibarttas are the great race or caste, numbering no less than 883,000, or nearly a third of the whole population. The Bagdis

(142,000), another aboriginal caste, who gave their name to the ancient Bagri (South Bengal), are also strongly represented ; and so are the Sidgops (131,000), a cultivating branch of the Goalas. The Santals (148,000) are numerous in the north-west of the District. Of the higher castes, Brahmans (r 14,000) are more numerous than elsewhere in Bengal proper, and the Kayasths with the Karans, the indigenous writer caste of Orissa, number 91,000. The Baishnabs (93,000) have considerably increased during the last decade, but the Tantis or weavers have lost ground. Of the Muhammadans, 121,000 are Shaikhs and 22,000 are Pathans. Agriculture supports 77 per cent, of the population, industry 10 per cent., and the professions 3 per cent. The population is more distinctively agricultural than in any other part of West or Central Bengal.

The Christian population is increasing, and in 1901 numbered 1,974, of whom 1,545 were natives. The American Free Baptist Mission works among both the Bengalis and the Santals | there is a small Roman Catholic mission to the Santals; and Church of England missions are established at Midnapore town and Kharakpur.

The new alluvium in the east and south produces abundant rice crops. In the west and north rice is grown in the depressions between successive ridges by terracing the slopes, and maize, millets, oilseeds, and pulses are grown on the uplands; but the crests of the ridges are very infertile. Along the sea-board and on the banks of tidal rivers and creeks, dikes are necessary to keep out the salt water, and similar embankments are erected to protect the lowlands in the interior from inundation by floods. The non-tidal rivers are dammed for irrigation purposes, so that the alluvial tract is covered with a network of embankments and cross-dams, which seriously impede the drainage, and in years of heavy rainfall large areas are waterlogged. The chief agricultural statistics for 1903-4 are shown below, in square miles :—

Subdn ision.	Total.	Cultivated.	Irrigated from canals.	Cultivable waste.
Midnapore . .	372	1	130	243
GhâLâl . . .	372	' 242		47
Tamliik . . .	653	376	15	171
Contai . . .	S-t'J	,		S ₉
Uninhabited river-ber's	41	1...		
Total	5,186	13, > 27	> 45	55°

The uncultivable area extends over no less than 1,509 square miles, in the rocky western uplands and on the sea-shore and in the big rivers.

The staple product is rice, which occupies nearly three-fourths of the cultivated area. The winter crop, comprising 93 per cent, of the

total area under rice, is sown in the early part of the rainy season and reaped in November, December, and January. In the most highly cultivated parts the seed is first sown in nurseries, but in the low-lying lands it is sown broadcast. The autumn crop is sown broadcast on dry land in the months of April, May, and June, and reaped in August and September. The spring crop is sown broadcast after the rains, and is cut in March and April; it usually requires irrigation. The other crops are wheat, barley, peas, linseed, mustard, sesamum, sugar-cane, *pan* {*Piper Betle*), mulberry, jute, cotton, and indigo. Tobacco, turmeric, and market-garden produce are grown in small quantities on the homestead lands.

Land on which winter rice is grown seldom yields a second crop, but wheat, barley, peas, and linseed are often grown on land from which an early rice crop has been taken. Only 3-6 per cent, of the cultivated area was twice cropped in 1903-4. On some of the uplands a crop is raised only once every two or three years ; this is usually sesamum or some other variety of oilseed. The cultivation of indigo, which was grown on high lands or the banks of rivers, has almost entirely died out, as the price of the dye has fallen so low that it no longer pays to manufacture it here. The silk industry has greatly decayed, owing largely to diseases amongst the worms.

Little space exists for further extension of cultivation in the alluvial tract; but much good land remains to be brought under cultivation in the west, and here the work of reclamation is now in progress. ¶I he out-turn in many parts might be much increased by substituting transplanted for broadcast rice. Fields are often manured with cow-dung and ashes; but the canal-irrigated and flooded tracts do not require manure, as the silt brought down by the water fertilizes the soil. Government loans are not popular, and during the ten years ending 1904 only about Rs. 1,000 a year was taken under the Land Improvement Loans Act and nothing under the Agriculturists' Loans Act.

The cattle are of the degenerate species met with in the plains of Bengal, and it is to be feared that they are still further deteriorating owing to the encroachment of tillage on the pasture lands. Attempts have been made at Midnapore town with some success to improve the breed of cattle by importing cows from Bihar and bulls from Hissar. Buffaloes are common in the south and are mostly kept for milk. No less than forty-three fairs are held, but they are generally of a religious or semi-religious nature, and few cattle are sold at them.

The main source of irrigation is the Midnapore High-level Canal, which takes off from an anicut across the Kasai river just below Midnapore town, and runs to Ulubaria on the Hooghly, 16 miles below Calcutta. It was completed in 1873 at a cost of 80 lakhs, and has a navigable length of 72 miles, including the portions of the Kasai,

Riipnarayan, and Damodar rivers into which it flows ; regular steamer services, however, have ceased to ply since the opening of the Bengal-Nagpur Railway to Calcutta. It has several distributaries, one of which is navigable, and in 1901 it supplied water to 80,000 acres of rice, or one-twentieth of the crop. Irrigation from tanks and embanked depressions is conducted in the upland tracts, but many of these tanks have been allowed by the landlords to fall into decay. In a year of good rainfall the average yield per acre of rice and straw from irrigated lands is 22 and 38 maunds, compared with 16 and 29 maunds respectively from unirrigated lands.

No ' reserved ' or protected forests exist, but the western uplands are clothed with small *sal* (*Shorea robusta*), *mahui* (*Bassia laiifolia*), tamarind, and *palas* (*Butea frondosa*). The jungle products are lac, *tasar* silk, wax, wood dye, bark fabrics, resin, firewood, and charcoal. The *mahud* flower and various jungle roots are used as food.

The District contains 110 mines, but laterite and limestone are quarried. The former is of the kind known as rock laterite, and is close grained, hard, and durable; it is generally met with at a depth varying from 2 to 4 feet below the surface. Magnesian potstones are also found. Alluvial gold occurs in small quantities, and also iron and soapstone.

Excellent mats are manufactured at Raghunathbari, Kasijora, and Narajol, whence they are exported to Calcutta. Pottery is made in the neighbourhood of Ghatal for use in the metropolis,

Trade and communications. *anj* *lj* *grass* *anj* *co* *pp* *q* utensils are manufactured in

Midnapore town for local sale. Bell-metal ware is extensively manufactured in Kharar, and exported to Calcutta and elsewhere. *Tasar* silk is manufactured in the north, but the processes are old-fashioned and the manufacturers are poor. Weavers are to be found in Chandrakona and other places, but the industry is being killed by competition with machine-made imported fabrics. A Lyons firm owns a silk factory at Guruli in the Ghatal subdivision. Salt was formerly manufactured by Government on an extensive scale along the coast, but the manufacture has now ceased.

Large quantities of rice are sent to Calcutta. Among the other exports are sugar and molasses, jute, linseed, gram, pulses, charcoal, brass and bell-metal ware, timber, hides, mats, silk and cotton cloth, *tasar* silk, pottery, and vegetables. The chief imports are cotton goods, coal and coke, kerosene oil, gunny, salt, tobacco, potatoes, enamelled ware, nails, &c. The principal trading marts are Midnapore, Ghatal, Tamluk, Kukrahati, Panskura, Chandrakona, Balighai, Kasiari, Garhbeta, and Nawada. Much trade is also done at the fairs held at TulsichurS, Gopballabhpur, Mahishadal, and Egra. Many parts of the District enjoy special facilities for trade. The tidal rivers Hooghly,

Rupnarayan, Haldi, and Rasulpur afford an easy means of communication with Calcutta, and the canals carry much of the rice exported.

The main line of the Bengal-Nagpur Railway from Calcutta to Bombay traverses the District from east to west; and at Kharakpur the East Coast section branches to the south, and the line through Bankura and the Jherria coal-fields to the north. These lines have all been opened since 1899.

The Orissa trunk road from Kola, on the Rupnarayan, through Midnapore to Dantan on the frontier of Orissa and the pilgrim road from Midnapore to RanTganj are in charge of the Public Works department. They are metalled and, except where they cross the Silai and Kasai, fully bridged, and have an aggregate length of 112 miles. The District board maintains 364 miles of metalled and 376 miles of unmetalled roads, and there are 754 miles of village tracks. The principal roads are bridged except where they cross big rivers. They lead from Midnapore to Chichra on the Singbhum border, from Ghatal to Sijua on the Manbhum border, from Panskura to Tamluk, from Contai Road railway station to Contai, from Pirakata to Garhbeta, from Midnapore to the Burdwan border, from Garhbeta to Chandra-kona, and from Tamluk to Contai. Notwithstanding the numerous excellent roads, much of the traffic in the interior is still carried by pack-bullocks.

The Coast Canal runs from Geonkhali at the junction of the Rupnarayan and Hooghly rivers to the Haldi river, and thence to the Rasulpur river and through the canalized Sarpai river to Contai. About 8 miles above Contai it is continued into Balasore District. It is a tidal canal with locks, and is used solely for drainage and navigation; but the traffic has much decreased since the opening of the railway along the East Coast, and the regular service of steamers has ceased. The first two reaches of this canal from Geonkhali to the Rasulpur river, called the Hijili Tidal Canal, were opened in 1873, and the remainder, called the Orissa Coast Canal, in 1885. The Midnapore High-level Canal, from opposite Midnapore on the Kasai river to Dainan on the Rupnarayan, was opened in 1873; it is used for navigation as well as irrigation.

Daily steamer services run from Calcutta via Geonkhali to Tamluk and Kola. Country boats ply in the Bay of Bengal, and on the Hooghly and the other tidal rivers of the District; these are made near Contai, are partly decked, and will stand a moderate sea.

The District is not specially liable to drought, but the years 1766, 1770, 1792, 1851, 1866, and 1897 were years of famine or scarcity.

Of the first three little is known, but in 1851 it was ^{p_{am}ine} estimated that nearly five-eighths of the rice harvest was destroyed. In 1866 the District was involved in the great Orissa

famine. After a year of exceptional floods, a severe and protracted drought in 1865 resulted in a loss of half the winter rice crop, and the distress reached its height in August and September, 1866. Relief was afforded much too late and was meagre in the extreme; and although no accurate statistics of the mortality were obtained, it was estimated at 50,000, or no less than one-tenth of the total population of the famine tract. In 1897 a portion of the Binpur *than a*, about 100 square miles in area, with a population of 25,000, was affected by scarcity.

Midnapore District is one of the heaviest charges in Bengal. For the purposes of administration it is divided into four subdivisions, with

Administration. „ . . A head-quarters at Midnapore, Ghatal, Tamluk, and Contai. 1 he staff at Midnapore town subordinate to the Magistrate-Collector, who is also *ex-officio* Assistant to the Superintendent of the Tributary Mahals, Cuttack, and has the powers of a Revenue Superintendent of Canals in Howrah District, consists of a Joint-Magistrate, seven Deputy-Magistrate-Collectors, an Assistant Magistrate-Collector, and a special Deputy-Collector for excise. Each of the three outlying subdivisions is in charge of a Deputy-Magistrate-Collector : at Tamluk he is assisted by a Sub-Deputy, and at Contai there is a second Deputy-Magistrate-Collector for the management of *khas mahdls*. The Executive Engineer of the Kasai division of the Public Works department is stationed at Midnapore.

Civil justice is administered by a District Judge, with two Sub-Judges and four Munsifs at Midnapore, four Munsifs at Contai, four Munsifs at Tamluk, and one Munsif each at Ghatal, Dantan, and Garhbeta. The criminal courts include those of the District Magistrate, the District and Sessions Judge, the Joint, Assistant, Deputy, and Sub-Deputy Magistrates. Midnapore is a heavy criminal District, and has long been notorious for the number of dacoities committed within its borders. These are largely the work of Tuntias, a Muhammadan caste, whose traditional occupation is the cultivation of the mulberry-tree (*tunt*) for feeding silkworms. This occupation having become unprofitable, many of them have taken to criminal courses, and are professional thieves and dacoits.

The current land revenue demand in 1903-4 was 24-49 lakhs, of which 18-90 lakhs was payable by 2,733 permanently settled estates, Rs. 89,000 by 200 temporarily settled estates, and the balance by 67 estates held by Government. The demand is larger than that of any other District in Bengal except Burdwan, and is equivalent to 36 per cent, of the reported gross rental of the District, the incidence on each cultivated acre being Rs. 1-2. The Permanent Settlement never extended to the Pataspur *pargana*, which adjoins Orissa and was in the possession of the Marathas, along with that province, until

1803. Among the other estates which escaped the Permanent Settlement are Jalamuta, Majnamuta, Kalyanpur, and Balarampur. The proprietors of Jalamuta and Majnamuta refused to engage for them at the time of the Permanent Settlement on any but temporary conditions, on account of the liability of these estates to inundation. Kalyanpur in the west of the District consists of *taufir* or 'excess' lands, which by an oversight were left unsettled in 1793. The Balarampur *pargana*, in the neighbourhood of Kharakpur, was purchased by Government in 1838 at a sale for arrears of revenue. Pataspur was surveyed and settled for fifteen years from 1897. The other temporarily settled estates, with an area of nearly 500 square miles, are now under resettlement.

The average rent per acre for occupancy ryots' lands in the Pataspur estates is Rs. 3-4-1, but rates vary greatly in different parts. Land on which winter rice is grown usually fetches about 50 per cent, more than that used for early rice, and sugar-cane land is about twice as valuable as the best rice land. In addition to the rent, a cash premium of from Rs. 30 to Rs. 75 an acre is usually taken at the commencement of a new lease.

The following table shows the collections of land revenue and of total revenue (principal heads only), in thousands of rupees :—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue .	22,45	24,34	22,40	24,13
Total revenue .	31,007	34,95	37,30	39,75

Outside the municipalities of Midnapore, Tamluk, Ghatal, Chandrakona, Ramjibaxpur, Khirpai, and Kharar, local affairs are managed by a District board, with four subdivisional local boards and five Unions. The income of the District board in 1903-4 was Rs. 3,38,000, of which Rs. 1,75,000 was derived from rates; and the expenditure was Rs. 3,47,000, of which Rs. 2,16,000 was spent on public works and Rs. 99,000 on education.

The system of railways and canals has already been described. Embankments have been constructed on an extensive scale, some with a view to protecting the coast-line from the invasion of the sea and preventing an inrush of salt tidal water from the creeks, and others to prevent the flooding of low lands by the overflow from the rivers. In all, no less than 75 miles of embankments are maintained by the Irrigation department, 543 miles at the public expense, and the balance at the cost of the parties benefited. A sea dike nearly 42 miles in length, extending from the western boundary of the District to the Rasulpur river, protects the coast from inundation by storm-waves ; it was constructed by Government in 1864-74 at a cost

of 6 lakhs. The right bank of the Hooghly from the Rasulpur to the Rupnarayan river is protected by an embankment, which is extended along the west bank of the Rupnarayan as far north as Ghatal. Both banks of the tidal rivers HaldT and Rasulpur and of several tidal *khd/s* are also similarly embanked. The Kasai river is hemmed in on both banks for a distance of 120 miles to prevent its waters from overflowing, and so is the Silai river for a distance of 25 miles; the Kaliaghai river is also embanked. Most of the embankments which are now maintained at public expense were in existence before the country came under British administration ; they were originally in charge of the *zamindars*, but they were greatly neglected, and it was found necessary for Government to undertake their repair in order to ensure the punctual collection of the revenue. Various measures have been adopted to improve the drainage in the waterlogged areas in the east and south of the District by cutting channels, deepening rivers and *khd/s*, and providing sluices in embankments ; but there is much scope for further work in this direction.

There is a lighthouse at Geonkhali on the right bank of the Hooghly, opposite the northern point of Sagar island.

The District contains 26 *thdtias*, 10 outposts, and 4 road-posts. In addition to the District Superintendent and his Assistant, the force includes 7 inspectors, 68 sub-inspectors, 68 head constables, 649 constables, and 109 town *chaitkiddrs*; there is also a village police of 494 *daffadars* and 5,863 *chmikidars*. The regular force is small for this large area, as there is only one policeman to 8.6 square miles and to 4,832 persons. The majority of the village *chaukiddrs* are now under Act VI (B.C.) of 1870, but many of them in the west of the District are still remunerated by service lands. The latter are the successors of the *paiks*, or foot-soldiers, who were retained by the *zaviindars* of former times as a defence against the incursions of Marathas and hill-robbers; their service lands are being gradually resumed, and they are being enlisted on regular pay under the Bengal Chaukidari Act. A Central jail at Midnapore town has accommodation for 1,340 prisoners, and sub-jails in the outlying subdivisions for 48.

At the Census of 1901 the proportion of literate persons was 10.6 per cent. (20.5 males and 0.7 females), a larger proportion than in any other part of Bengal except Calcutta and Howrah. The total number of pupils shown in the returns of the Educational department increased from 81,000 in 1883 to 107,000 in 1892-3, and 118,000 in 1900-1. There was a slight fall in 1903-4, when 102,000 boys and 12,000 girls were at school, being respectively 48.8 and 5.7 per cent, of the children of school-going age ; both proportions compare favourably with the ratios for the whole of Bengal. The number of educa-

tional institutions, public and private, in 1903-4 was 4,263, including an Arts college, 118 secondary, 4,077 primary, and 66 special schools. The expenditure on education was 4-63 lakhs, of which Rs. 35,000 was met from Provincial funds, Rs. 94,000 from District funds, Rs. 6,000 from municipal funds, and 2-62 lakhs from fees. A training school at Binpur for aboriginal tribes and depressed castes, under the management of the American Baptist Mission, supplies teachers to 39 attached *pdthsalas* in the Jungle Mahals. A small technical school at Midnapore town is aided from District funds, and a *madrassa* at Pataspur is provided with a hostel from Provincial revenues. The District also contains 58 Sanskrit *to/s*, of which 53 have adopted the standards prescribed by the Educational department.

In 1903 the District contained 14 dispensaries, of which 7 had accommodation for 123 in-patients. The cases [of 20,000 out-patients and 1,500 in-patients were treated during the year, and 4,700 operations were performed. The expenditure was Rs. 29,000, of which Rs. 4,000 was met from Government contributions, Rs. 5,000 from Local and Rs. 12,000 from municipal funds, and Rs. 7,000 from subscriptions.

Vaccination is compulsory only in municipal areas. Elsewhere it is very backward, and in 1903-4 only 68,770 persons, or 25-5 per 1,000 of the population, were successfully vaccinated.

[Sir W. W. Hunter, *Statistical Account of Bengal*, vol. iii (1876); *Reports of the Embankment Committee* (Calcutta, 1839-40, reprinted in 1901); J. Price, *Early History of Midnapore* (Calcutta, 1876); *Selections from the Records of the Government of Bengal on the Settlement of Jaldmud and Mdjnamud Estates in Midnapore* (Calcutta, 1882); *Embankment Committee's Report* (Calcutta, 1888).]

Midnapore Subdivision.—Head-quarters subdivision of Midnapore District, Bengal, lying between 21° 46' and 22° 57' N. and 86° 33' and 87° 43' E., with an area of 3,271 square miles. The subdivision consists in the north and west of thinly wooded and rocky uplands. The climate is good, but the laterite soil is dry and infertile. Towards the south and east the level dips, and a swampy hollow is formed between the elevated country to the west and the comparatively high ground along the coast. The population in 1901 was 1,277,749, compared with 1,223,248 in 1891, the density being 391 persons per square mile, which is much less than in any other subdivision. It contains one town, Midnapore (population, 33,140), its head-quarters; and 3,782 villages. Kharakpur, 8 miles from Midnapore town, is an important railway junction.

Midnapore Town (*Medinipur*).—Head-quarters of Midnapore District, Bengal, situated in 22° 25' N. and 87° 19' E., on the north bank of the Kasai river. Population (1901), 33,140, of whom Hindus

numbered 26,094, Musalmans 6,575, and Christians 398. The town was formally declared the head-quarters of the District in 1783, but a factory and fort had been built here more than twenty years previously. Midnapore has no great industry or trade, though brassware, rice, and timber are exported on a small scale. The town shows little tendency to grow. It has been recently connected with the Bengal-Nagpur Railway system by a branch line to Kharakpur. Midnapore was constituted a municipality in 1865. The income during the decade ending 1901-2 averaged Rs. 60,000, and the expenditure Rs. 58,000. In 1903-4 the total income was Rs. 64,000, of which Rs. 18,000 was derived from a tax on houses and lands, Rs. 14,000 from a conservancy rate, Rs. 12,000 as fees from educational institutions, and Rs. 6,000 from a tax on vehicles. The incidence of taxation was Rs. 1-2-3 Per head of the population. In the same year the expenditure of Rs. 63,600 included Rs. 2,000 spent on lighting, and the same amount on drainage, Rs. 16,000 on conservancy, Rs. 11,000 on medical relief, Rs. 4,000 on roads, and Rs. 20,000 on education. The town contains the usual public buildings, and also a church and a Central jail. The jail has accommodation for 1,340 prisoners, who are employed on cloth-weaving, cane- and basket-work, mat-making, carpentry, and the manufacture of mustard oil. The American Baptist Mission maintains a training school and printing press. The educational institutions include an Arts college and a small technical school.

Midnapore Canal.—A navigable and irrigation canal in the Midnapore District of Bengal. Construction was begun by the East India Irrigation and Canal Company in 1886; the works were taken over by Government two years later, and irrigation commenced in 1871. The canal originally formed part of the Orissa Canals scheme, but was at an early stage separated and treated as a distinct project. The water-supply is derived from the Kasai river at Midnapore, where there is a regulating weir with head-works, and the canal extends to Ulubaria on the Hooghly, crossing the Rupnarayan and Pamodar rivers.

The length of the main canal is 72 miles, and of its distributaries 267 miles, and the maximum discharge is 1,500 cubic feet per second. The whole length of the main canal is navigable, and the estimated value of cargo carried in 1902-3 was 63-8 lakhs, the tolls collected amounting to Rs. 70,000. The capital outlay up to March 31, 1904, was 84-8 lakhs, and the gross revenue for that year amounted to 2-2 lakhs, the net revenue being Rs. 70,000; the total area irrigated was 146 square miles. Before the opening of the Bengal-Nagpur Railway the canal formed part of the main route between Calcutta and Midnapore; the railway has tapped the canal traffic and caused

MILAK

a falling off in the receipts from navigation, which has been accompanied, however, by a corresponding decrease in working expenses.

Mihrpur.—Subdivision and town in Nadia District, Bengal. See Meherpur.

Mikir Hills.—A tract of hilly country in Nowgong and Sibsagar Districts, Eastern Bengal and Assam, lying between the Assam Range and the Brahmaputra, about 26° 30' N. and 93° 30' E., but cut off from the main mountain system by the valleys of the Dhansiri on the east, and of the Kapili and its tributaries on the west. The northern hills are composed of gneissic rocks, which towards the south are overlain by sedimentary strata of Tertiary origin. These younger rocks consist of soft yellow sandstones, finely laminated grey clay shales, and nodular earthy limestone. Limestone is found near the Nambar, Deopani, Hariajan, and Jamuna rivers, and iron ore is of widespread occurrence, though the haematite is seldom sufficiently concentrated to pay for working. Coal of inferior quality is found near the Langlei hill and the Nambar river. The hills have steep slopes, and both they and the intervening valleys are covered with dense jungle. They extend over an area of about 2,000 square miles and average from 1,000 to 2,000 feet above the sea, though the loftiest summits attain a height of nearly 4,500 feet. The Mikirs, the tribe inhabiting these hills, speak a language which occupies an intermediate position between Bodo or Kachari and the various forms of Naga speech. In character and habits they differ entirely from the savage hillmen to the south, and are quieter and more timid than any other tribe in Assam. Dalton states¹ that they were originally driven from the hills of North Cachar to the Jaintia Hills, where they are still to be found in considerable numbers; but the majority of the tribe were displeased with the treatment they received, and moved to the locality which has since borne their name. Similar migrations were undertaken by the Lalungs, a kindred neighbouring tribe, who according to their traditions went to the Jaintia Hills to escape the necessity of providing the Kachari Raja with a daily ration of six seers of human milk, and left because they did not like the matriarchal theory of inheritance there in force. The Mikirs are said to have been compelled to forswear the use of arms by the Ahom government, and this is offered as an explanation of their present peaceful disposition. They live in small hamlets near the crops of rice, cotton, and chillies which they raise on the hill-side. Their houses are large and strongly built, and are raised on platforms above the ground. Rice is their staple food, but they eat fowls and pork and consume large quantities of fermented liquor.

Milak.—South-eastern *tahsil* in the State of Rampur, United Provinces, lying between 28° 34' and 28° 51' N. and 79° and

¹ *Ethnology of Bengal*, p. 54.

79° 18' E. with an area of 156 square miles. Population (1901), 94,046. There are 201 villages and one town, Milak (population, 2,615), the *tahsil* head-quarters. The demand for land revenue in 1903-4 was Rs. 3,83,000, and for cesses Rs. 46,000. The density of population, 603 persons per square mile, is slightly above the State average. The *tahsil* lies in the fertile central tract. In 1903-4 the area under cultivation was 115 square miles, of which 24 were irrigated, chiefly from canals.

Milam.—Village in the District and *tahsil* of Almora, United Provinces, situated in 30° 26' N. and 80° 9' E. Population (1900), 1,733. The village is inhabited only in the summer, when it is the residence of the Bhotia traders with Tibet. It lies at an altitude of 11,400 feet, 13 miles south of the ANTA DHURA pass, to which access is obtained by a difficult and trying ascent. Below the village, near the Gorl stream, is a considerable stretch of alluvial land, which in summer produces buckwheat and barley. The surrounding country is bleak and desolate, but presents a scene of peculiar grandeur. Lofty snow mountains shut in the valley, and waterfalls are numerous and often of considerable beauty. The London Mission has a station here, and there is a school with about 50 pupils.

Milur.—Subdivision, *taluk*, and town in Madura District, Madras. See Melur.

Minbu Division.—South-western Division of Upper Burma, lying entirely in the Irrawaddy basin, between 18° 52' and 22° 50' N. and 93° 59' and 95° 52' E. It is bounded on the north by the Upper and Lower Chindwin Districts; on the east by the Lower Chindwin, Sagaing, Myingyan, Yamethin, and Toungoo Districts; on the south by Prome District; and on the west by the Arakan Division and the Chin Hills. It comprises four Districts: Thayetmyo in the south, lying astride the Irrawaddy, mainly in Lower Burma; Minbu and Magwe, north of Thayetmyo, the former between the Irrawaddy and the Arakan Yoma, the latter between the Irrawaddy and the Pegu Yoma; and Pakokku, extending from the Irrawaddy and Chindwin to the Chin Hills. The Commissioner of the Division also exercises control over the Pakokku Chin Hills, which lie to the west of Pakokku. With the exception of a comparatively narrow strip of hill country in the west, practically the whole of the Division lies in, and is typical of, what is known as the dry zone of Burma. The population of the Division (excluding the Pakokku Chin Hills) was 997,269 in 1891, and 1,076,280 in 1901. Its distribution in 1901 is shown in the table on the next page.

The population is distributed over 7 towns and 4,714 villages. The head-quarters are at MINLU (population, 5,780), in river communication with all the other District head-quarters. The other towns are

PAKOKKU (19,456), Thayetmyo (15,824), Allanmyo in Thayetmyo District (10,207) SALIN in Minbu District, and MAGWE and TAUXG-dwingyi in Magwe District. Pakokku and Allanmyo are trade centres, and both Thayetmyo and Salin are towns of some antiquity, but there are no important historic sites in the Division. By far the greater number of the people are Burmans, who aggregated 1,009,102 in 1901. Chins (to the number of 43,810) inhabit the Arakan Yoma and Chin Hills along the western border, and, to a small extent, parts of the Pegu Yoma also. In Pakokku District are a community known as the Taungthas, numbering 5,701. Shans and Chinamen are few in number, as are natives of India. The Census of 1901 showed totals of only 4,768 Hindus and 4,696 Musalmans.

District.	Area in square miles.	Population, 1901.	Land revenue ¹ <i>an&thathameda</i> , 1903-4, in thousands of rupees.
Thayetmjo . .	4,750	239,706	4,57*
Pakokku . . .	6,210	356,489	
Minbu . . .	3,299	233-377	6,62
Mag\te . . .	2,913	246,708	5,07
Total	17,172	1,076,280	24,79

* Includes capitation tax in Thayetmyo.

Minbu District. A dry zone District in the Minbu Division of Upper Burma, lying along the western bank of the Irrawaddy, between 19° 50' and 21° 2' N. and 94° 2' and 95° 2' E., with an area of 3,299 square miles. It is bounded on the north by Pakokku District; on the south by Thayetmyo; on the east by the Irrawaddy, which separates it from Magwe District; and on the west by the Arakan Yoma, which divides it from Kyaukpyu. Roughly speaking, the land over the greater part of the District rises from east

to west away from the Irrawaddy valley. In the extreme east are sandy plains on the banks of the river, which gradually become broken undulations, and then give place first to rocky jungle-covered hills and finally to the steep and even majestic range that severs the District from the Arakan coast-lands and the sea. This configuration is modified by various small rivers which flow into the Irrawaddy and drain the uplands. Cultivation is chiefly confined to the strips of land extending east and west which these rivers irrigate, and to the alluvial tract running north and south along the course of the Irrawaddy. Between these irrigated tracts, and covering almost the whole of the south of the District, is dry gravelly country clothed with scrub jungle, ending in the extreme south in a spur of hills which breaks off at right angles from the western range.

The ARAKAN* YOMA, which forms the barrier between Minbu and Kyaukpuyu, runs south-east and north-west, and rises in places to a height of over 5,000 feet. Parallel to the main range on the east, and between it and the river, are the Nwamadaung hills, a chain running the entire length of the District, but far lower than the Yoma, averaging in height only about 600 feet. Of the rivers of Minbu, the Irrawaddy is the most important. It skirts the District for about 80 miles, and its width opposite Minbu town is nearly 3 miles, though the expanse of waters is broken even in the rains by one or other of the numerous shifting sandbanks which here make navigation difficult at all seasons. In the course of the year the river level rises 40 feet, the most constant rise being from June till the beginning of September, and in flood-time the current flows at a rate of 5 or 6 miles an hour. The other rivers of the District—the Salin, the Mon, and the Man—are all tributaries of the Irrawaddy, which find their source in the hills in the west. The Salin rises in the Pakokku Chin Hills, not far south of Mount Victoria, and enters the District from the north, flowing in a southerly direction from Pakokku District to about 35 miles from the boundary, when it bends abruptly and takes a north-easterly course to meet the Irrawaddy near Sinbyugyun. For the greater part of its course in the District it is a broad, slow, shallow stream, with low indefinite banks and a gravelly bed. Above Salin in the dry season it holds but little water, and below that town it is quite dry. The alluvial plain skirting it is well watered by an extensive system of canals. The Mon rises in the mountains west and north of Mount Victoria, and enters the District at its north-west corner. It runs first in a south-easterly direction along a narrow valley between the Arakan Yoma and the Nwamadaung. Below Sidoktaya it pierces the latter range and emerges on the plain, flowing eastwards across it for about 34 miles in a wide channel before entering the Irrawaddy. Its waters are perennial, and the rich valley it is capable of irrigating will in the near future be a very valuable rice tract. The Man rises in the Arakan Yoma in the south-west corner of the District, and flows in a north-easterly direction through a break in the Nwanuidaung hills into the Irrawaddy, which it enters at Minbu. Like the Salin its waters are diverted into irrigation canals, but the stream is of little size in the dry season.

Two lakes are worthy of mention ; one at Paunglin, and one known as the Wetthigan lake. The former is situated near the Irrawaddy, 10 miles south-east of Salin town, and is really a lagoon fed by the overflow of the Irrawaddy. In the hot season the bed is practically dry, and is sown with rice. When the Irrawaddy rises the water rushes in through two creeks which are dammed up as soon as the river begins to subside, and until the dry season comes round again

the sheet of water thus formed is worked as a fishery by the neighbouring villages. It provides good duck-shooting in the cold season. The Wetthigan lake, which is not fished, as it was held sacred under Burmese rule, is formed by rain-water and the outflow from the Salin canals. It has an area of 366 acres, and lies half a mile to the west of Salin town.

North of Minbu town the country is overlaid with the alluvium of the Mon and Irrawaddy rivers. South and west of the town the ground is undulating, and is occupied mainly by soft sandstones of Upper Tertiary (pliocene) age, containing fossil wood and fragments of mammalian bones. A small area of miocene rocks is brought up near Minbu by an anticlinal fold consisting of blue and olive clays with soft sandstones, belonging to the upper or Yenangyaung stage of the Pegu series. Traces of oil are found along the crest of this anticlinal, and on it, near Minbu, a number of mud volcanoes are situated¹. The miocene beds are also exposed in the western part of the District, extending along the foot of the Arakan Yoma, followed in the hills by Nummulitic shales and limestones (upper eocene). West of these again is a band of purple schists, and green and purple shales (Chin shales), traversed by numerous dikes of dolerite and dark-green serpentine. Steatite occurs in association with the serpentine, and is quarried near I'a-aing and Sinlan, west of the Nwamadaung.

The vegetation follows the three natural divisions adverted to in an earlier paragraph, and may be divided into the flora of the alluvial and irrigated tracts, that of the dry uplands, and that of the submontane and Yoma zones. In the alluvial belt we find a stretch of savannah, the chief constituent grasses being *Imperata arundinacea* and *I. exaltata*; trees are sparse here, the more common ones being *Bombax malabaricum*, *Bittea frondosa*, and *Parkinsonia aculeata*. Moist hollows are frequent; as a rule they are surrounded by a copse of shrubs and trees, generally *Xanthophyllum glaucum*, and filled up with *Polygonum stagnium* or *Combretum trifoliatum*. Round villages toddy-palms (palmyras) and coco-nut palms are common, and banyans, *pipah*, mangoes, or jack-fruit trees are usually to be found. The banks of the Irrawaddy are covered with a great variety of herbaceous plants. The irrigated areas present much the same features as the alluvial, though the coarse grasses of the latter are to a considerable extent here replaced by *Desmodium trilorum*, *Tephrosia purpurea*, and similar plants, while *Calotropis* is quite common. The dry upland vegetation is peculiarly characteristic of the District. It forms a rolling wilderness of prickly scrub, the principal shrubs in which are the so-called wild plum (*Zizyphus Jujuba*), *Randia dumetorum*, special species of *Capparis*, and the cactus-like *Euphorbia aitiuorum*. True cactus is also found

¹ F. v. Soelling, *Memoirs, Geological Survey of India*, vol. xxvii, pt. ii. p. 35.

near villages. Trees are scarce, the only common kinds being *Albizzia Lebbek* and *Acacia leucophlaea*, the latter providing welcome oases of bright verdure in the burnt-up scenery of the hot season. In the mountain tracts, the Nwamadaung hills are clad with deciduous forest, and present a very bare appearance in the hot season owing to the almost total absence of herbaceous undergrowth. The lower slopes of the Yoma proper are clothed with deciduous forests of much the same kind, while its upper crests are covered with evergreen forest.

From the sportsman's point of view the District is as well provided with wild animals as any in Burma. Tigers are common in places, elephants, bison, the *tsine* or *hsaing* (*Bos sondaicus*), and the Tibetan bear are plentiful, and leopards are dangerously numerous. The Malayan bear and the rhinoceros are also found. Of the deer tribe, the *sambar* (*Cervus unicolor*), the *thamin* (*Cervus e/di*), and the hog deer abound in places, while the barking-deer is a pest to cultivators. Wild hog are not uncommon, and three kinds of wild dogs are to be found: namely, the ordinary grey wild dog, the jackal, and a wolf. Porcupines and otters occur, but very rarely. Among game-birds the silver pheasant, Hume's pheasant, the bamboo partridge, and the Chinese francolin deserve special mention ; while peafowl, jungle-fowl, rain quail, button quail, snipe, teal, and most varieties of duck all find a habitat in the District.

The climate of Minbu varies. In the hilly portion west of the Nwamadaung it is, except during the first four months of the year, deadly for Europeans, and even for Burmans, save those who actually live in the hills, whereas in the east the conditions are much the same as in other Districts in the dry zone of Upper Burma. The cold season lasts from November till February, the hot season from March till May, and the rains from June till November. The cold season is delightful, but April and May are oppressively sultry, and Minbu has the reputation of being one of the hottest Districts in Burma during those two months. The following maxima and minima were recorded in 1901 : December, 89° and 60°; May, 107° and 87°; July, 95° and 77°. In April and May the thermometer rises not infrequently to 109°. The nights, however, are nearly always cool, even in the most sultry weather.

The annual rainfall for the five years ending 1900-1 averaged 26-6 inches. It should be noted, however, that the rainfall in the hills in the west is often nearly double that in the eastern portion of the District. In the east, which is a typical dry zone area, steady downpours lasting for days are unknown. When it comes, the rain descends in showers which seldom last more than four or five hours. There are floods of some extent every year, and the rise of the river corresponds roughly with the rainfall. It is estimated that an ordinary

high flood occurs every three years, and an unusually high flood one year in five.

The early history of Minbu is pure legend, being concerned largely with the doings of Alaungsithu, king of Pagan, who is credited with having improved the early irrigation systems of the History District in the twelfth century. Under Burmese rule the charge of what is now Minbu District was entrusted to three *wuns* living at Salin, Sagu, and Xgape, while Minbu itself was administered by an official called a *penin* ('coxswain of a royal boat'). Each *wun* had under him a *sitke* (technically military officer), a *nahkan*, and a *sayegyí* or head clerk, while all important villages were under a *myothugyi*. Of the towns, Salin was then the largest, containing in 1826 some 10,000 inhabitants. Minbu was first occupied by the British in March, 1886, and became the head-quarters of a military command in July. In the succeeding year the troops were gradually withdrawn, and Myingyan became the military head-quarters. The chief feature in the annexation of the District was the stubborn resistance offered by two dacoit leaders, Xga Swe and Oktama, the former operating chiefly south of the Man river, the latter north of the Man as far as Salin. Nga Swe, who, as a border *thugyi*, had frequently harried British territory, collected a large following and captured Ngape, a police outpost, in May, 1886. After an unsuccessful attempt to capture him, in which Mr. Phayre, the Deputy-Commissioner, lost his life, he was driven out; but he then laid siege to the village of Thabyebin, which was only relieved after the British garrison had been reduced to sore straits. The occupation of various outposts in his country and vigorous pursuit by mounted infantry drove this notorious outlaw eventually to Thayetmyo District, where he was killed. Oktama was a *po/igyí* who collected a band of insurgents, and attacked and burnt Sagu in April, 1886. He was driven out, but reappeared in June of the same year with 3,000 men and laid siege to Salin. The gang dispersed after this, but later gave much trouble round Pylongyaw; and it was not till June, 1889, that Oktama was betrayed into British hands and hanged after due trial.

The only archaeological remains of interest are a few pagodas. Salin is a town of some antiquity, having been founded, according to tradition, about A.D. 1200, by Narapadisithu, king of Pagan; and the remains of the old city wall present a fine specimen of ancient Burmese fortification. Of pagodas, the most important is the Shwezettaw ('the golden foot') in the Sagu township, not far from Minbu town. It is said to derive its name from the fact that when Buddha came to Burma he went to the site of the Shwezettaw pagoda and there left his footprints, one by the bank of the Mon stream, and one on the top of the hill which rises sheer on the opposite bank. Thither every year

MIX/!U DISTRICT

at the time of the pagoda festival, which lasts from the middle of February to the middle of March, come streams of gaily-dressed pilgrims from every part of Burma. The pagoda at Kyaungdawya in the Legaing township is revered as marking the place where Buddha rested during the same visit. Other important pagodas are the Koktheinnayon near Salin, and the Myatsepo and Shwebannyin. both in the Legaing township. Towards the upkeep of three pagodas and two *natsins* (' spirit shrines ') the Archaeological department makes an annual grant.

The population was 215,959 in 1891 and 233,377 in 1901. Its distribution in the latter year is shown in the following table :

	2	1	2	5	10	15
Township. .c-- = 1 m	2	1	2	5	10	15
Sagu ..	1421	<97	5 7,699	106	+ 32	15 444
Legaing .	f>33	*46	36,397	68	+ 1	8,574
Ngape ..	362	144	16,033	44	+ 22	3,867
Salin ..	741 1	464	10 7	x36	+ 2	27,850
Sidoktaya .	1,121 ..	108	22,511	20	— 8	4,686
District total	3,299 2	1,»59	233,377	7'	+8	63,721

The only towns are the municipalities of MINBU and SALIN. There has been a distinct increase of population in all the townships except Legaing, which will probably develop rapidly when the new canals are completed, and the sparsely populated and hilly township of Sidoktaya in the west. The growth in the Salin township as a whole is accompanied by a diminution in Salin town, the precise cause of which is doubtful. There has been considerable immigration of recent years from Magwe and Myingyan Districts. Along the Irrawaddy valley villages are numerous and the density of population is high, but the forest-clad areas on the slopes of the Yoma are very thinly populated. There are no Christian missions and only 101 native Christians. The Chins are nearly all «^/-worshippers; otherwise Buddhism reigns supreme. Burmese is the vernacular of 93 per cent, of the people.

The majority of the population is Burman everywhere, except in the western townships, where it is composed largely of Chins of the Chinbok tribe ; and tradition has it that Salin was originally a Chin □ colony. The Chins in all numbered 15,600 in 1901, forming one-fifth of the population of the Ngape township, and half that of Sidoktaya. The people of Sagu and parts of the Salin township are said to be of Shan descent, and the weaving village of Nwetame, a suburb of

Sinbyugyun, is reckoned a Shan colony : but the Census returned only 1,000 Shans. In connexion with the population, mention should be made of the large landed proprietors of Salin known as *thugaungs*, rich families who have gradually come to form a separate class, intermarrying among themselves, and living in almost patriarchal fashion. Their houses are as a rule surrounded by spacious compounds, in which are lodged their tenants and retainers, and at least one compound contains a school for the children of the *thugaung's* followers. The *thugaungs*, it may be noted, freely recognize their Chin origin. Natives of India numbered 1,850 in 1901, the total being equally divided into Hindus and Musalmans. About one-third of them live in the two municipalities. About 66 per cent, of the entire population are directly dependent on agriculture for a livelihood. Of this total, more than a third are dependent on *taungya* cultivation alone.

The District is an essentially agricultural one; but the light rainfall, the vicissitudes of the seasons, and the easy-going disposition of the people make their agricultural income sadly precarious. Especially is this the case with those who, living at a distance from rivers or canals, cultivate upland crops, such as sesamum and *jozvar*, which are particularly dependent on a proper distribution of moisture. Of the capabilities of the soil on the whole the cultivator has no reason to complain, for, apart from irrigated and alluvial land, he can grow *mogaung* rice in the hollows of the undulating uplands (*indaing*), and the crop only requires proper rain to be profitable. But agricultural practice is slovenly : no care is taken in the selection of seed at harvest; a large amount of land is tilled badly instead of a small amount well, and no trouble is taken to manure the fields.

Rice is usually transplanted, but it is also occasionally sown broadcast on lands flooded late by the Irrawaddy. Ploughing is done with the *tun* or harrow; sometimes in river-flooded land even this process is dispensed with, and the soil is merely stirred up by driving cattle to and fro over it. On alluvial land the *te* or plough is used, a rude but effective instrument; and clods are crushed on rice and alluvial land by an implement called the *kyanbaung*.

The area under cultivation varies very considerably from year to year, owing to the irregularity of the rainfall. The table on the next page exhibits the main agricultural statistics for 1903-4, in square miles.

The area under rice is comparatively large for a District in the dry zone. It is the staple crop, occupying more than 120 square miles in 1903-4, and is both lowland (*/<?*) and hill (*taungya*). Next in importance is sesamum, covering r 16 square miles. About 49 square miles are under pulses of various kinds; but maize and *jozvar* are grown to a very

much smaller extent than in the other dry zone Districts, occupying together only about 70 square miles. Oam, hardly grown at all in the adjoining District of Magwe, here covers 18 square miles, and is increasing in popularity. The tobacco crop in 1903-4 (3,000 acres) was small compared with that of the previous year. About 700 acres are under cotton. The area devoted to garden cultivation (2,000 acres) is small, but is larger than in many other dry zone Districts. Betel-vines and plantains are cultivated in the Legaing township, and mangoes, coco-nuts, and the like in the Salin township. The betel vineyards at Pwinbyu on the Mon river are deserving of special mention.

Township.	Total area.	Cultivated.	Irrigated.	Forests.
Sagu ..	542	105	24	V- 1,561
Legaing ..	533	70	H	
Ngape ..	362	9	5	
Salin ..	74	186	46	
Sidoktaya .	1,121	15	5	
Total	3,299	385	94	1,561

Cultivation is on the increase, especially in the uplands ; and when the Mon canal system is completed, there should be a large increase in irrigated land also. The introduction of new varieties of seed is a difficult task. An improved kind of plantain has, however, been brought from Mandalay, and a dry variety of pea from the United Provinces, while attempts are being made to get tobacco-growers to experiment with Havana seed. After bad years cultivators are much helped by the system of agricultural loans. The average amount allowed for the District is Rs. 13,800 per annum, every rupee of which, in hard times, is applied for, and very little has ever to be written off subsequently as irrecoverable.

Cattle-breeding is carried on, but scientific breeding requires a care and attention which the people are but little disposed to give to it. Cows are extensively kept, but almost solely for breeding purposes; a cow that produces a good heifer at once rises in value. Trotting bullocks are also in considerable demand. Ponies, too, are bred; but colts and foals are ridden far too young, and though good colts are doubtless kept for breeding purposes, no care at all is taken over the selection of mares. Something is at present being done to encourage sound breeding by the institution of an annual agricultural show at Sagu. Buffaloes are found chiefly in the villages along the Irrawaddy. They are not used in the upland tracts, and only occasionally on irrigated land. The average price for a pair of buffaloes is between Rs. 120 and Rs. 150.

Ample provision for grazing grounds was made at the time when the District was settled, but the system has not been found very successful

in practice. Allotments of land for grazing purposes have frequently to be revoked, because the land is required for cultivation, and very often what is allotted is too far from the village to be of much use. In the irrigated tracts no grazing grounds have been reserved at all, and cultivators here send their cattle to upland villages when turning them out to grass.

The total area of irrigated land in 1903-4 was 94 square miles, dependent almost entirely on the Man and Salin Government irrigation systems. Of this total, more than 90 square miles were under rice. The Man system begins at Sedaw, a village situated on the Man river where it leaves the hills, about 20 miles from its mouth, and serves more than 40 square miles on its northern bank. The Salin system begins at Theywa, a village on the Salin river 29 miles from the Irrawaddy, and irrigates more than 50 square miles on both sides of the Salin. It comprises eighteen canals, the most important of which is the Myaungmadaw, which, leaving the Salin river at Linzin 12 miles above Salin town, passes through the town, and ultimately reaches the Paunglin lake. A very important scheme for utilizing the Mon river for irrigation purposes has recently been sanctioned. A weir is under construction in the Mon at Mezali, 34 miles from its mouth. By taking out a canal on each side, the work has been designed to irrigate both the northern and southern slopes of the valley down to the Irrawaddy, and thus to serve a total area of 120 square miles of very rich rice-growing soil. The cost of this scheme is estimated at 33 lakhs. A certain amount of land is irrigated by small private canals and tanks. In 1903-4 about 17 square miles were watered by the former method. The Paunglin lake supplies about 1,600 acres of *mayin* rice.

The revenue obtained from leased fisheries amounted in 1903-4 to Rs. 24,800. Paunglin lake, the most important of these areas, is split up into five different sections; four are leased as fisheries, and in the other individual licences for catching fish are issued. Another fishery worthy of mention is the Kekkaya tank, just outside Legaing village.

The total area of 'reserved' forest is 378 square miles, comprising 12 different tracts of hilly country, the most important of which are the Mon West Reserve (covering 93 square miles) and Forests the Nwamadaung (covering 36 square miles). The former extends over elevated and precipitous uplands in the Arakan Yoma; the Nwamadaung lies farther to the east, also on high ground. An extension of the 'reserved' areas will soon be imperatively needed, for the forest tribes (practically all Chins) who live by *Az^z/grtf*-cutting have carried that practice to such a stage as to threaten seriously the existence of valuable and climatically essential timber-grounds. The area of 'unclassed' forest is about 1,183 square miles, much of which is

merely scrub. A tract with a more valuable growth, containing teak and cutch, is drained by the Sin stream, and it has recently been proposed to reserve 30 square miles of this. Good timber occurs on the Podein branch of the Man and its tributaries, while in the higher parts of the 'unclassified' forest in the south-west of the District *Ficus elastica* yields india-rubber in paying quantities.

The chief trees of economic value in the 'reserved' forests are: *sha* (*Acacia Catechu*), yielding some of the best cutch obtainable in Burma; *kyun* or teak (*Tectona grandis*), found in all the Reserves, though not in great quantities; *padauk* (*Pterocarpus indicus*), the wood of which is in great request as material for cart-wheels; and bamboo, usually the *niyitiwa* (*Dendrocalamus strictus*). The wood of a large number of trees is used for house-building, most important among which are *ingyin* (*Pentacme siamensis*), *thitya* (*Shorea obtusa*), in (*Dipterocarpiis tuberculatus*), and *kusan* (*Hymenodictyon thyrsiflorum*). Charcoal is burnt in certain localities from the *dahat* (*Tectona Hamiltoniana*) and *than* (*Tenuinalia O'Brienii*), and wood varnish is extracted from the *thitsi*-tree (*Melanorrhoea usitata*) and used for lacquer. *Thitchabo*, the bark of *Cinnamomum zeylanicum*, is used medicinally for bruises and the like, and also chewed with betel. The fibre of the *shaw*-tree (*Sterculia*) and *gangaiv* (*Mesua ferrea*) are obtained high up in the evergreen forest. Plantations of *Acacia Catechu* have been made with a view to increasing the yield of cutch, and more than 800 acres have been successfully planted. It is interesting to note that the pine (*Pinus Khasya*) is found on exposed ridges in the Mon West and Palaung Reserves, but that it is not worked either for its timber or its rich supplies of resin. Fire protection is at present attempted in the Mon A\ est, the Tichaungywa, and the Pasu Reserves, and the protected area is being extended. The gross forest receipts in 1903-4 amounted to about Rs. 43,000.

The District contains no mines of importance. There are two steatite quarries, one of inferior quality near Ngape, the other near Pa-aing; the amount extracted in 1903 was 15 tons, valued at about Rs. 6,000. The steatite is dug out in blocks, brought to Pa-aing on pack-bullocks, and taken from there in carts to Sinbyugyun, where the blocks are sawn into slabs, which, in their turn, are converted into pencils used for writing on the black paper memorandum books known as *parabaiks*. The borings are from 90 to 100 feet deep. Laterite, clay, gravel, and sandstone are all worked to some extent. A thirty years' lease for the working of oil-wells in the Sagu and Minbu circles was granted to the Burma Oil Company in 1896, but the undertaking had eventually to be abandoned. There are a few salt-wells in Sidoktaya and Ngape, but the out-turn is insignificant. Talc, mica, and coal are all found in the District, but are not at present worked.

Minbu being pre-eminently an agricultural District, it is not surprising to find that arts and manufactures are few. One small oil refinery employing about half a dozen men at Taikshabin village, and a few aerated wafer factories employing about three men each, are the only approach to special industries the District can boast of. A little weaving is carried on in the town and villages for domestic consumption ; there are a certain number of mat-weavers and potters, and a little cutch is boiled at Sidoktaya. At Thayetkyin, a small village near Salin, the people manufacture the rough black paper of which *parabaiks* are made; but even this industry is being driven out by the introduction of European paper. The arts are even worse represented. Sinbyugyun, where lacquer betel-boxes, brass bowls, and a little wood-carving are turned out, is the only place worthy of mention in this regard.

The few large traders in the District are mostly either Chinamen or natives of India. Minbu town in the south and Sinbyugyun in the north are the two main commercial centres. The chief exports are cutch, hides, sesamum seed and oil, gram, beans, and other kinds of agricultural produce; and the main imports are piece-goods, yarn, salted fish, *ngapi*, and, in years of scarcity, rice. The two principal routes for external trade are the Irrawaddy on the east and the An pass, which is reached by a track through Ngape, on the west. The latter is freely used by the pack-bullocks that ply between Kyaukpyu and the western portion of Minbu.

Internal traffic is mostly by road, and no railways have been constructed. A stretch of good metalled roadway, 9 miles long, connects Salin with the Irrawaddy, and a few short lengths of 2 or 3 miles each run out from Minbu town ; but not a single highway has been metalled for any considerable length. The chief land communications are the chain of roads running from south to north from Thayetmyo to the Pakokku border, passing through Minbu, Sagu, Legaing, and Salin, by way of Sinbyugyun and Zibyubin; the road from Minbu to Ngape, by way of Singaung; and the road from Salin to Sun. A track from Salin to Sidoktaya is in course of construction. These are maintained by the Public Works department, but about 118 miles of road are kept up from the District fund, less than 4 miles being metalled. Merchandise is conveyed chiefly in bullock-carts, but where the roads fail in the west of the District pack-bullocks are used.

The chief waterways for internal traffic are the rivers Mon and Man. The Mon is navigable in the rains by 2-ton dug-outs up to the point where it enters the District. The Man is not navigable during the dry season at all, but in the rains boats can go as high as Aingnia. The main waterway is, however, the Irrawaddy. Steamers of the

Irrawaddy Flotilla Company ply four times a week, carrying mails and passengers, twice up from Rangoon and twice down from Mandalay. The same company also runs a small steamer between Minbu and Thayetmyo, and a large number of cargo-boats. A steam ferry plies across the Irrawaddy between Minbu and Magwe, and there are other local ferries.

Famine, in the worst sense of the word, is unknown in Minbu, though years of scarcity are not uncommon. Accidents to irrigation

Famine ^{works}, deficiency of rain, and cattle-disease cause distress; but agricultural loans relieve the strain, and emigration to Lower Burma acts as a safety-valve. In 1891-2 famine was declared, and relief works were started; but with rain in the latter part of the year and a flow of imported rice from Lower Burma the distress quickly subsided, and later, when a new relief work was opened, not a person volunteered for labour ^{on it}. A District in which so many kinds of 'dry crops' are grown is always to some extent armed against drought; and it is estimated that, even in the event of a serious famine, the maximum number of persons who would require daily relief would not exceed 15,000.

For purposes of administration the District is divided into two subdivisions: Minbu, comprising the townships of SAGU, LEGAING,

... and NGAPE; and Salin, comprising those of SALIN

Administration. ¹ Minbu is the head-quarters of the Commissioner of the Division¹. The Public Works department is represented by two Executive Engineers, one in charge of the Mon canals and another in charge of the Salin irrigation subdivision. For ordinary public works the District forms a subdivision of the Thayetmyo Public Works division. There is a Deputy-Conservator of forests at Minbu, who is also in charge of the Magwe forests. The total number of village headmen is 458.

The District, subdivisional, and township courts are ordinarily presided over by the respective executive officers. The head-quarters magistrate at Minbu, however, acts as additional judge of the District court, and there is an additional judge in the Salin township court. The indigenous population are ^{on} the whole law-abiding, and not as a rule litigious.

Before annexation, revenue in Upper Burma was raised by a fixed lump assessment on every town (*>nyo*), and was collected in kind by the town-headman (*tnyo-wun*), who sold the produce thus collected, and forwarded to the court officials the whole or so much of the proceeds as he thought would content them. The *thathameda* tax, the chief source of revenue, was introduced by king Mindon, and at

¹ The transfer of the head-quarters to Maywe has been sanctioned, and will probably take place shortly.

first stood at Rs. 3 per household. Subsequently it was raised until it reached an average of about Rs. 10. Along the Mon valley the tax seems to have been treated as a tax partly on households and partly on land, the average rate being Rs. 10. Every household was assessed, in the first instance, at only Rs. 5, the balance varying according to the quantity and quality of the land worked by the taxpayer. A direct land tax was also levied on certain kinds of state land : namely, irrigated and *may in* (hot-season) rice lands, some *kyun* (island) and *kiting* (alluvial) lands, and certain lands devoted to the upkeep of pagodas and other religious property. Irrigated state land paid much the same proportion of out-turn in revenue as non-state land paid in rent to the local landlords. In Salin the amount was usually one-half or one-third, in Sagu and Legaing one-half to one-fourth. *May in* rice lands paid sometimes one-fifth of their out-turn, and sometimes Rs. 10 per *ic saiks* (about 2 acres). *Kyun* lands were variously assessed; and alluvial lands, if of good quality, would pay about one-fifth ; if poor, one-tenth of their produce.

After annexation the Burmese methods of assessment were at first generally maintained; but in 1890 an *ad interim* system was introduced under which Government dealt direct with the cultivators, instead of through officials like the *myo-ivuns*, and the rate at which rice was to be commuted was fixed annually by the Deputy-Commissioner according to market rates. Lump-sum assessments and acre rates were abolished, the *kan* (roughly 75 square cubits) was taken as the unit, and rates were raised all round. At the same time crop out-turns were measured, and statistics collected as to the cost of cultivation, with the result that in the following year (1891-2) the rates were generally reduced. By 1893 the cadastral survey of most of the District was completed, and in that year regular settlement operations were started. They were finished by the end of 1897, but did not include the townships of Ngape and Sidoktaya, which were summarily settled in 1901. As a result the main rates, as finally sanctioned for five years in 1899, were as follows: irrigated rice, Rs. 2 to Rs. 7 per acre ; alluvial rice (*taze*), R. 1 to Rs. 4-8; hot-season rice, Rs. 4 ; unirrigated rice, Rs. 1-8 or Rs. 2-8. Alluvial crops other than rice pay from Rs. 2 to Rs. 7, and upland (*ya*) crops are assessed at rates varying from 4 annas to Rs. 1-8 per acre. These figures all refer to state land; other land pays three-fourths of these rates. The average size of a holding (including fallows) is—for irrigated rice, 7-8 acres; for *taze* rice, 5f acres ; for *mayin* rice, acres ; for *mogaung* rice, 61 acres; for *ya* crops, 8^ acres; and for alluvial (*kaing*) crops, 5½ acres.

As the result of the summary settlement of the Ngape and Sidoktaya townships in 1901, the rate for irrigated rice has been fixed at Rs. 4

or Rs. 3, according to the quality of the soil, while unirrigated rice pays Rs. 2, *ya* land from 8 annas to R. 1, and alluvial crops from R. 1 to Rs. 5 per acre. The average size of a holding in the summarily settled tract is—for rice land, 4 acres; for gardens, acres ; and for *ya* land, 7 acres.

The following table shows the fluctuations in the revenue since 1890-1, in thousands of rupees -

i " „	1890-1.	1900-1	1903-4.
Land revenue • . 90		4.13	4.04
j Total revenue		...	7.70

The large increase in land revenue between 1890-1 and 1900-1 is due to the settlement. *Thathameda* fell, on the introduction of acre rates, from 4 lakhs in 1890-1 to Rs. 2,41,000 in 1900-1, but rose to Rs. 2,58,000 in 1903-4.

The income of the District fund in 1903-4 was Rs. 27,000, half of which was spent on public works. There are two municipalities in the District, those of MINBU and SALIN.

For police purposes the District is in charge of a District Superintendent, and is divided into two subdivisions which are under an Assistant Superintendent or an inspector. The strength of the force is 3 inspectors, 13 head constables, 34 sergeants, and 429 constables; and there are 11 police stations and 13 outposts. The contingent of military police belongs to the Magwe battalion, and consists chiefly of Sikhs and Punjabis with an admixture of Karens. The sanctioned strength is 5 native officers and 180 rifles, of whom 3 native officers and no rifles are stationed at Minbu, and the remainder at Salin and Pwinbyu. Minbu no longer contains a jail, and convicts are sent to Magwe.

The District, in spite of its large total of Chins, who are practically all uneducated, had in 1901 the largest proportion of males able to read and write in the Province, namely 53.3 per cent., a result which is largely the outcome of the energy of the local monastic teachers. For the population as a whole, male and female, the proportion was 27.3 Per cent. The number of pupils in public and private schools was 3,417 in 1891 and 7,793 in 1901, and the proportion to the total population of school-going age in the last-named year was estimated at 25 per cent. In 1904 there were 9 secondary, 167 primary, and 419 elementary (private) schools, with an attendance of 7,896 (including 349 girls). Of lay institutions, the most important is the Government high school at Minbu. The total educational expenditure in 1903-4 amounted to Rs. 21,000, of which Rs. 3,000 was derived from fees, and the rest from Provincial funds.

Minbu and Salin possess hospitals, and there is a small dispensary at Sinbyugyun, at the mouth of the Salin river. The two hospitals have accommodation for 50 in-patients, of whom 508 were treated in 1903, the total number of out-patients during the same year being 15,303, and that of operations 242. Towards their combined income of Rs. 8,300 the two municipalities contributed Rs. 3,900, Provincial funds Rs. 3,700, and private subscribers Rs. 600. The dispensary at Sinbyugyun is maintained wholly from Provincial funds.

Vaccination is compulsory only within the two municipalities. In 1903-4 the number of persons successfully vaccinated was 5,496, representing 24 per 1,000 of population.

[O. S. Parsons, *Settlement Report* (1900).]

Minbu Subdivision.—Southern subdivision of Minbu District, Upper Burma, comprising the SAGU, Legaing, and Xgape townships.

Minbu Town. — Head-quarters of the Division and District of the same name in Upper Burma, situated in $20^{\circ} 10' \text{ N.}$ and $94^{\circ} 53' \text{ E.}$, among typical dry zone surroundings on the right bank of the Irrawaddy, almost immediately opposite the town of Magwe¹. The town has several prominent features. On the north is a large pagoda known as the Red Pagoda; on the west a sharply defined conical eminence, capped by a pagoda, stretches at right angles to a low range of hills running north and south • on the south another hill rises abruptly from the river bank, similarly crowned with pagodas, and topped by a lofty wooden spire erected over an impression of a foot. It is known as Buddha's Foot Hill. The natural southern boundary of Minbu is the Sabwet stream, a sandy nullah communicating with the Irrawaddy about 200 yards south of the last-named shrine. The town is divided into two parts by a small creek called the Dok. The northern or native portion lies near the Irrawaddy, and is usually flooded on the rise of the river. The Deputy-Commissioner's court lies to the south, between the Dok and the southern portion of the town, which stands considerably higher and is not liable to flooding. In this southern area is situated the civil station, with the club, several of the Government offices and the residences of the local officers for the most part standing up on high ground well above the river bank. Minbu was a small fishing village previous to the annexation of Upper Burma in 1885, but became an important base of operations in 1886, and since then has always been the head-quarters of the District. Its population was 7,270 in 1891, and 5,780 in 1901, having, like Salin, Magwe, Yenangyaung, and other towns in the dry zone, decreased during the decade. The people are occupied mainly in river business, trading, and fishing. A fair amount of trade passes through

¹ The transfer of the Divisional head-quarters to Mnjawe has been sanctioned, and will probably take place shortly.

the town, and the steamers of the Irrawaddy Flotilla Company give regular communication with all ports on the Irrawaddy; but, like Myingyan, Minbu has suffered from the vagaries of the river, which has shown a tendency of late years to form sandbanks in the channel opposite the regular steamer *ghat*. In the rains the Irrawaddy Flotilla steamers are able to come alongside the town, but during the dry season they have to anchor at a village 2 miles to the south.

A municipal council was formed in 1887 and reconstituted in 1901. The income and expenditure during the ten years ending 1901 averaged nearly Rs. 17,000. In 1903-4 the income was Rs. 21,000, bazar rents contributing Rs. 9,000 : and the expenditure was Rs. 19,000, the chief items being conservancy and roads (Rs. 5,000 each). The town hospital contains 28 beds, and 310 in-patients and 8,300 out-patients were treated at it in 1903. The Government high school has a steadily increasing attendance, and boys come to it from all parts of Minbu and Magwe Districts.

Minbya Subdivision. — Subdivision of Akyab District, Lower Burma, consisting of the Pauktaw and Minbya townships.

Minbya Township.—Eastern township of Akyab District, Lower Burma, lying between 20° 2' and 20° 35' N. and 93° 7' and 93° 43' E., on the western edge of the Arakan Yoma, with an area of 480 square miles. The population was 35,505 in 1891, and 41,663 in 1901, consisting largely of Chins. There are 295 villages. The head-quarters are at Minbya (population, 1,322), on a branch of the Lemro river. The area cultivated in 1903-4 was 104 square miles, paying Rs. 1,33,000 land revenue.

Minchinabad Tahsil.—Head-quarters *iahsl* of the *nhdmat* of the same name, Bahawalpur State, Punjab, lying on the left bank of the Sutlej, between 29° 53' and 30° 25' X. and 73° 2' and 73° 58' E., with an area of 603 square miles. The population in 1901 was 72,272, compared with 68,070 in 1891. It contains the town of Minchinabad (population, 2,558), the head-quarters ; and 235 villages. The *tahsil* lies for the most part in the lowlands of the Sutlej valley. The land revenue and cesses in 1905-6 amounted to 2-1 lakhs.

Minchinabad Town.—Head-quarters of the *nizamat* and *tahsil* of the same name in Bahawalpur State, Punjab, situated in 30° 10' N. and 73° 34' E., on the Southern Punjab Railway, in the north-eastern corner of the State. Population (1901), 2,558. It was named after the late Colonel Charles Minchin, Political Agent in Bahawalpur, 1866-76. The town contains a dispensary, has a large manufacture of saltpetre, and is a great centre of the export trade in grain. The municipality had an income in 1903-4 of Rs. 6,100, chiefly from octroi.

Mindon. - Western township of Thayetmyo District, Burma, lying between 19° 3' and 19° 30' X. and 94° 30' and 94° 56' E., with an

area of 708 square miles. The township, which is undulating in the east and hilly in the Arakan Yoma country in the west, contains 257 villages. It had a population of 35,040 in 1891, and 30,350 in 1901. Emigration to the more fertile lands of the delta accounts for the falling off during the decade. The head-quarters are at Mindon, a village of 803 inhabitants, picturesquely situated on the Maton river within a few miles of the Arakan Hills. The total number of Chins is about 4,000. They inhabit the Arakan Yoma, which covers the western half of the township. About 35 square miles were cultivated in 1903-4, paying Rs. 29,000 land revenue.

Mingin Subdivision.—South-eastern subdivision of the Upper Chindwin District, Upper Burma, containing the Mingin and Kvatiix townships.

Mingin Township.—South-eastern township of the Upper Chindwin District, Upper Burma, lying on either side of the Chindwin river, between 22° 36' and 23° 12' N. and 94° 22' and 94° 55' E., with an area of 1,311 square miles. It consists throughout of low hills. The population, which is almost wholly Burman, was 21,015 in 1891, and 19,941 in 1901, distributed in 141 villages. The head-quarters are at Mingin (population, 1,815), on the Chindwin river, about 50 miles below Kindat. The villages lie on the Chindwin and its tributaries, the Maukkadaw stream on the north and the Patolin on the south. The area cultivated in 1903-4 was 37 square miles, and the land revenue and *thathameda* amounted to Rs. 42,000.

Minhla Subdivision.—Subdivision of Thayetmyo District, Burma, consisting of the Minhla and Sinbaungwe townships.

Minhla Township (1).—Northernmost township of Thayetmyo District, Burma, lying between 19° 30' and 19° 59' N. and 94° 24' and 95° 12' E., and extending from the Irrawaddy to the Arakan Yoma in the west, with an area of 490 square miles. It contains 290 villages, the most important of which is Minhla (population, 2,553), the head-quarters, on the right or west bank of the Irrawaddy close to the border of Minbu District. The population was 33,416 in 1891, and 42,120 in 1901. It is the only township of the District which has increased considerably in population during the past decade. There are nearly 6,000 Chins, who inhabit the hilly country to the west. East of the Yoma, towards the Irrawaddy valley, the country is cut up by many low hills. The area under cultivation in 1903-4 was 41 square miles, paying Rs. 36,000 land revenue. In 1902-3 capitation tax took the place of *thathameda* as the main source of revenue.

Minhla Township (2).—Central township of Tharrawaddy District, Lower Burma, lying between 17° 53' and 18° 20' N. and 95° 37' and 96° 4' E., and stretching from the Pegu Yoma westward to the

border of the Monyo township, with an area of 627 square miles, for the most part flat and fertile. In 1891 the population was 75,068, and in 1901 86,939. MINHLA (population, 3,537) is the head-quarters, and the only town. The number of villages is 468. The area cultivated in 1903-4 was 177 square miles, paying Rs. 2,42,000 land revenue.

Minhla Town.—Head-quarters of the township of the same name in Tharrawaddy District, Lower Burma, situated in 8° N. and $95^{\circ} 44'$ E., near the centre of the District on the Rangoon-Prome railway, 91 miles from Rangoon. Population (1901), **3,537**. The town is administered by a town committee, which consists of five members. In 1903-4 the income of the town fund was Rs. 15,400, and the expenditure Rs. 14,700.

Minicoy. —An island attached to the District of Malabar in the Madras Presidency, lying in the Arabian Sea, in $8^{\circ} 18'$ N. and 73° E. The lighthouse on the southern end was finished in 1885. Politically Minicoy appertains to the Laccadive group, but ethnologically and geographically it belongs to the Maldivé Islands. It is 6 miles long by half a mile in breadth, and contains an area of about if square miles. Population (1901), 3,097. The physical characteristics of Minicoy are similar to those of the other Laccadive Islands; but it contains no *fottam*, or garden cultivation, and the coco-nut trees are smaller, and there is more jungle interspersed among the plantations.

The people are probably of Singhalese extraction ; they are darker and smaller than the other islanders; their language is Mahl, and they have a duodecimal numerical system. Though Muhammadans, they are strictly monogamous, and the women take the lead in everything except navigation. A girl's consent has to be obtained before marriage, and she brings no dowry, but receives presents from the bridegroom. There are three subdivisions among the people—the Malikhans, the Malumis or Takkarus, and the Kohlus—which correspond to the three found on the other islands; but, unlike the other islanders, the Minicoy people are all congregated in one village, which is divided into ten quarters or wards, in each of which the male and female populations are organized into separate clubs, each managed by its own headman or head woman and forming a unit for social and political purposes. The fishing-boats are very well made, and the men are expert navigators. The islanders' chief trouble is the food-supply. All the rice has to be imported, and the trade is practically monopolized by the chief Malikhans. The revenue is raised by a poll-tax and taxes on fishing-boats, &c., and not by a monopoly as in the other islands. Minicoy came into the possession of the All Raja of Cannanore later than the other islands, probably not

till the middle of the fifteenth century, as a gift from the Sultan of the Maldives, and this accounts for the difference in its administration |

Miraj State (Senior Branch).—State under the Political Agent of Kolhapur and the Southern Maratha Country, Bombay, with an area of 339 square miles. It consists of three divisions : a group of villages in the valley of the Kistna, a second group in the south of Dharwar District, and a third in the midst of Sholapur District. The State contains 5 towns, the chief being Miraj (population, 18,425), the head-quarters, and Lakshmeshwar (12,860); and 59 villages. The population in 1901 was 81,467, Hindus numbering 68,660, Muhammadans 8,778, and Jains 3,866. The portion of the State which is watered by the Kistna is flat and rich ; the remaining parts lie low and are surrounded by undulating lands and occasionally intersected by ridges of hills. The prevailing soil is black. Irrigation is carried on from rivulets, tanks, and wells. As in the rest of the Deccan, the climate is always dry, and is oppressively hot from March to May. The principal crops are millet, wheat, gram, sugar-cane, and cotton. Coarse cotton cloth and musical instruments are the chief manufactures.

Miraj was originally a portion of Saxgli, from which it was detached in 1808. In 1820 it was, with the sanction of the British Government, divided into four shares, and the service of horsemen was proportioned to each. Two of these shares lapsed in 1842 and 1845 from failure of male issue; the two others remain. The whole area of the State has been surveyed and settled. The chief ranks as a first-class Sardar in the Southern Maratha Country. He has power to try his own subjects for capital offences. The revenue in 1903-4 was 3[^] lakhs, of which 2-7 lakhs was from land. Tribute of Rs. 12,558 is payable to the British Government. The family holds a *sanad* authorizing adoption, and follows the rule of primogeniture in matters of succession. Of the five municipalities in the State, Miraj and Lakshmeshwar have incomes of Rs. 15,500 and Rs. 7,000 respectively. There are 25 schools with 1,237 pupils. The police force numbers 235 men, maintained in 1903-4 at a cost of Rs. 23,400. There are three jails, with a daily average of 55 prisoners. The State contains three dispensaries, which afforded relief to 35,371 persons in 1903-4. In the same year 1,789 persons were vaccinated.

Miraj Town.—Capital of the State of Miraj (Senior Branch) in the Southern Maratha Country, Bombay, situated in 16° 49' N. and 74° 41' E., near the Kistna river, a few miles south-east of Sangli. Population (1901), 18,425. In 1761 the fort of Miraj with some

¹ An interesting account of Minicoy "Marco Polo's 'Female Island') is to be found in *Blackwood's Magazine* for February and March, 1889.

thdnas was assigned by the Peshwa Madhu Ran to Govind Rao Patvardhan for the maintenance of troops. Mi raj is a large trading town, with two old *dargahs*, built in 1491. It is administered as a municipality, with an income in 1903-4 of Rs. 15,500. It contains a high school and a dispensary.

Miraj State (Junior Branch).—State under the Political Agent of Kolhapur and the Southern Maratha Country, Bombay, with an area of 211 square miles. It consists of three divisions: a group of villages adjoining the Bankapur *taluka* of Dharwar District ; a second near the Tasgaon *fdluka* of Satara District; a third near the Pandharpur *taluka*. of Sholapur District, which also includes four *uidm* villages in Poona District. There are 3 towns, the largest being Bhudgaon (population, 3,591), where the chief resides; and 31 villages. The population in 1901 was 35,806, Hindus numbering 32,484, Muhammadans 2,034, and Jains 1,285. The soil is generally black. Indian millet, wheat, gram, and cotton are the chief crops ; and coarse cotton cloth is the principal manufacture. The history of this branch of the family is the same as that of the Senior Branch, given above. The chief ranks as a first-class Sardar in the Southern Maratha Country, and has power to try his own subjects for capital offences. The family holds a *sanad* authorizing adoption, and follows the rule of primogeniture in matters of succession. The estimated revenue is about 4 lakhs, and the expenditure nearly 3 lakhs. Tribute of Rs. 6,4 r 2 is payable to the British Government. The police force numbers 143. In 1903-4 there were three jails, with a daily average of 23 prisoners. There are 30 schools in the State, attended by 991 pupils. Two dispensaries treat about 14,500 persons. In 1903- 4 about 800 persons were vaccinated.

Miram Shah (*Miran S/id/i*).—Head-quarters of the Northern Waziristan Agency, North-West Frontier Province, situated in 33° 57' N. and 70° 7' E., in Daur (the Tochi valley), about 57 miles west of Bannu. Its elevation is 3,050 feet above the sea, and it comprises three or four hamlets. It is now garrisoned by the Northern Waziristan militia.

Miranpur.—Town in the Jansath *tahsil* of Muzaffarnagar District, United Provinces, situated in 29° 17' N. and 77° 57' E., 20 miles from Muzaffarnagar town. Population (1901), 7,209. It is the home of a family of Saiyids, descended from a member of the Chhatrauri branch of the famous Barba Saiyids. Early in 1858 it was attacked by the Bijnor rebels, but successfully held by British troops. Miranpur is administered under Act XX of 1856, with an income of about Rs. 2,000. At one time there was a large local trade in rice, sugar, salt, and grain ; but the opening of the railway has diverted trade to Khatauli and Muzaffarnagar. Blankets are still made to a large extent,

MIRIALGUDA

and also coarse blue pottery and papier mâché goods. There are two small schools.

Mirānpur Katra.—Town in Shāhjāhānpur District, United Provinces. *See* Katra.

Miran Shah.—Head-quarters of the Northern Wazîristān Agency, North-West Frontier Province. *See* Miram Shah.

Mīrānzai.—*Ilhid* and town in KohāJ District, North-West Frontier Province. *See* Hangu.

Mīrganj Tahsil.—West-central *tahsil* of Bareilly District, United Provinces, comprising the *parganas* of Shāhī, Sirauli (North), and Ajaon, and lying between 28° 24' and 28° 41' N. and 79° 6' and 79° 24' E., with an area of 149 square miles. Population increased from 95,300 in 1891 to 103,198 in 1901. There are 158 villages and one town, Shah! (population, 3,556). The demand for land revenue in 1903-4 was Rs. 1,50,000, and for cesses Rs. 26,000. The density of population, 640 persons per square mile, is below the District average. The shifting channel of the Rāmgangā winds through the south of the *tahsil*; and the Dhakrā, Dhorā, and West Bahgul, after flowing from the northern border, unite to form the Dojorā. Mīrganj is a level well-cultivated plain, the greater portion of which is sufficiently moist not to require artificial irrigation. It produces sugar-cane largely, and sugar is refined in many places. In 1903-4 the area under cultivation was 111 square miles, of which 17 were irrigated. Tanks or *jhils* supply more than half the irrigated area. The new dam across the Kūli Nadī will supply irrigation to the north of this *tahsil*.

Mīrganj Town.—Town in the Gopālganj subdivision of Sara 11 District, Bengal, situated in 26° 25' N. and 84° 20' E. Population (1901), 9,698. It is a large trading centre.

Miri Hills.—A section of the Himalayan range lying north of Lakhimpur District, Eastern Bengal and Assam, between the hills occupied by the Gallongs and the Rangānadī, and inhabited by the Miri tribe. The Miris are of Tibeto-Burman origin, and have tall, well-developed frames, with pleasant countenances of the Mongolian type. Unlike their neighbours they have never given trouble to the British Government, and large numbers of the tribe have now settled on the Assam plains. A full account of the Miris will be found in Colonel Dalton's *Ethnology of Bengal*.

Mirialguda.—Southern *taluk* of Nalgonda District, Hyderabad State, separated from the Guntur District of Madras by the Kistna river. Till 1905 it was also called Devalpalli. Including *jag'irs*, the population in 1901 was 78,545, and the area 768 square miles. The population in 1891 was 87,130, the decrease being due to the transfer of villages. The *tāluk* contains 154 villages, of which 4 are *jāgīr*, and Mirialguda (population, 3,660) is the head-quarters. The land

revenue in 1901 was 2-4 lakhs. Rice is extensively irrigated from tanks, channels, and wells. The new *taluk* of Pochamcherla, constituted in 1905, received 35 villages from Mirialguda.

Mirjan.—Village in the Kumta *tdluka* of North Kanara District, Bombay, situated in 14° 30' N. and 74° 28' E., about 5 miles north of Kumta town. Population (1901), 1,500. It has a ruined fort said to have been built by Sarpan Malik, probably a reminiscence of the Bijapur title Sharif-ul-mulk. Mirjan has been supposed to be the ancient Muziris mentioned by Pliny as the first trading town in India; but an alternative is to be found in Muyiri, the old name of Cranganur, 20 miles north of Cochin. Under the Yijayanagar kings Mirjan was held by local tributary chiefs. Albuquerque visited it in 1510. It subsequently passed to Bijapur, and later to the Bednur chief Sivappa Naik. The Marathas seized it in 1757. It suffered from the depredations of Haidar, and was destroyed by Tipu. Fryer visited Mirjan in the seventeenth century, and has recorded a description of it.

Mirpur Subdivision.—Subdivision of Sukkur District, Sind, Bombay, consisting of the Mirpur Mathelo and UBAURO *talukas*.

Mirpur Town.—Town in the Bhimber district of the Jammu province, Kashmir, situated in 33° 11' N. and 73° 49' E., at an elevation of 1,236 feet above sea-level. It lies 22 miles north of the British cantonment of Jhelum, and is said to have been founded about 200 years ago by the Gakhars, Miran Khan and Sultan Fateh Khan. It stands on high ground on the edge of the Kareli Kas, from which drinking-water is easily procured. There are several rather picturesque temples, the chief being the Sarkari Mandir, built by Maharaja Gulab Singh; the Raghunathji; and the temple of Diwan Amar Nath. The town contains 550 shops, forming a long bazar running east and west. Apart from the shop-keeping class, Brahmans and Sikhs, of whom many are settled in Mirpur, the inhabitants are mostly of the artisan or menial classes. There is a flourishing State school badly housed, and a dispensary in a building wholly unsuited to the purpose. The town has a neglected appearance. The streets are badly laid, dirty, and undrained, and no attempts have been made at conservancy. Trade is brisk. It is mostly in the hands of Mahajans and Khattrls. The chief articles of export to British India are grain, *ghi* from the hills and Punch, and minor forest products from Kotli, Punch, and Rajauri; the chief imports are salt, cloth, tea, and sugar.

Mirpur Batoro.—*Tdluka* of Karachi District, Sind, Bombay, lying between 24° 36' and 25° 1' N. and 68° 9' and 68° 26' E., with an area of 269 square miles. The population in 1901 was 37,116, compared with 35,196 in 1891, dwelling in 62 villages, of which Mirpur Batoro is the head-quarters. The density is 138 persons per square mile, and this is the most thickly populated *tdluka* in the District. The land

revenue and cesses in 1903-4 amounted to over 1-4 lakhs. The *tdluka* lies on the east of the Indus, which forms its northern boundary. It is shaped somewhat like a parallelogram, and is an alluvial plain, the northern portion being watered by canals fed directly by the Indus, and the central and southern parts by distributaries of the Plnjari Mulchand canals. The finest rice, known as *sugdasi*, is grown here, owing to the soil being very fertile. *Joiadr* and *bdjra* are also grown.

Mirpur Khas Taluka.—*Tdluka* of Thar and Parkar District, Sind, Bombay, lying between 25° 12' and 25° 48' X. and 68° 54' and 69° 16' E., with an area of 457 square miles. The population rose from 27,866 in 1891 to 37,273 in 1901. The *tdluka* contains one town, Mīrpur Khas (population, 2,787), the head-quarters; and 135 villages. The density, 82 persons per square mile, is the highest in the District. The land revenue and cesses in 1903-4 amounted to 3-3 lakhs. The *tdluka* is irrigated by canals, of which the chief is the Jamrao. The Jodhpur-Bikaner Railway traverses it.

Mirpur Khas Town.—Head-quarters of the *tdluka* of the same name in Thar and Parkar District, Sind, Bombay, situated in 25°30'X. and 69° 3' E., on the Luni-Hyderabad branch of the Jodhpur-Bikaner Railway, on the Let Wall canal, and also on the high road from Hyderabad to Umarkot, 38 miles south-east of Hala, and 41 miles east-north-east of Hyderabad via Tando Alahyar (17 miles distant). Population (1901), 2,787. The local trade is in grain, cotton (said to be the finest in Sind), and piece-goods, valued at 3-88 lakhs. The annual value of the transit trade is estimated at 25-67 lakhs. Mirpur is a comparatively modern town, having been built in 1806 by Mir Ali Murad Talpur, and has increased in importance since the opening of the Jamrao Canal in 1900. A new suburb is now being built on approved lines by the colonization officer of the Jamrao Canal. It was the capital of Mir Sher Muhammad Khan Talpur, whose army was defeated in 1845 by Sir Charles Xapier at Dabba (Dabo) near Hyderabad. The town was constituted a municipality in 1901, and had an income in 1903-4 of Rs. 13,000. It contains a dispensary and one primary school, attended by 84 pupils.

Mirpur Mathelo.—*Tdluka* of Sukkur District, Sind, Bombay, lying between 27° 20' and 28° 7' N. and 69° 16' and 70° 10' E., with an area of 1,720 square miles. The population rose from 48,068 in 1891 to 49,991 in 1901. The *tdluka* contains 100 villages, of which Mirpur Mathelo is the head-quarters. This is the most thinly populated tract in the District, with a density of only 29 persons per square mile. The land revenue and cesses in 1903-4 amounted to 2-2 lakhs. The *tdluka*, which produces mostly *jowdr*, is watered by the Masa W'ah. In the south lies a wide tract of sandy desert.

Mirpur Sakro.— *Taluka* of Karachi District, Sind, Bombay, lying between 24° 14' and 24° 51' N. and 67° 9' and 67° 55' E., with an area of 1,137 square miles, of which nearly half is *kalar* land. The population in 1901 was 27,600, compared with 26,064 in 1891. There are 74 villages, but no town. The village of Mirpur Sakro is the head quarters. The land revenue and cesses in 1903-4 amounted to Rs. 60,000. The western half of the *taluka* is almost entirely uninhabited and uncultivable. Towards the sea, tidal creeks break the coast-line and form extensive mangrove swamps. Irrigation is derived chiefly from the Baghar canal, with ten branches, and from two smaller canals. The chief crops are barley, rice, *bajra*, and *til*.

Mirta. -District and head-quarters thereof in Jodhpur State, Rajputana. See Merta.

Mirzapur District. — District in the Benares Division of the United Provinces, lying between 23° 52' and 25° 32' N. and 82° 7' and 83° 33' E., with an area of 5,238 square miles. It is bounded on the north by Jaunpur and Benares ; on the east by the Bengal Districts of Shahabad and Palamau; on the south by the Surguja Tributary State and the State of Rewah ; and on the west by Allahabad. The District of Mirzapur extends over a larger area than any other in the United Provinces, except those situated in the Himalayas, and exhibits a corresponding diversity of natural features. The northern portion, with an area of about 1,100 square miles, forms part of the Gangetic plain, extending

Physi- aspects of the great river. South of the Ganges the outer scarp of the Vindhya forms an irregular rampart, sometimes advancing to the bank of the Ganges, and sometimes receding to 10 miles or more away. The Vindhyan plateau stretches from the northern scarp for a distance of 30 or 40 miles to the Kaimurs, which look down on the valley of the Son. The eastern portion of the plateau forms part of the Benares Estate, and a considerable area is set aside by the Maharaja as a game preserve. The scenery in this tract is among the wildest and most beautiful in the District, and the portion where the hills meet the plains is especially picturesque. The Karamnasa descends by a succession of falls, including two known as the Latlsah and Chhanpathar, which, from their beauty, are deserving of special notice. The tributary stream of the Chandraprabha leaves the plateau by a single cascade, called Deo Dharl, 400 feet in height, whence it passes through a gloomy and precipitous gorge, 7 miles long, over a huge masonry dam to the open country beyond.

After passing the crest of the Kaimur hills, a more rugged, imposing, and elevated range than the Vindhya, an abrupt descent of 400 or 500 feet leads down into the valley of the Son. The easiest

pass is the Kiwai *ghat* above Markundi on the Ahraura-Chopan road. The basin of the river lies at the foot of the hills, with occasional stretches of alluvial land on either bank. South of the Son is a wilderness of parallel ridges of rocky hills, of no great height, but exceedingly rugged and clothed with stunted forest. Excepting a few level patches and valleys, with the large basin of Singrauli in the south-west and the smaller area round DudhT in the south, hills cover the whole area.

The two main rivers are the Ganges and Son, which flow from west to east across the northern and central portions of the District respectively. The east of the Vindhyan plateau is drained by the Karamnasa and its tributaries, the Garai and Chandraprabha, and the centre by the Jirga and small streams, all of which flow from south to north. The drainage from the northern slopes of the Kaimurs, however, passes into the Belan, which has a course from east to west. South of the Son the chief rivers are the Rihand and Kanhar, which flow north to join that stream. There are few lakes or marshes, Samdha Tal, in the Korh *tahsil*, being the largest.

Mirzapur presents an unusual variety of geological formations. The northern portion is Gangetic alluvium, while the plateau which lies south of it consists of upper Vindhyan sandstone and shale. The lower Vindhyan series occupies the Son valley. It includes a compact limestone bed, 250 feet thick, with varying underlying beds of conglomerate, shale, carbonaceous beds, limestone, porcellanite, and glauconitic sandstones. On the south bank are beds of indurated highly siliceous volcanic ashes, while on the north limestones and shales belonging to the Kheinjua and Rohtas groups are found. The hilly tracts south of the Son consist of the Bijawar slates, quartzites, limestones, basic volcanic rocks, and hematitic jasper. In the extreme south are found gneiss and the Gondwana beds of shale, sandstone, and boulders. On the south-west border adjoining the Rewah State are the remains of an exhausted coal-mine*.

The flora of the Gangetic valley presents no peculiarities. The area north of the river is well wooded, while trees become scantier as the hills on the south are approached. The eastern portion of the plateau has extensive areas of low jungle; but timber attains an average growth only in the remoter portions and in the game preserves. South of the Son the principal jungles are composed of *salat* (*Boswellia thurifera*), mixed with thorns and a few dwarfed trees. *Sal* (*Shorea robusta*) is found in the hollows, and *khair* (*Acacia Catechu*) is common. In the extreme south the *sal* is of better quality, but no forest land is 'reserved.'

* Records, Geological Survey of India, vols. v and vi; Memoirs, Geological Survey of India, vols. vii and xxxi.

MTRZAPUR DISTRICT

Tigers are occasionally found in the preserves of Chakia, and are more common over the whole tract south of the Son. They are also met with in the gorges of the Kaimurs near the Rewah boundary, and in parts of the plateau. Leopards are found over the whole District south of the Ganges. The hyena, wolf, jackal, and fox are common, and packs of wild dogs hunt the southern jungle. The sloth bear occurs on the Vindhyan plateau and on the Kaimurs. In the Ganges valley are found antelope, 'ravine deer' (gazelle), and *nilgai* while *sambar* and *c/iifa!* are common in the preserves, and the four-horned antelope is met with occasionally. As a rule game-birds are scarce, aquatic species particularly so. Fish are common in the Ganges, and are largely caught. Mahseer are found in the Son and Belan.

The temperature of Mirzapur is subject to smaller extremes than in the Districts farther west. The greatest heat is less, except where bare rock is found, and the cold season is also less marked. The climate is unhealthy at the commencement of the hot season and also at the end of the rains.

The annual rainfall averages about 41 inches, varying from 38 at Korh, north of the Ganges, to 45 at Robertsganj on the plateau.

The early history of the greater part of the District is unknown, as no records exist of the rule of the aboriginal tribes, and their

History. ^ traditions are vague and unreliable. The Bhars , , , ,

once held the Ganges valley, and had a city near the present site of Bindhachal. Eastward from Chunar the country was held by the Cheriis. The Soens, who are now almost extinct, were formerly powerful. In the south of the District the Kols and Kharwars ruled in the forests. About the end of the twelfth century Rajput clans seized the whole District. Portions of the Gangetic valley fell into the hands of the Musalmans a few years later; but little is heard of the District till the sixteenth century, when CHUNAR became an important post in the wars between Humayun and Sher Shah. The fort was held by the Pathans for some time after the accession of Akbar. In the eighteenth century this area was included in the territory granted to the Nawab of Oudh. In 1738 the governor of the *sarkars* of Benares, Jaunpur, GhazTpur, and Chunar fell into disfavour and was replaced by Mansa Ram, who had been in his employment. Mansa Ram was succeeded by his son, Balwant Singh, Raja of Benares, who rapidly extended his possessions and acquired the whole of the present District, except the fort at Chunar. At his death in 1770 the British compelled the Nawab to recognize the succession of Chet Singh, an illegitimate son of Balwant Singh. In 1775 the Nawab ceded sovereign rights to the British, who confirmed Chet Singh in full civil and criminal powers subject to the

payment of a fixed revenue. Chet Singh refused certain demands made by Warren Hastings in 1781, and an attempt to arrest him led to an *hneute* at Benares. Hastings, who had come to Benares, had to fly to Chunar and collect troops, who defeated Chet Singh's forces at Slkhar PatTta and Latifpur. Chet Singh took refuge in Bijaigarh, his stronghold on the Kaimurs, but again fled on the approach of the British. His estates were then conferred on Mahip Narayan, a nephew of Balwant Singh. In 1788, owing to his misgovernment, Mahip Narayan's private estates, comprising Korh and Chakia, were separated from the rest of the District, which was brought under the ordinary administration. Its history is thenceforth a blank till the date of the Mutiny in 1857.

At first only a Sikh guard had charge of the treasury at Mirzapur; but after the outbreaks at Benares on the 1st and at Jaunpur on the 5th of June, Colonel Pott arrived with part of the 47th Native Infantry. The Sikhs were called into Allahabad on the 8th; and next day, strong rumours of intended attacks by the rebels being current, all the officers, except Mr. Tucker, retired to Chunar. On the 10th Mr. Tucker attacked and defeated the insurgents; and on the 13th a detachment of the 1st Madras Fusiliers arrived at Mirzapur, and destroyed Gaura, a stronghold of the river dacoits. In the BhadohT *pargatia*, Adwant Singh, head of the Thakurs, rebelled, but was captured and hanged. The Thakurs vowed vengeance, attacked Mr. Moore, Deputy-Superintendent of the Benares Domains, at the Pali factory, and on July 4 murdered him together with two planters, while endeavouring to make their escape. On June 26 the Banda and Fatehpur fugitives arrived and passed on to Allahabad. On August 11 the Dinapore mutineers entered the District, but were put to flight by three companies of the 5th Fusiliers, and left Mirzapur at once. Kuar Singh, the rebel *zamlndar* of Shahabad District, made an incursion on September 8 after his defeat at Arrah, but the people compelled him to pass on to Banda. On September 16, when the 50th Native Infantry mutinied at Nagod, the officers and 200 faithful sepoy marched through Rewali to Mirzapur. In January, 1858, Mr. Tucker led an expedition against Bijaigarh, drove the rebels across the Son, and re-established order, which was not again disturbed.

Some interesting cave-dwellings have been discovered on the scarp of the Kaimurs, the walls of which are occasionally adorned with rude drawings of the chase, while stone implements have been found on the floors¹. Curious stone images of bearded men, supposed to be relics of Bhar rule, are found in the north of the District.

¹ *Journal, Asiatic Society of Bengal*, 1894, pt. iii, p. -i; *Journal, Royal Asiatic Society*, 1899, p. 89.

MIRZA PUR DISTRICT

An interesting inscription of Lakhana Deva of Kanauj, dated in 1196, was dug up near Ahraura. The most striking memorials of Muhammadan rule occur in the great fort of Chunar, and the remains of ruined castles exist at various places on the Kaimurs.

Mirzapur contains 7 towns and 4,257 villages. Population increased from 1872 to 1891, but the famine of 1896-7 caused a decrease in the next decade. The numbers at the four enumerations were as follows: (1872) 1,015,826, (1881) 1,136,796, (1891) 1,161,508, and (1901) 1,082,430. There are five *tahsils*—Mirzapur, Chunar, Robertsganj, Korh, and Chakia—each named from its head-quarters. The principal towns are the municipality of Mirzapur, the District head-quarters, which includes Bindhachal, and the 'notified area' of Chunar. The following table gives the chief statistics of population in 1901 :—

Tahsil.	Area in square miles.	Nil & above	Population.		Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
			1891	1901			
Mirzapur .	1,185	2	964	332,340	281	10.7	14,986
Chunar . .	562	2	580	176,532	314	4.9	7,615
Robertsganj .	2,621	2	1,222	221,717	85	3.3	4,408
Koili . .	396	1	1,076	255,240	720	2.1	9,662
Chakia . .	474	...	415	66,601	141	61	2,054
District total	5,235	7	4,257	1,082,430	207	6.8	38,725

Of the total population, 93 per cent, are Hindus, and nearly 7 per cent. Musalmans. North of the Ganges the density of population is very high ; but the large area of jungle and rock in the centre and south of the District reduces the density elsewhere, and the Robertsganj *tahsil* is one of the most thinly populated tracts in the Provinces. The boundary between the tracts where Eastern Hindi and Bihar! are spoken passes through the north of the District; but Eastern Hindi is the prevailing speech south of the Son. Bihari is spoken by about 63 per cent, of the population, and Eastern Hindi by 36 per cent. The aboriginal tribes have largely given up their own tongues.

The principal Hindu castes are: Brahmans, 153,000; Chamars (leather-workers and cultivators), 134,000 ; Ahirs (graziers), 102,000 ; Kurmis (agriculturists), 64,000 ; Rajputs, 42,000 ; Kewats (cultivators), 40,000; and Koils (cultivators), 40,000. The District also contains a number of aboriginal tribes similar to those of Chota Nagpur and Central India, the most important of which are the Kols, 27,000 : Majhwars, 21,000; Kharwars, 15,000; Bayars, 12,000; and Cherus, 6,000. These are rapidly becoming Hinduized. Among Muham-

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madans the largest tribes and rastes are: Julahas (weavers), 20,000: Shaikhs, 13,000 ; Behnas (cotton-carders), 9,000 ; and Pathans, 7,000. The high proportion of 71 per cent, of the total population are supported by agriculture, and only 4 per cent, by general labour.

Out of 413 native Christians in 1901, Congregationalists numbered 254 and members of the Anglican communion 93. The London Mission commenced work at Mirzapur in 1837 and at Dudhi in 1862. In 1897 a hospital and dispensary were founded at Kachhwa. The Church Missionary Society has a small branch at Chunar.

The soils and consequently the agricultural conditions of the District present many diversities. In the Gangetic plain the usual loam and sandy and clayey soils are found, the first variety preponderating ; and this area produces | Agriculture, the ordinary crops—rice, gram, wheat, barley, and the millets. On the Vindhyan plateau the soil is a stiff and shallow red clay, giving only scanty crops, with generally two fallows intervening. *Kodon*, a small millet, is the chief crop grown here. A remarkable strip of fertile country, however, stretches across the District between the Belan and the base of the Kaimurs. The western portion, like the rest of the plateau, suffers from the lack of facilities for irrigation ; but in the east the spring-level rises, and large quantities of rice are grown, while even sugar-cane and poppy succeed. The broad valley of the Son has a light sandy soil. In the tract south of this river cultivation is practically confined to four places—the Son, Kon, Dudhi, and Singrauli valleys. Rice, *kodon* and other millets, wheat, and oilseeds are the principal crops grown here. Cultivation is largely fluctuating; and, excluding fields round the homesteads, lands are only cultivated once in three years. The custom of firing the jungle borders to obtain fertile land is still practised.

The *tahsils* of Korh and Chakia form part of the Benares Estate, and the former includes a number of villages owned by sub-proprietors called *manzuriddrs* or *mitkarrariddrs*. Excluding a few large estates held by single persons, in some of which sub-proprietary rights exist, and the Dudhi *paigana*, the prevailing tenure is the ordinary *pattidan*. The Dudhi *paigana* is almost entirely managed as a Government estate, and proprietary rights exist only in a small portion. The main agricultural statistics for 1903-4 are given in the table on the next page, in square miles.

The principal food-crops, with their areas in the same year, were—rice (163 square miles), gram (169), *kodon* (161), wheat (113) and barley (109). *Jajra*, *jozvar*, and maize are also grown. Oilseeds (grown on 118 square miles), sugar-cane (10), and poppy (3), are of some importance.

The system of crop records has only recently been introduced into

the permanently settled Districts, and it is impossible to say whether cultivation is progressing or not, and what changes are taking place in agricultural methods. The changes, if any, have not been sufficiently important to attract attention. Advances are rarely made under the Land Improvement Loans Act, and only small amounts have been lent under the Agriculturists' Loans Act, amounting to Rs. 82,000 during the ten years ending 1900, of which Rs. 51,000 was advanced in 1896-7.

<i>Tahiti.</i>	Total.	Cultivated. ,	Irrigated.	Cultivable waste.
Mirzapur ..	M85	429	45	413
Chunar ..	562	242	36	153
Robertsganj ..	2,621	255*	27*	2 2^*
Korh...	396	250	112	38
Chakia ..	4741	109	27	24
Total	5>2 38	1,285	247	S53

* These figures exclude the unsurveyed area south of the Son.
 † Agricultural statistics available for only 160 square miles.

The cattle bred locally are very inferior ; and animals are imported from Bihar for the plough, from the Districts north of the Gogra for other agricultural work, and from Surguja for use as pack-animals. The buffaloes of the District are of a better stamp, and supply milk and are used for hauling stone. Ponies are also very inferior. Sheep and goats are largely kept, but no particular breeds are recognized.

Excluding the Benares Domains, 108 square miles were irrigated in 1903-4, of which 55 were irrigated from wells, 31 from tanks or *jhills*, and 22 from other sources. The Gangetic valley is supplied chiefly by wells and *j/i/s*. On the plateau wells are almost unknown, except in the fertile strip below the Kaimurs. Tanks and embankments are the usual means for the storage and supply of water here, and are extensively used for rice cultivation. The artificial lakes at Karsota on the plateau and at Gaharwargaon south of the Son are the most important of these works. South of the Son the number of embankments approaches 900, but increased facilities for water-supply are still needed. The rivers are rarely used for irrigation; and there is only one small canal, made about 1820 by the Raja of Benares, which supplies water from the Chandraprabha.

The most important mineral product is building stone, which is largely quarried in the north of the District, and exported as far as Calcutta. Millstones, curry-stones, boundary pillars, and fencing posts are also made. The quarries are Government property and a royalty is levied, which yields about 1 lakh annually. Iron ore is found in places, and a little is worked by the aboriginal tribes for local use. Coal was formerly extracted south of the Son and carried on pack-bullocks to the river steamers at Mirzapur, and as recently as 1896

an unsuccessful attempt was made to work it again. Mica and iron pyrites are also found, but are not used.

The District generally has few arts or industries, excluding those of the city of Mirzapur. Cane sugar is produced north of the Ganges, and palm sugar near Chunar. Iron vessels are made at Kachhwa, lacquered wooden toys at Ahraura, and an inferior art pottery at Chunar. The manufacture of indigo and weaving of *tasar* silk, which were formerly of some importance, have dwindled considerably; but the silkworm is still bred, and wild silk is also collected. South of the Son catechu is extracted in most villages. Mirzapur city is one of the most important centres of brass manufactures in the United Provinces. It also contains large industries turning out shellac, lac-dye, and woollen carpets, besides a cotton-spinning mill.

The District exports stone, shellac, catechu, and other jungle produce, carpets, brass and iron utensils, grain, *ghi*, oilseeds, spices (chiefly betel-nuts), and raw silk; and imports brass, iron and copper, salt, cotton, and piece-goods. The chief channel for trade is now the railway, the Ganges being little used, except for the carriage of stone and fuel. Trade between the north and south of the District is carried entirely on pack-tullocks, and is decreasing owing to the establishment of markets outside the border. Mirzapur, Kachhwa, and Ahraura are the chief trading centres, while Chunar railway station is an important place for the export of stone.

The main line of the East Indian Railway passes through the District a little distance south of the Ganges, and the Oudh and Rohilkhand crosses the extreme north. There are 1,025 miles of road, of which 148 are metalled. The latter are maintained by the Public Works department, but the cost of all but 69 miles is met from Local funds. The main lines are the grand trunk road north of the Ganges, with branches from Mirzapur city to several points on it; the great Deccan road; the road from Mirzapur to Jaunpur; and the roads from Mirzapur and Chunar to the south of the District. Avenues of trees are maintained on 123 miles.

Local tradition tells of serious suffering in the northern parts of Mirzapur during the great famine of 1783; but the District has usually escaped the worst degrees of famine. In 1864 and 1865 the rains were scanty and most of the rice crop perished, and revenue was freely suspended. In 1868 drought again caused distress, which deepened into famine in the southern part, though rain in September saved some of the late crops. Relief works were opened early in 1869, and provided work for all who came; but the forest tribes remained in their jungles, living on forest produce. A series of bad seasons caused distress in 1873, when nearly 44,000

head of cattle were lost owing to the failure of fodder and water, and small relief works were necessary. The great scarcity of 1877-8 was only slightly felt in this District. In 1896, however, the rainfall was short for the second year in succession, and the late rice and the following spring crops were lost. The Vindhyan plateau and the tract south of the Son suffered most severely; but some distress was also felt in the area between the Ganges and the plateau. North of the river high prices were the only inconvenience to the people. By June, 1897, there were 48,000 persons on relief works and 23,000 in poorhouses or receiving gratuitous relief. The Maharaja of Benares spent 18 lakhs on relief in his estates.

The Collector is usually assisted by a member of the Indian Civil Service, and by three Deputy-Collectors recruited in India. The

— — . Deputy-Superintendent of the Family Domains of Administration. ^ Maharaja of Benares (*see* Benares Estate) has

his head-quarters at Mirzapur, a *tahsildar* is stationed at the head-quarters of each *tahsil*, and there are two officers of the Opium department in the District.

Civil justice is in the hands of a Munsif, a Sub-Judge, and the District Judge, the latter being also Sessions Judge. In the two *tahsils* of the Benares Estate all civil cases which are in any way connected with land, and all rent and revenue cases, are tried by the Maharaja's courts with an appeal to the Deputy-Superintendent. The tract south of the Son is a separate non-regulation area, in which the *tahsildar* of Robertsganj and the Collector and his Assistants have civil powers. Crime is light, especially in the jungle tracts.

Up to 1830 Mirzapur formed part of Benares District, and most of it was thus permanently settled by 1795. A survey was carried out between 1839 and 1847, which was followed by the preparation of a record-of-rights. The District was again surveyed between 1879 and 1882; and the old record-of-rights, which had been of an imperfect nature and had never been corrected, was thoroughly revised for the area included in the Gangetic valley. In the two *tahsils* belonging to the Benares Estate the Maharaja makes his own settlement with the subordinate proprietors. The *Diidhi pargana* was for many years entirely overlooked by the British administrators, and it thus escaped the permanent settlement. The Raja of SingraulT usurped the whole *pargana*, and complaints against his misgovernment led to its inspection in 1847. ^ formal inquiry was held, and it was declared to be the property of Government. A settlement was made in 1849-56, which was revised in 1871-5, 1886-7, and 1897-8. Proprietary rights in this *pargana* do not exist except in *tappa* Gonda Bajia, and the assessment is based on the number of ploughs maintained by the cultivators. The area estimated to be cultivated by each plough is

fixed, and the rates per plough vary in different villages. The village headmen or *sapurddrs* receive concessions for their own cultivation, and also a percentage on collections.

The collections on account of land revenue and revenue from all sources have been, in thousands of rupees :—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue . .	8,56	Si>6	9.>r	8)44
Total revenue . .	ii,7«	14,9°	16.28	16.70

The towns include one municipality, Mirzapur, one 'notified area,' Chunar, and four places administered under Act XX of 1S56. Beyond the limits of these the District board administers local affairs. In 1903-4 the board had an income of 1-2 lakhs, chiefly derived from local rates, a contribution from Provincial revenues, and ferries; while the expenditure was 1-3 lakhs, including Rs. 55,000 spent on roads and buildings.

The District Superintendent of police has a force of 4 inspectors, 101 subordinate officers, and 1,446 constables, distributed in 26 police stations, besides 195 municipal and town police, and 1,500 rural and road police. In 1903 the District jail contained a daily average of 230 prisoners. The Provincial reformatory is now located in the fort at Chunar.

Mirzapur District takes a fairly high place as regards the literacy of its population, of whom 3-6 per cent. (7 males and 0-3 females) could read and write in 1901. The number of public schools rose from 144 with 4,724 pupils in 1880-1 to 231 with 9,334 pupils in 1900-1. In 1903-4 there were 197 such schools with 7,914 pupils, including 291 girls, besides 55 private schools with 1,560 pupils, of whom 168 were girls. Only 1,941 pupils in both descriptions of schools were receiving secondary education. Four of the public schools are managed by Government and 115 by the District or municipal boards. Out of a total expenditure on education in 1903-4 of Rs. 91,000, Local funds supplied Rs. 47,000, and fees Rs. 8,000.

There are 11 hospitals and dispensaries, with accommodation for 75 in-patients. In 1903 the number of cases treated was 102,000, including 1,200 in-patients, and 7,800 operations were performed. The total expenditure was Rs. 24,000, chiefly met from Local funds.

About 34,000 persons were successfully vaccinated in 1903-4, representing a proportion of 31 per 1,000 of population. Vaccination is compulsory only in the municipality.

[A. Shakespear, *Selections from the Duncan Records* (Benares, 1S73): *District Gazetteer* (1883, under revision) ; G. Dale, *Revision of Records in the Gangetic J alley, Mirzdpur District* (1887); W. Crooke and

G. R. Dampier, *A Note on the Tract of Country south of the River Sou, Mirzapur District* (1894).]

Mirzapur Tahsil. —Western *tehsil* of Mirzapur District, United Provinces, comprising the *tappas* of Upraudh, ChaurasI, Chhiyanve, and Kō11 of *pargana* Kantit, and *tdluka* Majhwa of *pargana* Kaswar, and lying between 24° 36' and 25° 17' X. and 82° 7' and 82° 50' E., with an area of 1,185 square miles. Population fell from 372,015 in 1891 to 332,340 in 1901, the rate of decrease being the highest in the District. There are 964 villages and two towns, including Mirzapur (population, 79,862), the District and *tahsil* head-quarters. The demand for land revenue in 1903-4 was Rs. 3,21,000, and for cesses Rs. 68,000. The density of population, 281 persons per square mile, is above the District average. Most of the *tahsil* is situated south of the Ganges, which forms part of the northern boundary and then cuts off a small portion on the north. The greater part of it is thus situated on the Yindhyan plateau, the southern portion of which is drained by the Belan. In the extreme south-west the Kaimur hills rise abruptly from the plateau. The area under cultivation in 1903-4 was 429 square miles, of which 45 were irrigated. Wells are the chief source of supply.

Mirzapur City. Head-quarters of Mirzapur District, United Provinces, situated in 25° 9' X. and 82° 35' E., on the right bank of the Ganges, and on the East Indian Railway, 509 miles from Calcutta and 891 from Bombay, and connected by short branches with the grand trunk road. The population (including Bindhachal) has fluctuated considerably. The numbers at the four enumerations were as follows : (1872) 67,274, (1881) 85,362, (1891) 84,130, and (1901) 79,862.

The earliest mention of Mirzapur is by Tieffenthaler between 1760 and 1770, who refers to it as a mart on the Ganges. Its importance increased rapidly towards the close of the eighteenth century, and during the first half of the nineteenth century it was the most important trading centre in Upper India. Although the District was not separated from Benares till 1830, the town became the head-quarters of a Judge-Magistrate as early as 1788, and contained an important custom-house. The cotton of the Deccan and Central India was brought here on pack-bullocks and the grain of the Doab in country boats, to be conveyed by river to Calcutta; while sugar, piece-goods, and metals were carried up stream for distribution. As the trade of the place depended largely on its position at the highest point on the Ganges reached by large steamers, the opening of the East Indian Railway as far as the Jumna opposite Allahabad in 1864 marked the first step in its decline. The town has a handsome river-front lined with stone *ghats* or landing-places, and possesses numerous mosques, temples, and dwelling-houses of the wealthier merchants, with highly decorated facades and richly

carved balconies and door frames. The civil station stretches eastwards along the river. It is the head-quarters of the usual District staff, of the Deputy-Superintendent of the Family Domains (Benares Estate), of two Opium officers, and also of the London Mission. There are male and female hospitals and a town hall, besides the usual public offices. Mirzapur has been a municipality since 1867. During the ten years ending 1901 the income and expenditure averaged about Rs. 62,000. In 1903-4 the income was Rs. 83,000, chiefly derived from octroi (Rs. 69,000); and the expenditure was Rs. 67,000, including conservancy (Rs. 19,000), public safety (Rs. 12,000), administration and collection (Rs. 11,000), and public works (Rs. 10,000). A drainage scheme to cost 3-2 lakhs has recently been undertaken. The small town of Bindhachal, a few miles south-west of the city, is included within municipal limits. It contains the celebrated shrine of Yindhyeshwari or \ indhyabasinl, which is annually visited by large crowds of pilgrims from Central and Southern India. In former years the goddess was especially venerated by the Thags. Close to Bindhachal are found extensive ruins believed to be those of Pampapura, the ancient city of the Bhars. Bindhachal contains a dispensary. While Mirzapur no longer holds its former importance as a centre of commerce, it still absorbs the greater part of the trade of the District. It is also the seat of the largest brass industry in the United Provinces, as far as the production of domestic vessels is concerned. There are eighty factories for the preparation of shellac from stiek-lac found in the jungles of the south of the District or imported, which give employment to about 4,000 workmen. Mirzapur is celebrated for the woollen carpets produced here, and six of the largest factories employ 700 to 800 hands. There is also a cotton-spinning mill, which employed 560 workers in 1903. The principal schools are the ordinary District and town schools, and a school and orphanage supported by the London Mission ; the municipality maintains six and aids fifteen other schools, attended by 881 pupils.

Mishmi Hills.—A section of the mountain ranges on the northern frontier of Assam, which shut in the eastern end of the valley of the Brahmaputra, between the Dibang and the Brahmaputra. These hills are occupied by the Mishmi tribe, and have never been properly explored. They consist, as far as is known, of steep ridges, covered as a rule with tree forest, and some of the peaks are over 15,000 feet in height. Geologically, these hills seem to be a continuation of the Burmese axials. The higher ranges are probably composed of gneiss and granite, and there are reasons for supposing that they may contain deposits of economic value. Limestone boulders are found in the beds of the rivers issuing from them.

The Mishmis are divided into four tribes: the Chulikatta or 'crop-

haired,' the Bebejiya, the Digaru, and the Migu or Midhi. They are a short, sturdy race of the Tibeto-Burman stock, with features of a Mongolian type. They are keen traders and devoted to a pastoral rather than to an agricultural life, cattle and wives being the chief outward sign of wealth. The first expedition into the Mishmi country was in 1827, and further attempts were made in 1836 and 1845 : but none of the explorers succeeded in getting more than three-quarters of the way to Rima, the frontier town of Tibet. In 1851 M. Krick, a French missionary, reached that place and returned in safety to Assam ; but on his revisiting the country in 1854 he was treacherously murdered by a Mishmi chief. The offender was captured and taken to 1 Jibrugarh, where he was duly convicted and hanged : and attempts were again made in 1869 and 1879 to reach the valley of the Zayul, as the eastern arm of the Brahmaputra is called, but they were unsuccessful. In the cold season of 1885-6, Mr. Xeedham and Captain Molesworth marched from Sadiya to Rima, but were prevented from going beyond that place by the obstructive attitude of the Tibetan authorities. The path followed ran along the north bank of the Brahmaputra, the total distance traversed being 187 miles. For the first 46 miles it lies entirely in the plains, and for this portion of the journey elephants can be used for transport. From thence to the Tibetan border, 26 miles west of Rima, travelling is somewhat difficult. The track is rugged and uneven, and crosses ranges of hills varying from 1,000 to 3,500 feet in height; but these difficulties disappear on entering the Zayul valley. The upper portion of this valley was described by M. Krick as a tract cultivated as far as the eye could see, and abounding in herds of oxen, asses, horses, and mules, and in groves of bamboo, laurel, orange, citron, and peach trees. Pandit A. K., who entered the valley from the east, described the winter crops as rice, millets, and pulses, while wheat, barley, and mustard ripened in the spring. The Mishmis do a good deal of trade both with the Zayul valley and with Assam. They receive from the Tibetans cattle, woollen coats, swords, metal vessels, and other articles, and give them in exchange Mishmi *teeta* (a plant much valued as a febrifuge), musk, and Mishmi poison.

In 1899 the Bebejiya Mishmis murdered three Khamti British subjects and carried off three children. An expedition was dispatched against them in the following cold season, which, after a tedious and difficult march, succeeded in recovering the captives and burning the guilty villages. The Bebejiya country lies to the east of the Dibang river, and was entered by the Maizu pass, which is 8,900 feet above sea-level.

[An account of the Mishmis will be found in Colonel Dalton's *Ethnology of Bengal* |

Misrikh.—Western *tahsil* of Sitapur District, United Provinces, comprising the *pargancis* of Aurangabad, Chandra, Korauna, Gundlammau, Machhrehta, Misrikh, and MaholT, and lying between $27^{\circ} 12'$ and $27^{\circ} 49'$ N. and $80^{\circ} 18'$ and $80^{\circ} 50'$ E., along the Gumti, with an area of 613 square miles. The Kathna traverses the north-west of the *tahsil*, and the Sarayan forms part of the eastern boundary. Population increased from 243,207 in 1891 to 267,440 in 1901. There are 649 villages and three towns, including Misrikh (population, 2,966), the *tahsil* head-quarters. The demand for land revenue in 1903-4 was Rs. 3,88,000, and for cesses Rs. 66,000. The density of population is only 436 persons per square mile, a figure much below the District average. Along the Gumti is found a considerable area of light sandy soil, which is liable to fall out of cultivation in years of either excessive or deficient rainfall. The rest of the *tahsil* is composed chiefly of good loam. In 1903-4 the area under cultivation was 432 square miles, of which 94 were irrigated. Wells supply rather more than half the irrigated area, and tanks most of the remainder.

Mithankot.—Town in the Rajanpur *tahsil* of Dera Ghazi Khan District, Punjab, situated in $28^{\circ} 57'$ N. and $70^{\circ} 22'$ E., on the west bank of the Indus, 83 miles from Dera Ghazi Khan town, and a few miles below the confluence of the Panjnad and Indus. Population (1901), 3,487. The town was once the centre of a large trade, and head-quarters of what is now the Rajanpur subdivision; but the station was abandoned in 1862, when the old town was destroyed by an encroachment of the Indus. The new town was built 5 miles from the river, but, being so far away, speedily lost the commercial importance of its predecessor. The municipality was created in 1873. The income during the ten years ending 1902-3 averaged Rs. 3,300, and the expenditure Rs. 3,500. In 1903-4 the income was Rs. 3,800, chiefly from octroi; and the expenditure was Rs. 3,500.

Mithi Taluka.—*Taluka* of Thar and Parkar District, Sind, Bombay, lying between $24^{\circ} 17'$ and $24^{\circ} 57'$ N. and $69^{\circ} 30'$ and $70^{\circ} 34'$ E., with an area of 1,563 square miles. The population fell from 36,445 in 1891 to 26,154 in 1901. The *taluka* contains one town, Mithi (population, 2,806), the head-quarters; and 46 villages. The density, 17 persons per square mile, is below the District average. The land revenue and cesses in 1903-4 amounted to Rs. 26,000. Cultivation depends upon rainfall, and to a small extent upon well-irrigation. the principal crop being *bajra*. The *taluka* is liable to famine.

Mithi Town.—Head-quarters of the *taluka* of the same name in Thar and Parkar District, Sind, Bombay, situated in $24^{\circ} 44'$ N. and $69^{\circ} 51'$ E., about 60 miles south of Umarnkot. Population (1901), 2,806. The trade, both local and transit, consists of grain, cotton,

cattle, camels, *ghi*, dyes, hides, oil, piece-goods, sugar, tobacco, and wool. The town was constituted a municipality in 1860, and had an average income of about Rs. 4,000 during the decade ending 1901. In 1903-4 the income was Rs. 10,000. The municipality was abolished in 1905. The town contains two primary schools, one for boys and the other for girls, attended respectively by 143 and 93 pupils.

Mithila (or Videha).—Ancient kingdom in North Bihar, Bengal. It included the modern Districts of Darbhanga, Champaran, and North Muzaffarpur, and was a great seat of Sanskrit learning; it is mentioned in the *Satapatha Brahmana*. The capital was at Janakpur, in Nepal; and the boundary seems at one time to have extended as far east as the Kosi river, so that the kingdom included, besides the Districts above named, parts of Purnea, Monghyr, and Bhagalpur. According to tradition, the court of king Janaka was attended by philosophers and religious teachers as early as 1000 B.C. Little is really known of the early history of Mithila. In the ninth century A. D. it seems to have been conquered by the Pal dynasty of Magadha, and it was again subjugated by Ballal Sen of Bengal soon after he ascended the throne in A. D. 1069. The Lakshman era, which he inaugurated to celebrate the birth of his son, is in use by the *pandits* of Mithila to this day. Mithila was conquered by Muhammad-i-Bakhtyar Khilji in 1203, but from the middle of the fourteenth century it was for 200 years under the rule of a line of Brahmans given up to learning and poetry. The best known of this line was Siva Singh, who reigned for four years from 1446. In 1556 Mithila became merged in the Mughal empire. Mithila has given its name to one of the five classes of Northern Brahmans, the Maithilas, whose recognized head is the Maharaja of Darbhanga.

Miyagam.—Village in the Choranda *taiuka*, Baroda *prant*, Baroda State, situated in 22° 1' N. and 73° 7' E., on the Bombay, Baroda, and Central India Railway, at the terminus of a State line from Dabhoi. Population (1901), 2,654. It is inhabited chiefly by Jains, who carry on a thriving trade.

Moby.—State in the Southern Shan States, Burma. See MONGPAI.

Modasa.—Town in the Parantlj *taluka* of Ahmadabad District, Bombay, situated in 23° 18' N. and 73° 18' E., on the river Majham, 52 miles north-east of Ahmadabad city. Population (1901), 7,276. Modasa occupies an important strategical position between Gujarat and the hilly tracts constituting the Native States of Idar and Dungarpur. In the reign of Sultan Ahmad of Gujarat (1411-43) it was a fortified post: and at the close of the sixteenth century it was the chief place in a tract of 162 villages, yielding a revenue of 8 lakhs. It is an old town with several inscriptions. The chief industries are dyeing, calico-printing, and oil-pressing. *Mahua* oil is exported for

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soap. There is a through camel traffic in raw cotton and opium with Malwa. Modasa was constituted a municipality in 1859. The income during the decade ending 1901 averaged about Rs. 6,000, and in 1903-4 amounted to Rs. 6,800. The town contains a dispensary and five schools, of which one is an English middle school for boys with 22 pupils, and four are vernacular schools—namely, three for boys with 392 pupils and one for girls with 86 pupils.

Modhera.—Village in the Vadavli *tdluka*, Kadi *prant*, Baroda State, situated in 23° 35' N. and 72° 8' E. In ancient times this town must have been very populous and wealthy, judging from the ruins still to be seen. The chief of these is Sita's Chavdi or marriage hall, about which Dr. Burgess remarks :—

'The Sita's Chavdi is rich in carving beyond anything I have met with elsewhere. The central dome is supported by eight columns of great elegance with *toranas* between each pair, outside of which are eight similar ones. The *mandapa* is similar to the central dome. The proportions of the building are beautiful, as it is not deficient in height.'

The temple is really dedicated to the Sun, and was probably built early in the eleventh century. Modhera is known in Jain legends as Modherpura or Modhbank Patan, and it has given its name to the Modha Brahmins and the Modhas.

Moga Tahsil.— *Tahsil* of Ferozepore District, Punjab, lying between 30° S' and 30° 54' N. and 74° 54' and 75° 26' E., with an area of 807 square miles. It is bounded on the south by Patiala, and on the west by the Faridkot State. It lies almost wholly in the upland plateau known as the Rohi, which has a good loam soil and is irrigated by the Sirhind Canal. The population in 1901 was 245,857, compared with 235,806 in 1891. MOGA TOWN (population, 6,725) is the head-quarters. The *tahsil* also contains 202 villages. The land revenue and cesses in 1903-4 amounted to 4-7 lakhs. The village of MAHRAJ is of some religious importance.

Moga Town.—Head-quarters of the *tahsil* of the same name in Ferozepore District, Punjab, situated in 30° 49' N. and 75° 10' E. >

35 miles south-east of Ferozepore town on the Ferozepore road. Population (1901), 6,725. The Tayyan fair is held here in the month of Chet (March-April). The chief educational institutions are the Dev Samaj Anglo-vernacular high school (unaided), and an Anglo-vernacular middle school maintained by the municipality. There is also a Government dispensary.

Mogalturru.—Village "in the Narasapur *taluk* of Kistna District, Madras, situated in 16° 25' N. and 81° 36' E., on the Narasapur canal. Population (1901), 6,348. It contains the fort of the former *zamindars* of Mogalturru, and was the head-quarters of one of the early Collectorates. There is a small salt factory close by.

Mogaung Subdivision.—Subdivision of Myitkyina District, Upper Burma, consisting of the MOGAUNG and **Kamaino** townships.

Mogaung Township.—Western township of Myitkyina District, Upper Burma, lying between 24° 42' and 25° 45' N. and 96° 0' and 96° 16' E., with an area of 3,490 square miles. The population in 1901 was 18,867, Shans numbering more than 8,000 and Kachins more than 7,000, while Burmans and Burmese Shans to the number of 2,000 inhabited Mogaung itself, and some of the larger river villages. The township contains 226 villages, of which 172 are in the Kachin Hill tracts. The head-quarters are at Mogaung (population, 2,742), a market of importance situated on the Mogaung stream and the railway, about 30 miles west of Myitkyina town. Except in the immediate neighbourhood of Mogaung, the township is a mass of forest-clad upland, and the density of population is very low. In 1903-4 the area cultivated was 6 square miles, in addition to *faiuifyas* : and the land revenue and *thathameda* amounted to Rs. 42,000.

Mogok Subdivision.—Southern subdivision and township of the Ruby Mines District, Upper Burma, consisting of a mass of hills broken up by ravines, lying between 22° 46' and 23° 4' N. and 96° 14' and 96° 43' E., with an area of 610 square miles. The population was 18,810 in 1891, and 24,590 in 1901, distributed in one town, MOGOK (population, 6,078), the head-quarters, and 112 villages. The importance of the township is derived from the ruby mines, which are described in the District article. About 10 miles north-west of Mogok is Bernardmyo (called after the late Sir Charles Bernard), situated at an altitude of over 5,000 feet above the sea, where European troops were once quartered. The township contained about 3,500 acres under cultivation in 1903-4, and the land revenue and *thathameda* in the same year amounted to Rs. 53,000.

Mogok Town.—Head-quarters of the Ruby Mines District, Upper Burma, situated in 22° 55' N. and 96° 30' E., in hilly country, about 4,000 feet above the sea. It lies 36 miles due east of the Irrawaddy, with which it is connected by a road 60 miles in length leading to Thabeikkyin. Population (1901), 6,078. The town, which occupies the middle of a very picturesque mountain-girt valley, is the head-quarters of the ruby-mining industry in Burma, and is a thriving trade centre with a large and flourishing masonry bazar, which brings in a revenue of between Rs. 30,000 and Rs. 40,000. A certain amount of stone-cutting, polishing, and setting is carried on, but the work is of a primitive character. Mogok is less a town than a collection of villages, and is divided into nine quarters. The actual population of the group of villages that surrounds the District head-quarters, and owes its existence to the Ruby Mines Company, is about 15,000. Mogok has not, despite its size, been constituted a municipi-

pality, nor has any modified form of local self-government yet been introduced into it. The District fund benefits by the receipts from the bazar. Brick buildings are becoming common in the town, and frequent fires in the past have popularized the use of corrugated iron for roofing purposes. The usual public buildings include a hospital, and substantial residences have been built for the local officials and for the staff of the Ruby Mines Company. A jail is at present in course of construction.

Mohan Tahsil.—North-eastern *tahsil* of Unao District, United Provinces, comprising the *parganas* of Mohan Auras, Gorinda Parsandan, Jhalotar Ajgain, and Asiwan Rastilabad, and lying between $26^{\circ} 33'$ and $27^{\circ} 1'$ N. and $80^{\circ} 25'$ and $80^{\circ} 55'$ E., with an area of 436 square miles. Population fell from 257,449 in 1891 to 255,389 in 1901. There are 474 villages and three towns, Asiwan (population, 6,153) and MOHAN (5,798), the former *tahsil* head-quarters, being the largest. The demand for land revenue in 1903-4 was Rs. 4,27,000, and for cesses Rs. 43,000. The density of population, 586 persons per square mile, is the highest in the District. Mohan is intersected by the Sai, which flows sluggishly through a tortuous channel and is liable to sudden floods, though in ordinary years its valley is very fertile. The south and the east of the *tahsil* are interspersed with barren patches of *usar* and stretches of hard clay, which produce excellent rice crops in favourable years. The north and west consist of loam with sandy ridges, and are generally fertile. In 1903-4 the area under cultivation was 262 square miles, of which 11S were irrigated. Nearly half the irrigated area is supplied from wells, and the remainder from the Sai and from tanks, which are more important sources here than in any other *tahsil* of Unao.

Mohan Town.—Former head-quarters of the *tahsil* of the same name in Unao District, United Provinces, situated in $26^{\circ} 47'$ N. and $80^{\circ} 41'$ E., on a metalled road from Ajgain railway station. Population (1901), 5,798. It is pleasantly situated on the banks of the Sai, which is here crossed by a fine stone bridge built by Maharaja Nawal Rai, minister of the Nawab Safdar Jang. The old road from Lucknow to Cawnpore passes through Mohan, which was once a place of some importance. It has always been celebrated for its Muhammadan physicians and mimics and actors. The town is administered under Act XX of 1856, with an income of about Rs. 900. A good deal of fruit is grown in the neighbourhood, and the town is flourishing. There is a school with 150 pupils.

Mohanlalganj.—Southern *tahsil* of Lucknow District, United Provinces, comprising the *parganas* of Mohanlalganj and Nigohan, and lying between $26^{\circ} 30'$ and $26^{\circ} 51'$ N. and $80^{\circ} 52'$ and $81^{\circ} 13'$ E., with an area of 273 square miles. Population increased from 150,160

in 1891 to 154,115 in 1901. There are 226 villages and two towns, the largest being AMETHI (population, 6,447). In 1903-4 the demand for land revenue was Rs. 2,53,000, and for cesses Rs. 51,000. The density of population, 565 persons per square mile, is below the District average. Mohanlalganj is bounded on the north by the Gumti and on the south by the Sai. The banks of both rivers are sandy; but the *tahsil* contains a large area of fertile loam, which in the centre turns to clay interspersed with many tanks and *jhills*. In 1903-4 the area under cultivation was 150 square miles, of which 66 were irrigated. Wells supply rather more than half the irrigated area, and tanks most of the remainder.

Mohanpur.—Petty State in MAHI KANTHA, Bombay.

Moharbhaj.—Native State in Orissa, Bengal. See MAYURBHANJ.

Mohgaon.—Town in the Sausar *tahsil* of Chhindwara District, Central Provinces, situated in 21° 38' N. and 78° 45' E., on a tributary of the river Jam, 37 miles south of Chhindwara town, and 5 miles from the Nagpur road. Population (1901), 5,730. The municipality has recently been abolished, and a town fund is now raised for purposes of sanitation. A cotton-ginning factory was opened in 1892 with a capital of Rs. 50,000, and cotton cloths are woven by hand. Mohgaon contains a vernacular middle school.

Mohindargarh Nizamat (or Kanaud).—A *nizamat* or administrative district of the Patiala State, Punjab, lying between 27° 18' and 28° 28' N. and 75° 56' and 76° 18' E., with an area of 575 square miles. It is bounded on the north by the Dadri *tahsil* of the Jind State; on the west and south by Jaipur State territory; and on the east by the State of Alwar and the Bawal *nizamat* of Nabha. The population in 1901 was 140,376, compared with 147,912 in 1891. The *nizamat* contains the towns of NARNAUL and Mohindargarh or KANAUD, the head-quarters; and 268 villages. The land revenue and cesses in 1903-4 amounted to 3.9 lakhs. Situated in the extreme south-east of the Province, it is geographically part of the Rajputana desert, and forms a long narrow strip of territory lying north by south. It is partially watered by three streams: the Dohan, which rises in the Jaipur hills, traverses the whole length of the *nizamat*, and passes into Jind territory to the north; the Krishnawati, which also rises in Jaipur and flows past Narnaul town into Nabha territory in the east; and the Gohli. It is divided into two *tahsils*: MOHINDARGARH, or Kanaud, and NARNAUL.

Mohindargarh Tahsil (or Kanaud).—Head-quarters *tahsil* of the Mohindargarh *nizamat*, Patiala State, Punjab, lying between 28° 6' and 28° 28' N. and 75° 56' and 76° 18' E., with an area of 299 square miles. The population in 1901 was 55,246, compared with 59,867 in 1891. The *tahsil* contains the town of KANAUD (population, 9,984),

the head-quarters, and 111 villages. The land revenue and cesses in 1903-4 amounted to 1*5 lakhs.

Mohindargarh Fort.—The fort at KANAUD in Patiala State, Punjab, was so named in 1861 by Maharaja Narindar Singh, in honour of his son Mohindar Singh. The fort contains the public offices of the Mohindargarh *nizamat* and *tahsil*, and the treasury, jail, &c.

Mohmand Country.—A tract north-west of Peshawar District, North-West Frontier Province, lying between 33° 30' and 34° 40' N. and 70° 30' and 71° 30' E., with an area of about 1,200 square miles. Its boundaries are: on the east and north, the Swat and Ambhar rivers; on the west, the Afghan territory of Kunar; and on the south, the watersheds of the Kabul river. Those of the Mohmands who live west of the Afghan boundary are subject to the Amir. The majority of the tribe, who live between Afghanistan and the border of Peshawar District, are under the political control of the Deputy-Commissioner of Peshawar; but there is an increasing tendency to settle in the District, in the *doabs* between the rivers. The Mohmand settlers seldom remain, however, during the summer months, being what is described as Do-Kora (‘ two homes ’). The tract is naturally divided into the rich alluvial lands along the Kabul river from Jalalabad to Lalpura, and a network of hills and valleys from Lalpura eastward. The aspect of the Mohmand hills is dreary in the extreme, coarse grass, scrub wood, and dwarf-palms being the only vegetation. In summer the desert tracts radiate an intolerable heat, and water is scarce. This, coupled with the unhealthiness of the river lowlands, accounts for the inferiority of the Mohmands to their Afridi and Shinwari neighbours in physique; and they are little recruited for the Indian army. The crops are largely dependent on the rainfall, and should this fail, considerable distress ensues. The hills, indeed, cannot support the population. The country exports little except grass, firewood, dwarf-palm, and charcoal. But there is a considerable through trade, the carrying of which supplements the people's resources. They also levy dues on the timber rafted down from Kabul. Since the Khyber Pass was opened, however, the routes through the Mohmand country have lost much of their importance. The Mohmands are closely allied to the Yusufzai Pathans. Under them are two vassal tribes : the Safis, probably Kafirs converted to Islam, of whom little is known; and the Mullagoris, who inhabit the country between the Kabul river and the Khyber Pass. This tribe is a small one and cannot muster more than 500 to 800 fighting men, but has now for many years maintained its independence and denies ever having held a position of subordination to the Mohmands. The Mohmands formed one of the group of Afghan tribes which, driven eastward by Mongol inroads between

the thirteenth and fifteenth centuries, overran the country west and north of Peshawar District, expelling or subduing the Hindu and non-Afghan races. Their success was in great measure due to their possession of hereditary chiefs or Khans, who kept together forces which have gradually worn down the resistance of the disunited Shinwaris. The chief of these is the Khan of Lalpura, but there are several minor Khans, and one family claims that title as the hereditary guardian of the *sarishta* or code of tribal law and custom. The Khans of Lalpura at various times owed allegiance to Akbar and Shah Jahan, to Nadir Shah and Ahmad Shah Durrani. About 1782, however, Arsala Khan of Lalpura revolted against Timur Shah Durrani, but was compelled to submit, and was executed at Peshawar in 1791. Thereafter the history of the family is one of constant bloodshed. Saadat Khan, who held the Khanship for forty years, was a faithful vassal of the Barakzai dynasty of Afghanistan ; but in 1864 he was arrested by the Amir for constant aggressions on the British border and died a prisoner at Kabul. After a period of anarchy, Akbar Khan was appointed in 1880 by the British Government. His extravagance and dissipation, however, greatly diminished his influence, and in 1896 he resigned his position and now lives at Kabul. In 1896 also the Utmanzai, Dawezai, Halimzai, Tarakzai, and Pindiali Mohniands came under the sole control of the British Government, and have received allowances from that date. In 1903 allowances were also fixed for the Musa Khel Mitai Mohmands. The Mohmands have a great reputation for bravery among the neighbouring tribes, and can muster about 18,000 fighting men. They are fairly well armed.

During the early period of British rule the Mohmands gave more trouble than any other frontier tribe ; and for many years their history was a series of wanton outrages in British territory, culminating in the unprovoked murder of a British officer in 1873, ^{an}<3 followed by the usual punitive expeditions. In 1895 the Mohmands, with no other justification than the Adda Mulla's fanatical preaching, joined in the resistance to the Chitral relief force. In 1897 they were among the first to raise the standard of *jihad* against the British power, and attacked SHABKADAR. The Mohmand country was accordingly invaded from Bajaur by two brigades of the Malakand field force under Sir Bindon Blood, and from Shabkadar by two more under Sir Edmond Elies.

A branch of the tribe has settled in the south-west corner of Peshawar District, and is now quite separate from the main body.

Mohol.—Village in the Madha *tdluka* of Sholapur District, Bombay, situated in 17° 49' N. and 75° 39' E., on the Poona-Sholapur road, about 20 miles south-east of Madha, on the Great

Indian Peninsula Railway. Population (1901), 4,904- A weekly market is held on Sunday. A school is maintained by the American Mission. The town contains two temples, an old fort used under Maratha rule for the offices of the former Mohol subdivision, and two ruined forts outside the town, built about 200 years ago by the local Deshmukhs. The two temples of Bhaneshwar and Nilkantheshwar or Chandramauli are both said to have been built by Hemadpant. A yearly fair is held at the Nilkantheshwar temple during three days, beginning with the fourth of the bright half of Vaishakh (April-May). According to local tradition, Mohol is a very old town. It is supposed to have suffered severely in the war between Hindus and Musalmans at the close of the thirteenth century, and the present Deshmukh and Deshpande families of the Madha *taluka* claim descent from officers appointed by the victorious Musalmans. During the great Durga-devi famine (1396-1408) the town is said to have been abandoned and to have taken twenty-five years to recover. Another local story says that Mohol was the residence of the god Nagnath, who afterwards proceeded to Vadval, 5 miles to the south-east. Nagnath's temples at Mohol and Vadval were built about 1730 by Ghongre, a rich merchant of Vairag.

Mohpa.—Town in the Katol *tahsil* of Nagpur District, Central Provinces, situated in 21° 19' N. and 78° 50' E., 21 miles north-west of Nagpur city by road. Population (1901), 5,336. Mohpa is not a municipality, but a town fund is raised for sanitary purposes. A cotton-ginning factory with a capital of about Rs. 35,000 has been opened, and another is under construction. The town is surrounded by gardens, from which vegetables are sent to Nagpur. It has a vernacular middle school.

Mokameh (*Mukd/na*). —Town in the Barh subdivision of Patna District, Bengal, situated in 25° 25' N and 85° 53' E., on the right or south bank of the Ganges. Population (1901), 13,861. It is a station on the East Indian Railway, 28½ miles distant from Calcutta, and is a junction for passengers proceeding by the Bengal and North-Western Railway. The town contains a large number of European and Eurasian railway employees, and is an important centre of trade.

Moka **Pagina** **Muvada.**—Petty State in REWA KAXTHA, Bombay.

Mokokchung.—Subdivision of the Naga Hills District, Eastern Bengal and Assam, lying between 26° 6' and 26° 48' N. and 94° 16' and 94° 50' E., with an area of 733 square miles. The population rose from 26,416 in 1891 to 33,783 in 1901, giving a density of 46 persons per square mile. A large portion of this increase was due to the immigration of tribes from beyond the frontier. The

subdivision was formed in 1889, in order to protect the Ao Nagas from the aggression of the tribes that live to the east of the Uikho river, and is in charge of a European officer of police. The annual rainfall at Mokokchung village averages 96 inches. The principal source of revenue is house tax, which in 1903-4 amounted to Rs. 23,800.

Mokundurra.—Village and pass in Kotah State, Rajputana. *See* MUKANDWARA.

Molakalmuru.—North-eastern *taluk* of Chitaldroog District, Mysore, lying between 14° 34' and 15° 2' N. and 76° 36' and 76° 52' E., with an area of 290 square miles. The population in 1901 was 37,744, compared with 32,560 in 1891. There are three towns, Molakalmuru (population, 2,915), the head-quarters, Deva-samudra (2,004), and Rampura (1,845); and 94 villages. The land revenue demand in 1903-4 was Rs. 54,000. The *taluk* is a long and narrow strip of country jutting into Bellary District. A few isolated villages on the west are entirely separated from the remainder. The surface is very undulating, and except where rice and garden lands exist is covered with rocks and loose stones. A range of bare rocky hills runs right across the *taluk* from south-east to north-west, among which are the Nunke Bhairava hill (3,022 feet) and the Jatinga Ramesvara hill (3,469 feet). More than a third of the surface is occupied by these hills, which are so barren that not a blade of grass or a tree will grow on their sides. Nearly 9 square miles in the south are taken up with *kammar* jungle. The south is comparatively level, but the soil very poor. The Janagahalla river flows along the western boundary for a short distance, and then turns north-east across the *taluk* under the name of Chinna-Haggari, receiving the drainage of the bare rocky hills around. All tanks of any importance are close to the river and fed by channels from it. Wells are numerous, and two crops of rice are raised in the year by their means. Betel-vines, tobacco, wheat, and *jola* are also grown, the first in the north for the Bellary market. Blankets, coarse cotton cloth, women's *saris* with silk borders, and tape for belts, are the principal manufactures. Iron ore from the Kumarasvami hill in Sandur State is smelted in one or two villages.

Momeik.—Shan State and subdivision of the Ruby Mines District, Upper Burma. *See* MONGMIT.

Mominabad. — Town in Bhir District, Hyderabad State. *See* AMBA TOWN.

Mone.—One of the Southern Shan States, Burma. *See* MONGNAL.

Mong.—One of the three circles into which the Chittagong Hill Tracts, Eastern Bengal and Assam, are divided for administrative purposes. It occupies the north-west corner of the District, lying

between $2^{\circ} 45'$ and $23^{\circ} 47'$ N. and $91^{\circ} 41'$ and $92^{\circ} 7'$ E., with an area of 653 square miles. The greater part of the country consists of hills and ravines covered with dense tree jungle. The population in 1901 was 31,898, compared with 22,708 in 1891. Most of the people are Tipperas (see **HILL TIPPERA**). There are 128 villages, of which **MANIKCHERI** is the residence of the chief who administers the circle. The title of Mong Raja is hereditary ; the present incumbent is Raja Xephru Sain.

Mong (Afung).—Village in the Phalia *tahsil* of Gujrat District, Punjab, situated in $32^{\circ} 39'$ N. and $73^{\circ} 33'$ E., 35 miles from Gujrat town. It stands on an old ruined mound, the modern houses being built of large ancient bricks. Greek and Indo-Scythian coins are found in numbers among the ruins, many of them bearing the monogram NIK ; but General Cunningham's identification of Mong as the site of Nikaia, the city built by Alexander to commemorate his victory over Porus, is no longer accepted. Tradition assigns the origin of the mound to Raja Moga, whom Cunningham identified with the Maues of the coins. The head-works of the Jhelum Canal are situated in the neighbourhood.

Monghsu and Mongsang (Burmese, *Maingshu* and *Maingsin*).—Two small States (recently amalgamated) in the north of the eastern division of the Southern Shan States, Burma, lying between $21^{\circ} 31'$ and $22^{\circ} 5'$ N. and $98^{\circ} 11'$ and $98^{\circ} 32'$ E., with an area of 164 square miles. Both States used formerly to be part of the Northern Shan State of Xorth Hsenwi, but were made separate charges in 1857. The combined State is bounded on the north and east by Manglon ; on the south by Mongnawng; and on the west by Mongnawng and Kehsi Mansam. It consists mainly of rugged hills and broad valleys, watered by the Nam Pang and its affluents ; and rice is the only crop grown to any extent. The population in 1901 was 17,480, distributed in 265 villages. More than 14,000 of this total consisted of Shans, and the greater part of the remainder were Yins. A few Palaungs live in the hills. The residence of the Myoza is at Monghsu (population, 244), to the east of the Nam Pang on a tributary of that stream. The revenue in 1903–4 amounted to Rs. 11,000 (all from *thathameda*) • and the chief items of expenditure were Rs. 5,600 tribute to the British Government, Rs. 2,700 privy purse, and Rs. 1,700 general charges on account of administration.

Monghyr District (Mufiglr).—District in the Bhagalpur Division of Bengal, lying between $24^{\circ} 22'$ and $25^{\circ} 49'$ N. and $85^{\circ} 36'$ and $86^{\circ} 51'$ E., with an area of 3,922 square miles. Monghyr is bounded on the north by the Districts of Bhagalpur and Darbhanga ; on the east by Bhagalpur ; on the south by the Santal Parganas and Hazaribagh; and on the west by Gaya, Patna, and Darbhanga.

The Ganges flows through the District from west to east, dividing it into two portions of unequal size and of very different character.

The northern portion is a great alluvial plain, aspects¹ differing but little from the adjoining portions of Darbhanga and Bhagalpur. This portion is again subdivided by the Burhi Gandak, the country to the west of that river being similar to the indigo-growing tracts of North Bihar. The remaining portion is traversed by the Tiljuga, also called the Kamla, and by the Baghmata, which was possibly at one time a continuation of the river of the same name which joins the Gandak to the east of Muzaffarpur. It is seamed by deserted channels; and the whole area, which covers about 200 square miles, is low-lying, swampy, and liable to inundation. The south of the District is also to a great extent alluvial ; but the general level is higher and the surface more undulating, and several ranges of hills, outliers of the Vindhyan series, enter the District from the south and converge towards Monghyr town. The principal are the Kharagpur hills, which form a distinct watershed, the Kiul river draining the western, and the Man and other streams the eastern portion of the range. The main channel of the Ganges has several times shifted both to the east and to the west of the rock on which the Monghyr fort stands, alternately forming and washing away large areas of *didra* lands ; but since the earliest times of which any record exists, it has washed the base of the rock immediately to the north of the fort. The largest areas of alluvial deposit formed by these changes in the main channel are comprised in the Government estates of Kutlupur to the west, and Binda *didra* to the east of Monghyr town. A large marsh, known as the Kabartal, in the north of the Begusarai subdivision, apparently marks the old bed of one of the large rivers, and drains eastward through the low tract lying in the north-east of the District.

North of the Ganges the older rocks are concealed by the alluvium of the Gangelic plain; but south of the river the level rises rapidly and the older rocks soon appear, first as more or less disconnected hill groups, and farther south as a continuous uninterrupted outcrop. These rocks consist of the oldest system recognized by geologists, that known as Archaean. They include a vast series of crystalline rocks of varied composition, including granitic and dioritic gneisses, hornblende and mica-schists, epidiorites, crystalline limestones, and many other rocks collectively known as Bengal gneiss ; another very ancient series consisting of highly altered sedimentary and volcanic rocks, including quartzites, quartz-schists, hornblendic, micaceous, talcose, and ferruginous schists, potstones, phyllites, slates, &c., forming an assemblage very similar to that which has received the name

of Dharwar schists in Southern India ; and vast granitic masses and innumerable veins of coarse granitic pegmatite, intruded amongst both the schists and the Bengal gneiss. The Bengal gneiss occupies principally the southernmost part of the District. The ancient stratified series assimilated with the Dharwars forms several hill groups situated between the southern gneissose area and the valley of the Ganges : these are the Kharagpur hills, the largest of the hill masses situated south of Monghyr and east of Luckeesarai, the Sheikhpura hills and the Gidhaur range, respectively west and south of Luckeesarai. The rocks of the Gidhaur range are highly metamorphosed by innumerable veins of coarse granitic pegmatites, which are of great economic importance on account of the mica they contain, and constitute the eastern portion of the great mica-belt of Bengal. The coarsest grained, and consequently the most valuable, pegmatites are the comparatively narrow sheets which intersect the schists of the metamorphosed stratified series. The larger and more uniform comparatively fine-grained intrusions are valueless so far as mica is concerned, though they belong to the same system of intrusions. On account of its habit of weathering in the shape of large rounded hummocks, the rock forming these more massive intrusions has often been described under the name of dome-gneiss, which, more accurately, should be dome-granite. The rocks of the Kharagpur hills are not nearly so much altered as those of the Gidhaur range. The strata originally constituted by shales, which, in the latter range, have been transformed into schists, are only altered to slates in the Kharagpur hills. These slates, which are regularly cleaved and of fairly good quality, are quarried to a certain extent \

In the portions of the District near the Ganges the rice-fields abound with the usual weeds of such localities.' In the swampy tract to the east of the BurhT Gandak, rank *pod* grass and the graceful pampas grow in abundance, and below them *dubh* and other succulent grasses. Near villages there are often considerable groves of mango-trees and palmyra palms : and north of the Ganges perhaps nine-tenths of the trees are mangoes, the fruit of which forms an important item in the food-supply of the poorer classes. Farther from the river on the south the country is more diversified ; and, though no Government forests exist, an area estimated at about 427 square miles is under forest, chiefly towards the southern confines of the District and in the Kharagpur estate of the Maharaja of Darbhanga. The principal trees growing in the alluvial and

¹ T. H. Holland, 'Mica Deposits of India,' *Memoirs, Geological Survey of India*, vol. xxxiv, pt. ii. The above account was contributed by Mr. E. Yredenburg, Deputy-Superintendent, Geological Survey of India.

cultivated areas are the mango (*Man gif era indica*), *pi pal* (*Ficus religiosa*), banyan (*Ficus indica*), *siris* (*Mimosa Sirissa*), *mm* (*Meia Azadirac/ila*), *jamitn* (*Eugenia Jambolana*), *sissii* (*Dalbergia Sissoo*), red cotton-tree (*Bo/nbax malabaricum*), *pdkar* (*Ficus infectoria*), jack-fruit tree (*Artocarpus integrifolia*), *bel*-fruit tree (*Aegle Marmelos*), *babul* (*Acacia arabica*), *palmyra* (*Borassus flabellifer*), and *date-palm* (*Phoenix sylvestris*); while the most important of the trees which clothe the hills and the undulating country in their neighbourhood are the *sal* (*Shorea robusta*), *kend* (*Diospyros melanoxylon*), the black heart of which forms the ebony of local commerce, the *dsau* (*Terminalia tomentosa*), *palas* (*Butea frondosa*), *pidr* (*Buchanania latifolia*), *gam ha r* (*Gmelina arborea*), *gular* (*Ficus opposi/ifolia*), and the *mahitd* (*Bassia latifolia*). Perhaps the most useful of all these trees is the *mahud*, which yields food, wine, oil, and timber. From its flowers the common country spirit is distilled, and whether fresh or dried they furnish the poorer classes with wholesome food ; from its fruit is pressed an oil largely used for the adulteration of *ghi*; and the tough timber is used for the naves of wheels.

Rope is made in large quantities from a jungle creeper called *chehdr* (*Bauhinia Vah/ii*), and also from the coarse *sabai* grass (*Ischaemum angustifolium*). Lac is collected to a very small extent for exportation and for making bracelets, toys, &c. The insects are found chiefly on the small branches and petioles of the *palds-.xee* (*Butea frondosa*). This tree also affords a valuable gum and a yellow dye of considerable permanence.

Tigers are not common, though they are said to have been responsible for sixty-nine deaths in 1900. Leopards, hyenas, and black bears are found in the hills, and wild hog in most parts of the District. Several varieties of deer are met with, such as the *sdmbar*, *chltal* or spotted deer, and barking-deer. The 'ravine deer'—more properly the Indian gazelle (*Gazella bennetti*)—also occurs. The marshes in the north are visited during the cold season by myriads of geese, ducks, and cranes; and peafowl, jungle-fowl, and spur-fowl are still found in small numbers among the hills in the south of the District. These birds, however, like the larger wild animals, have now been nearly exterminated by hunters and the forest tribes.

The temperature is moderate except during the hot months of April, May, and June, when the westerly winds from Central India cause high temperature with very low humidity. The annual rainfall averages 47 inches, of which 6-9 inches fall in June, 13-2 in July, 11-9 in August, and 8 in September. In the earthquake of 1897 considerable damage was done to masonry buildings at the head-quarters station and at Jamalpur.

In early times the present site of Monghyr town lay within the

old Hindu kingdom of Anga, while a portion of the western part of the District appears to have been included within the limits of the ancient kingdom of Magadha. There are still several ^
traces of Buddhist remains in this portion of the District ; and ruins at RAJAONA have been identified by General Cunningham with those of a monastery visited by the Chinese pilgrim Hiuen Tsiang. The District subsequently passed under the Pal dynasty; and a relic of their rule still exists in a copperplate found on the site of the fort in 1780, which contains an inscription of uncertain date recording that the armies of Raja Deb Pal (tenth century A. D.) crossed the Ganges by a bridge of boats. The next mention of Monghyr is in connexion with the conquest of Bihar and Bengal by the Muhammadans, when Monghyr town was taken by Muhammad-i-Bakhtyar Khilji (*circa* 1198). In 1580, when Raja Todar Mai was sent by the emperor Akbar to reduce the rebellious chiefs of Bengal, he made Monghyr his head-quarters and constructed lines of entrenchment there. In the next century Shah Shuja, after his defeat by Aurangzeb in 1659, retreated to Monghyr and strengthened the fortifications and outer lines of entrenchment, but hurriedly abandoned the fort on hearing that Mir Jumla was threatening his line of retreat. Subsequently in 1763 the Nawab, Mir Kasim ALI, selected the town as his capital and established an arsenal here. After the defeat of his army at Udhua Nullah, he retreated to Monghyr, but fled on the approach of the British under Major Adams ; and the governor in command of the fort capitulated after a two days' bombardment. The greater part of the country, especially to the south of the Ganges, remained for some time in the hands of semi-independent chieftains, the most powerful of these being the Raja of Kharagpur, who ruled at one time over 24 *parganas*. The founder of this family was a Rajput soldier of fortune, who overthrew the original Khetauri proprietors by an act of gross treachery; and in the reign of the emperor Jahangir his son and successor strengthened his position by embracing Islam and taking a wife from the imperial *zanana*. The downfall of the line dates from the British occupation, when the ancestral estates were rapidly sold one after another for arrears of revenue, a large portion being bought by the Maharaja of Darbhanga. Other ancient families are those of Gidhaur and of the Rajas of Pharkiya, the latter of whom trace their descent from a Rajput who first brought the lawless tribes of Dosadhs under subjection in the reign of Humayun, and subsequently received a *zamindari* grant in 1494. Portions of the property still continue in his family, but the estate has been much broken up by subdivision and alienation. The modern history of Monghyr will be found in the article on Bhagalpur District, within which it was included in the earlier days of English administration. The local records do not give

the date of the establishment of the District as a subsidiary executive circle, but this change appears to have been effected about the beginning of the nineteenth century. In 1832 Monghyr was made an independent Deputy-Collectorship and Joint-Magistracy, and the title of Magistrate and Collector was subsequently given to the District officer.

The District contains several remains of antiquarian interest. In addition to the great fort at Monghyr, there are the ruins of other forts at Indpe (near Jamui), Naulakhagarh near Khairā, Chakai, Jaimangalgarh in the Kabartal and Naula in the Begusarai subdivision. Buddhist remains are to be found at Rajaona and Hasanganj near Luckeesarai, and at Uren near Kajra. There is an inscription of about the tenth century at Kashtharani Ghat and another referring to the Bengal Sultan Rukn-ud-dīn Kaikaus (1297) at Luckeesarai. The oldest extant building of the Muhammadan period is the *dargah* of Shah Nafah, built in 1497-8 by Daniyal, son of Ala-ud-dīn Husain, king of Bengal.

The population increased from 1,814,638 in 1872 to 1,969,950 in 1881, to 2,036,021 in 1891, and to 2,068,804 in 1901. The District is

fairly healthy, though cholera is epidemic; and the population of the District shows progress indicated by the

census returns is chiefly due to the appearance of plague in 1900, which, in addition to the consequent mortality, caused a large number of persons to leave the District. The principal statistics of the Census of 1901 are shown below:—

Subdivision.	Area in square miles.	Number of		Population.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
		Towns.	Villages.			
Monghyr ..	1,578	3	923	874,611	+ 0.4	26,875
Jamui ..	1,593	1	838	551,227	- 0.5	15,537
Begusarai ..	751		755	642,966	+ 5.2	18,315
District total	3,922	4	2,516	2,068,804	+ 1.6	60,727

NOTE.—In 1904 and 1905 changes of jurisdiction were effected, with the result that the area of the Monghyr subdivision was increased to 1,895 square miles, and that of the Jamui subdivision reduced to 1,276 square miles. The population of the subdivisions as now constituted is 1,050,840 and 374,995 and the density 555 and 294 persons respectively per square mile.

The density is greatest north of the Ganges, where there are 693 persons per square mile, as compared with only 412 persons in the south Gangetic tract, while in the extreme south, on the borders of Hazaribagh, there are barely 250 persons per square mile. The greatest growth has occurred in the fertile Begusarai subdivision on the north

of the Ganges; but the sparsely inhabited hilly *thanas* in the south-east also show a steady development. The four towns are MOXGHYR, the head-quarters, JAMALPUR, SHEIKHPURA, and KHAGARIA, the first two being municipalities. There is considerable emigration among the labouring classes, especially to Central and North Bengal and to Assam. The vernacular in the north is the Maithili, and in the south the Magadh! dialect of Biharl. Hindus constitute 90-3 per cent, of the total population and Muhammadans 9-5 per cent.

The most numerous Hindu castes are Ahirs and Goalas (240,000), Babhans (189,000), Dhanuks (132,000), Musahars (123,000), Dosadhs (115,000), and Koiris (no,000); while Brahmans, Chamars and Kandus, Rajputs, Tantis, and Telis have each more than 50,000 representatives. The Babhans are for the most part occupancy ryots or tenure-holders. The Musahars, Dosadhs, and Chamars may be considered semi-Hinduized aborigines. The Musalmans are chiefly Shaikhs, Jolahas, and Kunjras. Two-thirds of the population are supported by agriculture, 13-6 per cent, by industries, 1-1 per cent, by commerce, and i*6 by the professions.

Christians number 1,433, whom 423 are natives. The Baptist Mission, which is said to have been established at Monghyr in 1816, has stations at Begusarai and Luckeesarai. There are two European missionaries, and two European ladies also work among the native women. The United Free Church of Scotland opened a branch at Chakai in 1879, which works chiefly among the Santals; the mission maintains a hospital, with a branch dispensary and several schools.

The fertile plain north of the Ganges, from the boundary of Darbhanga District to the mouth of the Gandak, is almost entirely under cultivation, the chief crops being *bhadoi* and *rabi*. [^]_{gri}-^{cu}_jture £_C

The depressed tract to the east of this grows fine *rabi* crops in some places and rice in others; but during the rains it is to a large extent inundated and uninhabited, and there are large tracts of pasture where herds graze in the dry and hot season. South of the Ganges the cultivated area lies chiefly in the basin of the Kiul river and its tributaries, and in *pargana* Kharagpur, where the largest area is under winter rice. The tract to the north of Sheikhpura and west of Luckeesarai, which is also liable to inundation, is nearly all devoted to *bhadoi* and *rabi*.

The chief agricultural statistics for 1903-4 are shown in the table on the next page, areas being in square miles.

About 67 per cent, of the cultivated area is estimated to be twice cropped.

In the Begusarai subdivision north of the Ganges, for which exact figures are available on account of the survey in progress, it has been found that in the Begusarai *thdna* 79 per cent, and in Teghra 86 per

cent, of the total area is cultivated. In both *thanas* maize is the most important crop, covering about one-fourth of the total. Wheat, gram, *manta*, and barley are also extensively grown. Winter rice accounts for less than 10 per cent, of the land in Begusarai and less than 5 per cent, in Teghra. Indigo is grown on 3 per cent, of the area in Begusarai and on 5 per cent, of that in Teghra. In the whole District, rice is the crop most extensively grown, and it was estimated to cover 447 square miles in 1903-4. The chief variety is winter rice, which is raised for the most part south of the Ganges. Among other crops the poppy is important, but is cultivated only in the southern portion of the District; while tobacco is almost confined to the portion north of the Ganges.

Subdivision.	Total.	Cultivated.	Cultivable waste.
Monghyr*....	1 57 8	749	116 1
JamuiT*	1.593	119	67
Begusarai	75i	556	83 1
Total	3>y^	1.4^4	266

* Owing to changes of jurisdiction, the area of the Monghyr subdivision has subsequently been increased to 1,895 square miles, and that of the Jamui subdivision has been reduced to 1,276 square miles.

Cultivation is extending chiefly in the low-lying lands of the Gogri *thana*, where the recently constructed railway from Hajipur to Katihar has prevented inundation from the south. During the decade ending 1901-2 an average of Rs. 3,000 per annum was advanced under the Land Improvement Loans Act; these advances are granted chiefly for improving the means of irrigation. In the same period an average of Rs. 7,000 per annum was advanced under the Agriculturists' Loans Act, large loans being granted where necessary on account of the failure of the crops owing to drought or flood.

The cattle are generally small and inferior to the breeds in Patna and Shahabad Districts. There is ample pasturage among the hills in the south during the rainy season, and on the grass lands of Pharkiya in the dry season.

The only large irrigation work is in the Kharagpur estates of the Maharaja of Darbhanga. While the estate was under the Court of Wards, a dam was built across the river Man about two miles above Kharagpur, by which water is banked up in a valley and thence distributed by irrigation channels over an area of about 28 square miles. This useful scheme, which cost less than 7 lakhs, has been chiefly instrumental in raising the rent-roll of the estates by more than 300 per cent, or from about Rs. 40,000 to nearly Rs. 1,30,000. Elsewhere in the southern portion of the District there are a few

artificial irrigation channels taking off from hill-streams, but the principal method of irrigation consists in storing water in artificial reservoirs, known as *dhars*. Wells are also used for irrigation purposes north of the Ganges, where artificial irrigation is little required as the country is subject to inundation during the rains.

The fisheries in the Ganges and Gandak and in the large *jhils* lying in *pargana* Pharkiya are very extensive, and the supply of fish is abundant during the greater part of the year. There is an extensive trade in the shells of the fresh-water mussel (*Unio*) and marsh snail (*Ampullaria*), which are collected in tons in the Pharkiya marshes and, when burned, yield a very pure lime.

Minerals are entirely confined to the tract lying south of the Ganges. Galena, a sulphuret of lead containing a small quantity of silver, is found in the hill tracts of the Chakai *pargana*, and minium or protoxide of lead in the beds of the Kharagpur hill streams. Mica occurs in the belt of schists and gneissose granite which stretches north-eastwards from Gaya District to near Nawadih (Jha-Jha) on the East Indian Railway. In 1903-4 four mines were worked, with an output of 227 tons. Iron ores are found in the schists of the Kharagpur hills, and in several places ochreous ores are employed as pigments. Slates are quarried near Jamalpur, the output in 1903-4 being 213 tons; and stone quarries are also worked. Felspar fit for the manufacture of porcelain occurs in abundance in the south of the District. Corundum is obtained from the hills near Jamui, but the precious forms are not met with. Travertine is found near Gidhaur and in the Kharagpur hills.

Monghyr has long been famous for its manufacture of firearms, which was introduced when there was a Musalman garrison in the fort.

A serviceable double-barrelled gun can be obtained at

Monghyr for Rs. 30, a single-barrelled gun for Rs. 15, ^{co}J^ica^ons.

and a large double-barrelled pistol for the same sum.

Swords and iron articles of various kinds are also made, but of no special excellence. Cotton-weaving is largely carried on; and there are a few dyers and calico printers, the centre of the latter industry being Sheikhpura. Coarse blankets are woven by a few families of Gareris. Among other minor industries may be mentioned cabinet-making and boat-making, soap-boiling, making porous water-bottles of clay, carving *lingams* or emblems of Siva out of chlorite, basket-weaving, and straw work. Sticks, jewellery cases, and other articles are made of ebony and inlaid with ivory or bone. Imitation fish are made of silver and used as caskets and scent phials. Sheikhpura is noted for its manufacture of tubes for the *hukka* or native pipe. The East Indian Railway Company's works at Jamalpur are the largest manufacturing workshops in India, employing over 9,000 hands. All the constituent

parts of a locomotive can now be constructed there, and railway material of all descriptions is manufactured from malleable iron, cast iron, and steel. The manufacture of indigo has declined, the out-turn of dye in 1903-4 being 85 tons. The Gidhaur *gur* (raw sugar) from the Jamui subdivision has a special reputation, and generally sells at higher prices than that manufactured in other places. Aerated water is made from various mineral springs.

The District is favourably situated for trade by both rail and river. The most important river marts are Khagaria on the Gandak, and .Simaria, Monghyr, and Gogri on the Ganges. Barhiya, Luckeesarai, Jamalpur, Sheikhpura, and Bariarpur are the chief centres of trade on the railway, while a considerable volume of traffic passes via Tarapur to Sultanganj station in Bhagalpur District. The chief articles of import are piece-goods, coal-and coke, rice, and sugar. The exports consist mainly of agricultural produce, the chief items being gram and pulses, linseed, wheat, mustard, rapeseed, chillies, and tobacco leaf.. There is also a considerable export of raw sugar, and an equal import of refined sugar; *ghl* also is largely exported. The chief trading castes are the local Baniyas, but there are many Marwaris in the towns and larger villages.

South of the Ganges the loop-line of the East Indian Railway (broad gauge) passes through the District from east to west, and the chord-line from north-west to south-east, while the South Bihar Railway runs through the Sheikhpura *thana* westwards to Gaya. The Katihar-Hajipur section of the Bengal and North-Western Railway (metre gauge) traverses the District north of the Ganges from east to west. The District board maintains 95 miles of metalled and 1,471 miles of unmetalled roads, including 194 miles of village tracks. The most important roads are: the Tirhut road running westwards from the north bank of the Ganges opposite to Monghyr town, the Monghyr-Bhagalpur and Monghyr-Patna roads, and the roads from Bariarpur to Kharagpur, and from Luckeesarai to Sheikhpura and to Jamui. The District board controls 56 ferries.

The Ganges, which intersects the District from west to east for 70 miles, is navigable at all seasons by river steamers and the largest country boats : and a considerable river traffic is carried on. The steamers of the India General and River Steam Navigation Companies convey goods and passengers to places between Calcutta and Patna. The East Indian Railway has also a steamer service between Monghyr, Mansi, and Gogri, and a ferry service across the Ganges opposite Monghyr in connexion with the Bengal and North-Western Railway. The Little Gandak and Tiljuga are navigable all the year round, but only small craft of 10 tons burden can ply on them in the hot season. During the rainb a large portion of the northern part of the District

remains under water, and boats are then largely used as a means of communication.

The famine of 1865-6 was severely felt in the south-west of the District, and there were a large number of deaths from starvation and diseases engendered by want. In 1874 another Famine failure of the rice crop threatened famine, which was, however, averted by the facilities for importation afforded by the railway and by the relief which Government provided on a lavish scale: the total expenditure on this occasion amounted to 23-30 lakhs, of which the larger portion consisted of advances. The crops were again short in 1891, especially in the north of the District, and relief works were open for some months. They were only resorted to by a small proportion of the population, and the number on relief at no time rose above 2,171. In 1896-7 the poor suffered from the high prices consequent on famine elsewhere, but the crops were fairly good.

For administrative purposes the District is divided into three subdivisions, with head-quarters at MONGHYR, JAMUI, and BEGUSARAI.

The District Magistrate-Collector is usually assisted

at head-quarters by a staff consisting of a Joint-^{Administration,} Magistrate and six Deputy-Magistrate-Collectors; while the subdivisions of Begusarai and Jamui are each in charge of a Joint Magistrate.

Subordinate to the District Judge for the disposal of civil suits are a Sub-Judge and five Munsifs, of whom two sit at Monghyr, two at Begusarai, and one at Jamui. Criminal courts include those of the District and Sessions Judge, who is also Judge of Bhagalpur, and the above-mentioned magistrates. Riots are a very common form of crime, due generally to disputes about land; burglaries are numerous, and dacoities are occasionally committed.

Sarkar Monghyr, assessed by Todar Mai at 7-41 lakhs, appears to have embraced areas not included within the present Monghyr District, and to have been almost entirely unsubdued; it was probably also largely unexplored. At the time of the British accession to the DTwani in 1765 it was assessed to a net revenue of 5-08 lakhs, and covered 8,270 square miles. It is not, in fact, practicable to institute any comparison between the present revenue of Monghyr District and the figures for years earlier than 1850, as till that year the land, excise, and other revenue was for the most part paid into the Bhagalpur treasury, and the accounts were not kept separately. Subdivision of landed property has gone on rapidly; the number of estates in 1903-4 amounted to 8,027, of which 7,916 with a current demand of 7-77 lakhs are permanently settled, 65 with a demand of Rs. 52,000 are temporarily settled, and 46 with a demand of Rs. 72,000 are held direct by Government. Owing to the backward condition of the country at the time of the Permanent Settlement, the incidence of the land revenue is very

low, amounting to only 10 annas per cultivated acre, or less than 18 per cent, of the rental. Survey and settlement operations have been completed in the portion of the District north of the Ganges and in the Government estates south of that river. Occupancy holdings average 1.75 acres in the Begusarai *thana*, where there are large *didra* holdings and *jhills*, and 1.35 acres in Teghra; and the average rent is Rs. 3-14-7 per acre in Begusarai, compared with Rs. 3-6-2 in Teghra. For the whole District the incidence of rental per cultivated acre is about Rs. 5-10-9. In the south the tenure known as *bhaoli* is common ; under this system the tenant pays a rent in kind equal to a certain proportion of the out-turn in each year, which is usually one-half the produce.

The following table shows the collections of land revenue and of total revenue (principal heads only), in thousands of rupees :—

1	1880-1.	1890-T.	1900-1.	1903-4.
Land revenue .	• 1 8,87	8,97	8,82	9,00
Total revenue .		17,71	20,70	22,28

Outside the municipalities of Monghyr and Jamâlpur, local affairs are managed by the District board, with the assistance of local boards in each subdivision. In 1903-4 its income was Rs. 3,41,000, of which Rs. 1,58,000 was derived from rates ; and the expenditure was Rs. 3,13,000, the chief item being Rs. 2,11,000 spent on public works.

The District contains 18 police stations and independent outposts. In 1903-4 the force subordinate to the District Superintendent consisted of 3 inspectors, 33 sub-inspectors, 34 head constables, and 415 constables ; there was, in addition, a rural police of 310 *daffaddrs* and 3,599 *chauklldrs*. The District jail at Monghyr has accommodation for 274 prisoners, and subsidiary jails at Jamtn and Begusarai for 72.

The great majority of the population are illiterate, only 2.9 per cent. 5.8 males and 0.2 females) being able to read and write in 1901. The number of pupils under instruction decreased from 30,617 in 1882-3 to 25,449 in 1892-3, after which there was a large increase; but it again declined to 25,738 in 1900-1, when the attendance fell off very greatly owing to the outbreak of plague. In 1903-4, 28,752 boys and 2,841 girls were at school, being respectively 18.9 and 1.7 per cent, of those of school-going age. The number of educational institutions, public and private, in that year was 1,326, including one Arts college, 22 secondary, 1,025 primary, and 278 special schools. The most important of these are the Diamond Jubilee College and the District school in Monghyr town, and the high schools at Begusarai and Jamüi. Among aborigines a few Santals in the south attend

primary schools. The expenditure on education was 1.33 lakhs, of which Rs. 8,000 was met from Provincial funds, Rs. 42,000 from District funds, Rs. 4,000 from municipal funds, and Rs. 60,000 from fees.

In 1903 the District contained 13 dispensaries, of which 6 had accommodation for a total of 132 in-patients. The cases of 80,000 out-patients and 1,200 in-patients were treated during the year, and 5,503 operations were performed. The expenditure was Rs. 32,000, of which Rs. 800 was met from Government contributions, Rs. 12,000 from Local and Rs. 5,000 from municipal funds, and Rs. 10,000 from private subscriptions.

Vaccination is compulsory only in municipal areas. In 1903-4 the number of persons successfully vaccinated was 76,000, representing 37.9 per 1,000 of the population.

[M. Martin (Buchanan Hamilton), *Eastern India*, vol. ii (1838) ; Sir W. W. Hunter, *Statistical Account of Bengal*, vol. xv (1877).]

Monghyr Subdivision.—Head-quarters subdivision of Monghyr District, Bengal, lying between 24° 57' and 25° 49' N. and 85° 36' and 86° 51' E., with an area of 1,895 square miles. The subdivision is divided into two portions by the Ganges. The northern portion is a low, but fertile, alluvial plain ; the south is also to a great extent alluvial, but the general level is higher and the surface more undulating, and it contains hill ranges which gradually converge towards Monghyr town. The population in 1901 was 874,611, compared with 870,755 in 1891, the density being 554 persons per square mile. At the time of the Census it comprised an area of 1,578 square miles, but the Sheikhpura *thana* was subsequently transferred to it from the JamuT subdivision. The population of the subdivision as now constituted is 1,050,840, and the density 555 persons per square mile. It contains four towns, MONOHVR (population, 35,880), the head-quarters, JAMALPUR (13,929), KHAGARIA (11,492), and SHEJKHPURA (10,135); and 1,262 villages. The chief centres of trade are Monghyr town and Khagaria. The head-quarters of the locomotive department of the East Indian Railway are situated at Jamalpur. Kiul near LUCKEESARAI is an important railway junction.

Monghyr Town (*Mungtr*).—Head-quarters of Monghyr District, Bengal, situated in 25° 23' N. and 86° 28' E., on the south bank of the Ganges. The origin of the name of Monghyr is very uncertain. It is said that the place was formerly called Madgalpur, or Madgalasram, from its having been the abode of Madgal Muni, a hermit saint who lived in early Hindu times. Another explanation, founded on the authority of the *Harivansa*, derives the name from a certain Madgal Raja, one of the sons of Visvamitra, son of a Gadhi Raja, who received this part of his father's dominions. Dr. Buchanan Hamilton states that on an inscription seven or eight centuries old, found at Monghyr

and perhaps more ancient than the *Harivansa*, the name is written Madgagiri, or 'the hill of Madga,' and not Madgalpurl, or 'the abode of Madgal.' The existence, therefore, of both the saint and the prince is very doubtful. Possibly the original name was Munigriha, 'the abode of the *muni*,' and was corrupted into MungTr, in the same way as Rajagriha has been corrupted into RajgTr.

Tradition assigns the foundation of the town to Chandra Gupta, after whom it was called Guptagarh, a name which has been found inscribed on a rock at Kashtharani Ghat at the north-western corner of the present fort. A copperplate found on the site of the fort in 1780 contains an inscription of uncertain date, recording that the armies of Raja Deb Pal here crossed the Ganges by a bridge of boats ; the date usually assigned to Deb Pal is the tenth century. Monghyr is first mentioned by Muhammadan historians as having been taken by Muhammad-i-Bakhtyar Khilji, during the conquest of Bihar, about 1198; and henceforth it is often referred to as a place of military importance. Prince Daniyal, son of Ala-ud-din Husain, the Afghan king of Gaur, repaired the fortifications in 1497 and built a vault over the tomb of Shah Nafah, the Muhammadan patron saint of the town ; and in 1580 Raja Todar Mai, on being deputed by Akbar to reduce the rebellious Afghan chiefs of Bengal, made Monghyr his headquarters and constructed entrenchments between the Ganges and the hills. Shah Shuja, after his defeat by Aurangzeb near KHAJUHA, retreated here in 1659, and, resolving to make a stand against the imperial troops, strengthened the fortifications and threw up lines of entrenchment; on learning, however, that Mir Jumla had got round to his rear by forced marches through the hills of Jharkand, he hurriedly withdrew his troops from the trenches and beat a retreat to Rajmahal. In the next century, when the Nawab, Mir Kasim Alf, determined on war against the English, he selected Monghyr as his capital in 1763, and established an arsenal under the supervision of his Armenian general, Ghurghin (Gregory) Khan : the gun-making industry for which the town is famous is said to date from the establishment of this arsenal. He retreated here after the defeat of his army at Udhua Nullah, but fled on the approach of the British troops under Major Adams; and the governor who was left in command of the fort capitulated after a two days' bombardment. A spot by the side of the fort is still pointed out as the scene of the memorable outrage, when the two Seths, the great Hindu bankers of Murshidabad, were thrown into the Ganges on a charge of favouring the British cause. Monghyr has been a place of considerable importance since the earliest days of the British occupation of Bengal, although it did not become a civil station until 1812 ; and the old Musalman fort was once occupied by a regiment belonging to the East India Company.

MOXCrKTXC;

At present Monghyr is a purely civil station, and in some respects one of the most picturesque in Bengal. It consists of two distinct portions—the fort, within which are situated the public offices and residences of the Europeans ; and the native town, stretching away from the former eastward and southward along the river. The fort is formed by a great rampart of earth enclosing a rocky eminence, and is faced with stone. It was probably at one time a strong position ; towards the west the river comes up to the walls, forming a natural defence, while to the landward a deep wide ditch surrounds and protects it.

The population fell from 59,698 in 1872 to 55,372 in 1881 ; it rose again to 57,077 in 1891 but dropped to 35,880 in 1901, when it included 26,755 Hindus and 8,950 Muhammadans. The decrease on the last occasion was due to the fact that the plague was raging severely in the town at the time when the Census was taken, and that a large number of the inhabitants had temporarily left to escape its ravages. A second enumeration, taken at the end of July when the plague had disappeared, gave a population of 50,133. The town is favourably situated for trade by both rail and river; formerly the trade was carried almost exclusively by river, but the greater part has been diverted to the railway. It is connected by a short branch with the loop-line of the East Indian Railway, and by a steam ferry with the railway system on the north of the Ganges.

Monghyr was constituted a municipality in 1864. The income during the decade ending 1901-2 averaged Rs. 64,000, and the expenditure Rs. 60,000. In 1903-4 the income was Rs.- 73,000, including Rs. 23,000 derived from a tax on houses and land, Rs. 13,000 from tolls, Rs. 10,000 from a conservancy rate, Rs. 3,000 from a tax

on 11 vehicles, &c., Rs. 7,000 from revenue from municipal property and interest on investments, and Rs. 12,000 as grants from various sources. The incidence of taxation was nearly Rs. 1 per head of the population. In the same year the expenditure amounted to Rs. 68,000, the chief items being Rs. 1,500 spent on lighting, Rs. 6,000 on drainage, Rs. 21,000 on conservancy, Rs. 13,000 on medical relief, Rs. 5,000 on roads, and Rs. 3,000 on education. A drainage scheme and a project for providing a filtered water-supply are under preparation.

Mong Hsing (Burmese, *Moingkaing*).—A large State in the eastern division of the Southern Shan States, Burma, lying between 21° 15' and 22° 4' N. and 97° 8' and 97° 58' E., with an area of 1,643 square miles. It is bounded on the north by the Northern Shan State of Hsipaw; on the east by Hsipaw, Kehsi Mansam, and Mongnawng ; on the south by Laihka ; and on the west by Lawksawk. The eastern part and the centre of the State are drained by the head-waters of the Xam Teng ; and the large plain surrounding Mong Hsing (population, 1,190), the residence of

the Myoza, is almost entirely under cultivation and thickly populated. The western side is watered by the Nam Lang. Excepting the central plain and the valley of the Nam Lang, the country is formed of low hills covered with oak and pine. Rice is grown in the central plain and in the bottoms of valleys where water is obtainable, and a good deal is exported. *Taufigva* cultivation is but little practised. On the hills towards the western border, and on the range lying west of the capital, poppy is cultivated by the Palaungs. The population in 1901 was 30,482, distributed in 627 villages. Of the total, about 27,500 were Shans and nearly 2,000 Palaungs, the rest being Yins (Yanglam) and Taungthus. Like other States in this neighbourhood, Mongkiing has only recently recovered from the dire effects of the disturbances that followed the annexation of Upper Burma. The revenue in 1903-4 amounted to Rs. 34,000 (nearly all from *thathamedd*); and the chief items of expenditure were Rs. 15,000 tribute to the British Government, Rs. 7,400 officials' salaries and administration charges, Rs. 8,900 privy purse, and Rs. 2,700 public works.

Mongmit State.—A Shan State, at present administered as a temporary measure as a subdivision of the Ruby Mines District, Upper Burma. It lies between $2^{\circ} 44'$ and $24^{\circ} 6'$ N. and $96^{\circ} 10'$ and $97^{\circ} 38'$ E., comprising the townships of MONGMIT and KODAUNG, with an area of about 3,562 square miles. The population in 1901 was 44,208. Except in the valley of the Shweli, it is mountainous. At the time of the annexation of Upper Burma Mongmit was in a very disturbed condition ; and in 1889 Saw Maung, who had been driven out by rebels from the Sawbwaship of Yawnghwe, was appointed regent as an experimental measure, with a view to the restoration of order. It was not long, however, before it became apparent that Saw Maung was unable to manage the affairs of the State, and in 1892 the administration was taken over by Government. The State is about to be restored to the Sawbwa, who has attained his majority. The revenue in 1903-4 was Rs. 14,900.

Mongmit Township (Burmese, *Momeik*).—A tract occupying the greater part of the Mongmit State, and at present administered as a township of the Ruby Mines District, Upper Burma. It lies between $22^{\circ} 44'$ and $24^{\circ} 6'$ N. and $96^{\circ} 10'$ and $97^{\circ} 10'$ E., with an area of 2,802 square miles. In 1901 the population was 22,581, composed of Burmans, Shans, Palaungs, and Kachins in the ratio of 10, 5, 4, and 2. It contains 236 villages, the head-quarters being at Mongmit (population, 1,767), on a tributary of the Shweli. The township occupies almost the whole drainage of the Shweli river. Away from the Shweli valley it is hilly and forest-clad, and a large number of the inhabitants are occupied in tree-felling and in bamboo-cutting under forest contractors. Rice is exported to Mogok and Tawngpeng.

Mongnai (Burmese, *Alone*).—A large State in the eastern division of the Southern Shan States, Burma, lying between 20° 22' and 21° 12' N. and 97° 33' and 98° 56' E., with an area (including its dependency of Kengtawng or Kyaingtaung) of 2,717 square miles. A large isolated circle abuts on the eastern boundary of Yawngghwe, bringing the effective western boundary to 97° 17' E. The State is bounded on the east by Kengtung, from which it is separated by the Salween; on the south by Mongpan and Mawkmāi; on the west by Mongsit and Laihkā ; and on the north by Laihkā, Mongnawng, and Kenghkām. Mongnai proper occupies only the western half of this area. The eastern half forms the Kengtawng dependency, the two being separated by a long range, running north and south, averaging about 4,000 feet in height. The Nam Teng river, entering the State near its north-west corner, runs eastward till it doubles round the northern end of this range, and waters the greater part of Kengtawng. The southern part of Mongnai proper is watered by the Nam Tawng, which runs in a southerly direction past the capital to join the Nam Teng, the valley being shut in on the west by a lofty range of mountains that forms the greater part of the boundary of the State. In the central plain watered by the Nam Tawng, and in the wide valley of the Nam Teng, rice is grown in considerable quantities, the latter area being particularly fertile. Sugar-cane and tobacco are cultivated here and there, while gardens contain betel, coco-nut, oranges, and other fruits. Large quantities of Shan paper are manufactured from the bark of a species of mulberry, and exported to other States and to Burma for use in decorations, and for the manufacture of umbrellas, &c. The early records of Mongnai are vague and unsatisfactory. The part it played after annexation is briefly touched upon in the article on the SOUTHERN SHAN STATES. The population of the State in 1901 was 44,252, distributed in 981 villages. Of this total, more than five-sixths are Shans. The Taungthus are fairly well represented (their total being over 4,000), and there are a certain number of Yins. The Sawbwa's head-quarters are at Mongnai (population, 3,078), near the Nam Tawng, once the largest place in the Southern Shan States, and still of considerable importance. The American Baptist Mission has a station at Mongnai, with a hospital attached which does valuable work locally. The revenue in 1903-4 amounted to Rs. 46,000 (mainly from *thatamedā*); and the main items of expenditure were Rs. 20,000 tribute to the British Government, Rs. 18,000 spent on official salaries and general administration, Rs. 4,800 credited to the privy purse, and Rs. 3,000 spent on public works.

Mongnawng (Burmese, *Afains%iaimg*).—A large State in the eastern division of the Southern Shan States, Burma, lying between

20° 59' and 21° 55' N. and 97° 48' and 98° 49' E., with an area of 1,575 square miles. It is bounded on the north by Kehsi Mansam, Kenglon, and Mongsang; on the east by the Shan States of Manglon and Kengtung, from which it is separated for the most part by the Salween river; on the south by Kengkham and Mongnai; and on the west by Laihka and Mongkiing. The State at one time formed part of Hsenwi, but was made independent in 1850. In 1886 its ruler joined the Linbin confederacy, and was involved in the disturbances which culminated in the Linbin prince's surrender. The greater part of the State is open undulating country, with here and there jagged limestone hills rising from it. To the north and west are regular downs, almost treeless; to the south scrub jungle; to the east are rugged hills extending towards the Salween. The only river of importance is the Nam Pang, adjoining whose banks are many fertile paddy-fields. Rice is grown both on these plains and in *taungyas*, the level area round Mongnawng (population, 693), the residence of the Myoza, in the northern part of the State, being especially fertile. The population in 1901 was 39,102, distributed in 777 villages. Of the total more than 37,000 were Shans, the rest being Yins, Palaungs, and other hill tribes. The revenue in 1903-4 amounted to Rs. 23,000 (mainly from *thathameda*); and the chief items of expenditure were Rs. 10,000 tribute to the British Government, Rs. 6,700 official salaries and administration charges, Rs. 3,300 privy purse, and Rs. 3,000 public works.

Mongpai (Burmese, *Mobyé*).—State in the central division of the Southern Shan States, Burma, lying between 19° 20' and 19° 53' N. and 96° 36' and 97° 9' E., with an area of 660 square miles. It is the most south-westerly of the Shan States, being bounded on the south and east by Karenni; on the north by Loilong and Sakoi; and on the west by the Districts of Toungoo and Yamethin. The general character of the country is hilly, rising gently from the Nam Pilu (or Balu *chaung*), which traverses the north-east corner. The western part of the State consists of a confused mass of hills running generally north and south, and culminating in a ridge about 5,000 feet in height, which separates the basins of the Sittang and the Salween. Most of the level rice land is situated near the Pilu, and is irrigated from it by water-wheels, or by the diversion of small affluents. In the hills *taungya* (shifting) cultivation prevails. The Shans and Taungthus till the usual homestead gardens, in which mustard, tobacco, sugar-cane, cotton, and various fruits and vegetables are grown; and maize and millet are cultivated by the Red Karens. The population of the State in 1901 was 19,351, distributed in 158 villages, and consists of Padaungs, Zayeins, Taungthus, and other Karen tribes, besides a few Shans. Only 4,612 persons were returned as Buddhists, and 13,380

as Animists. The Padaung speakers numbered 9,321, the Shan speakers 2,837, and the Taungthu speakers 1,416. The revenue of the State amounts to Rs. 8,000, derived almost entirely from *thathameda*. In 1903-4 the expenditure included Rs. 3,000 tribute to the British Government, Rs. 2,200 spent on general administration, Rs. 1,500 on the pay of officials, and Rs. 1,200 made over to the privy purse. The head-quarters of the Sawbwa are at Mongpai (population, 642), on the bank of the Pilu river.

Mongpan (Burmese, *Maingpan*).—State in the eastern division of the Southern Shan States, Burma, lying (with its trans-Salween dependencies) on both sides of the Salween river, between 19° 40' and 20° 32' N. and 98° 2' and 99° 12' E., with an area of 2,300 square miles. On the north it is bounded by Mongnai; on the north-east by Kengtung; on the east and south by Siam; on the west by Mawmai. Little is known of the early history of Mongpan. It went through troublous times after the annexation of Upper Burma, and was ravaged by the troops of the Linbin confederacy in 1886. The negotiations between the British and Siamese Governments in connexion with its trans-Salween dependencies are alluded to in the article on the SOUTHERN SHAN STATES. The centre of the State proper is a large fertile plain surrounding the capital, Mongpan. On all sides rise low hills covered with scrub jungle, culminating in a range about 5,000 feet in height, on the other side of which runs the Nam Teng. Between the central plain and the Salween, to the south and east, and towards the northern border is a confused mass of mountains. Of the trans-Salween dependencies, Mongton is the most northerly. It borders on the Kengtung State; and population is confined practically to the narrow valley of the Nam Ton, which joins the Me Hang, a tributary of the Salween, from which the neighbouring dependency of Monghang takes its name. This sub-State is mostly covered with jungle, its main feature being Loi Hkilek, a mountain nearly 7,000 feet high. On the border of the State, along the Salween west of Monghang, is the dependency of Mongkyawt, a mountainous tract, with a small population, confined to the valley of the Nam Kyawt, which runs through the sub-State first eastwards, then westwards, and then northwards, to join the Salween. The minute dependency of Monghta lies in the basin of the Nam Hta, a tributary of the Nam Kyawt, to the west of Mongkyawt. Cultivation is practically confined to rice, both irrigated and *iaungya*; and the central plain round Mongpan (population, 1,355), ^{^ie} the residence of the Sawbwa, is very fertile. The State contains valuable teak forests, which in 1904 brought in a revenue of Rs. 17,700. The population in 1901 was 16,629 (distributed in 196 villages), of whom nearly all were Shans, only a few being Taungthus. The revenue in 1903-4 amounted

to Rs. 15,000 (mainly from *thathamedd*)-, the items of expenditure were Rs. 5,000 tribute to the British Government, Rs. 7,700 official salaries, &c., and Rs. 2,300 privy purse.

Mongpaw (Burmese, *Maingpun*).—A small State in the eastern division of the Southern Shan States, Burma, lying between 20° 24' and 21° 0' N. and 97° 20' and 97° 32' E., with an area of 371 square miles. It lies in the Upper Nam Pawn valley, and is bounded on the north by Laihka; on the east by Laihka and Mongsit; on the south by Hsahtung; and on the west by Wanyin, Nawngwawn, Namhkok, Hopong, and an outlying portion of Mongnai. Mongpa\ui played an important part in the history of the Shan States after the annexation of Upper Burma, its chief being the most active supporter of the Linbin prince. The State consists of the narrow valley of the Nam Pawn, on which rice irrigated by water-wheels is cultivated, the other main crops being *taungya* rice, cotton, sugar-cane, and *thanatpet*. The population in 1901 was 13,143, of whom about 7,000 were Shans and about 4,500 Taungthus; the former live in the valley, the latter on the hill-slopes. A few Yins are also found in the State. In 1901 the number of villages was 212, the residence of the Sawbwa being at Mongpaw (population, 1,230), on the Nam Pawn, where it is crossed by a bridge on the main road between Burma and Kengtung. The revenue in 1903-4 was Rs. 14,000 (mainly from *thathamedd*); and the chief items of expenditure were Rs. 4,500 tribute to the British Government, Rs. 3,000 official salaries, &c., and Rs. 5,300 privy purse.

Mongsang. — State in the Southern Shan States, Burma. See MONGHSU.

Mongsit (Burmese, *Maingseik*).—State in the eastern division of the Southern Shan States, Burma, lying between 20° 20' and 20° 47' N. and 97° 27' and 97° 47' E., with an area of 303 square miles. It is bounded on the north and east by Mongnai; on the south by Mawknai; and on the west by Mongpaw. The State consists of a plain about 12 miles long, the northern part lying in the basin of the Nam Teng, the southern in that of the Nam Pawn. The chief crop is lowland rice, a large part depending for irrigation upon the rainfall, but rice is also cultivated in *taungyas*. The population in 1901 was 9,013, distributed in 184 villages. Of the total, about 6,500 were Shans, 1,200 Yins (Yangsek), and 1,000 Taungthus. Mongsit (population, 1,223), the residence of the Myoza, lies in a valley towards the north of the State. The revenue in 1903-4 amounted to Rs. 11,000 (mostly from *thathamda*); and the chief items of expenditure were Rs. 4,500 tribute to the British Government, Rs. 3,800 general administration charges, and Rs. 2,500 privy purse.

Montgomery District.—District in the Lahore Division of the

Punjab, lying between 29° 58' and 31° 21' N. and 72° 27' and 74° 8' E., with an area of 4,771 square miles. It is named after the late Sir Robert Montgomery, sometime Lieutenant-Governor of the Punjab. In shape it is a rough parallelogram, whose south-east side rests on the Sutlej, while the Rāvi flows through the District parallel to the Sutlej and not far from the north-west border. It is bounded by the Districts of Lahore on the north-east, Jhang on the north-west, and Multan on the south-west, while on the south-east it marches with the Native State of Bahāwalpur and the British District of Ferozepore. Except along the river banks and

where watered by canals, Montgomery is practically aspects! a waste of sand. The desert strip or Bār to the north of the Rāvi is a continuation of the Jhang Bār. The Gugera branch of the CHENĀB CANAL has now been extended to it, and the country is rapidly assuming a fertile appearance, though part of it is still desert. On either bank of the Rāvi is a strip of riverain cultivation ; here inundation canals carry the water for varying distances up to 23 miles, population is fairly thick, and cultivation good. South of this tract stretches the Dhaia or central ridge of the District. Absolutely bare in a dry season, this tract produces a good crop of grass if the rains are plentiful. The head-quarters of the District are situated in the middle of it. The Dhaia is bounded on the south by the high bank which marks the ancient bed of the Beās, south of which is the Sutlej valley, watered by the Khānwāh and Upper Sohāg canals of the UPPER SUTLEJ CANAL system. The Deg torrent enters the District from Lahore, and after a course of 35 miles through the Gugera *tahsil* flows into the Rāvi.

Montgomery contains nothing of geological interest, being situated entirely on the alluvium. The flora is essentially of the Bār or desert type, *jand* (*Prosopis*), *van* (*Salvadora*), *kari* (*Capparis apkylla*), and a tamarisk (*Tamarix articulata*) abounding where the soil can support them ; but wide stretches show nothing but saltworts (*/ana, läni, &c.*), such as *Haloxylon recurvum*, *Salsola foetid a*, *Suaeda*, »See. The type is, however, changing with the spread oi cultivation. In the low grounds near the Rāvi there is a good deal of *kikar* (*Acacia arabica*), which may possibly be indigenous in this part of the Punjab and in Sind.

Wolves and wild cats are the principal beasts of prey. ' Ravine deer' (Indian gazelle) are fairly numerous, but *nilgai* and antelope are confined to the banks of the Rāvi on the Lahore border. W ild hog are becoming scarce as cultivation advances.

The climate is very dry and the temperature in summer is oppressive. From May to the middle of October, and especially in June and July, the heat during the day is intense ; but, except o11 the frequent occa-

sions when heavy dust-storms blow, the nights are comparatively cool. The District is fairly healthy. Pneumonia is common in the winter, caused by the intense cold and dryness of the air. Fevers are prevalent, as the majority of the population live along the banks of the rivers and in the canal tracts.

The rainfall is generally scanty, the annual average ranging from 8 inches at Pakpattan to 10 inches at Montgomery town. The average number of rainy days is twenty-three between April and October, and eight during the winter.

In the time of Alexander the District of Montgomery appears to have been held by the Malli, who occupied the cities of *KAMALIA*

• . and *HARAPPA* taken by the Macedonian conqueror.

All that is known of its history during the next 2,000 years is summarized in the paragraph on Archaeology and in the articles on Pakpattan and Dipalpur. After the hold of the Mughal empire had relaxed, the District was divided among a number of independent tribes engaged in a perpetual warfare with one another, and with invaders belonging to the Sikh confederacies. The most important of the Muhammadan tribes were the Kharrals, Sials, Wattus, and Hans, while the Sikh Nakkais occupied a considerable part of the District. Between 1804 and 1810 Ranjit Singh obtained possession of the whole District except a strip on the Sutlej, held, on payment of tribute, by the Nawab of Bahawalpur, and occupied in default of payment by the Lahore government in 1830. About 1830 all but the Dipalpur *tahsil* and the cis-Ravi portion of Gugera was entrusted to Dnvan Sawan Mai. The Kharrals and Sials took the opportunity of the first Sikh War to rise against the Sikhs, but were suppressed. British influence extended to the District for the first time in 1847, when an officer, under orders from the Resident at Lahore, effected a summary settlement of the land revenue. Direct British rule commenced on the annexation of the Punjab in 1849, when a District was formed with its head-quarters at Pakpattan, including as much of Montgomery as now lies in the Bari Doab. The trans-Ravi portion of the District was added in 1852, and the head-quarters were then moved to Gugera. In 1865, when the railway was opened, a village on the railway, thenceforward known as Montgomery, became the capital.

During the Mutiny of 1857 the District formed the scene of the only rising which took place north of the Sutlej. Before the end of May, emissaries from Delhi crossed the river from Sirsa and Hissar, where open rebellion was already rife, and met with a ready reception from the Kharrals and other wild Jat clans. The District authorities, however, kept down the threatened rising till August 26, when the prisoners in jail made a desperate attempt to break loose. At the same time Ahmad Khan, a famous Kharral leader, who had been

detained at Gugera, broke his arrest, and, though apprehended, was released on security, together with several other suspected chieftains. On September 16 they fled to their homes, and the whole country rose in open rebellion. Kot Kamâlia was sacked; and Major Chamberlain, moving up with a small force from Multan, was besieged for some days at Chichawatni on the Ravi. The situation at the civil station remained critical till Colonel Paton arrived with substantial reinforcements from Lahore. An attack which took place immediately after their arrival was repulsed. Several minor actions followed in the open field, until finally the rebels, driven from the plain into the wildest jungles of the interior, were utterly defeated and dispersed. Our troops then inflicted severe punishment on the insurgent clans, destroying their villages, and seizing large numbers of cattle for sale.

Mounds of brick débris at HARAPPA, KAMÂLIA, Akbar, Satghara, and Bavanni mark the sites of forgotten towns. The coins found at Harappa and Satghara prove that both were inhabited in the time of the Kushan dynasty, while General Cunningham upholds the identity of Kamâlia and Harappa with cities of the Malli taken by Alexander in 325 B.C. Carved and moulded bricks have been found at Bavanni and Akbar, and it is not improbable that Harappa was one of the places visited by Hiuen Tsiang. The fortified town of DTPÂLPUR is built on an old Kushan site. The fortifications themselves are very ancient, though it is impossible to determine their date. All that can be said is that they are older than the visit of Tîmûr (1398). The tomb of the famous saint Baba Farid, at PÂKPATTAN, is supposed to have been built about 1267 and was repaired by Fîroz Shah. The style is simple and destitute of ornament. There are shrines at Shergarh and Hujra, decorated with floral designs and dating from about 1600.

Montgomery District contains 3 towns and 1,371 villages. Its population at the last four enumerations was: (1868) 360,445, (1881) 426,529, (1891) 499,521, and (1901) 497,706. In seasons of drought large numbers of people migrate to the Chenâb Colony, where their friends or relatives have obtained grants; but when there is a prospect of a good harvest they return to their homes. The District is divided into four *tahsils*: MONTGOMERY, GUGERA, DTPÂLPUR, and PÂKPATTAN, the head-quarters of which are at the places from which each is named. The towns are the municipalities of MONTGOMERY, the head-quarters of the District, KAMÂLIA, and PÂKPATTAN. The principal statistics of population in 1901 are shown in the table on the next page.

Muhammadans number 355,892, or more than 72 per cent, of the total; and there are 118,837 Hindus and 22,602 Sikhs. The density of population is considerably below the average for the Punjab

(209 persons per square mile), and varies with the extent of cultivation from 52 in the Montgomery *tahsil* to 184 in Dipālpur. The decrease of 18 per cent, in the Montgomery *tahsil* is due almost entirely to migration into the Chenāb Colony. The language of the people is a form of Western Punjabi, very much tinged by the Multan! dialect.

Tahiti.	Area in square miles.	Number of		Population.	Population per square mile.	Percentage variation in population between 1891 and 1901.	Number of persons able to read and write.
		Towns.	Villages.				
Montgomery .	1,471	2	218	76,573	52.1	-18.2	4,732
Gugera . .	524		341	119,622	145.2	+5.4	3,907
Dipālpur . .	978		458	179,735	183.8	-0.4	6,378
Pākpattan .	1,339	1	354	121,776	90.8	+8.8	4,046
District total	4,771*	3	1,372	497,706	104.4	-0.4	19,063

* The only figures available for the areas of *tahstls* are those derived from the revenue returns, and the *tahsil* densities have been calculated on the areas given in the revenue returns for 1900-1. These returns do not always cover the whole of the country comprised in a *tahsil*, and hence the total of the *tahsil* areas does not agree with the District area as shown in the table above, which is the complete area as calculated by the Survey department. The tracts not included in the revenue survey are as a rule uninhabited or very sparsely populated.

Here, as in all the western Districts of the Punjab, where the influence and example of the frontier races is strong, caste is little more than a tradition, and the social unit is the tribe. Thus the terms Jat and Rajput are of the most indefinite significance, Jat including all pastoral or agricultural tribes who (being Muhammadans of Indian origin) do not distinctly claim Rajput rank. The pastoral clans inhabiting the District bear collectively the name of the 'Great Ravi' tribes, in contradistinction to the purely agricultural classes, who are contemptuously nicknamed the 'Little Ravi.' Their principal subdivisions include the Kathia, who have been identified with the Kathaeoi of Arrian; the Kharral, the most turbulent and courageous of all the clans; together with the Fattiana, Murdana, Vainiwal, Baghela, Wattu, and Johiya. The Great Ravi Jats possess a fine physique, and have handsome features; they lay claim to a Rajput origin, and look down upon all who handle the plough. In former days they exercised practical sovereignty over the agricultural tribes of the lowlands. There were 56,000 persons returned as Jats and 53,000 as Rajputs in 1901. The Mahtams (12,000), Arains (34,000), and Kambohs (23,000) are hard-working tribes, the two latter being, as elsewhere, first-rate cultivators. The Kharral (21,000), Baloch (13,000), and Khokhar (8,000) are chiefly pastoral. Brahmans number only 4,000 and Saiyids 5,000. Aroras (51,000) are the principal commercial tribe, and there are 5,000 Khattrls and 10,000 Muhammadan Khojas. Of the artisan and menial classes, the chief

are the Chuhras (scavengers, 31,000), Julahas (weavers, 23,000), Kumhars (potters, 20,000), Machhis (fishermen and water-carriers, 18,000), Mochis (cobblers, 16,000), Nais (barbers, 7,000), Mirasis (village minstrels, 9,000), Kassabs (butchers, 6,000), Sonars (goldsmiths, 4,000), and Tarkhans (carpenters, 12,000). Chamars, so common in the Eastern Punjab, are hardly represented. Nearly 50 per cent, of the population are supported by agriculture, 20 per cent, by industries, and 5 per cent, by commerce.

A branch of the Reformed Presbyterian Mission was established at Montgomery town in 1895. In 1901 the District contained 314 native Christians.

The scanty and uncertain rainfall makes systematic cultivation in unirrigated land precarious, and agriculture depends almost entirely on artificial irrigation or river floods. The prevailing soil of the District is loam, but sandy and clay soils are also found ; soils impregnated with soda and other salts are not uncommon. The spring harvest (which in 1903-4 occupied 69 per cent, of the total area harvested) is sown from the middle of September to the middle of December; the autumn harvest is sown chiefly in June, July, and August, except cotton, which is sown as early as May.

The District is held chiefly by small peasant proprietors; but large estates cover about 491 square miles, and lands leased from Government 220 square miles. The area for which details are available from the revenue records of 1903-4 is 4,619 square miles, as shown below:—

<i>Tahsil.</i>	Total.	Cultivated.	Irrigated.	Cultivable waste.
Montgomery .	1,472	96	33	230
Gugera . .	824	162	66	205
Bipālpur . .	984	475	355	300
Pākpattan . .	1,339	331	196	260
Total	4,619	1,064	650	995

About 837 square miles were harvested in 1903-4. Wheat is the chief spring crop, covering 354 square miles ; gram and barley covered 89 and 19 square miles. In the autumn, cotton is the principal crop, covering 64 square miles; rice is the chief food-crop (27 square miles), followed by the great and spiked millets, *jotvar* and *bCijra* (22 and 26 square miles), pulses (18 square miles), and maize (16 square miles).

The cultivated area fluctuates violently from year to year according to the rainfall and the amount of water in the rivers ; and the increasing tendency to leave the District in bad years and to seek employment in the Chenab Colony has already been mentioned. The

chief prospects of improvement in the agricultural conditions lie in the direction of increased irrigation. The Sohag Para Colony, established on Government lands irrigated by the canals of the UPPER SUTLEJ CANAL system, has a population of over 25,000, cultivating about 21,000 acres. Loans for the construction of wells are popular, and during the five years ending 1904 more than Rs. 22,000 was advanced under the Land Improvement Loans Act. Nothing has been done in the way of improving the quality of the crops grown.

Camels are the most important live-stock of the District, and a large proportion of the population returned as agricultural earn their chief livelihood by camel-breeding. The horses bred in the country on the Lahore border had a great reputation in ancient times. The District board now maintains two horse and two donkey stallions. The stud farm of the nth Prince of Wales's Own Lancers is situated at Probynabad in the Dipalpur *tahsil*. The District breeds all the cattle it requires, and a considerable surplus is exported. The cows are famous as the best milkers in the Province. Buffaloes are but little used.

Of the total cultivated area in 1903-4, 650 square miles were irrigated, 223 square miles being supplied from wells, 103 from wells and canals, 307 from canals, and 17 from streams and tanks, in addition to 190 square miles which were irrigated or moistened by inundation from the Sutlej. Ten villages north of the Ravi are irrigated from the Gugera branch of the CHENAB CANAL, which is designed to water 45 square miles; but the chief canal-irrigation is near the Sutlej from the Khanwah and Upper and Lower Sohag canals of the UPPER SUTLEJ CANAL system, from which it is proposed to irrigate ultimately about 400 square miles. Some small canals from the Deg and Ravi serve a small area in the north of the District, and the spill water from the Sutlej is controlled by dams and channels in many places. Except in the riverain tracts, wells are of masonry and worked with Persian wheels by cattle; the District has 11,546 masonry wells, besides 1,536 lever wells, water-lifts, and unbricked wells.

The District, which forms a Forest division, contains 87 square miles of 'reserved' and 703 of 'unclassified' forests under the Forest department. The forest growth consists chiefly of tamarisk (*Tamarix orientalis*), *jand* (*Prosopis spicigera*), leafless caper (*Capparis aphylla*), and *van* (*Salvadora oleoides*), with a considerable crop of *munj* grass (*Saccharum Sara*). In 1903-4 the total receipts were 1*7 lakhs. The wood is chiefly sold to the North-Western Railway for fuel, while the forests afford valuable fodder reserves. The District also contains 1,804 square miles of 'unclassified' forests and Government waste under the control of the Deputy-Commissioner.

The only mineral products are saltpetre and some beds of inferior

kankar or nodular limestone. Okara contains an important saltpetre refinery. Impure carbonate of soda is also produced by burning the weed known as *khangar khar* (*Chloroxylon Griffithii*).

Various articles, such as bed-legs, boxes, toys, spinning-wheels, &c., are made of lacquered woodwork at Pakpattan, and the industry has more than a local celebrity. The cotton fabrics of the same place are of good quality, and very good communications. cotton prints are prepared at Kamalia. Cotton carpets are made at Kamalia and in the Central jail; and carpets, both cotton and woollen, are woven at an orphanage at Chak Baba Khem Singh established by Baba Sir Khem Singh Bedi. Vessels of brass and white metal are made in a few places. Silk is used to a small extent for embroidery, and in the manufacture of *lungis*. There are four cotton-cleaning factories in the District, at Montgomery, Dipalpur, and Okara. The three which were working in 1904 gave employment to 86 persons.

The principal exports are wheat, cotton, oilseeds, wool, hides, and *ghl*; and the principal imports are millets, rice, sugar, cloth, hardware, and piece-goods. Wheat, wool, cotton, and oilseeds go chiefly to Karachi. Kamalia and Pakpattan are the only trading towns of importance.

The North-Western Railway from Lahore to Multan runs through the District, and takes practically all the export and import trade. The District has only 5 miles of metalled road ; but as there is no wheeled traffic the want is not felt, and it is traversed in all directions by broad unmetalled roads, the most important being the trunk road from Lahore to Multan, and that from Jhang via Pakpattan to the Sutlej, which is a great route for caravans from Afghanistan bound to Delhi. The total length of unmetalled roads is 1,079 miles, of which 25 are under the Public Works department, and the rest are maintained by the District board. The Ravi is crossed by fourteen and the Sutlej by ten ferries, but there is practically no traffic up and down these rivers.

The great famines of 1783, 1813, and 1833 all affected this District, while the famine of 1860-1 was severely felt, and there was considerable distress in 1896-7. Owing to the extremely small

proportion of cultivation depending on rainfall, real famine such as occurs from a total or partial failure of the crops is not likely to affect the District; but, on the other hand, the effect of the shortage of fodder for the cattle is most serious, as large numbers die, and with the half-starved animals that remain it is impossible to plough and irrigate more than half the area that can be cultivated in a good year. The area matured in the famine year 1899-1900 amounted to 65 per cent, of the normal.

The District is in charge of a Deputy-Commissioner, with three

Assistant or Extra-Assistant Commissioners, one of whom is in charge of the treasury and another is District Judge. Montgomery is . . . also the head-quarters of the Executive Engineer in Administration. ^{chargg Qf thg Upper g^ CanalS)} and the Extra-

Assistant Conservator in charge of the Montgomery Forest division.

The Deputy-Commissioner as District Magistrate is responsible for criminal justice, and civil judicial work is under the District Judge. Both are supervised by the Divisional Judge of the Multan Civil Division, who is also Sessions Judge. There is one Munsif, who sits at head-quarters. Burglary and cattle-theft are the chief forms of crime.

The first summary settlement, made between 1848 and 1851, was based on a scrutiny of the revenue returns of the Sikhs. The main defect of the assessment was its inequality of distribution. A second summary settlement was completed in 1852, and local knowledge was then available to adjust the demand to the varying capacity and resources of estates with a considerable degree of fairness. The regular settlement was begun by Mr. Vans Agnew in 1852, and completed by Captain Elphinstone in 1856. Mr. Vans Agnew proposed a fluctuating assessment on land irrigated by canals or floods, but it was finally decided to impose a water-rent. This was to be paid for all canal-irrigated land, in addition to the ordinary revenue assessed at rates for unirrigated land ; but remissions could be claimed if the supply of water failed. The total demand so fixed amounted to 3-4 lakhs.

The settlement was revised between 1868 and 1872. A system of fixed assessments was continued in the Ravi *tahsils* (Gugera and Montgomery), the revenue consisting of a lump sum for each well in use (Rs. 8-12), a charge of from 8 annas to R. 1 per acre on all cultivation, and a rate on all new fallow of 4 or 6 annas per acre. In 1879 fluctuating assessments were introduced in the riverain villages of this tract. All cultivable land was assessed at a fixed rate of 1 or 1 1/2 annas an acre, and a charge of Rs. 10 per wheel was levied on each well worked during the year, while, in addition, fluctuating crop rates were framed for different forms of irrigation, varying from Rs. 1-10 to R. 0-12 per acre. Experience showed that the new system pressed hardly on the flood lands, and the rates were modified three times before 1886. In 1887 a still more lenient system was adopted, which practically assessed all crops at R. 1 an acre. This was extended to an increasing number of estates, so that by 1892-3 364 villages were under fluctuating assessments, and the demand had fallen from Rs. 85,000 to Rs. 31,000. In 1891 the Ravi *tahsils* again came under settlement. A fixed demand was imposed on wells, deter^mined by the area it was estimated they could irrigate during the

year. All crops actually maturing on areas supplied by wells in excess of this estimate were liable to assessment at a rate per acre which was the same for all crops, though it varied in different tracts. The result of reassessment in the Rāvi *tahs'ls* was an increase of a quarter of a lakh.

The system adopted at the regular settlement was no more successful in the Suttlej *tahsils* (Pākattan and Dipālpur). It was found that the people wasted water, for which they were paying next to nothing, and the canal tracts were not yielding their fair share of the public burdens. It was therefore decided to adopt Mr. Vans Agnew's original proposals in carrying out the revised settlement. Thus the fixed revenue of a village consisted of the amount which would have been assessed if it had no source of irrigation, plus a charge for each well it contained. In addition, villages taking canal water had to pay separately a sum proportionate to the area of crops matured by its means, as calculated by the canal officer. The new Sohāg Pāra Colony, established in 1888-91, was also placed under a fluctuating assessment. Consolidated rates for land revenue and canal water were imposed, varying from Rs. 3-4 to Rs. 1-12 per cultivated acre for irrigated land, while a uniform rate of 12 annas was imposed on 'dry' land. The total assessment of the two Suttlej *tahsils* for the year preceding the latest settlement (1897-8) was 2-2 lakhs. The latest revision was made between 1894 and 1899 ; and the new demand, including the estimated fluctuating revenue, was 3-5 lakhs, representing 40 per cent, of the net 'assets.' The land revenue of the whole District in the current settlement is thus about 5 lakhs, an increase of 47 per cent, on the previous assessment.

The grazing tax (*tirni*) is an inheritance from the Sikhs. Captain Elphinstone imposed it on all cattle, including well-bullocks. In 1857 the tax produced Rs. 32,000, in 1872 Rs. 1,08,000, in 1881 Rs. 48,000. In 1870 Government waste lands were divided into blocks and leased annually to farmers, who then realized grazing dues at fixed rates for all cattle grazing in their respective blocks. This system, however, led to extortion and was given up in 1879. In 1886 the Multan system was introduced, by which each *tirni*-paying village contracted to pay a fixed annual sum for a period of five years. In March, 1891, the sum for the succeeding five years was fixed at Rs. 1,41,000. The colonization of the Sandal Bār seriously curtailed the grazing grounds, and in 1899 the system was again altered. The quinquennial assessment was retained for camels only, and the grazing for cattle, sheep, &c., was auctioned annually in large blocks. The amount realized under the new system in 1903-4 was Rs. 46,000.

The collections of land revenue and of revenue from all sources have been, in thousands of rupees :—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue . .	4.87	5.36	3.41	4.19
Total revenue . .	5.82	6.62	6.1%	6.54

The District contains three municipalities : MONTGOMERY, KAMALIA, and PAKPATTAN. Outside these, the affairs of the District are managed by a District board, whose income, derived mainly from a local rate, amounted in 1903-4 to Rs. 50,000. The expenditure was Rs. 43,000, schools and dispensaries forming the largest items.

The regular police force consists of 449 of all ranks, of whom 21 are municipal police. The Superintendent usually has 4 inspectors under him. The village watchmen number 584. There are 17 police stations, one outpost, and 5 road-posts. Trackers are enlisted in the District police force, and one is kept at each police station. They often render most valuable assistance in the pursuit of criminals and stolen cattle. The combined Central and District jail at head-quarters has accommodation for 1,522 prisoners. The principal jail manufactures are carpets, matting, and cotton and woollen clothing.

Montgomery stands thirteenth among the twenty-eight Districts of the Province in the literacy of its population, of whom 3.8 per cent. (6.7 males and 0.4 females) are able to read and write. The proportion is highest in the Montgomery *tahsil*. The number of pupils under instruction was: 1,505 in 1880-1 ; 3,371 in 1890-1; 3,097 in 1900-1; and 3,824 in 1903-4. In the last year there were 5 secondary and 37 primary (public) schools, and 2 advanced and 116 elementary (private) schools, with 125 girls in the public and 128 in the private schools. The District possesses two high schools, one the Government high school at Montgomery and the other a private school at Kamalia. The total expenditure on education in 1903-4 was Rs. 23,000, of which fees brought in Rs. 8,000, District and municipal funds contributing Rs. 10,000 and Rs. 3,000 respectively.

Besides the civil hospital at Montgomery town, the District possesses six outlying dispensaries. In 1904 the number of cases treated was 91,816, of whom 1,859 were in-patients, and 3,649 operations were performed. The expenditure was Rs. 15,000, chiefly contributed by municipal funds.

The number of persons successfully vaccinated in 1903-4 was 13,398, representing 29.9 per 1,000 of the population.

[P. J. Fagan, *District Gazetteer* (1898-9); and *Settlement Report* (1899).]

Montgomery Tahsil.—*Tahsil* of Montgomery District, Punjab, lying between 30° 16" and 31° 2' N. and 72° 27' and 73° 26' E., on both banks of the Ravi, with an area of 1,472 square miles. **The**

population in 1901 was 76,573, compared with 93,648 in 1891, the decrease being due to migration into the Chenab Colony. It contains the TOWNS of MONTGOMERY (population, 6,602), the head-quarters, and KAMALIA (6,976); and 218 villages. The land revenue and cesses in 1903-4 amounted to Rs. 78,000. The greater part of the *taksil* is uncultivated. It includes on the south a narrow strip of the Sutlej valley, from which it rises abruptly into the desert uplands lying between the old banks of the Beas and the Ravi. Farther north lie the Ravi lowlands, interspersed with great stretches of jungle, and, beyond the river, sloping gently upwards towards the fertile plateau irrigated by the Chenab Canal. Cultivation is confined to the lands along the river, and a few scattered patches round the wells elsewhere. The scanty cultivation accounts for the low density of population, 52 persons per square mile.

Montgomery Town.—Head-quarters of the District and *teihsl* of the same name, Punjab, situated in 30° 39' N. and 73° 8' E., on the North-Western Railway. Population (1901), 6,602. In 1865 the village of Sahlwal was selected as the head-quarters of the District and re-named after Sir Robert Montgomery, then Lieutenant-Governor of the Punjab. Situated in the most arid and dreary part of the uplands between the Ravi and Sutlej, the station is almost unequalled for dust, heat, and general dreariness, but is not unhealthy. It has no commercial or industrial importance, and merely consists of a bazar and the residences of the District officials. The Central jail situated here usually contains about 1,500 prisoners. The municipality was constituted in 1867. Its income and expenditure during the ten years ending 1902-3 averaged Rs. 13,100. In 1903-4 the income was Rs. 16,600, chiefly derived from octroi and school fees; and the expenditure was Rs. 15,200. It maintains a girls' school and a dispensary. The high school is managed by the Educational department. The town contains two factories for ginning cotton, of which one was working in 1904 and gave employment to 37 persons.

Monwel.—Petty State in Kathiawar, Bombay.

Monyo.—Western township of Tharrawaddy District, Lower Burma, lying between 17° 51' and 18° 21' N. and 95° 15' and 95° 38' E., with an area of 182 square miles. It extends along the eastern bank of the Irrawaddy, and is flat and level throughout. It is the only township of the District not traversed by the railway. The population was 34,648 in 1891, and 39,964 in 1901. The density is 219 persons per square mile, which, for Burma, is high. The township contained 172 villages in 1901, its largest urban area being Monyo (population, 3,042), the head-quarters, situated on what was once the bank of the Irrawaddy but now some distance from the stream. The area cultivated in 1903-4 was 55 square miles, paying Rs. 33,000 land revenue.

Monywa Subdivision.—Subdivision of the Lower Chindwin District, Upper Burma, lying east of the Chindwin river. It comprises the Budalin and Monywa townships.

Monywa Township.—South-eastern township of the Lower Chindwin District, Upper Burma, lying between 21° 55' and 22° 21' N. and 95° 5' and 95° 39' E., from the Mu river in the east to the Chindwin river in the west, with an area of 487 square miles. The population was 71,971 in 1891, and 90,164 in 1901, distributed in 297 villages, and one town, Monywa (population, 7,869), the head-quarters of the District. The township head-quarters are at Alon (population, 3,624), the terminus of the Sagaing-Alon branch railway, on the Chindwin, about 7 miles above Monywa. Trade has greatly increased since the annexation, and communications have been largely improved. The township, which is on the whole level and dry, contained 191 square miles under cultivation in 1903-4, and the land revenue and *thathameda* amounted to Rs. 1,89,500.

Monywa Town.—Head-quarters of the Lower Chindwin District, Upper Burma, situated in 22° 6' N. and 95° 8' E., on the left or eastern bank of the Chindwin river, about 50 miles north of its junction with the Irrawaddy, and 65 miles west of Sagaing, with which it is connected by a branch railway. The town, which is low-lying and fairly well shaded by tamarind-trees, is protected from the annual rise of the river by an embankment along the water's edge. It contains the usual head-quarters buildings, courthouse, and jail, all of which are situated at its northern end, as well as large barracks and a hospital for the Chindwin military police battalion. The railway station is at some little distance from the river, to the east of the civil station. The club and a good many of the houses of the European residents are close to the river bank. The town is said to derive its name (which being interpreted is 'cake village') from a baker maiden whom a king of ancient days found selling cakes, and took to himself as queen. It was of little importance at the time of annexation, the head-quarters of the *xinin* being at Alon, about 7 miles farther up the river; but it has since then grown in importance and prosperity, and the last Census showed that the population had increased from 6,316 in 1891 to 7,869 in 1901, the latter total including over 1,000 natives of India. It is a fairly thriving trade centre, and one of the chief ports of call for river steamers on the Chindwin. Monywa was constituted a municipality in 1888. The municipal revenue and expenditure during the ten years ending 1901 averaged about Rs. 17,000. In 1903-4 the receipts were Rs. 26,800, including Rs. 11,800 from bazars and slaughter-houses. The expenditure was Rs. 27,000, including Rs. 6,700 spent on conservancy, Rs. 3,300 on the hospital, and Rs. 4,400 on roads. The town is well laid out and intersected by good thoroughfares. A civil hospital has

accommodation for 32 in-patients. There is no municipal school, but the Wesleyan Mission school supplies most of the higher educational needs of the town.

Moodkee.—Town and battle-field in Ferozepore District, Punjab. See MUDKI.

Mooltan.—Division, District, *tahsil*, and town in the Punjab. See MULTAN.

Moradabad District.—District in the Bareilly Division, United Provinces, lying between 28° 20' and 29° 16' N. and 78° 4' and 79° 0' E., with an area of 2,285 square miles. On the north it is bounded by Bijnor and Naim Tal; on the east by the State of Rampur; on the south by Budaun; and on the west the Ganges divides it from the Districts of Meerut and Bulandshahr. Near the Ganges lies a stretch of low *khadar* land, from which rises a high sandy ridge. The central portion of Physical the District comprises a fertile level plain, chiefly drained by the Sot or Yar-i-Vafadar river, into which many smaller channels flow. This plain sinks gradually into the broad valley of the RAMGANGA, which crosses the north-east corner of the District, cutting off a portion which borders on the Tarai and presents the usual characteristics of the sub-Himalayan tracts; many small streams rising for the most part in the Tarai flow through it. There are a few ponds in the District, but none of considerable size.

Moradabad consists almost entirely of alluvium, in which boulders of stone occasionally occur. *Kankar* or nodular limestone is obtained in all parts south-west of the valley of the Ramganga. The saline efflorescence called *reh* is found in the southern part of the Ganges *khadar*.

The sandy tracts in the west are extremely bare, and produce nothing spontaneously except long thatching-grass. In the richer tract near the centre trees are more common, especially near the older towns, which are shaded by fine mango groves. On the whole the District is not well wooded.

Tigers are occasionally shot in the jungles in the north-east of the District or in the Ganges *khadar*, and leopards are more common. Hog deer and wild hog are numerous in the same tracts, and *nilgai* are found in small numbers. The wolf, fox, badger, otter, weasel, porcupine, and monkey are found more or less throughout the District. The commoner game-birds include quail, sand-grouse, grey and black partridge, wild duck of many varieties, snipe, wild geese, &c. Fish of many kinds are found in the rivers, and form an important element in the food-supply of the people.

The climate of Moradabad is generally healthy, except in the sub-montane tract which borders on the Tarai, and in the lowlands of the

Ganges and Sot. The temperature is cooler than in Districts west of the Ganges and farther from the Himalayas, and frost is common in the winter. The annual mean is about 75°, the minimum monthly temperature being 56° in January, and the maximum 90° to 92° in May or June.

The annual rainfall averages about 40 inches, varying from 35 inches in the sandy tract to 45 in the damp submontane area in the north-east. Variations are considerable, and the amount has ranged from about 20 to nearly 60 inches.

Tradition ascribes great antiquity to SAMBHAL, but very little is known of the early history of the District. Prithwi Raj, the last Hindu king of Delhi, is said to have fought, first with the half-mythical Saiyid Salar, and later with Jai Chand, king of Kanauj. The first historical events are, however, in the early Muhammadan period. Sambhal became the seat of a series of governors, whose duties were largely taken up with suppressing revolts of the turbulent Katehriyas. In 1266 Ghiyas-ud-din Balban attacked Amroha, where he ordered a general massacre. In 1365 Firoz Tughlak invaded Katehr, as Rohilkhand was then called, to punish a chief named Rai Kakara, who had murdered the Musalman governor. Rai Kakara fled to Kumaun, whereupon the emperor plundered the country, and left Malik Khitab as governor. Ibrahim, the famous Sultan of Jaunpur, conquered Sambhal in 1407, and placed his own deputy in the town ; but a year later Mahmud Tughlak, emperor of Delhi, expelled the intruder, and replaced his own officials. In 1473, under Sultan Husain, the Jaunpur dynasty once more established itself for a while in Sambhal. The emperor Sikandar Lodi recovered the District in 1498 for the Delhi throne, and resided at Sambhal for four years. Thenceforward the surrounding country remained a permanent fief of the imperial court. In the middle of the sixteenth century, Ahya Maran, governor of Sambhal, rebelled against Sultan Muhammad Adil, and defeated a force sent against him by the emperor. In the succeeding year, Raja Mittar Sen, Katehriya, seized Sambhal, and Ahya Maran attacked him. A fierce battle ensued at KundarkhT, in which the Raja sustained a crushing defeat. Under Humayun, All Kull Khan was governor of Sambhal and repelled an incursion of the still-independent Katehriyas. In 1566 some Mirzas, descendants of Timur, rebelled and seized Akbar's officers, whom they confined in the fort of Sambhal. Husain Khan marched against them, and they fled to Amroha. On his following them up to their retreat, they finally escaped across the Ganges. Shah Jahan appointed Rustam Khan governor of Katehr; and the latter founded Moradabad about 1625, calling it after Murad Bakhsh, one of the imperial princes, who was afterwards- murdered by Aurangzeb. After the death of that

emperor, and subsequent decline of the central power, the Katehriyas revolted, becoming independent for a time, and the Musalman governor removed his head-quarters to Kanauj. On the rise of All Muhammad, the Rohilla chief, an attempt was made by the governor of Moradabad to crush him; but the new leader was victorious and by 1740 had acquired the whole of this District. Rohilla rule lasted till 1774, when Rohilkhand became subject to Oudh, and the District passed to the British with other territory by the cession of 1801. Very soon afterwards, in 1805, the notorious Amir Khan, a native of Sambhal, swept through the District with a swarm of Pindari horsemen, but was not successful in his attempt to plunder the Government treasury.

Apart from a few serious riots the District remained peaceful till 1857. News of the Meerut rising arrived on May 12 in that year, and on the 18th the Muzaffarnagar rebels were captured. Next day, however, the 29th Native Infantry mutinied, and broke open the jail; but on the 21st they united with the artillery in repelling a Rampur mob. On the 31st the Rampur cavalry, who had gone to Bulandshahr, returned; and on the succeeding day news of the Bareilly and Shah-jahanpur outbreaks arrived. On June 3 the 29th Native Infantry fired on the officials, who then abandoned the station, and reached Meerut in safety on the 5th. Ten days later, the Bareilly brigade arrived at Moradabad, and shortly afterwards marched on for Delhi, taking with them the local mutineers. At the end of June, the Nawab of Rampur took charge of the District for the British; but he possessed little authority, and a rebel named Majju Khan was the real ruler of Moradabad, till the arrival of General Jones's brigade on April 25, 1858, when he was hanged. Early in May the District was occupied by Mr. (afterwards Sir S.) Cracroft Wilson, the Judge of Moradabad, with a body of troops, and order was restored.

Many ancient mounds exist in the District, especially in the Bilan tahsil, but they have not been explored. AMROHA and SAMBAL contain some fine mosques and shrines, and the former has also a few Hindu remains. Moradabad city dates only from the seventeenth century.

There are 15 towns and 2,450 villages in the District. Population is increasing steadily, though variations occur in different areas owing to the vicissitudes of the seasons. The numbers — in 1901 / o \ Population, at the four enumerations were as follows: (1072) 1,122,357, (1881) 1,155,173. (1890) 1,179,398, and (1901) 1,191,993. There are six *tahsils*—MORADABAD, THAKURDWARA, BILARI, SAMBAL, AMROHA, and HASANPUR—each named from its head-quarters. The principal towns are the municipalities of MORADABAD, CHANDAUSI, AMROHA, and SAMBAL. The chief statistics of population in 1901 are shown in the following table:—

Tahsil.	Area in square miles.	Number of		Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
		P O H	Villages.				
Morādābād .	313	3	298	245,369	784	+ 1-9	7,668
Thākurdwārā .	240	i	261	116,814	487	- 3-6	1,605
Bilān . .	333	3	387	216,340	650	- 6-7	5>*3
Sambhal . .	469	3	466	245,886	524	+ O-I	4,035
Amroha . .	383	2	508	206,564	539	+ 10-9	4,467
Hasanpur .	547	3	530	161,020	294	-+□ 4-8	2,412
District total	2,285	15	2,450	1,191 > 993	521	+ 1.1	25,190

About 64 per cent, of the total are Hindus and 35 per cent. Musalmans, the latter being a high proportion. Christians number 6,103, and Aryas 2,834. Moradabad is the head-quarters of the Arya Samaj in the United Provinces. More than 99 per cent, of the population speak Western Hindi, the prevailing dialect being Hindustani.

The most numerous Hindu caste is that of the Chamars (leather-dressers and cultivators), who form more than 21 per cent, of the total. Other important castes are Jats, 71,000; Rajputs, 62,000; Brahmans, 44,000; Ivhagis (cultivators), 41,000; and Ahars (agriculturists), 37,000. Jats are not found in considerable numbers east of this District, while Ahars and Khagis chiefly reside in and near it. BishnoTs, a small caste with 1,600 members, which was originally a religious sect, are hardly found elsewhere in the United Provinces. More than one-third (153,000) of the Musalmans are so-called Shaikhs, many of whom are descended from converts. The Julahas (weavers), 33,000; Barhais (carpenters), 23,000; and Telis (oil-pressers), 16,000, are also largely of Hindu origin. The Saiyids, numbering 16,000, are the most considerable of the foreign tribes. About 62 per cent, of the total population are supported by agriculture, more than 6 per cent, by personal services, nearly 5 per cent, by general labour, and 3 per cent, by weaving.

Of the 5,866 native Christians in 1901, 4,780 were Methodists. The American Methodist Church commenced work in 1859, and the American Reformed Presbyterian Church in 1894.

The Ganges *khadar* is raised in the centre and escapes ordinary floods, but the lower portions are liable to inundation and to over-

Agr'culture saturation. This tract chiefly produces wheat, rice, and sugar-cane. Above the *khadar* is a broad sandy tract, consisting of ridges separated by level plains and minor drainage channels. The land is poor and liable to waterlogging in wet years, while crops fail in seasons of drought. Wheat, mixed with barley, and *bajra* are the chief crops. The great central plain is a fertile tract, known as Katehr, which produces wheat, *jowar*, *bajra*, rice, and

sugar-cane. In the Ramganga *khadar* floods frequently occur, and the autumn harvest is liable to great loss; but wheat, rice, and sugar-cane are grown. Rice is the principal crop grown in the damp sub-montane area north-east of the Ramganga. In good years irrigation is hardly required. A striking feature of the cultivation is the distribution of manure in all parts of a village where sugar-cane is grown, instead of its concentration on the fields near the village site.

The ordinary tenures of the United Provinces are found : but *zamlndari mahdls* are more common than *patlidari*, and *bhaiydehdd* *mahdls* are rare. A large number of separate blocks of land are found in the Amroha *tahsil*, the owners of which have no connexion with the village communities. About half of the *mahdls* in the same *tahsil* are revenue free, subject to a peculiar quit-rent payable to Government. The main agricultural statistics for 1902-3¹ are shown below, in square miles:—

<i>Tahsil.</i>	Total.	Cultivated.	Irrigated.	Cultivable waste.
Morâdâbâd . .	313	221	*9	4 ¹
Thâkurdwâra .	240	164	M	38
Bilâri . . .	333	279	34	21
Sambhal . .	469	399	25	26
Amroha . .	383	304	*9	34
Hasanpur . .	547	315	16	157
Total	2,285	1,682	127	317

Wheat is the crop most largely grown, covering 599 square miles, or 35 per cent, of the total cultivated area. Rice (152 square miles), *bajra* (260), barley (160), gram (125), and *jowar*(^), are also important food-crops. The most valuable crop is, however, sugar-cane, grown on 70 square miles. Cotton, oilseeds, and hemp (*san*) are the remaining products of importance.

There have been no marked improvements in agricultural practice, and no increase in cultivation in recent years. The area double cropped is probably increasing, and the more valuable crops—wheat, sugar-cane, and rice—are being more largely grown. The cultivation of poppy is spreading. Advances under the Agriculturists' Loans and Land Improvement Loans Acts are rarely taken. The total amounted to only Rs. 56,000 between 1892 and 1904, and Rs. 45,000 of this sum was advanced in two unfavourable seasons.

The cattle bred in the District are of the ordinary inferior type. Something has been done to improve the breed of horses and ponies, and Government maintains one stallion and the District board six, besides three donkey stallions for mule-breeding. The sheep and goats are inferior.

¹ Later figures are not available, owing to settlement operations.

Masonry wells are rarely used for irrigation, except in the south of the rich Katehr tract; but earthen wells lasting for a single harvest can be made in most parts of the District, except in the sandy tract above the Ganges *khadar*. Out of 121 square miles irrigated in 1903-4, wells supplied 89, tanks or *jhils* 18, and rivers 14. In drier years the rivers are more largely used.

Kankar or nodular limestone is the only mineral product, and is used for metalling roads and for making lime.

The chief industry in the District is sugar-refining, which is carried on in many places after native methods. Cotton cloth is woven, especially in the towns, and woollen carpets are made

Trade and j ^ p] _aces Moradabad city is known for the j communications.

ornamental brassware produced there, and other

local industries are the pottery of Amroha and the manufacture of rough glass in the south-west of the District, where *reh* is found.

Cotton-weaving is said to be declining. There are four cotton gins and presses at ChandausT, besides one steam press and several hand presses for baling hemp {*sari*}.

Agricultural products form the chief exports, sugar being the most important, followed by wheat, rice and other grain, and cotton. A good deal of the trade is with Calcutta, but the old trade with Delhi has been revived by a railway extension. Salt, tobacco, metals, and piece-goods are the principal imports. The largest commercial centre after Moradabad is CHANDAUSI, and there are several smaller flourishing market towns.

The main line of the Oudh and Rohilkhand Railway passes through the north-east of the District, while the south is crossed by the Bareilly-Aligarh branch through ChandausT, whence another line runs to Moradabad city. A branch from Moradabad to Ghaziabad on the East Indian Railway traverses the north-west of the District. Another branch from Gajraula to Chandpur in Bijnor has been surveyed, and a branch of the Rohilkhand and Kumaun Railway is being constructed from Moradabad to Ramnagar. There are 118 miles of metalled roads and 473 miles of unmetalled roads. The cost of all but 52 miles of the former is met from Local funds, but the Public Works department has charge of all the metalled roads. Avenues of trees are maintained on 119 miles. The main route is that from Bareilly through Moradabad city to the Ganges and on to Meerut. Communications are, on the whole, not good beyond the few metalled roads.

The District has suffered repeatedly from scarcity, but has escaped visitations of great severity. In 1803-4 distress was chiefly due to

losses caused by the Maratha invasions and the raids of the Pindari freebooter, Amir Khan. The second famine after cession, in 1825, was aggravated by rack-renting, and the

throwing of lands out of cultivation by landholders in view of the approaching settlement. In the famine of 1837-8, Moradabad, like all Rohilkhand Districts, suffered less than the Doab. The famine of 1860-1 was aggravated by the effects of the Mutiny. Relief works were undertaken, but this was not among the Districts where distress was most intense. Relief was again necessary in 1868-9 and in 1877-8, but the number of workers never became high. In the latest famine of 1896-7 the labouring classes were distressed, but the cultivators suffered comparatively little, and the number on relief was only about 7,000.

The Collector is usually assisted by a member of the Indian Civil Service, and by five Deputy-Collectors recruited in . . . India. A *tahsildar* is stationed at the head-quarters ministration, of each *tahsil*.

There are five District Munsifs. The District Judge, an Additional Judge, and the Sub-Judge have civil jurisdiction over the neighbouring District of Bijnor. Both Bijnor and Budaun are included in the Sessions Judgeship of Moradabad. Serious crime is heavy, and offences against public tranquillity and crimes of violence are especially common. Religious differences, both between Hindus and Musalmans, and between the Sunni and Shiah sects of the latter, have caused serious riots from time to time. Female infanticide was formerly suspected, but no repressive measures are now necessary.

At cession in 1801 Rohilkhand was divided into two Districts called Moradabad and Bareilly, the former including, besides its present area, the District of Bijnor, parts of Budaun, Bareilly, and the Rampur State. Bijnor was made a separate subdivision called Northern Moradabad in 1817, and Budaun was taken away in 1822. The early settlements were for short periods, and proprietary rights were only gradually recognized, the system being practically a farm to the highest bidder. A feature of the early settlements was the inquiry into the terms on which the very numerous revenue-free grants were held. The District was surveyed between 1831 and 1836, and the first regular settlement under Regulation IX of 1833 was carried out between 1840 and 1843. It involved a summary inquiry into rents actually paid in each village; but the 'assets' assumed as the basis of the assessment were very roughly estimated, and a good deal of reliance was placed on the reports of the *kdnungos* as to the annual value of villages. The revenue assessed amounted to 11*5 lakhs, which rose to 12 lakhs during the currency of settlement owing to additions to the District area. In the Thakurdwara *tahsil*, which is dependent on rice cultivation, a succession of bad seasons ruined the *zaminddrs*, who had fallen into the clutches of a usurer, and from 1860 to 1863 the *takstl* was taken under direct management. Elsewhere the settlement worked

well. The next revision was carried out between 1872 and 1880. Soils were carefully classified, either according to the estimate of their productive value formed by the Settlement officer, or according to their physical characteristics. Rates were then ascertained for application to these. In some parts of the District cash rents were paid, and these were carefully analysed and rent rates were selected, which were applied with necessary corrections to the large area of land paying rent in kind. The revenue fixed was 14*3 lakhs, amounting to half the assumed 'assets.' This has been raised by small alterations to 14-6 lakhs, which falls at an incidence of Rs. 1-3 per acre, varying from R. 0-6 to Rs. 1-8 in different parts. A new revision of settlement commenced in 1905.

The total collections on account of land revenue and of revenue from all sources have been, in thousands of rupees :—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue .	13,36	13,88	15,51	16,40
Total revenue .	18,14	22,09	24,48	27,17

There are four municipalities—MORĀDĀBĀD, AMROHA, SAMBHAL, and CHANDAUSI—and eleven towns are administered under Act XX of 1856. Beyond the limits of these, local affairs are managed by the District board, which in 1903-4 had an income of 1-6 lakhs and an expenditure of 17 lakhs. The expenditure included Rs. 92,000 on roads and buildings.

There are 20 police stations in the District ; and the Superintendent of police has a force of 4 inspectors, 100 subordinate officers, and 480 constables. Municipal and town police number 284, and rural and road police 2,285. There is a police training school at Morād-ābād city. The District jail contained a daily average of 393 prisoners in 1903.

The population of Morādābād is not distinguished for its literacy, and in 1901 only 2 per cent, of the total (4 males and 0*3 females) could read and write. The number of public schools rose from 184 with 5,549 pupils in 1880-1 to 290 with 9,167 pupils in 1900-1. In

1903-4 there were 301 such institutions with 10,794 pupils, of whom 1,280 were girls, besides 293 private schools with 4,122 pupils. Five of the public schools were managed by Government, and 139 by the District and municipal boards. The total expenditure on education was Rs. 50,000, of which Rs. 40,000 was provided by Local funds and Rs. 9,000 from fees. A normal school for teachers is maintained at Morādābād city, which is also the head-quarters of an Inspector and an Inspectress of schools.

There are 13 hospitals and dispensaries, with accommodation for 116 in-patients. In 1903 the number of cases treated was 160,000, of

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whom 3,500 were in-patients, and 7,000 operations were performed. The expenditure amounted to Rs. 16,000, chiefly met from Local funds.

About 41,000 persons were vaccinated in 1903-4, representing 34 per 1,000 of population. Vaccination is compulsory only in the municipalities.

[*District Gazetteer* (1883, under revision); E. B. Alexander, *Settlement Report* (1881).]

Moradabad Tahsil.—North-eastern *tahsil* of Moradabad District, United Provinces, continuous with the *pargana* of the same name, lying between 28° 41' and 29° 8' N. and 78° 42' and 79° E., with an area of 313 square miles. Population increased from 240,795 in 1891 to 245,369 in 1901. There are 298 villages and three towns, including MORADABAD CITY (population, 75,128), the District and *tahsil* headquarters. The demand for land revenue in 1903-4 was Rs. 2,58,000, and for cesses Rs. 47,000. The density of population, 784 persons per square mile, is the highest in the District, owing to the inclusion of the city. A large part of the *tahsil* consists of the valley of the Ramganga and is liable to inundation, but it is generally fertile and irrigation is easy when required. In 1902-3 the area under cultivation was 221 square miles, of which only 19 were irrigated. Wells supply about half the irrigated area, and tanks or *jhills* and rivers the remainder in equal proportions.

Moradabad City.—Head-quarters of the District and *tahsil* of the same name, United Provinces, situated in 28° 51' N. and 78° 46' E., on the Delhi-Bareilly road, and on the main line of the Oudh and Rohilkhand Railway, 868 miles by rail from Calcutta and 1,087 from Bombay. Population is rising steadily. The numbers at the four enumerations were as follows: (1872) 62,417, (1881) 69,352, (1891) 72,921, and (1901) 75,128. Hindus numbered 31,141 in 1901 and Musalmans 42,472. The city was founded by Rustam Khan, governor of Katehr under Shah Jahan, and named after the ill-fated Murad Bakhsh, the emperor's son. From this time Moradabad takes the place of Sambhal as the seat of the local governor. Early in the eighteenth century it was for a few years ruled by Nizam-ul-Mulk, who afterwards distinguished himself as Nizam of the Deccan. A later governor of Moradabad attempted to arrest the growing power of All Muhammad, leader of the Rohillas, but was defeated and slain; and by 1740 Moradabad was included in the new State of ROHILKHAND. Its subsequent history is that of the District, which has already been related. In 1774 the Rohilla possessions fell into the power of Oudh, and in 1801 were ceded to the British. Four years later Amir Khan, the Pindari leader of part of Holkar's forces, dashed through Rohilkhand, but was foiled in his attempt to plunder the Government

treasury by Mr. Leycester, the Collector, who shut himself up in the courthouse, defended by two small field-pieces.

Moradabad is built on a ridge forming the right bank of the Ram-ganga, and drains naturally into that river. The Jama Masjid, or chief mosque, which stands high on the river bank, is a handsome building, erected in 1631 by Rustam Khan. Close by are the ruins of the fort built by the same governor. The city contains a municipal hall, a *tahsili*, male and female dispensaries, and a mission church. Part of the barracks of the old cantonment, which is no longer a station for troops, is used as a police training school, where candidates for employment as sub-inspectors and newly appointed Assistant Superintendents pass a period of probation, the school being in charge of a selected District Superintendent assisted by an inspector. A poor-house and leper asylum were built near the railway station in 1881. Moradabad is the head-quarters of an Inspector and an Inspectress of schools, and is the central station of the American Methodist and Reformed Presbyterian Missions in the District.

The municipality was constituted in 1863. During the ten years ending 1901 the income averaged Rs. 66,000 and the expenditure Rs. 64,000. In 1903-4 the income was i*1 lakhs, chiefly derived from octroi (Rs. 81,000) and municipal property (Rs. 25,000). The expenditure was 1 -2 lakhs, including conservancy (Rs. 29,000), public safety (Rs. 22,000), and administration (Rs. 11,000).

The trade largely consists of sugar, wheat, and, in good years, rice, which are exported by rail. The recent extension of direct railway communication with Delhi, which has long been one of the important markets for the produce of Rohilkhand, has favoured commerce. The principal manufacture of Moradabad is brassware, some of which is highly ornamental. Formerly brass articles were plated with tin and patterns were then engraved, so that the pattern showed the brass ground. In place of tin a coating of lac is now generally used, the lac being coloured black, blue, or red. Cotton is also woven, and some calico-printing is done; but both the brass and cotton industries are declining in prosperity. The municipality manages three schools and aids twelve others with 1,458 pupils. The District school has 274 boys, and the Arya Samaj, the Muhammadan Association, and a private school educate about 450 more. A normal school for training teachers is also maintained here. There are twenty-three printing presses, about half of which issue newspapers, but none is important.