

turn gives place to the sandhills of the Thal. Along the Jhelum lies a narrow strip of fertile lowland.

Sargodha Tahsīl.—*Tahsīl* of Shāhpur District, Punjab, lying between $31^{\circ} 40'$ and $32^{\circ} 20'$ N. and $72^{\circ} 28'$ and $73^{\circ} 2'$ E., with an area, approximately, of 751 square miles and an estimated population of 3,000 in 1901, but the population has largely increased since the Census. The formation of the *tahsīl* in 1906 out of portions of the Shāhpur and Bhera *tahsīls* of Shāhpur District and the Chinot *tahsīl* of Jhang was necessitated by the colonization of the Bār (see JHELUM COLONY). The *tahsīl* contains 267 villages, including SARGODHA, the head-quarters. The only cultivation is carried on by means of irrigation from the Lower Jhelum Canal. In the south the soil is a deep and fertile loam; in the north there is a preponderance of sand and clay; in the centre are the Kirāna hills, low outcrops of rock resembling those at Sāngla and Chiniot.

Kālra.—Estate in the District and *tahsīl* of Shāhpur, Punjab, with an area of 13 square miles. For services in the Mutiny a member of the Tiwāna family of Mitha Tiwāna, named Malik Sāhib Khān, Khān Bahādur, C.S.I., obtained a grant of 8,700 acres of waste land in the Shāhpur *tahsīl*. To irrigate this he constructed a canal, and the estate is now a most valuable one. His son, Malik Umar Hayāt, succeeded in 1879. The Malik also owns estates in Shāhpur, Jhelum, and Lyallpur Districts, aggregating nearly 13,000 acres, and the whole property yields an income of about 2 lakhs. Recently the Malik obtained a horse-breeding grant of 2,270 acres in the Jhelum Colony.

Jhelum Colony.—Colony on the Jhelum Canal, in the District and *tahsīl* of Shāhpur, Punjab. The total area to be irrigated from the Jhelum Canal amounts to 2,392 square miles, lying partly in Jhang and partly in Shāhpur District. Of this, 750 square miles of waste land in the Bār or upland of the southern part of Shāhpur District belong to Government; and upon it colonists are being settled in villages, on the same terms as the colonists in the CHENĀB COLONY, but the majority of grants have been made on the condition that a suitable mare is maintained for breeding purposes. Up to the end of 1904 about 231 square miles had been allotted to grantees. A large area has also been allotted for Imperial horse and mule runs and for regimental stud farms. The head-quarters of the colony are at SARGODHA, the head-quarters of the new Sargodha *tahsīl*, which is fast rising into an important town. It is con-

nected by the new Jech Doāb branch of the North-Western Railway with Malakwāl on the Sind-Sāgar line, and with Shāhpur by a new metalled road. The railway is also being extended to Shorkot in Jhang District. Wells, roads, and markets are being built, and a complete system of feeder-roads is under construction.

Bhera Town.—Head-quarters of the *tahsīl* of the same name in Shāhpur District, Punjab, situated in $32^{\circ} 28' \text{ N.}$ and $72^{\circ} 56' \text{ E.}$, on the left bank of the Jhelum river, at the terminus of the Bhera branch of the North-Western Railway. Population (1901), 18,680. The original city, which lay on the right bank, was identified by Sir Alexander Cunningham with the capital of Sophytes, contemporary of Alexander the Great; but recent authorities have shared the doubts he afterwards entertained as to the correctness of this theory. Bhera was sacked by Mahmūd of Ghazni, and two centuries later by the armies of Chingiz Khān. The history of the old town closes in 1519, when it was held to ransom by Bābar. Its importance is shown by the fact that the ransom was fixed at 2 lakhs, and tradition avers that shortly afterwards it was destroyed by the hill tribes. The new town was founded in or about 1540 round the fine mosque and tomb of a Muhammadan saint. The mosque has lately been restored. Bhera was the centre of a *mahāl* under Akbar, and was plundered and laid waste by Ahmad Shāh's general, Nūr-ud-dīn, in 1757. It was repopulated by the Sikh chieftains of the Bhangī confederacy, and has greatly improved under British rule. It is the largest and most prosperous commercial town in this part of the Province, having a direct export trade to Kābul, the Derajāt, and Sukkur, and importing European goods from Karāchi and Amritsar. Ornamental knives and daggers are made in the town, and its jade-work and wood-carving are widely known. It has also a long-established felt industry. The municipality was created in 1867. The income during the ten years ending 1902-3 averaged Rs. 22,400, and the expenditure Rs. 20,900. In 1903-4 the income was Rs. 28,500, chiefly from octroi; and the expenditure was Rs. 26,100. The town possesses an Anglo-vernacular high school, managed by the Educational department, and an unaided Anglo-Sanskrit high school, besides a Government dispensary. A vernacular newspaper, the *Dost-i-Hind*, is published in the town.

Khushāb Town.—Head-quarters of the *tahsīl* of the same name in Shāhpur District, Punjab, situated in $32^{\circ} 18' \text{ N.}$ and $72^{\circ} 22' \text{ E.}$, on the right bank of the Jhelum river, and on the

Sind-Sāgar branch of the North-Western Railway. Population (1901), 11,403. It has an extensive trade, exporting cotton, wool, and *ghā* to Multān and Sukkur; country cloth to Afghānistān and the Derajāt; and wheat grown in the Salt Range, which is considered particularly suitable for export, principally to Karāchi. The municipality was created in 1867. The income during the ten years ending 1902-3 averaged Rs. 12,100, and the expenditure Rs. 11,000. In 1903-4 the income amounted to Rs. 11,500, chiefly from octroi; and the expenditure was Rs. 11,000. The town possesses an Anglo-vernacular middle school, maintained by the municipality, and a Government dispensary.

Miāni.—Town in the Bhera *tahsīl* of Shāhpur District, Punjab, situated in $32^{\circ} 34'$ N. and $73^{\circ} 5'$ E., on the left bank of the Jhelum, opposite Pind Dādan Khan. Population (1901), 7,220. It was formerly the *dépôt* 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 Shamsābād, having been swept away by a flood, Asāf Khān, father-in-law of Shāh Jahān, founded the present one. It was plundered by Nūr-ud-dīn, general of Ahmad Shāh, in 1754, taken in 1783 and restored in 1787 by Mahān Singh, father of Ranjīt 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.

Sāhiwāl.—Town in the District and *tahsīl* of Shāhpur, Punjab, situated in $31^{\circ} 59'$ N. and $72^{\circ} 20'$ E., on the left bank of the Jhelum, 22 miles south of Shāhpur town on the road from Bhera to Jhang. Population (1901), 9,163. The town has a brisk trade in cotton, grain, and *ghā* with Multān and Sukkur; and the extension of the Lower Jhelum Canal is giving renewed prosperity to the impoverished Balochs who own the country round. The municipality was created in 1867. The income during the ten years ending 1902-3 averaged Rs. 9,200, and the expenditure Rs. 8,800. In 1903-4 the income amounted to Rs. 10,500, chiefly from octroi; and the expenditure was Rs. 10,100. The town possesses an Anglo-vernacular middle school, maintained by the municipality, and a Government dispensary.

Sakesar (*Sukesar*).—Hill in the Khushāb *tahsīl* of Shāhpur District, Punjab, situated in $31^{\circ} 33' N.$ and $71^{\circ} 58' E.$, 25 miles east of Miānwāli town, and the highest peak in the Salt Range. It is a fine grassy hill, forming the terminal point in which two divergent spurs of the range reunite. Upon its summit stands the sanitarium for Shāhpur, Attock, and Miānwāli, at an elevation of 5,010 feet above sea-level, with plenty of excellent building space available. Wild olive-trees are abundant, and the oak thrives well. According to daily meteorological observations between the middle of June and the middle of October, 1866, the average temperature was 75° , or one degree less than summer heat in England. The climate of Sakesar, and indeed of the whole of the higher parts of the Salt Range, is believed to be well adapted for Europeans, and very favourable in cases of dysentery and phthisis, which, as a rule, do not derive any benefit from the Himālayan sanitarium. The great drawback to Sakesar is the scarcity of good drinking-water. There are, however, many places in the neighbourhood where excellent water is procurable; and by having recourse to tanks, a sufficiency of water could be stored for a considerable number of people.

Sargodha Town.—Head-quarters of the new *tahsīl* of the same name in Shāhpur District, Punjab, situated in $32^{\circ} 4' N.$ and $72^{\circ} 43' E.$ The construction of the town only commenced in 1903, and the estimated population is 4,000. Sargodha is the capital of the Jhelum Colony, and is connected by the new Jech Doāb branch of the North-Western Railway with Malakwāl on the Sind-Sāgar line, and also with Shorkot Road on the Wazīrābād-Khānewāl branch of that railway. The town possesses an Anglo-vernacular middle school and a civil hospital maintained by the District board.

Shāhpur Town.—Head-quarters of the District and *tahsīl* of Shāhpur, Punjab, situated in $32^{\circ} 18' N.$ and $72^{\circ} 27' E.$, on the left bank of the Jhelum river. Population (1901), 9,386. The town, founded by a colony of Saiyids, and called after their leader, Shāh Shams, lies 3 miles from the civil lines, in which are the District offices, jail, and church, and 5 miles from Khushāb, the nearest railway station on the North-Western Railway. The place is of no commercial importance. The municipality was created in 1867. The income and expenditure during the ten years ending 1902-3 averaged Rs. 1,900. In 1903-4 the income amounted to Rs. 1,900, chiefly from octroi; and the expenditure was Rs. 1,800. The town has an Anglo-vernacular middle school, maintained by the District

board, besides Pandit Dīwān Chand's girls' school, one of the best in the Province, and a civil hospital.

Wārcha.—Salt mine in the Khushāb *tahsīl* of Shāhpur District, Punjab, situated in $32^{\circ} 25'$ N. and $71^{\circ} 58'$ E., near the mouth of the Wārcha gorge, about $1\frac{1}{2}$ miles west of the village of Wārcha. The mine now worked adjoins an old Sikh mine which became unsafe and had to be abandoned. The seam of salt is the same in both and is 20 feet thick. The new mine is being worked on the same system as the MAYO MINE. The quality of the salt is very good; but being 9 miles from the nearest railway station (Gunjiāl on the Sind-Sāgar branch of the North-Western Railway), Wārcha cannot compete with the Mayo Mine. The salt is consumed in the neighbouring Districts, and finds a good sale in Multān, where it is sent by train, and at Khushāb on the Jhelum, whence it is distributed chiefly by river. The miners deliver it at the mouth of the mine at the rate of Rs. 3-12 per 100 maunds. In 1903-4 the quantity sold amounted to 123,000 maunds.

Jhelum District (*Jehlam*).—District in the Rāwalpindi Division of the Punjab, lying between $32^{\circ} 27'$ and $33^{\circ} 15'$ N. and $72^{\circ} 32'$ and $73^{\circ} 48'$ E., with an area of 2,813 square miles. Its length from east to west is 75 miles, its breadth increasing from 2 miles in the east to 55 in the west. It is bounded by the Districts of Shāhpur and Attock on the west, and by Rāwalpindi on the north; while the Jhelum river separates it from Kashmīr territory on the north-east, and from Gujrāt and Shāhpur on the south-east and south.

Boun-
daries, con-
figuration,
and hill
and river
systems.

The District falls naturally into three divisions. Of these the north-eastern, which includes the Chakwāl *tahsīl* and the narrow Pabbi tract in the north of the Jhelum *tahsīl*, is a wide and fertile plateau ranging from 1,300 to 1,900 feet above the sea, with a decided slope to the north-west, until at the Sohān river it reaches the boundary of the District. This plateau is intersected by numerous ravines, which, with the single exception of the Bunhā torrent on the east, drain into the Sohān. To the south it culminates in the SALT RANGE, which runs in two main ridges from east to west, now parallel, now converging, meeting in a confused mass of peaks east of Katās and opening out again. Between these ranges is a succession of fertile and picturesque valleys, set in oval frames by the hills, never more than 5 miles in width and closed in at either end. The Salt Range runs at a uniform height of 2,500 feet till it culminates in the peak of Chail (3,701 feet). At the eastern end of the Salt Range two spurs diverge north-eastwards,

dividing the Jhelum *tahsīl* into three parallel tracts. The northernmost of these, the Pabbi, has already been described. The central tract lying between the Nīli and the Tilla spurs is called the Khuddar, or 'country of ravines.' The whole surface seems to have been crumpled up and distorted by converging forces from the north and south. Lastly, south of the Tilla range, lies the riverain tract, which extends along the river from Jhelum town in the north-east to the Shāhpur border. Broken only near Jalālpur by a projecting spur of the Salt Range proper, this fertile strip has a breadth of about 8 miles along the southern boundary of the Jhelum and Pind Dādan Khān *tahsīls*.

Geology. The greater part of the District lies on the sandstones and conglomerates of the Siwālik series (Upper Tertiary), but towards the south the southern scarp of the SALT RANGE presents sections of sedimentary beds ranging from Cambrian upwards. The lowest bed contains the salt marl and rock-salt. The former is of unknown age, but appears to be overlain by a purple sandstone, followed by shales containing Lower Cambrian fossils. These are again overlain by the magnesian sandstone and salt pseudomorph zone of the Punjab. The latter zone is followed by a boulder-bed and shales, and sandstones of Upper Carboniferous or Permian age, overlain by Lower Tertiary sandstone and Nummulitic limestone. In the eastern part of the Salt Range, the fossiliferous *Productus* limestone and ceratite beds are apparently absent, and there is a gap in the geological sequence between Lower Permian and Tertiary. Coal occurs in the Lower Tertiary beds at Dandot and Bāghānwāla¹.

Botany. The flora of the lower elevation is that of the western Punjab; in the north-east the Outer Himālaya is approached; while the Salt Range has a vegetation of its own which combines rather different elements, from the north-west Indian frontier to the hills east of Simla. Trees are rare, except where planted or naturalized, but the *phulāhī* (*Acacia modesta*) is abundant in the hills and ravine country. At Khewra the salt outcrops have a special flora, found in similar places in Shāhpur and across the Indus.

Fauna. In the hills hyenas, jackals, and a few wolves and leopards are found. The Salt Range is a favourite haunt of the *uriāl*; 'ravine deer' (Indian gazelle) are plentiful in the western hills.

¹ See 'Geology of the Salt Range,' *Memoirs, Geological Survey of India*, vol. xiv; C. S. Middlemiss, 'Geology of the Salt Range,' *Records, Geological Survey of India*, vol. xxiv, pt. i.

Sand-grouse, partridge (black and grey), *chikor*, and *sīsī* are met with, and a great variety of wild-fowl haunt the Jhelum. Flocks of flamingo are found on the Kallar Kahār lake, and quail are not uncommon. Dhangrot on the Jhelum is a well-known place for mahseer fishing.

The climate is good. In the hills the heat is never extreme, though the adjoining submontane tract is one of the hottest in the Punjab. The rest of the District has the ordinary climate of the western Punjab plains, excessive heat for half the year, with a long and bracing cold season, and the usual feverish seasons. In the winter a bitter north wind prevails in the Salt Range and the northern plateau, light snow on the hills is not uncommon, and once or twice in a generation a heavier fall extends to other parts of the District. Here and there guinea-worm, due to bad water, severely affects the population. The annual rainfall varies from 16 inches at Pind Dādan Khān to 24 inches at Jhelum. Of the fall at Jhelum, 6 inches are received in winter and 18 inches in the summer months. The local distribution is very variable. The tracts at the foot of the Salt Range often remain dry while heavy rain is falling in the hills, and rain in the east of the Jhelum *tahsīl* sometimes does not extend to the west.

Climate,
tempera-
ture, and
rainfall.

The early annals of Jhelum present more points of interest than its records in modern times. Hindu tradition represents the Salt Range as the refuge of the Pāndavas during the period of their exile, and every salient point in its scenery is connected with some legend of the national heroes. The conflict between Alexandra and Porus probably took place in or near the present District, though the exact spot at which the Macedonian king effected the passage of the Jhelum (or Hydaspes) has been hotly disputed. Sir Alexander Cunningham supposed that the crossing was at Jalālpur, which he identified with the city of Bucephala; and that the battle with Porus—a Greek corruption of the name Purusha—took place at Mong, on the Gujrāt side, close to the field of Chilianwāla. A later writer (Mr. V. A. Smith) holds that the battle-field was ten miles north-east of Jhelum town. When the brief light cast upon the country by Arrian and Curtius has been withdrawn, we have little information with reference to its condition until the Muhammadan conquest. In the interval it must have passed through much the same vicissitudes as the neighbouring District of Shāhpur.

History.

The Janjūas and Jats, who, along with other tribes, now hold the Salt Range and the northern plateau respectively,

appear to have been the earliest inhabitants. The former are doubtless pure Rājputs, while the Jats are perhaps their degenerate descendants. The Gakhars seem to represent an early wave of conquest from the west, and they still inhabit a large tract in the east of the District ; while the Awāns, who now cluster in the western plain, are apparently later invaders. The Gakhars were the dominant race at the period of the first Muhammadan incursions ; and they long continued to retain their independence, both in Jhelum itself and in the neighbouring District of Rāwalpindi. During the flourishing period of the Mughal dynasty, the Gakhar chieftains were among the most prosperous and loyal vassals of the house of Bābar. But after the collapse of the Delhi empire, Jhelum fell, like its neighbours, under the sway of the Sikhs. In 1765 Gūjar Singh defeated the last independent Gakhar prince, and reduced the wild mountaineers of the Salt Range and the Murree Hills to subjection. His son succeeded to his dominions until 1810, when he fell before the irresistible power of Ranjīt Singh. Under the Lahore government the dominant classes of Jhelum suffered much from fiscal exactions ; and the Janjūa, Gakhar, and Awān families gradually lost their landed estates, which passed into the hands of their Jat dependants. The feudal power declined and slowly died out, so that at the present time hardly any of the older chieftains survive, while their modern representatives hold no higher post than that of village headman.

In 1849 Jhelum passed with the rest of the Sikh territories into the power of the British. Ranjīt Singh, however, had so thoroughly subjugated the wild mountain tribes who inhabited the District that little difficulty was experienced in reducing it to working order. In 1857 the 14th Native Infantry stationed at Jhelum town mutinied, and made a vigorous defence against a force sent from Rāwalpindi to disarm them, but decamped on the night following the action, the main body being subsequently arrested by the Kashmīr authorities, into whose territory they had escaped. No further disturbance took place. The subsequent history of Jhelum has been purely fiscal and administrative. On April 1, 1904, the *tahsīl* of Talagang was detached from the District and incorporated with the new District of Attock.

Archaeo-
logy.

The country is still studded with interesting relics of antiquity, among which the most noticeable are the ruined temples of Katās, built about the eighth or ninth century A.D., and perhaps of Buddhist origin. Other religious ruins exist at

Malot and Shivgangā; at Jhelum itself an old mound has yielded utensils of Greek shape, and the remains of an old Kashmīrī temple; while the ancient forts of Rohtās, Girjhak, and Kusāk, standing on precipitous rocks in the Salt Range, are of deep interest for the military historian. Indeed, the position of Jhelum on the great north-western highway, by which so many conquerors have entered India, from the Greek to the Mughal, has necessarily made it a land of fortresses and guarded defiles, and has turned its people into hereditary warriors.

The population of the District at the last three enumerations was: (1881) 494,499, (1891) 514,090, and (1901) 501,424, people. dwelling in 4 towns and 888 villages. It decreased by 2.4 per cent. during the last decade. The District is divided into the three *tahsils* of JHELUM, PIND DĀDAN KHĀN, and CHAKWĀL, the head-quarters of each being at the place from which it is named. The chief towns are the municipalities of JHELUM, the administrative head-quarters of the District, and PIND DĀDAN KHĀN.

The following table shows 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.
		Towns.	Villages.				
Jhelum . . .	903	1	433	170,978	189.3	— 3.4	8,695
Chakwāl . . .	1,004	2	248	160,316	159.7	— 2.8	6,785
Pind Dādan Khān	875	1	207	170,130	194.4	— 1.7	7,126
District total	2,813	4	888	501,424	178.3	— 2.4	22,606

NOTE.—The figures for the areas of *tahsils* are taken from revenue returns. The total District area is that given in the *Census Report*.

Muhammadans number 443,360, or 89 per cent. of the total; Hindus, 43,693; and Sikhs, 13,950. The language of the people is Western Punjābi.

The most numerous tribe is that of the Jats, who number 73,000, or 14 per cent. of the total population. Next to them numerically are the Rājputs (53,000) and Awāns (51,000). Other important agricultural castes are the Maliārs (23,000), Mughals (21,000), Gūjars (20,000), Gakhars (11,000), and Kahūtas (10,000), the latter almost entirely confined to this District. Saiyids number 13,000. Of the commercial and money-lending classes the most numerous are the Khattrīs

(31,000), Aroras returning only 9,000. Brāhmans number 5,000. Of the artisan classes, the Julāhās (weavers, 23,000), Mochīs (shoemakers and leather-workers, 19,000), Tarkhāns (carpenters, 14,000), Kumhārs (potters, 10,000), Lohārs (blacksmiths, 8,000), and Telis (oil-pressers, 7,000) are the most important. Kashmīrīs number 12,000. The chief menial classes are the Musallīs (sweepers, 18,000), Nais (barbers, 9,000), Māchhis (fishermen, bakers, and water-carriers, 6,000), and Dhobīs (washermen, 5,000). The Lilla Jats (1,000), an agricultural tribe found only in this District, also deserve mention. Of the whole population 61 per cent. are supported by agriculture. The leading tribes, Gakhars, Awāns, Janjūas, and other Rājputs, enlist freely in the Indian army.

Christian missions.

The American United Presbyterian Mission has a branch at Jhelum town, where work was started in 1873, and the Roman Catholic missionaries maintain a school at Dalwāl in the Salt Range. In 1901 the District contained 111 native Christians.

General agricultural conditions.

The area irrigated by artificial means is a tenth of that cultivated in the Pind Dādan Khān *tahsīl*, but only one per cent. in the Chakwāl and Jhelum *tahsīls*. Cultivation thus depends on the local rainfall, eked out by the drainage from higher ground. The country is in parts seamed by torrent beds, and the soil varies from the infertile sand brought down by them to a rich loam and the stony soil of the hill-sides. In the greater part of the unirrigated land a spring crop is followed by an autumn crop; but the best land receiving drainage from higher ground is generally reserved for the spring, and in the tract under the hills in Pind Dādan Khān the lands for the autumn and spring harvests are kept separate.

Chief agricultural statistics and principal crops.

The District is chiefly held by communities of small peasant proprietors, large estates covering only about 103 square miles. The area for which details are available from the revenue records of 1903-4 is 2,767 square miles, as shown below:—

<i>Tahsīl.</i>	Total.	Cultivated.	Irrigated.	Cultivable waste.	Forests.
Jhelum . . .	888	329	4	46	138
Chakwāl . . .	1,004	516	6	49	36
Pind Dādan Khān	875	329	35	84	172
Total	2,767	1,174	45	179	346

The chief crops of the spring harvest are wheat, barley, gram, and oilseeds, the areas under which in 1903-4 were 477, 26, 34, and 80 square miles respectively; and in the

autumn harvest, *jowār*, *bājra*, and pulses, which covered 16, 207, and 28 square miles respectively.

Between the settlements of 1864 and 1881 the cultivated area increased by 41 per cent., while the area cultivated at the settlement of 1901 showed an increase of 13 per cent. on that of 1881. The new cultivation of the last twenty years is, however, greatly inferior to the old, and there is but little prospect of further extension. Loans for the construction of wells are extremely popular, and Rs. 25,700 was advanced under the Land Improvement Loans Act in the District as now constituted during the five years ending 1904.

The Dhanni breed of horses found in the Dhan or plateau north of the Salt Range has long been held in high estimation, being mentioned in the *Ain-i-Akbarī*, while good horses are found all over the District. The Army Remount department maintains 4 horse and 11 donkey stallions, and the District board 2 horse stallions. The Dhanni breed of small cattle is also well-known. Camels are largely used for carrying burdens, but the breed is poor. Both the fat-tailed and ordinary sheep are kept, and the goats are of a fair quality.

Of the total area cultivated in 1903-4, 45 square miles, or 3.8 per cent., were classed as irrigated by wells and canals. In addition, 47 square miles, or 4 per cent. of the cultivated area, were subject to inundation from the Jhelum. The wells, which number 4,781, are chiefly found along the river and in the level portion of the Jhelum *tahsīl*; they are all worked by cattle with Persian wheels. Canal irrigation is at present confined to two small cuts in the Pind Dādan Khān *tahsīl*, one Government, the other private, but it is proposed to absorb the former in a larger canal commanding about 50,000 acres. The cultivation from the hill streams is unimportant, though where it exists no land is so profitable. Much of the unirrigated land is embanked and catches the drainage from higher ground.

The District contains 260 square miles of 'reserved' and 97 of unclassed forest under the Forest department, besides 43 square miles of unclassed forest and waste land under the Deputy-Commissioner, and one mile of military reserved forests. These consist mainly of the scattered scrub of *phulāhī*, wild olive, *ukhānh*, and leafless caper which clothe the hills. Some of the forest lands are stretches of alluvial grazing-ground, known as *belās*, along the Jhelum. In 1904-5 the revenue from the forests under the Forest department was Rs. 82,000, and from those under the Deputy-Commissioner Rs. 9,000.

Minerals. Salt is found in large quantities in the Salt Range. It is excavated at KHEWRA and NŪRPUR, but outcrops are found in many places ; and, in addition to the employés of the Khewra mines, a large preventive staff has to be maintained to prevent salt from being mined. Coal occurs in many places in the Salt Range. It is mined at Dandot by the North-Western Railway, and by a private firm at Bāghānwāla. Gypsum occurs in the marl beds above the salt strata of the Salt Range. Stone for road-making or railway ballast is plentiful, and good sandstone and limestone for building are frequently met with. Clay for pottery is also found. Fragments of copper and earthy iron hematites occur, but are quite unimportant. Sulphuret of lead or galena is found in small nodules in two or three localities. Quartz crystals are found in the gypsum of the Salt Range. Gold is washed in the beds of the torrents which flow into the Sohān, but the out-turn is insignificant.

Arts and manufactures. The District possesses no arts or manufactures of any importance. Boat-building is carried on at Jhelum and at Pind Dādan Khān, and brass vessels and silk *lungīs* are made at the latter town. Water-mills are frequently used for grinding corn.

Commerce and trade. Jhelum town is an important timber dépôt, being the winter head-quarters of a Kashmīr Forest officer who supervises the collection of the timber floated down the river. There is a large export of timber by both rail and river and of salt from Khewra, but otherwise the trade of the District is unimportant. Brass and copper ware is exported from Pind Dādan Khān. Stone is also exported, and in good seasons there is a considerable export of agricultural produce. The chief imports are piece-goods and iron. Jhelum town and Pind Dādan Khān are the centres of trade, and a considerable boat traffic starts from the latter place down the river. The completion of the railway system, however, has already ruined the trade of Pind Dādan Khān, and is fast reducing Jhelum town to the position of a local dépôt.

Means of communication. The main line of the North-Western Railway traverses the east of the District, passing through Jhelum town, while the Sind-Sāgar branch runs through the south of the Pind Dādan Khān *tahsil* with a branch to Khewra, whence a light railway brings down coal from Dandot. A branch from the main line to Chakwāl has been suggested, but has not been surveyed. Owing to the rugged nature of the country, the roads are not good. The only road used for wheeled traffic is the grand trunk road, which traverses the District by the side of the

main line of rail; elsewhere pack animals are used. The only other route on which there is much traffic is that leading from Pind Dādan Khān by Khewra to Chakwāl. The Jhelum is navigable to about 10 miles above Jhelum town. It is crossed by a railway bridge with a track for wheeled traffic at Jhelum, by another with a footway only in the Pind Dādan Khān *tahsīl*, and by fourteen minor ferries.

The District suffered from the great *chālisa* famine of 1783, Famine. and there was famine in 1813 and 1834. Locusts did a great deal of damage in 1848. In 1860-1, though the scarcity in other parts of the Province caused prices to rise, the crops here did not fail to any serious extent. In 1896-7 there was considerable distress, and test works were started, but were not largely attended. The worst famine since annexation was that of 1899-1900. It was, however, more a fodder than a grain famine; and though there was acute distress and test works were opened, it was not considered necessary to turn them into famine works. The greatest daily number relieved in any week was 3,955, and the total expenditure was Rs. 39,000.

The District is divided into the three *tahsīls* of JHELUM, District subdivisions and staff. PIND DĀDĀN KHĀN, and CHAKWĀL, each under a *tahsildār* and a *naib-tahsildār*. The Deputy-Commissioner is aided by three Assistant or Extra Assistant Commissioners, of whom one is in charge of the Pind Dādan Khān subdivision and another of the District treasury.

The Deputy-Commissioner as District Magistrate is responsible for criminal justice. Civil and criminal justice. Civil judicial work is under a District Judge, and both officers are subordinate to the Divisional and Sessions Judge of the Jhelum Civil Division. There are three Munsifs, one at head-quarters and one at each *tahsīl*. The predominant form of crime is cattle-theft, while murders are also frequent.

The Sikh demand for land revenue cannot be shown with Land revenue. any accuracy. They took what they could get, but their average receipts during the last four years of their rule would seem to have been 7 lakhs. After the second Sikh War, when Jhelum passed into British possession, a summary settlement was made, yielding slightly less than the Sikh assessment. In 1852 a second summary settlement was undertaken, to correct the more obvious inequalities of the first. On the whole, both of these worked well, though some proprietors refused to pay the revenue fixed, and surrendered their proprietary rights. The first regular settlement, made in 1855-64, assumed half the net 'assets' as the share of Government, and fixed

the demand at $6\frac{1}{4}$ lakhs. The next settlement (1874-81) raised the revenue by 18 per cent. ; but this was easily paid, until a succession of bad harvests made large suspensions and some remissions necessary. In the present settlement (1895-1901) a further increase of 26 per cent. has been taken, but it is recognized that frequent suspensions will be needed. The average assessment on 'dry' land is Rs. 1-3 (maximum, Rs. 2 ; minimum, 6 annas), and on 'wet' land Rs. 3-2 (maximum, Rs. 5 ; minimum, Rs. 1-4). The demand on account of land revenue and cesses in 1903-4 for the District as now constituted was 8.8 lakhs. The average size of a proprietary holding is 18 acres.

The collections of land revenue alone and of total revenue are shown below, in thousands of rupees :—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue . . .	7,88	6,50	4,19	9,89
Total revenue . . .	9,70	8,50	7,47	13,47

NOTE.—These figures are for the District as constituted before the separation of the Talagang *tahsil* in 1904.

Local and municipal. The District contains two municipalities, JHELM and PIND DĀDAN KHĀN, and one 'notified area,' CHAKWĀL. Outside these, local affairs are managed by the District board, the income of which is mainly derived from a local rate, and amounted in 1903-4 to Rs. 93,000. The expenditure was Rs. 88,000, the principal item being education.

Police and jails. The regular police force consists of 450 of all ranks, including 8 cantonment and 81 municipal police, and the Superintendent usually has 4 inspectors under him. Village watchmen number 615. There are 14 police stations and 2 road-posts. The District jail at head-quarters has accommodation for 295 prisoners.

Education. The District stands sixth among the twenty-eight Districts of the Province in respect of the literacy of its population. In 1901 the proportion of literate persons was 4.5 per cent. (8.5 males and 0.4 females). The number of pupils under instruction was 3,964 in 1880-1, 12,026 in 1890-1, 12,386 in 1900-1, and 14,869 in 1903-4¹. In 1904-5 the number of pupils in the District as now constituted was 12,144. In the same year the District contained 9 secondary and 95 primary (public) schools, and 3 advanced and 212 elementary

¹ All these figures apply to the District as constituted before the separation of the Talagang *tahsil* in 1904.

(private) schools, with 454 girls in the public and 392 in the private schools. The District possesses two Anglo-vernacular high schools, at Jhelum and Pind Dādan Khān. The total expenditure on education in 1904-5 was Rs. 54,000.

Besides the civil hospital at Jhelum town, the District contains four outlying dispensaries. In 1904 a total of 76,560 out-patients and 1,451 in-patients were treated, and 2,859 operations were performed at these institutions. The expenditure was Rs. 15,000, District funds contributing Rs. 6,000 and municipal funds Rs. 9,000. The American Presbyterian Mission also maintains a hospital at Jhelum. Hospitals
and dis-
pensaries.

The number of successful vaccinations in 1903-4 was 14,498, representing 28.9 per 1,000 of the population. The Vaccination Act has been extended to the towns of Jhelum and Pind Dādan Khān. Vaccina-
tion.

[W. S. Talbot, *District Gazetteer* (in press); *Settlement Report* (1902); and *General Code of Tribal Custom in the Jhelum District* (1901).]

Jhelum Tahsīl (*Jehlam*).—Eastern *tahsīl* of Jhelum District, Punjab, lying between 32° 39' and 33° 15' N. and 73° 9' and 73° 48' E., with an area of 888 square miles. It is bounded on the east and south-east by the Jhelum river, which divides it from Kashmīr and Gujrāt District. The population in 1901 was 170,978, compared with 177,046 in 1891. The head-quarters are at the town of JHELUM (population, 14,951). It also contains 433 villages. The land revenue and cesses amounted in 1903-4 to 2.7 lakhs. The *tahsīl* is traversed from south-west to north-east by two spurs of the Salt Range, the more easterly of which culminates in the peak of TILLA. Between this and the Jhelum river is an almost level alluvial plain of great fertility, while between the two spurs the country is seamed with ravines. The fort of ROHTĀS is of historical interest.

Chakwāl Tahsīl.—North-western *tahsīl* of Jhelum District, Punjab, lying between 32° 45' and 33° 13' N. and 72° 32' and 73° 13' E., with an area of 1,004 square miles. The population in 1901 was 160,316, compared with 164,912 in 1891. It contains the towns of CHAKWĀL (population, 6,520), the head-quarters, and BHAUN (5,340); and 248 villages. The land revenue and cesses amounted in 1903-4 to 3.3 lakhs. The southern portion runs up into the Salt Range, and includes the Chail peak, 3,701 feet above the sea, the highest point in the District. Between this and the Sobhān river, which follows more or less the northern boundary, the country consists of