

AST INDIA (AND CONDITION).

STATEMENT

EXHIBITING THE

AND MATERIAL PROGRESS AND CONDITION

INDIA

DURING THE YEAR 1880-1.

SEVENTEENTH NUMBER.

(PRESENTED PURSUANT TO ACT OF PARLIAMENT.)

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STATEMENT
 EXHIBITING THE
MORAL AND MATERIAL PROGRESS AND CONDITION
OF INDIA
DURING THE YEAR 1880-1.

[The respective Paragraphs in each Chapter of this Statement have been written in continuation of the corresponding portions of the Serial Statements, Nos. 10 to 16, for the Official Years since 1872-3.]

I.

ADMINISTRATION AND LEGISLATION.

A NEW Parliament met in the spring of 1880, and the Marquis of Hartington, **ADMINISTRATION.**
 M.P., became Secretary of State for India in succession to Viscount Cranbrook. **Home.**
 The only change on the Indian Council during the official year 1880-1 was that caused by the death of Sir William Lockyer Merewether, the vacancy being filled up by the appointment of Mr. Bertram Wodehouse Currie. No statutes specially relating to India were passed during the year, and Indian affairs were seldom under discussion in either House of Parliament.

The Marquis of Ripon, K.G., G.M.S.I., G.C.B., was appointed Viceroy and **India.**
 Governor General of India in succession to the Earl of Lytton, and took his seat at Council on 8 June 1880. General Sir Frederick Paul Haines, G.C.B., G.C.S.I., C.I.E., was Commander in Chief of the Armies in India. Vacancies in the Council were caused by the retirements of Sir Alexander John Arbuthnot, K.C.S.I., C.I.E., Colonel Sir Andrew Clarke, K.C.M.G., C.B., C.I.E., R.E., and Sir John Strachey, G.C.S.I., C.I.E.; and the new Members were Mr. James Gibbs, C.S.I., C.I.E., Lieutenant General Sir Donald Martin Stewart, Bart., G.C.B., C.I.E., and Major Evelyn Baring, R.A., C.S.I., C.I.E.

The Honorable Sir Ashley Eden, K.C.S.I., C.I.E., was Lieutenant Governor of **Bengal.**
 Bengal throughout the official year 1880-1. Two important measures for the improvement of the judicial administration of the province were matured. One of these provides a good judicial training for all covenanted civilians who elect the judicial branch of the service. The other expedites the disposal of suits and prevents their progress being impeded by the coexistence in the same court of complicated and contested civil cases. In the lower grades of the subordinate executive service several changes were made in order to render the service more attractive. During the past few years all the grades of this service have been strengthened, and the prospects of the members have been materially improved.

For nearly the whole of 1880-1 the province of Assam was administered by **Assam.**
 Sir Stuart Colvin Bayley, K.C.S.I., C.I.E., as Chief Commissioner. He vacated the office on 1 March 1881, when its duties were assumed by Mr. Charles Alfred Elliott, C.S.I. An important measure of administrative reform was effected during the year by the creation of a Commissionership for the Assam Valley.

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ADMINISTRATION.	The Government of the North-Western Provinces and Oudh continued during the year 1880-1 to be administered by Sir George Ebenezer Wilson Couper, Bart., K.C.S.I., C.B., C.I.E., as Lieutenant Governor and Chief Commissioner.
W. Provinces and Oudh.	During the year 1880-1 the Punjab and its dependencies remained under the charge of Sir Robert Eyles Egerton, K.C.S.I., C.I.E., the Lieutenant Governor.
Punjab.	Mr. John Henry Morris, C.S.I., was Chief Commissioner of the Central Provinces throughout the year 1880-1.
Central Provinces.	On 2 July 1880 Mr. (now Sir) Charles Umpherston Aitchison, C.S.I., was appointed provisionally a Member of the Governor-General's Council, and Mr. Charles Edward Bernard, C.S.I., was appointed to officiate as Chief Commissioner of British Burma.
British Burma.	Mr. Leslie Seymour Saunders was the Commissioner of the Ajmere and Mhairwara Districts throughout 1880-1.
Ajmere.	During the year 1880-1 Berar was administered by Colonel Sir Richard John Meade, K.C.S.I., C.I.E., the Resident at Hyderabad in the Nizam's Dominions.
Berar.	Mysore, which came under British management in October 1831, remained a British province till a few days before the close of the official year 1880-1, Mr. (now Sir) James Davidson Gordon being the Chief Commissioner. On 25 March 1881 the State was handed over to native rule, and the transfer was effected without any perceptible friction or embarrassment. The Chief Commissioner has been appointed Resident in Mysore.
Mysore.	The Chief Commissionership of the small province of Coorg remained during 1880-1 united to that of Mysore; and after the abolition of the Mysore Commission the Resident in Mysore retained his office as Chief Commissioner of Coorg.
Coorg.	The Duke of Buckingham and Chandos, G.C.S.I., C.I.E., continued as Governor of the Presidency of Fort St. George until 20 December 1880, when he handed over the charge of the Government to the Right Honorable William Patrick Adam. In February 1881 General Sir Neville Bowles Chamberlain, G.C.B., G.C.S.I., resigned his appointment as Commander-in-Chief of the provincial forces. There were no other changes in the Council.
Madras.	The Right Honorable Sir James Fergusson, Baronet, K.C.M.G., C.I.E., took his seat as Governor of Bombay and its dependencies on 28 April 1880. Lieutenant-General Henry James Warre, C.B., held office as Commander-in-Chief of the provincial forces until 30 March 1881, when he was succeeded by Lieutenant General the Honorable Arthur Edward Hardinge, C.B.
Bombay.	
MUNICIPALITIES.	At the end of the official year 1880-1 there were altogether 881 municipalities in British India, with an aggregate population of 14½ millions. Their income was about 2,260,000 l., and their expenditure about 2,130,000 l.
Bengal.	Although a further sum of 25,000 l. was borrowed during 1880 by the Calcutta municipality, yet by the close of the year the finances had been restored to such a satisfactory condition that the net debt to Government and debenture holders was reduced from 1,287,877 l. to 1,277,594 l. The commissioners were able to reduce the house-rate and the water-rate, and to make other reductions. The entire revenue collected by the municipality in 1880 for its own use, as well as for the police rate fund, the jute and fire brigade funds, and the hackney carriage fund, was 318,473 l., of which 282,712 l. was ordinary revenue, while the ordinary expenditure was 261,462 l. Progress in the matter of town improvements was small; only one new road was taken in hand; and very little was done toward the filling in of obnoxious tanks and the systematic improvement of bustees. A further increase of the water supply was found to be necessary, and the question has since been under consideration. Several lines of tramway were completed during the year. An Act was passed to provide against the spread of contagious and infectious diseases among horses in the town and suburbs.
	Municipalities in the interior of Bengal numbered 192 at the end of 1880-1, with an aggregate population of 2,966,001. Their gross receipts amounted to 220,805 l., and their expenditure was 216,293 l. Most of the income was derived from taxation. Per head of the population the incidence of taxation was 1s. 3d., and of total income 1s. 5d. The attendance of the commissioners at municipal meetings was on the whole satisfactory. In only three towns was the
	elective

elective system in force, and in only one of these, namely, Burdwan, was the least interest exhibited by the rate-payers in the exercise of their franchise. MUNICIPALITIES.

Another municipality was created in Assam during the year 1880-1, bringing the total number of such towns to seven, with a population of 49,124. Their revenue is raised almost entirely by taxes on houses and land and by tolls on ferries. The total income was 9,418 *l.*, of which 5,725 *l.* was derived from taxation, while the expenditure was 9,490 *l.* Per head of the population the incidence of taxation was 2 *s.* 4*d.*, and of total income 3 *s.* 10 *d.* On the whole some progress was made, particularly in Sylhet and Silchar, where useful drainage works were undertaken. Assam.

During the year 1880-1 municipal administration continued to flourish in the North-Western Provinces and Oudh, and was in force in 109 towns with a population, according to the late census, of 3,084,996. The total income from the ten kinds of municipal taxation was 222,727 *l.*, of which 90 per cent. was derived from octroi. The income from all sources was 289,256 *l.* and the expenditure 271,513 *l.* Per head of the population the incidence of taxation was 1 *s.* 5 *d.*, and of total income 1 *s.* 11 *d.* Many schemes for improved drainage, water-supply, and similar projects, were in contemplation. The year was rendered one of vital interest to municipal administration by the declaration that the general principle to be followed for the future must be that octroi could not be retained for any articles of which the imports largely exceeded the local consumption. The tax, however, was in many towns allowed to continue another year on sufferance. One improvement that was made in the direction of facilitating the despatch of public and private business was the permanent numbering of houses, this being undertaken primarily in view of the approaching census. N. W. Provinces and Oudh.

More than one-tenth of the population of the Punjab are under municipal government. At the close of 1880-1 there were 195 municipalities in existence in the province, with an aggregate population of 2,095,401. The income amounted to 266,780 *l.*, and was chiefly derived from octroi, which is said to be a popular form of taxation, and to be raised without difficulty. Per head of the population the incidence of taxation was 2 *s.* 3 *d.*, and of total income 2 *s.* 6 *d.* The expenditure was 254,138 *l.* Many projects for improved sanitation were put into effect; an excellent water supply was furnished for the residents of Lahore and Simla, and similar schemes were in contemplation elsewhere. The system of elective representation has proved a complete failure in almost every case where it has been tried, as the rate-payers take little or no interest in the elections. Punjab.

One insignificant municipality was abolished in the Central Provinces during 1880-1, leaving the total number of such towns at 61, with a population, according to the rough totals of the late census, of 698,472. The income from all sources was 79,137 *l.*, of which 61,897 *l.* was derived from taxation. Per head of the population the incidence of taxation was 1 *s.* 9 *d.*, and of total income 2 *s.* 3 *d.* Octroi continued to be the most productive and least unpopular tax. The expenditure was 81,633 *l.*, and is said to have been appropriately and judiciously incurred. Intelligent interest was displayed by the committees of several towns, but the communities generally are somewhat apathetic. Central Provinces.

No addition has been made since 1874 to the seven municipalities of British Burma. In 1880-1 proposals were made to establish municipalities in four other towns, but the scheme was abandoned, as the townsmen in three of the places opposed any such measure on the ground that municipal organisation would involve additional taxation and unpleasant restrictions on personal freedom. The ordinary income of the seven towns was 142,012 *l.*, excluding a sum of 70,000 *l.* borrowed by the Rangoon committee for the water-supply project. Taxation yielded 81,098 *l.*, chiefly from rates on houses and lands and licences on trades. Per head of the population the incidence of taxation was 5 *s.* 9 *d.*, and of total ordinary income 10 *s.* 1 *d.* The expenditure was 131,446 *l.* The towns for the most part made their money go as far as it could, but they had an immense deal left to do. Rangoon and Toungoo were the only two lighted at night. In Rangoon and Bassein only had any attempt been made to secure a water supply. Serious defalcations in the finances of five of the towns came

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- MUNICIPALITIES. came to light during the year, and much improvement was wanted in the details of municipal administration.
- Ajmore. The three municipalities of the Ajmere and Mhairwara Districts performed their duties satisfactorily during the year 1880-1. A loan of 12,500 *l.* was granted to the Ajmere municipality to carry out a water-supply and conservancy project. Some improvements were effected in Beawur and Kekri. The three towns had an aggregate population, according to the late census, of 70,683 inhabitants. Their income was 11,230 *l.*, of which 9,048 *l.* was derived from taxation. Per head of the population the incidence of taxation was 2 *s.* 7 *d.*, and of total income 3 *s.* 2 *d.* The expenditure was 8,498 *l.*
- Berar. Five towns in Berar continued during 1880-1 to have municipal committees established under the Punjab Municipal Act. Their aggregate population, according to the late census, was 89,837. The income amounted to 7,504 *l.*, of which 6,280 *l.* was derived from taxation. Per head of the population the incidence of taxation was 1 *s.* 4 *d.*, and of total income 1 *s.* 8 *d.* The expenditure was 8,194 *l.* Conservancy and sanitary works received increased attention; but there were still several defects in the administration.
- Mysore. There were seven new municipalities formed in the interior of Mysore during the year 1880-1, bringing the total number of these towns to 84. Some of them are very small. The population resident within municipal limits was, according to the census of 1881, roughly returned at 503,444 persons. The gross income was 42,114 *l.*, of which 35,583 *l.* was derived from taxation. Octroi yielded 16,307 *l.* of the latter amount. Per head of the population the incidence of taxation was 1 *s.* 4 *d.*, and of total income 1 *s.* 8 *d.* The expenditure was 38,216 *l.*, about half of which amount went for purposes of conservancy, drainage, lighting, water-supply, and communications.
- Coorg. The five municipalities of Coorg had a population, according to the census of 1881, of 16,653 persons. Their income during 1880-1 was only 1,421 *l.*, of which 1,060 *l.* was derived from taxation. Per head of the population the incidence of taxation was 1 *s.* 3 *d.*, and of total income 1 *s.* 8 *d.* The expenditure was 1,729 *l.*, and was made to go as far as possible in keeping the towns clean and their streets convenient.
- Madras. Madras town had a population of 406,117 souls, according to the census of 1881. Its municipal income during the calendar year 1880 was 92,115 *l.*, of which 71,259 *l.* was derived from taxation. No octroi is levied. The most productive tax is that on houses and lands, and then follow the water-tax, licences on trades, taxes on vehicles and animals, the lighting tax, and tolls. Per head of the population the incidence of taxation was 3 *s.* 6 *d.*, and of total income 4 *s.* 6 *d.* The expenditure was 100,736 *l.* This state of the finances was still very unsatisfactory, and a deficit in the treasury at the end of the year was avoided only by extraordinary concessions from the Government, who withdrew indefinitely certain claims.
- Gooty having been abolished as a municipality, the number of towns in the interior of the Madras Presidency administered during the official year 1880-1 under Act III of 1871 was 47, with an aggregate population, according to the old census of 1871, of 1,204,997 persons. No figures have yet been received regarding the census of 1881. In four towns the elective system was in force, but does not appear to have been very successful. The income of all the municipalities was 135,555 *l.*, of which 101,492 *l.* was derived from taxation. Octroi was not levied in any of the towns. Per head of the (1871) population the incidence of taxation in 1880-1 was 1 *s.* 8 *d.*, and of total income 2 *s.* 2 *d.* The expenditure was 134,445 *l.*, of which 31,021 *l.* went for conservancy, and only 7,469 *l.* for all other sanitary purposes. In most of the towns no new sanitary works of importance were executed.
- Bombay. According to the census of February 1881 the population of the Bombay municipality was 773,196 persons. The actual revenue of the municipality during the calendar year 1880 was 325,187 *l.*, of which 221,454 *l.* was derived from taxation. Per head of the population the incidence of taxation was 5 *s.* 9 *d.*, and of total income, 8 *s.* 5 *d.* The expenditure amounted to 305,799 *l.* At the end of the year the total liabilities of the municipality were 1,191,726 *l.*, and the total assets were 1,374,416 *l.* The new drainage works were vigorously prosecuted, and good progress was made in every portion of the work. Improvements were effected in the Tulsi reservoir, and a new reservoir on the top of

of Malabar Hill was completed. A new reservoir and filter-beds for the water-supply from the Vihar Lake were begun in May, and were to be completed in about two years. The net cost of the Public Health Department was 41,090 l., and the health of the city had returned to the normal condition which existed before the influx of immigrants from the famine districts in 1877. At the slaughter-houses the number of animals killed for food consisted of 425,469 sheep and goats, and 24,261 horned cattle. MUNICIPALITIES.

In the interior of the Bombay Presidency, including Sind, there were at the close of the official year 1880-1 altogether 160 municipalities, of which 10 were cities and 150 towns. Besides these, three temporary municipalities were open at places of pilgrimage, fairs, &c. The population of these 163 municipalities is returned as 1,844,182 persons. Their income was 272,633 l., of which 221,679 l. was derived from taxation. Octroi was levied in all but 25 of the municipalities, and yielded 151,302 l. Per head of the population the incidence of taxation was 2 s. 5 d., and of total income 2 s. 11 d., but the actual figures varied very greatly in different municipalities. The expenditure amounted to 281,520 l., of which sum 47,992 l. was spent on conservancy, 13,136 l. on lighting, 28,467 l. on the construction and maintenance of roads, and 58,239 l. on works for the supply of water.

No statutes specially relating to India were passed by the Imperial Parliament during the year ending 31 March 1881. LEGISLATION.

Twenty-four Acts passed by the Legislative Council of India received the assent of the Governor-General during the official year 1880-1. Certain of these Acts are mentioned below in the paragraphs relating to the particular provinces to which they were made applicable. Among general Acts the most important were those passed with the following objects: (1) to give power to prohibit inoculation, and to make the vaccination of children compulsory, in certain municipalities and cantonments; (2) to provide for certain matters in connexion with the taking of the census; (3) to provide for the grant of probate of wills and letters of administration in certain cases; (4) to make further provision for the grant of probate and letters of administration in non-contentious cases; (5) to regulate the importation, possession and transport of petroleum and other fluids of a like nature; (6) to regulate labour in factories; (7) to empower the Government to remove or destroy obstructions to navigation in fairways leading to ports in British India, and to prevent the creation of such obstructions. Home. India.

Two Acts of the Government of India that were passed during 1880-1 referred solely to Bengal: (8) one of them amended the Bengal Act No. IX of 1880 (the Cess Act, 1880); (9) the other provided for the better government of Fort William. Eight Acts were passed during the Session of 1880-1 by the Bengal Legislative Council, but six of these did not receive the Governor-General's assent until after the close of the official year. The two most important of these Acts were the Cess Act and the Calcutta Municipal Consolidation Act Amendment Act. The former Act reenacted the previous cess law of 1871 with amendments found by experience to be necessary, and consolidated into one Act the law relating to the road cess and public works cess. The latter Act among its provisions empowered the Government to declare any portion of the environs of Calcutta to be a part of the town for the purposes of the water-supply. Bengal.

No new enactments were passed during the year 1880-1 to meet the special requirements of Assam, the Central Provinces, Ajmere, Berar, Mysore, or Coorg, but several Acts were extended to these provinces. Assam, Central Provinces, Ajmere, Berar, Mysore, Coorg.

Three of the Acts that were passed by the Government of India during 1880-1 related to the North-Western Provinces and Oudh, but the only one of great importance was that (10) to amend the law relating to the recovery of rent in the North-Western Provinces. N. W. Provinces and Oudh.

Only

(1) XIII of 1880.
(2) VI of 1881.
(3) XVI of 1881.

(4) XIV of 1880.
(5) VIII of 1881.
(6) VII of 1881.
(10) XII of 1881.

(7) V of 1881.
(8) XV of 1881.
(9) XIII of 1881.

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LEGISLATION.

Punjab.

Only one enactment of small importance was passed during 1880-1 relating to the Punjab, declaring the law in force in certain lands occupied by the Indus Valley State Railway.

British Burma.

One Act of the Government of India was passed in 1880-1 ⁽¹¹⁾ to provide for the appointment of an Additional Recorder of Rangoon, and another was passed ⁽¹²⁾ to provide for the navigation, protection, and maintenance of the Pegu and Sittang Canal.

Madras.

Four of the Acts passed by the Government of India during 1880-1 had special reference to the Madras Presidency. Among these was one ⁽¹³⁾ to regulate the traffic on the Madras Irrigation and Canal Company's Canal; and one ⁽¹⁴⁾ to enhance the rate of port-dues at Madras. Five Acts were also passed by the local legislature and sanctioned during the year.

Bombay.

Two of the Acts passed by the Government of India during 1880-1 had special reference to the Bombay Presidency, but were only of slight importance. Three Acts were also passed by the local legislature and sanctioned during the year.

⁽¹¹⁾ XI of 1880.
⁽¹³⁾ XVI of 1880.

⁽¹²⁾ II of 1881.
⁽¹⁴⁾ IV of 1881.

II.

JUSTICE AND POLICE.

STATISTICS relating to criminal justice throughout British India for the year 1880 do not exhibit much difference as compared with those for the year 1879. There was a slight rise, namely, from 1,031,059 to 1,032,375 in the aggregate offences reported to the various criminal tribunals, but some of this increase was undoubtedly due to the more extensive and vigorous working of municipal and revenue laws. To arrive at the actual number of cases a large percentage of those reported must be struck off as false, but the similar sets of figures given below in the paragraphs relating to the various provinces present a fairly accurate indication of the comparative state of crime throughout each part of British India. Persons brought to trial for all classes of offences increased from 1,076,866 to 1,089,671. Of these latter, 376,342 were acquitted or discharged, and 695,241 were convicted, while 14,770 were remaining under trial at the end of the year. With regard to the punishments inflicted, 610 persons were sentenced to death, 1,537 to transportation, and 159,317 to imprisonment; fines with imprisonment were imposed on 30,757 persons, and without imprisonment on 441,619 persons; whipping, in addition to other punishment, was administered to 3,094 persons, and in lieu of other punishment to 26,761 persons; while 30,807 persons were ordered to give security. From the returns made of the religions of 104,136 of the convicts in the various prisons throughout the country and in the Andaman Penal Settlement, it appears that there were 708 Christians, 30,026 Mahomedans, 63,250 Hindus, 4,012 Buddhists and Jains, and 6,140 of other denominations. Convicts under sixteen years of age numbered 1,104.

Altogether 282,449 offences were reported to the various criminal tribunals of Bengal during the year 1880, as compared with 260,728 in the preceding year. Some of this increase seems to have been due to greater diligence on the part of the police in carrying out the provisions of certain local acts, for there is said to have been a perceptible decrease in every form of crime against property, and in all crimes of a serious character. This condition of things was mainly due to the general prosperity of the agricultural classes and the cheap price of food, but it was partly due to the wholesome severity with which habitual offenders had latterly been treated, to the repression of criminal tribes like the Bediyas, and to the effect on the criminal population of the employment of police in the preliminary operations connected with the census of 1881. Minor offences against the person increased, because in a year of plenty the poorer classes have inducements to quarrel, wanting in other years, and money to spend on litigation. At the end of the year there were 17,305 prisoners of all classes remaining in confinement, the daily average number throughout the year having been 18,001, including 739 females.

The number of offences reported to the various criminal tribunals of Assam rose from 23,681 in 1879 to 24,049 in 1880. As in the case of Bengal, so in Assam the year was one of prosperity, and the people were free to indulge their love of petty litigation regarding rights of property and personal quarrels. There was a decrease under the head of minor offences against property, but violent crime remained at much the same level as usual. At the end of the year there were 1,446 prisoners of all classes remaining in confinement, the daily average number throughout the year having been 1,430, including 49 females.

More offences than during 1879 were reported during 1880 to the various criminal tribunals of the North-Western Provinces and Oudh, the number in the former rising from 164,341 to 167,899, and in the latter from 73,361 to 75,198. It should not be forgotten that during 1879 the terrible fever epidemic of the autumn months had greatly diminished the amount of crime in that year, so that the increase in 1880 was only apparent. The more serious offences against person and property slightly rose in number, while the less serious fell. A noticeable feature was that crime continued to be reported more largely

CRIME.

in Oudh than in the North-Western Provinces. A proposal to proclaim the Doms under the Criminal Tribes Act was negatived, as the failure of the Bauriah colony at Muzaffarnagar had shewn that mere colonisation, even coupled with police supervision, was ineffectual to accomplish their reclamation, while the alternative plan of confining the members of the tribe in a reformatory settlement would have been too expensive. At the end of the year there were 28,117 prisoners of all classes remaining in confinement, the daily average number throughout the year having been 29,175, including 1,711 females.

Punjab.

Offences reported to the various criminal tribunals of the Punjab rose from 101,421 in 1879 to 103,775 in 1880. The statistics of crime shewed a considerable decrease in serious offences. During the two previous years, owing to the failure of the harvests, the high range of prices, and the opportunities afforded by the increased traffic on the main lines of communications owing to the Afghan campaign, there was a great increase in non-bailable crime. With the return of peace and prosperity the number of such offences fell below the figures of any of the five preceding years. Bailable offences increased, but this was due to the large number of prosecutions under local and special laws, the enforcement of which betokened increased attention to sanitary regulations and other safeguards rather than any increase of criminality. The rules under the Criminal Tribes Act were working with excellent effect. In some districts the working of its provisions has resulted in the resort of the criminal classes to agriculture as a means of livelihood. At the end of the year there were 14,557 prisoners of all classes remaining in confinement, the daily average number throughout the year having been 14,673, including 550 females.

Central Provinces.

Crime in the Central Provinces returned within its ordinary limits during the year 1880. The number of offences reported to the various criminal tribunals fell from 47,968 in 1879 to 41,010, or less than in any year since 1875. The effect of the scarcity, which began in 1877, pressed heavily on the people during 1878, and was still felt in 1879, had altogether passed away in 1880. Consequently there was a marked decrease in offences against property. Dacoities were still numerous in the Nimar district, where some of the police were suspected of being in corrupt connivance with the dacoits. These dacoities were mostly committed by Bhils, and some 200 persons were captured and convicted, but the notorious Bhil leader, named Tantia, was still at large. At the end of the year there were 4,350 prisoners of all classes in confinement, the daily average number throughout the year having been 4,779, including 389 females.

British Burma.

In British Burma the number of offences reported to the various criminal tribunals rose from 25,370 in 1879 to 26,068 in 1880. Crime, however, especially that of a violent character, is stated to be greatly on the decrease. Gradual progress in this direction has been made during a period of ten years, in which the population has increased by about 40 per cent. The action of the police and the magistracy has had some effect in weaning the people from crimes of violence, in breaking up robber gangs, and in ridding the country of bandit leaders. At the end of the year there were 4,824 prisoners of all classes remaining in confinement, the daily average number throughout the year having been 4,782, including 65 females.

Ajmere.

A substantial decrease of crime was recorded in Ajmere during 1880, the number of offences reported to the various criminal tribunals having been 3,603, as compared with 4,208 in the preceding year. Some trouble was caused by the Marwar Minas, who committed a series of robberies, and were even bold enough to attack a British village. Measures were taken to overawe and quiet the Minas, but the ringleaders were not captured, although warrants were issued for their apprehension. At the end of the year the number of prisoners of all classes in confinement was 377, the daily average number throughout the year having been 463.

Berar.

In Berar the number of offences reported to the various criminal tribunals fell from 20,083 in 1879 to 19,852 in 1880. Bands of criminals from Upper India are said to flock to Berar in increasing numbers yearly, and to give great trouble by committing heavy house-breakings. Dacoities and cattle-liftings were still numerous, while burglaries and thefts decreased. At the end of the year there were 1,446 prisoners of all classes in confinement, the daily average number throughout the year having been 1,375, including 64 females.

Although

Although the number of cases reported to the various criminal tribunals in Mysore rose from 11,292 in 1879 to 11,656 in 1880, there was a perceptible diminution in the amount of crime, especially towards the close of the year. It is explained that the figures for 1879 did not include a large number of cases that were struck off after examination. Grave crime, such as offences against the person and against property, was very much less, but small offences, such as breaches of municipal laws and private disputes, naturally increased in a year that was one of plenty and ease as compared with the previous years of distress among the population. At the end of the year the number of prisoners of all classes in confinement was 2,126, the daily average number throughout the year having been 2,473, including 96 females. CRIME.
Mysore.

An increase from 952 in 1879 to 1,309 in 1880 was displayed in the number of cases reported to the criminal tribunals of Coorg, but most of the cases were of a trivial nature, being chiefly offences such as assault, using criminal force, and breaches of local and special laws. At the end of the year the number of prisoners of all classes in confinement was 100, the daily average number throughout the year having been 92, including five females. Coorg.

Crime has continued steadily to decrease in the Madras Presidency since the recent famine, and may be said to have reached its normal state in the year 1880. The number of offences reported to the various criminal tribunals fell from 188,419 in 1879 to 177,567 in 1880. As in the former of these years, the bulk of the decrease was in offences of the worst character. Murders, dacoities, robberies, house-breakings, and cattle-liftings, all decreased. Owing to the continuance of the lawlessness induced by the armed revolt in the north, there was an increase under the heads of offences against the State and public tranquillity; and crimes of violence naturally shewed an increase throughout the disturbed districts of Godavari, Jeypore, and Vizagapatam. Numerous dacoities were committed by hill rebels in these districts, where ordinarily this form of crime is almost unknown. House-dacoities, the most conspicuous form of crime in Southern India, fell below the average which existed in the period before the famine. Of cattle-poisoning 97 cases were reported. At the end of the year there were 11,543 prisoners of all classes in confinement, the daily average number throughout the year having been 12,202, including 456 females. Madras.

The generally improved state of the population in the Bombay Presidency was reflected in the annals of crime, the number of offences reported to the various criminal tribunals falling from 109,435 in 1879 to 97,940 in 1880, but the diminution was in reality confined to the Northern Division. Offences against property decreased very considerably in the Presidency proper, but increased in Sind. Dacoities were less numerous. The last two of the gangs of robbers that invested the Deccan in the year 1879 were still committing depredations in Belgaum, Kaladgi, and Kanara at the beginning of 1880. Both of these were hunted down by the police early in the year, and most of their members were convicted and transported, since which time all has been quiet in those districts. At the end of the year there were 10,530 prisoners of all classes remaining in confinement, the daily average number throughout the year having been 11,371, including 544 females. Bombay.

Measures for the repression of infanticide continued during the year 1880-1 to be in force in thirty districts of the North-Western Provinces and in all but two of the Oudh districts. During the first half of the year there was a great decrease in the number of births owing to the severe fever epidemic of 1879. Ten cases of infanticide were judicially tried in the North-Western Provinces, in five of which convictions were obtained, and lesser punishments were inflicted on 203 chaukidars, 4 midwives, and 219 heads of families. The infanticide establishment for specially guilty villages consisted of 4 sub-inspectors, 110 head-constables, and 26 chaukidars. There were 2,725 proclaimed villages in the North-Western Provinces and 447 in Oudh, besides 18 specially guilty villages in the latter province, where this was only the second year that the rules had been in full force. On the whole their operation had effected much good, and the excessive mortality of female infants had been checked. INFANTICIDE.
N. W. Provinces
and Oudh.

Taking British India as a whole, there was during the year 1880 one policeman to every 5.9 square miles of area, the proportion varying very much in the different provinces both with regard to area and population. The returns shew POLICE.

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POLICE.	that the aggregate sanctioned strength of the police of all kinds, except village watchmen, was 152,672.
Bengal.	For Bengal the sanctioned strength of the police force in 1880 was 25,405, and the actual cost 429,664 l. An increase of pay had to be granted to constables in certain districts on account of the dearness of provisions, and to keep the force up to its prescribed strength. To induce intelligent and educated men to enter the force, the creation of a new grade of sub-inspectors was experimentally sanctioned. Six parties of punitive police were quartered on disturbed villages during the year. The special police reserves stationed at Dacca, Bhagulpore and Moorshedabad, in the place of the troops withdrawn during the Afghan campaign, became very efficient, and towards the close of the year were utilised to great advantage in connexion with the disturbances which arose in the Sonthal Pergunnas during the operations for taking the census. Government will in future generally be able to deal with petty local excitements without making requisitions for detachments of troops. It has been arranged to supply gradually a body of thoroughly trained men to each district, by sending every six months a hundred men, taken from the different districts, to be drilled with the special reserves. These men will return to their districts as soon as they have become efficient in drill and thoroughly disciplined.
Assam.	In Assam the total sanctioned strength of the police force during 1880 was 4,136, and the actual cost was 80,800 l. Their working was fairly satisfactory. Semi-military duties were performed by the frontier police in holding the outposts, in guarding treasuries and prisons, and in occupying wild districts like the Naga and Garo Hills. There was some difficulty in feeding the police in the Naga Hills, and the strain on the force there was very great, but the conduct of the men was generally praiseworthy. No change was made in the civil police, and the results attained by them in the detection of crime were much the same as in the previous year.
N. W. Provinces and Oudh.	The sanctioned strength of the police force in the North-Western Provinces and Oudh during 1880 was 32,967, and the actual cost was 436,349 l. The chief changes in departmental administration during the year were in the direction of assimilating the Oudh system to that in force in the North-Western Provinces. In respect of clothing and pension the assimilation was complete. The Oudh force was being regraded to bring it into accordance with the sanctioned strength. There was less difficulty than formerly in the matter of recruiting for the mounted police; this force contained 639 men, of whom 566 were mounted on horses, and 73 on camels.
Punjab.	The Punjab police force had a sanctioned strength of 19,943 in 1880, and the actual cost was 318,111 l. In point of efficiency, and discipline, the whole force is said to be a credit to the province. A marked diminution of crime has resulted in those districts where activity has been displayed in demanding security from bad characters. Owing to the demand for labour, and the price of food, recruiting was difficult during 1880, and the complement of the force was not fully maintained. The census operations, the heavy treasure remittances toward Kabul, and the large traffic on the trunk road north of Jhelum, imposed onerous duties on the police. A large force of police was supplied to the postal department to guard the transport trains in transit between Jhelum and Peshawar. This difficult duty was very well managed, and the police employed worked with great devotion in the face of many hardships.
Central Provinces.	For the Central Provinces the sanctioned strength of the police force during 1880 was 8,607, and the actual cost was 129,700 l. The police had a favorable character for discipline, but improvement was generally needed in the investigation of crime. They were somewhat successful in the capture of 200 dacoits, but the police of the Nimar district, where most of the dacoities occurred, proved very inefficient.
British Burma.	In consequence of the long land frontier to be watched, of the sparseness of the population, of the proneness of the Burmans to excitement and violent crimes, and of the absence of any organised rural police, the constabulary in British Burma is stronger in proportion to the population than in any other part of India. The sanctioned strength of the force for 1880 was 7,341, and the actual cost was 168,255 l. Owing to the high rate of wages a constable costs nearly twice as much as in other parts of India. The position of police constable is not highly valued, and 29 per cent. of the force resigned during 1880.

1880. To make the service more attractive, it was decided to reduce the numbers and to raise the pay; this scheme was partly carried into effect. POLICE.

For the Ajmere and Mhairwara Districts the sanctioned strength of the police force continued at 582 during 1880, while the actual cost was 90,442 l. The transfer of railway head-quarters to Ajmere town has greatly enlarged the suburbs, and an addition to the strength of the municipal police was considered to be necessary. Much good work was done by the provincial police, but they were quite helpless to prevent the rapid raids into British territory of Minas from the Marwar state. Ajmere.

Berar had during 1880 a police force with a sanctioned strength of 2,694, the actual cost of which was 51,863 l. In the prosecution of crime before the magistracy, fair success was attained; and there was a general improvement in efficiency, except as regards the recovery of stolen property. Berar.

In Mysore the sanctioned strength of the police force at the end of the year 1880 was 4,571, and the actual cost was 59,998 l. The reductions that were made on the strength as previously sanctioned were not expected to lessen the efficiency of the force, and will effect a considerable saving of expenditure. On the whole the police worked with fair success and regularity. Mysore.

Coorg police force consisted during 1880 of 54 men, and the actual cost was 723 l. Five patrolling inspectors were also employed for a few months to check coffee-stealing. Coorg.

The sanctioned strength for 1880 of the police force of the Madras Presidency was 26,739, and the actual cost was 397,346 l. Extra forces had to be raised in Ganjam and Vizagapatam on account of the disturbances in the latter district and in Jeypore. Nearly half the men in the force were of ten years' service and upwards. About two-thirds of the force could read and write; no rapid advance was likely to be made in this direction, although no efforts were being spared to enlist educated men. On the whole there was an improvement in the action of the police with regard to crime. Madras.

The sanctioned strength of the police force in the Bombay Presidency, exclusive of the Bombay City police, was 19,633, and their actual cost was 324,967 l. About 28 per cent. of the men could read and write. Eight new punitive posts were imposed on various villages in the Northern and Central divisions, owing to the misconduct of their inhabitants principally in the matter of assisting or harbouring dacoits. Measures taken to suppress dacoity were very successful. The Bombay City police force had a total strength of 1,423, and the actual cost was 41,078 l. Bombay.

During the year 1880 the daily average number of prisoners of all classes in the various provinces of British India, including the Andaman penal settlement, was about 112,000, or 11,000 less than the daily average number during the preceding year. The total number of places of confinement was about 480. The leading facts of the year regarding the prisons, especially as concerns the maintenance of discipline, gaol manufactures, and the health of the prisoners, are given below in the paragraphs respecting each of the provinces. PRISONS.

Owing to a great reduction in the population of the Bengal gaols, there was a noticeable improvement in the death-rate, which fell from 9.9 to 6.5 per cent. of the average daily number of convicts. There was also a diminution in the number of escapes, a reduction of 43 per cent. in the number of corporal punishments, a reduction in both the gross expenditure and the cost of each prisoner, and an increase of 33 per cent. in the profit derived from manufactures. Throughout the year the Alipore Reformatory School was quite full, so that fresh inmates could only be received as vacancies occurred. Its usefulness was so thoroughly established, that a proposal was under consideration to found a second one for Behar boys. In all the gaols, warder guards had entirely taken the place of the police guards formerly employed, and the number of convicts who escaped from custody declined from 93 to 40. No crime of a serious nature was committed in any of the gaols. The gross value of the gaol manufactures of the year was 120,702 l. The rates of both sickness and mortality were still unduly high. Scales of diet for Bengal and Behar prisoners, largely increasing some of the most nutritive constituents of the native diet, were adopted, and a system of weighing fortnightly all labouring prisoners was introduced. The infliction of punishment for short work when a prisoner is losing weight was prohibited. Bengal.

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PRISONS.
Assam.

In the Assam gaols the year 1880 was characterised by a reduction of the prison population, and an improvement in the health of the inmates, while the management was both economical and successful. The construction of the two central gaols of Gauhati and Sylhet made fair progress. The mark system is said to be thoroughly understood and much appreciated by the prisoners, and the threat of cancelling marks earned is found to be one of the most effective deterrents in prison discipline. The net profit on manufactures was 248 l.

N. W. Provinces
and Oudh.

The gaols of the North-Western Provinces and Oudh were not nearly so full in 1880 as in 1879. All classes of prisoners improved in health, and the death-rate was much lower. The scale of diet remained unchanged. Of those released during the year the numbers who gained and lost weight during confinement were about equal. A marked improvement in the health of the boys has resulted from the general introduction of systematic drill, and they are required to attend school regularly. The watch and ward were efficient, and there were only 19 escapes during the year. Not very encouraging results were attained in the education of convicts. Rules were prescribed in regard to the release of female prisoners, so as to ensure their safe arrival at their homes in the event of their friends failing to meet them at the gaol door when set at liberty. Gaol manufactures gave a net profit of 15,158 l.

Punjab.

Financial pressure for some years has precluded the possibility of constructing new gaols in the Punjab; and, though there was a large decrease in the number of prisoners during 1880, the accommodation was barely sufficient. The health of the gaols greatly improved, but the mortality was still high. There is no reason to suppose that the mortality has been increased in any way by the change of diet that was introduced in 1878, for some of the gaols in which the new scale was most rigidly observed were among the healthiest in the province during 1880, whereas in others, where the rations were increased, the mortality was excessive. In the case of the gaols generally the sickness was not universal, but confined to certain localities which either at the time or previously had been visited by unusual sickness and mortality. Gaol manufactures returned a net profit of 17,197 l. Every encouragement to gaol industry has been given by requiring the various departments of the government to purchase their tents and country paper from the gaol manufactories, and by largely employing the central gaol press in official printing. A reformatory ward was started in the central gaol, to which juvenile prisoners from all parts of the province are despatched, most of them being employed as compositors in the printing press.

Central Provinces.

There was some overcrowding during 1880 in several of the gaols of the Central Provinces, especially at Sambalpur, where the mortality was very high. Taking the gaols as a whole there was a reduction in the death-rate, although there was more sickness than in the previous year. Arrangements have been made for increasing the accommodation at Sambalpur. Under the system of employing convicts as prison officers the discipline at Nagpur central gaol was improved, and more work of a better quality was turned out than under the supervision of ill-paid free officials. The reduced diet scale is said to have proved ample during the year. Gaol manufactures realised a net profit of 4,629 l.

British Burma.

Much further expenditure is still required to make the gaols of British Burma fully secure and healthy, and to permit of the proper classification and segregation of prisoners during hours of labour, rest, and sleep. Fortunately the health of the prisoners was good during 1880, and the death-rate was lower than in any previous year. Juvenile offenders were kept away as much as possible from the rest of the prisoners, but reformatory treatment was scarcely practicable. Three-fourths of the prisoners available for labour were engaged on prison manufactures, and earned a net profit of 13,029 l. Gaol buildings in the province are carried on exclusively by prison labour. The conduct of the free warders was as usual extremely bad; the wages paid are said to be too low to buy honest service, and a scheme was being prepared for remedying the defect. Among the convict warders also there were repeated cases of misconduct.

Ajmere.

Ajmere gaol was well and economically managed during 1880, although there was much overcrowding. However the health of the prisoners was exceptionally good, and discipline was maintained. Prison labour yielded a net profit of 378 l.

Berar.

All the gaols in Berar suffered from overcrowding during 1880, and various expedients had to be devised to provide sleeping accommodation for the prisoners. The general health was not as good as in 1879, and there was a serious outbreak

outbreak of scurvy in the two central gaols. Both the sick-rate and the death-rate increased. Discipline improved, and there was a satisfactory decrease in corporal punishments. The mark system had not yet been introduced, but a set of rules was under consideration. Gaol labour and manufactures yielded a net profit of 1,193 £.; the convicts were chiefly employed on weaving, lithography, stone-breaking, twine-making, and oil-pressing; the weaving branch produced drill and turban cloth for the police, while in the lithographing branch all the vernacular work was executed for the whole province. PRISONS.

With the diminution in the number of prisoners for three consecutive years, all chance of overcrowding in the gaols of Mysore had disappeared before the end of 1880, and soon afterwards the temporary gaol at Kukarhalli was abolished. The convicts imprisoned there were very usefully employed in making the reservoir for the Mysore waterworks. There was an improvement in the general health of the prisoners and in the mortality. The cash profit accruing from gaol labour was 1,260 £., exclusive of 2,264 £. the value of the work done by convicts in the Kukarhalli tank. Mysore.

Fewer prisoners were under confinement in Coorg during 1880 than in the previous year. The vital statistics shew a diminution in both the daily average number of sick and the number of deaths. From gaol manufactures the net profit was 394 £. Coorg.

The gaols in the Madras Presidency contained fewer prisoners during 1880 than during the preceding year. The scales of diet, which were introduced in 1879, and in which dry grains form a prominent element, remained unchanged, and were found to work very satisfactorily. There was an improvement in the general health of the prisoners, but owing to a heavy mortality in a few gaols the death-rate was high. The greatest number of deaths occurred at Rajahmundry, where the sickness and mortality among the rebel prisoners of the hill tribes of Rampa were distressingly great. At Salem the mortality was a source of constant anxiety, although every care was taken regarding the dietary, water-supply, clothing, and cleanliness of the prisoners. Only one death occurred from cholera throughout the gaols. The remission system as usual worked successfully, and was a powerful auxiliary in the maintenance of discipline. Not very satisfactory progress was made in the education of prisoners, as the existing system did not permit of much being done in this direction. About one-third of the prisoners were employed on manufactures, from which a net profit of 7,181 £. was realised. Convict labour was utilised as far as possible on gaol buildings. Madras.

Distress having ceased almost everywhere in the Bombay Presidency, there were no admissions of half-starved people to the gaols during 1880 as in the preceding years, and the daily average number of inmates was much less. A great improvement was visible in the sick-rate and death-rate. No change was made in the diet in any prison, and it was found that of the prisoners discharged, the number who had gained weight was much greater than the number who had lost weight. Convict warders formed about three per cent. of the prisoners, and as a body behaved well. Education of adults was attended with scanty success. There was an increase in the number of boys under confinement in the reformatory institutions; their health was good, and they made progress in education and learning trades. Gaol manufactures yielded a net profit of 20,546 £. Bombay.

More than 1,550,000 civil and revenue suits were instituted during the calendar year 1880 in the various courts of original jurisdiction throughout British India, and about 83,000 appeals were instituted in the courts of appellate jurisdiction. With regard to registration, the aggregate number of documents presented during 1880-1 was 1,397,878 as compared with 1,392,781, the number in the previous year. The total net profit from registration was 106,182 £. CIVIL JUSTICE.

In Bengal the number of suits for disposal on the original side of the high court in 1880 was 1,652, of which only 806 were decided during the year. On the appellate side 6,538 appeals and applications were decided out of a total of 10,844. The scheme for the constitution of divisional appellate benches, which was submitted in 1877 with a view to diminish the arrears in the high court and facilitate the administration of justice, had not yet been sanctioned. In the Calcutta court of small causes there was still more than the average Bengal.

CIVIL JUSTICE.

number of suits instituted, but 35,600 cases were decided out of 36,888 that were for hearing. Original suits under trial in the various civil and revenue courts of the interior numbered 501,552, of which 397,288 were decided, the average duration of each contested case in a court of the first instance being 105 days. The appellate courts of the interior disposed of 20,120 out of 45,396 appeals that were for decision. An appreciable decrease occurred in the operations of the registration department, and extended to nearly every class of documents; the total number of registrations falling from 609,109 in 1879-80 to 556,233 in 1880-1. The chief cause of the falling off was the excellence of the harvest, which freed more persons from the necessity of borrowing or raising money by sale or mortgage of immoveable property. Rural and special sub-registrars, under the new system of remuneration which was introduced in 1879, and generally adopted in 1880, receive a commission on the number of documents registered, the rate varying with the number of documents according to a sliding scale. The net profit of the registration department was 58,196 l.

Assam.

Civil litigation in Assam fell off during 1880, both in number and value of cases. The decrease was almost general, being connected in Upper Assam with the depressed state of the tea trade, and in Sylhet and Cachar with the low prices of rice and the consequent diminution in commercial transactions. The average duration of a contested case in an ordinary court of the first instance was 91 days. Registration continued during 1880-1 to be extensive in the Surma Valley districts, while in four of the Assam Valley districts there was a slight decrease in the number of the documents presented. Altogether 14,061 instruments were registered. The net profit of the registration department was 1,166 l.

N. W. Provinces
and Oudh.

In the North-Western Provinces and Oudh the civil litigation of the year 1880 was of a normal character. Altogether 286,922 civil and revenue suits were instituted in the various courts, and 229,296 were decided, while 23,591 were pending at the close of the year. In the ordinary courts of first instance the average duration of a contested case was 50 days for the North-Western Provinces and 54 days for Oudh. In many districts in the North-Western Provinces no revision of the jurisdiction of subordinate civil courts had taken place for many years, and it was found that the work of the courts had become most unevenly distributed. These irregularities were accordingly removed. In Oudh too, where the new scheme for the administration of civil justice had only recently been introduced, some further changes were found necessary. More documents were registered during 1880-1 in the North-Western Provinces, and also in Oudh, than during the preceding year, the chief increase being under documents the registration of which is compulsory. The total number of registrations effected was 145,376 in the North-Western Provinces, and 54,116 in Oudh. As the greater part of the instruments registered concerned immoveable property, the increase in their number would point to the fact that the pressure of the recent bad seasons was still being felt by the proprietors and cultivators of land. The net profit of the registration department was 29,515 l.

Punjab.

There was again a steady increase during 1880 in the number of civil cases instituted in the Punjab courts, and the necessity of affording commissioners and deputy commissioners more time for superintending the revenue and general administration was at length recognised, and a scheme for effecting that object introduced. Temporary relief was given to some commissioners by a re-adjustment of the jurisdiction of the two additional commissioners. The appellate work of the chief court of the province had also increased so largely that a fourth judge had to be temporarily appointed to assist in disposing of the arrears which had accumulated to the number of 1,200 cases, which number is nearly equal to the whole annual work of the court. As compared with the amount of general civil litigation in 1879, there were great local variations in 1880, from an increase of 48 per cent. in Hazara to a decrease of 18 per cent. in Simla. The increase of litigation in Hazara was probably due to a return of prosperity after a partial famine; and in Kohat the influx of a large additional population, when the cantonment became the base of military operations in the Kuram Valley, led to an increase in civil suits. The total number of registrations during 1880-1 was 70,745, of which 44,351 belonged to the compulsory class, while

59,149 deeds related to immoveable property. The drought and scarcity prevailing in many parts of the province gave an enormous impetus to registration of documents affecting moveable property. Of late years there has been a great decrease in the registration of documents of this nature, the practice of writing acknowledgments of indebtedness in banker's account books being on the increase. The net profit of the registration department was 10,513 *l*. CIVIL JUSTICE.

Suits instituted in the civil courts of the Central Provinces increased from 87,862 in 1879 to 91,379 in 1880. The inevitable tendency of litigation in these Provinces at their present state of development is to increase. But in some districts there is a distinct decline. Nine-tenths of the provincial litigation remained as it was ten years previously, of a value not exceeding *Rs.* 100, and the general position which the courts occupied toward the people was simply that of an agency for the collection of the debts of petty money-lenders and traders. There was a slight decline, namely, from 21,660 in 1879-80 to 20,152 in 1880-81 in the number of deeds brought for registration. The decrease was attributed to the improved circumstances of the year, but it was confined to nine out of the eighteen districts. The net profit of the registration department was 2,730 *l*. Central Provinces

In British Burma the civil courts of the first instance are almost everywhere presided over by Burman judges. The amount of civil litigation has not increased in proportion to the population; in the year 1870 the number of civil suits decided was 31,804; in the year 1880 the number was 31,026. About 80 per cent. of the cases were for sums under *Rs.* 100. Only 40 per cent. of all the cases were for money lent, shewing that the petty landholders are not as a rule much in debt. The prevailing rate of interest on such agricultural loans as come into court ranges from three to seven per cent. per mensem. Five per cent. per mensem is an ordinary rate of interest in Burman villages. Forty-two per cent. of the cases were contested, and their average duration was about a fortnight. Registrations of documents increased from 4,622 in 1879-80 to 6,107 in 1880-1. The advantages of registrations are gradually becoming better known, but their number is very few compared with the numbers and wealth of the people. The net profit of the registration department was 847 *l*. British Burma.

Civil work in Ajmere again slightly increased during 1880, the total number of suits instituted being 7,902. Most of the suits were for recovery of debts. The average duration of contested cases was twenty days. Registration continued nearly stationary, the number of documents registered in 1880-1 being 1,183. There has been an increase for six years in the compulsory class of documents, with a corresponding decrease in the optional class. This is said to be due to the provisions of the law being better understood by the people. The net profit of the registration department was (1) 153 *l*. Ajmere.

In Berar, civil litigation shewed an increase during 1880; the number of suits instituted was 20,842, and of these 84 per cent. were for money due. The average duration of contested cases was 59 days against 72 days in 1879. There was also an improvement in the cost of litigation. Owing to mismanagement in one district the registration of instruments decreased during 1880-1; but it must not be forgotten that much of the previous rise in registration was due to the pressure of bad seasons on the agricultural class. Of the total number of 20,482 registrations effected, nearly two-thirds were compulsory. The net profit of the registration department was (1) 1,633 *l*. Berar.

There was no change made during the year 1880 in the number of the Mysore civil courts or in their pecuniary jurisdiction. Litigation greatly diminished, the number of suits filed falling from 21,475 to 17,203. The returns shew that the courts disposed of the business without delay, and that only a small proportion of the suits remained undecided for more than three months. During the year 1880-1 there were 15,069 documents registered. This number shewed a small increase on that for the previous year, and was due to a growing appreciation of the benefits of registration, as is proved by the fact that the advance was entirely in deeds affecting small immoveable properties Mysore.

(1) Figures given in Administration Report.

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CIVIL JUSTICE.

ties of less than Rs. 100 in value, the registering of which is optional. The net profit of the registration department was ⁽¹⁾ 2,129 l.

Coorg.

Civil suits instituted in Coorg increased from 1,990 in 1879 to 2,078 in 1880. The average duration of contested cases was 29 days. In the amount of registration there was little change during 1880-1; the total number of documents registered was 507; and the net profit of the registration department was ⁽¹⁾ 168 l.

Madras.

In the civil and revenue courts of the Madras Presidency 235,565 suits were instituted during 1880, and the total number of suits for disposal was 277,503, exclusive of transfers. Of these the courts disposed of 238,901. On the original side of the high court 518 suits were instituted; the arrears of this court were being rapidly reduced, the number of suits pending at the end of the year being only 246, as compared with 387 at the beginning. A great deal of the initiative litigation of the country is in the hands of the district munsifs, and the average duration of a contested case in their courts was 207 days. The civil powers of the village munsifs are, except in certain cases, very limited; and in many cases their procedure is more akin to settlement by arbitration than to judicial decision. There are altogether about 46,000 village munsifs; but of these only about 2,300, or five per cent., were reported as having entertained civil suits during 1880; so that if the figures are correct, they would give roughly about one suit per munsif for the Presidency, and a little less than 20 suits per munsif of those actually exercising civil jurisdiction. The figures have varied very little for eight years. Madura, Tanjore, and Tinnevely are the districts in which this jurisdiction is most largely utilised. The progress of registration during the year 1880-1 was very satisfactory, the aggregate number of documents registered being 414,214, and exceeding the number registered in 1879-80, up to then the highest on record, by over 12 per cent. The per-centage of optional to total registrations has increased gradually from 33 per cent. in 1874-5 to 47 per cent. in 1880-1.

Bombay.

Litigation decreased during the year 1880 in the Bombay Presidency. The decrease was most marked in the four districts to which the Deccan Ryots' Relief Act applies, and possibly the procedure introduced by that Act had something to do with it. The total number of original suits instituted in all the courts of the Presidency was 180,383, and the total number for disposal was 217,246, of which 183,060 were decided. The average duration of contested cases in an ordinary court of the first instance was 105 days. Arrangements for bringing the Deccan Ryots' Relief Act into force were finally completed in June 1880, and some account of this important measure for securing civil justice may here be given. The first considerable change in the law introduced by the Act is the appointment of village registrars, before whom every written instrument to which an agriculturist is a party must be registered before it can be used against him as evidence of his indebtedness. Altogether 218,266 documents were registered under the Act, of which number 148,957 related to immoveable property, and 69,309 to moveables. To simplify the procedure, a slight amendment of the Act was found necessary. The officers superintending the working of the Act believe that there has been no such unwillingness as was apprehended, on the part of the money-lenders, to advance money to persons whose credit is good, but there were indications of an increased tendency to require land as security. The second noticeable provision of the Act is the appointment of conciliators, men of influence, whose duty it is to assist in or induce the compromising of disputes between debtor and creditor before such disputes are brought before the courts. To compel litigants to have recourse to these conciliators it is enacted that a claim for money against an agriculturist is not to be entertained by the civil courts unless accompanied by the certificate of the conciliator to the effect that he has attempted to effect a compromise. Compromises effected before conciliators are filed in the records of the civil courts, and have the force of decrees. At the close of 1880 there were 346 conciliators in the four districts. During the last seven months of that year they dealt with 29,277 cases, in 15,807 of which they failed to effect a compromise. Certificates enabling the claimants to sue in the courts were granted

⁽¹⁾ Figures given in Administration Report.

granted in 13,452 out of these 15,807 cases. Altogether 19,311 cases were pending at the close of the year, but the arrears were being gradually reduced as the conciliators became more familiar with their work. The insolvency provisions of the Act remained almost a dead letter; only 14 applications were made, and eight of these were rejected. With regard to the operations of the Bombay registration department during the year 1880-1, there was an almost general decrease throughout the Presidency. Various causes contributed to this result, but the main cause was the diminution in the four districts of the Central Deccan to which the Deccan Ryots' Relief Act was made applicable. The decrease throughout the Presidency was, as in the preceding year, chiefly in that class of documents in which registration is compulsory. The net profit of the registration department was 5,465 *l*.

CIVIL JUSTICE.

III.

FINANCE.

REVENUE AND
EXPENDITURE.

ACCORDING to the Finance and Revenue Accounts (in which the rupees of the Indian portion are converted into sterling at the conventional 2 s. rate of exchange) the gross amount of the revenue of British India during the official year ended 31 March 1881 was 72,559,978 *l.*, while the expenditure was 76,604,333 *l.* There was thus a deficit of 4,044,355 *l.* Both sides of the account, however, are swelled by figures connected with the military operations in Afghanistan. The portion of the English contribution of five millions sterling towards the expenses of the Afghan war that was actually brought to account during the year 1880-1, was 2,695,000 *l.* If we exclude from the revenue side of the account the ordinary war receipts and the English war contribution, which together amounted to 3,297,607 *l.*, and from the expenditure side of the account the war expenditure, which, including the frontier railways, amounted to 13,662,104 *l.*, the figures would stand as follows:—revenue 69,262,371 *l.*, expenditure 62,942,229 *l.*, surplus 6,320,142 *l.*

No very important alterations in the fiscal system of the Government were made, all measures of the sort being postponed during the embarrassment caused by the expense attending on the partial occupation of a foreign country.

Of the 72,559,978 *l.*, which was the gross amount of the revenue, 69,316,684 *l.* was received in India, and 3,243,294 *l.* in England; the latter sum included the 2,695,000 *l.* of the English war contribution that was taken into account during the year. The largest portion of the revenue was derived from land, which yielded 21,112,995 *l.*, excluding 797,319 *l.* which was credited as the amount of land revenue due to irrigation; then came opium with 10,480,051 *l.*, salt with 7,115,988 *l.*, stamps with 3,250,581 *l.*, excise with 3,135,226 *l.*, and customs with 2,539,612 *l.*; while the receipts from the provincial rates amounted to 2,776,370 *l.*

Of the 76,604,333 *l.* which constituted the total expenditure, 62,183,808 *l.* was incurred in India, and 14,420,525 *l.* in England. These amounts are altogether exclusive of the outlay of capital for productive public works. The English portion may be subdivided into 1,754,794 *l.* for stores, 2,341,218 *l.* for interest on permanent and floating debt, 4,641,780 *l.* for interest on account of productive public works, 3,369,362 *l.* for army, 1,370,964 *l.* for pensions, 217,524 *l.* for furlough allowances, and 724,883 *l.* for all other heads of expenditure. Taking the Indian and English portions of the expenditure together, the principal heads were the following:—army 28,086,495 *l.*, including 11,368,489 *l.* for the military operations in Afghanistan, 2,293,615 *l.* for frontier railways, productive public works, working expenses and interest, 9,259,437 *l.*, public works not classed as productive 5,099,103 *l.*, interest other than that incurred for productive works 4,083,168 *l.*, collection of the revenue 10,618,704 *l.*, law and justice 3,203,613 *l.*, police 2,524,198 *l.*, salaries and expenses of public departments 1,933,196 *l.*, loss by exchange on transactions with London 3,124,330 *l.*

Outlay of capital on productive public works in India and England during the year amounted to 3,238,070 *l.*, of which 614,450 *l.* was for works of irrigation and navigation, 2,553,620 *l.* for state railways, and 70,000 *l.* for the Madras Harbour Works; while, in addition to these amounts, 418,435 *l.* was expended for the East Indian Railway.

The amount of bills drawn on India during the year by the Secretary of State was 18,32,77,000 rupees, and the sum received in respect of these bills was 15,239,677 *l.*, the average rate obtained per rupee being, therefore, 1 s. 7-956 *d.*, and the loss by exchange on the bills, as compared with the conventional 2 s. rate per rupee, being 3,088,023 *l.*

At the close of the official year the total debt of the Government of India, in India and England, amounted to 157,388,879 *l.* The Indian portion of the debt was composed of 85,877,190 *l.* bearing interest, and 82,556 *l.* not bearing interest;

interest; while the English portion comprised 71,334,670 *l.* bearing interest, and 94,463 *l.* not bearing interest. Of the total amount of the debt, 10,130,541 *l.* was for outlay of capital on the East Indian Railway, other than the portion for which the Government are paying in the shape of an annuity, and 45,719,049 *l.* for outlay of capital on other productive public works (irrigation works 17,257,660 *l.*, state railways 28,047,033 *l.*, and Madras Harbour Works 414,356 *l.*)

REVENUE AND EXPENDITURE.

Cash balances at the various treasuries and agencies of the Government of India amounted at the close of the year to 17,498,850 *l.*, of which 4,127,749 *l.* was in England.

Every provincial administration, except those of the Central Provinces, Madras, and Bombay, shewed an increase during 1880-1, as compared with 1879-80, in the gross amount of the revenue collections; in three of the administrations there was a decreased expenditure, namely, in Bengal, Madras, and Bombay.

In Bengal the gross revenue collections rose from 18,524,953 *l.* in 1879-80 to 19,566,431 *l.* in 1880-1, and the expenditure fell from 7,351,982 *l.* to 7,312,242 *l.* An increase was exhibited in the collections under the principal headings of land revenue, forests, excise, customs, and opium, and a decrease under those of salt and stamps. Sir Ashley Eden stated that in the four years that had passed since the extension of the system of decentralisation in 1877, the provincial finances had improved by both the increase of revenue and the decrease of expenditure, and the local Government had thus been able to carry out numerous works of improvement, many of which under the system previously in force must have been indefinitely postponed. Beside making a special contribution to the imperial treasury in time of need, the means had been found to increase the staff of executive and civil officers, to provide increased facilities for the administration of justice, to increase the grant for education, to make grants in aid of district communications, and of works of drainage, sanitation and municipal improvement, to build schools, colleges and hospitals, to replace the wooden buildings in which the public business was transacted or prisoners were confined by substantial masonry court-houses and gaols, to spend 200,000 *l.* on railways, 55,000 *l.* on tramways, 7,500 *l.* on a steamer service to improve communication with Assam, 20,000 *l.* on a road to develop the trade with Tibet, 11,000 *l.* on the first portion of a canal which will develop the trade with Orissa and protect it from famine, and 382,500 *l.* on improving navigation and providing a supply of pure water for the people. Every department in Bengal had felt the benefit of the financial independence conferred on the local administration. The provincial balance was reduced by 11,313 *l.* during the year.

In Assam the gross revenue collections rose from 757,740 *l.* in 1879-80 to 792,071 *l.* in 1880-1, while there was a corresponding rise in the expenditure from 462,580 *l.* to 510,406 *l.* As in 1879-80, a special contribution of 15,000 *l.* was made from provincial to imperial funds. The balance at the credit of the provincial Government rose by 26,879 *l.*

In the North-Western Provinces and Oudh the aggregate receipts rose from 8,692,584 *l.* in 1879-80 to 8,727,476 *l.* in 1880-1, and the expenditure from 3,892,143 *l.* to 3,928,707 *l.* The surplus was therefore almost identical in each year. The year 1880-1 was a prosperous one for the provincial finances, and closed with a balance of about 900,000 *l.* As regards expenditure the local Government pursued a policy wholly different from that of Bengal. Instead of spending the total amount at its disposal, it increased its balance by 80,790 *l.*

Collections of revenue in the Punjab rose from 4,075,776 *l.* in 1879-80 to 4,686,770 *l.* in 1880-1, while the expenditure rose from 3,458,098 *l.* to 4,728,955 *l.* The very large increase of the expenditure was solely due to the item of 1,581,802 *l.* for the frontier railways. With regard to the provincial finances, it is stated that the scheme of decentralisation which had been in force since 1877 had worked with some difficulty, owing to the pressure which had uniformly existed throughout nearly all the period. The balance was increased by 59,497 *l.* during the year.

The revenue collections in the Central Provinces fell from 1,299,130 *l.* in 1879-80 to 1,289,720 *l.* in 1880-1, and the expenditure rose from 800,396 *l.* to 869,408 *l.* The principal heads of revenue which shewed a decrease were forests and stamps, while most of the increased expenditure was under public works. The provincial finances were in a flourishing condition, and the

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REVENUE AND
EXPENDITURE.
British Burma.

balance at the close of the year was 2,956 *l.* in excess of that at the beginning.

In British Burma the revenue collections rose from 2,262,889 *l.* in 1879-80 to 2,329,443 *l.* in 1880-1, and the expenditure from 1,223,720 *l.* to 1,271,186 *l.* Within ten years the revenue had nearly doubled. Owing to interruptions, caused by the census, to the collection of land revenue, there was a heavy decrease under this head during 1880-1, but almost every other source of receipt contributed to the general increase. The chief increases of expenditure were under land revenue and public works. Since the provincialisation of the finances in 1879 the revenues wholly or partially surrendered by the Government of India for provincial uses have rapidly increased, and have furnished means for accomplishing many administrative and material improvements that were much needed; the increase would have been even more rapid, but for the loss of about 50,000 *l.* a year entailed on the provincial revenues by the measures taken to restrict the consumption of opium. During the year the provincial balance was increased by 20,833 *l.*

Ajmere.

According to the (1) statement of the revenue and expenditure of the Ajmere and Mhairwara Districts for the year 1880-1, the aggregate imperial receipts amounted to 94,602 *l.* and the local receipts to 26,549 *l.*, while the total expenditure was 70,398 *l.*

Berar.

The aggregate revenue of Berar under all heads of receipt amounted during 1880-1 to 987,828 *l.* or 2,537 *l.* less than in 1879-80; the total expenditure was 835,775 *l.*, the surplus therefore being 152,053 *l.* One noticeable feature in the financial administration of 1880-1 was a decrease of more than 40,000 *l.* in the military expenditure, chiefly due to the fall in the price of food grains and gram, which rendered it unnecessary to grant compensation to the men and contractors. The accrued surplus at the close of the year in favour of the Nizam amounted to 586,200 *l.*, out of which 162,200 *l.* was paid to the Nizam's Government during the year, and a further sum of nearly 130,000 *l.* in the following May. The working cash balance at Hyderabad and in the Berar treasuries to meet current expenses has for some years been fixed at 400,000 *l.*

Mysore.

Including local funds, the gross revenue of Mysore during 1880-1 was 1,201,967 *l.* and the total expenditure was 985,456 *l.* The revenue was undoubtedly recovering from the depression caused by the recent famine, but it was still considerably smaller than the amount it reached in 1875-6. In view of the restoration of the State to native rule by the end of 1880-1 in a sound financial condition, much had to be done in the way of retrenchments, so as to balance income and expenditure, during the three years which intervened between the famine and the cessation of British rule. In spite, however, of the shortness of the period, this object was successfully attained.

Coorg.

Gross receipts from all sources in Coorg during 1880-1 amounted to 78,767 *l.*, while the expenditure was 41,362 *l.*

Madras.

Although the gross revenue collections in the Madras Presidency fell from 10,108,295 *l.* in 1879-80 to 9,591,217 *l.* in 1880-1, the expenditure diminished to a still greater extent, viz., from 7,033,624 *l.* to 6,321,213 *l.*, and the surplus therefore increased from 3,074,671 *l.* to 3,270,004 *l.* There was a falling-off in the receipts from land revenue, assessed taxes, provincial rates and salt. Most of the diminution of expenditure was under the head of army. On public works there was an increase. The Government of Madras was still under the old provincial arrangement of 1870. At the close of the year the balance had been reduced by 7,815 *l.*

Bombay.

No important change was made during the year 1880-1 in the financial system in force in the Bombay Presidency. The gross collections as shewn in the Finance and Revenue Accounts fell from 12,164,215 *l.* in 1879-80 to 11,431,230 *l.* in 1880-1, and the expenditure rose from 9,919,867 *l.* to 11,499,044 *l.* Instead of a surplus of 2,244,348 *l.*, there was thus a deficit of 67,814 *l.*, but this was mainly caused by the increased expenditure in connexion with the military operations in Afghanistan. If the war expenditure and the cost of frontier railways be excluded from the accounts of both years, there would appear a surplus of 3,824,572 *l.* in 1879-80 and a surplus of 2,936,124 *l.* in 1880-1. There was a falling-off in the receipts during the latter year from land revenue, forests, assessed taxes, provincial rates, opium, stamps, registration, and mintage, and an

(1) Given in the Administration Report.

an augmentation of those from excise, customs and salt; while the only considerable increases of expenditure were under the heads of allowances and assignments and army. The balance at the credit of the provincial Government was increased during the year by 37,855 *l*.

REVENUE AND EXPENDITURE.

The subject of land revenue will be found treated in Chapter IV.

LAND REVENUE.

What is known as the "opium revenue" of British India is collected mainly in the Bengal and Bombay Presidencies. In British India the manufacture of opium for exportation to the Straits Settlements and China is restricted to two agencies in Behar and Benares in the Bengal Presidency. These are under the administration of the Government of Bengal, though the Benares agency includes sub-divisions which are partly situated in Oudh. The manufactured opium is classed as provision opium for export to China, and excise opium for consumption in the country. Provision opium is brought down to Calcutta and sold by auction at monthly sales. Excise opium is supplied at cost price to the excise departments of Bengal, Assam, the North-Western Provinces and Oudh, the Central Provinces, and British Burma for issue to licensed dealers, the revenue received from the consumption of the opium being credited as excise. The Bombay portion of the revenue is derived from fees levied on the transit through the British territories to Bombay, for exportation to China, of the opium that is grown and manufactured in the free states of Malwa, a region roughly coextensive with the Central Indian Agency. In 1880-1 the total opium revenue of British India was 10,480,051 *l*., of which 7,780,474 *l*. was collected in Bengal, 2,526,375 *l*. in Bombay, and 173,202 *l*. in other provinces. The cost of production of the Bengal opium was 2,026,840 *l*., and the charges for the collection of the Bombay revenue were 1,917 *l*.; the net opium revenue, therefore, amounted to 8,451,294 *l*. For the decennial period ending with 1880-1 the annual net opium revenue averaged 7,052,508 *l*.

OPIMUM.

In the Behar agency the area of land under actual cultivation with poppy decreased from 461,086 beegas (¹) to 434,786 beegas, of which area three-fourths was irrigated. In the Benares agency there was a decrease on the actual area from 438,531 beegas to 423,265 beegas. The decrease in the cultivation of the poppy in the Behar agency was attributed to the growing popularity of other crops. Sugarcane was gradually supplanting the poppy in the Shahabad, Tihta and Patna divisions, and the potato was proving a successful rival in Chupra. The decrease in the Benares agency was ascribed mainly to the effect of three successive bad seasons, and to the former reduction in the price paid for crude opium, which enabled other crops to supplant the poppy in popularity with the cultivators. The weather during the season of 1880-1 was unsatisfactory in both agencies. In Behar, with the exception of a want of rain in November in some of the districts to the north of the Ganges, the prospects of the poppy crop were excellent until the close of the calendar year 1880; but in January the want of rain was much felt in most districts, and in the following month the plants began to die and to suffer damage by blight. Things were no better in the Benares agency; the first sowings, which were delayed by want of rain, failed generally, and the second sowings were successful only until the close of the calendar year. The scanty rainfall of January and the high west winds of February were very unfavorable to the growth and collection of the crop. From the amount of opium delivered at the Patna factory only 24,200 chests of provision opium were manufactured against 31,118 in 1879-80, and 3,025½ chests of excise opium were also manufactured. The outturn of manufactured opium in the Benares agency consisted of 25,532 chests of provision opium and 1,352 chests of excise opium. Altogether 56,400 chests, the same number as in the previous year, were sold by auction at the monthly sales in Calcutta for exportation, at an average rate of *Rs.* 1,362. 5. 3¼. per chest, the proceeds amounting to 7,683,558 *l*. Miscellaneous receipts of the department yielded 45,072 *l*., while the value of the opium that was issued to the excise department for consumption in Bengal was 51,844 *l*., bringing the total opium revenue collections in Bengal to 7,780,474 *l*.

Bengal.

The rate of pass-fee on opium imported into the Bombay Presidency continued during 1880-1 to be *Rs.* 725 per chest of 140 lb. in the case of opium weighed

Bombay.

(¹) One beega = nearly ½ acre.

Opium.

weighed and passed at the Ajmere scales, and Rs. 700 in the case of opium passed at all other scales in Malwa and Gujarat. Duty was realised on 35,521 chests of Malwa opium to the amount of 2,486,470 l., and on 548½ chests of Ajmere opium to the amount of 39,766 l., while miscellaneous receipts yielded 139 l., bringing the total of the Bombay opium revenue to 2,526,375 l. Negotiations were in progress for the conclusion of arrangements with the chiefs of Cutch and Kathiawar to prevent the importation and sale of contraband opium in their territories. The states in the central and southern divisions of the Presidency had passed agreements to consume only British taxed opium and to adopt measures for preventing the introduction of untaxed opium into, and its passage through, their territories, in consideration of receiving a refund of one-fifth of the pass-fee on the taxed opium consumed in their territories. With respect to the Khairpur State in Sind, it was decided to ask the Mir to limit the growth of opium in his territory to the actual requirements of the population, and to prevent the introduction of opium from his state into British territory. The China market was generally weak throughout the year; and the fact that about a thousand or fifteen hundred chests of Persian opium in excess of the previous year's arrivals were imported into China, and that the outturn of the opium crop in China itself was abundant, may possibly have contributed to lessen the demand for Malwa opium.

Excise.

The excise or *abkari* revenue of British India is derived from taxes, duties, and fees levied on the manufacture and sale of intoxicating and spirituous liquors and stimulating drugs, including opium. The aggregate collections of all the provinces advanced from 2,838,021 l. in 1879-80 to 3,135,226 l. in 1880-1, while the expenditure in realisation of revenue decreased from 111,413 l. to 95,404 l. Every province contributed to the increase of revenue, and the collections in each case exceeded the figures ever previously obtained.

Bengal.

During the year 1880-1 the only changes in the administration of the Bengal excise department were an increase in the price of excise opium in all districts outside the Patna division, the adoption of rules for the importation of *charas* (a preparation of Indian hemp) under a heavy duty, and the further development and extension of the outstill system. The financial results were very satisfactory, the gross revenue rising from 720,677 l. in 1879-80 to 855,278 l. in 1880-1. The incidence of the excise revenue was only two annas per head of the population according to the recent census. As the (1) outstill system had been found by experience to be the only system under which the illicit consumption of country spirits can in certain districts be kept in check, it was further extended to a number of districts; the sites for shops were selected with discretion, and competition among the bidders for licenses was stimulated. Notwithstanding the competition of the outstill system, the quantity of liquor passing into consumption from such central distilleries as remained, exhibited a steady increase. Under every class of excised articles more money was spent by the people than in 1879-80, and country spirit formed no exception. The result of raising the selling price of excised opium in all but the producing districts was a decrease in the consumption with a large increase in the revenue; there was also a considerable increase in license fees owing to enhanced competition among the vendors, and the ultimate result was a large increase in the selling price to consumers.

Assam.

In Assam the excise revenue collections advanced from 185,920 l. in 1879-80 to 195,635 l. in 1880-1. This improvement occurred under every exciseable article, except rice-beer. Of the total demand 84 per cent. was on account of opium, 9 per cent. on account of *ganja* (a preparation of Indian hemp), 6 per cent. on account of country spirits, and 1 per cent. on account of rum and imported liquors. For the first time since Assam was constituted a separate province there was an increase in the sales of opium, the use of which drug is almost confined to the five upper districts of the Assam valley. In the Surma valley the place of opium is taken to some extent by *ganja*. Country spirits are consumed chiefly by the tea-garden population, the natives of the country

(1) Distillation of country spirits is conducted under two systems: (1) the *outstill* system, under which the right of manufacture is let out to the highest bidder and conducted under strict supervision; (2) the *central distillery* system, under which the manufacture is conducted in certain places set apart for the purpose.

country being addicted rather to the use of drugs and rice-beer than to that of distilled liquors. EXCISE.

Excise collections in the North-Western Provinces and Oudh rose from 313,390 *l.* in 1879-80 to 369,113 *l.* in 1880-1. This branch of revenue is peculiarly liable to be affected by the condition of the people, and the good harvests of the year led to the marked increase of the excise receipts. The amount of the increase in Oudh was almost identical with that in the North-Western Provinces. Particular attention was paid to secure the efficiency of the administration; the outstill system in force in Bengal was introduced experimentally, and promised to answer expectations. In the North-Western Provinces the average number of persons to each liquor shop was 6,310, and in Oudh 3,736. The revenue derived from opium increased considerably in both provinces, especially in Oudh. Spirits are most largely consumed in Oudh, and opium and drugs in the North-Western Provinces. N. W. Provinces and Oudh.

The recovery of the Punjab from agricultural depression and the return of the Army from Afghanistan led to a further increase of the excise revenue collections from 100,264 *l.* in 1879-80 to 110,721 *l.* in 1880-1; but the improvement was almost wholly confined to the income from spirits, which shewed an increase under every heading. The prohibition of import of opium from Nepal, the duty imposed on Malwa opium, and the stoppage of the supply from Ghazipur, caused a great rise in the selling price of opium, and prevented the income under that head from increasing in the same degree as that from spirits. A decrease of 16 per cent. in the opium acreage duty was ascribed partly to the prevailing high prices of food grains, which made the cultivation of the poppy but little more profitable than that of cereals, and partly to the rigorous enforcement of the rule against home consumption. There was also a falling off of 6 per cent. in the income from licences for sale of other drugs. Punjab.

The excise receipts in the Central Provinces rose from 166,697 *l.* in 1879-80 to 185,748 *l.* in 1880-1. An abundant harvest and easy prices enabled the people to spend more money, and the effect of their prosperity on the excise revenue was very marked. The principles regulating the manufacture and sale of country spirits remained the same, that is to say, central distilleries supplied the more populous tracts, contract stills less populous areas, while in the wider and more sparsely populated tracts outstills were allowed, the right to open them being put up to auction. There were 44 central distilleries, 102 contract stills, and 1,416 outstills. The outstill system was somewhat expanded during the year. Opium was more largely consumed, and higher bids were offered for farming its sale. Receipts from *ganja* increased in a less degree than its actual consumption, and no definite scheme for augmenting its taxation had been settled. Central Provinces.

In British Burma the excise revenue collections rose from 207,268 *l.* in 1879-80 to 218,525 *l.* in 1880-1. Opium made at the Government factories in Bengal is sold by public officers to licensed vendors, who pay high prices for their licences. An unknown but increasing quantity of opium is smuggled into the province from Upper Burma and the coast of India. The quantity of opium sold from the public stores in 1880-1 was 109,530 lb. In order to restrict the rapidly growing consumption of the drug, the regulation of the traffic received the attention of the local Government, and it was decided to close a number of the licensed shops, and to raise the price of the opium 30 per cent. It was anticipated that the measures would eventually cause a yearly loss to the provincial revenues of 50,000 *l.* to 70,000 *l.* Large quantities of foreign wines and liquors imported into British Burma pay the usual customs duty. The excise revenue is over and above this duty, and is levied in the shape of fees paid by licensed vendors. In 1880-1 the number of retail licences to sell foreign liquors was 121. Only three licensed distilleries were in the province, and 237 shops were licensed for the retail of country spirits. 27 outstills were also licensed, and 1,065 shops for the sale of rice-beer and toddy (fermented juice of the palm-tree). In forest tracts, Karens and other hill tribes often make liquor professedly as libations for their gods, without troubling or being troubled by the revenue officials. British Burma.

In the Ajmere and Mhairwara Districts the total (1) sum credited under excise rose

(1) Figures given in Administration Report.

Excise.
Ajmere. rose from 3,918 *l.* in 1879-80 to 4,672 *l.* in 1880-1, the large increase being due to returning prosperity, a rise in the population, and more competition among the farmers of the tax. The incidence of the excise was under two annas per head of the population. It was proposed to licence the sale of opium and chandoo (its smokeable extract) in Ajmere and Kekri; and to licence distilleries at certain approved places for the manufacture of pure liquor of a certain strength.

Berar. In Berar during the year 1880-1 there were 1,413 shops for the retail of country liquor, 924 for tari, and 549 for opium and drugs. The total excise revenue brought to account rose from 115,398 *l.* in 1879-80 to 112,404 *l.* in 1880-1. The incidence of this income was nearly seven annas per head of the population.

Mysore. There was a decline in the aggregate excise (1) receipts brought to account in Mysore from 102,255 *l.* in 1879-80 to 93,985 *l.* in 1880-1; but there was a large increase in the current excise demand on account of the still-head duty on arrack; this increase was caused by the larger consumption of spirit during the year, and by the more efficient working of the *abhari* department. Very small amounts were realised from opium and drugs.

Coorg. Gross receipts from the excise on spirits and drugs in Coorg fell from 15,605 *l.* in 1879-80 to 14,610 *l.* in 1880-1. In the former year remission was granted to the *abhari* contractor on account of the losses he had sustained by high prices and short consumption during the famine; in the latter year a new contract was made, with a progressive rate of payment, beginning at 14,500 *l.* and increasing by three yearly increments to 15,500 *l.*

Madras. The excise revenue collections in the Madras Presidency advanced from 619,832 *l.* in 1879-80 to 627,888 *l.* in 1880-1. There was a considerable reduction in the realisations from licence fees and farmers' rents; but this was nearly met by an increase in the duty on opium consumed. The Opium Act I of 1878 was extended to the Presidency from 1 July 1880.

Bombay. No change was made during the year 1880-1 in the law regarding the levy of excise duties in the Bombay Presidency; but the efficiency of the newly constituted department for collecting the revenue continued steadily to improve. Receipts credited under the head of excise advanced from 501,558 *l.* in 1879-80 to 549,839 *l.* in 1880-1. The improvement in the revenue was due to better prices obtained for licences at Bombay, to the revenue of liquor-shops in certain villages being credited to excise instead of as formerly to land revenue, to the establishment of more liquor shops, to brisker biddings at auctions, to more efficient measures having been taken to prevent smuggling, and to the assumption by the Government of the *abhari* administration of the native state of Jawhar. Country spirit is distilled in the largest amount from the flower of the mahua or mowra tree (*Bassia latifolia*); it is also distilled from grain, molasses, the juice of palm-trees, and certain barks.

SALT. With regard to the revenue derived from salt the actual situation in 1880-1 was as follows. A duty of *Rs.* 2. 8. a maund of 82½ lb. was levied all over British India, except on salt imported by sea into, or manufactured in, Bengal, and on salt consumed in the trans-Indus districts of the Punjab and in Burma. In Bengal the tax was *Rs.* 2. 14. a maund. In the trans-Indus districts of the Punjab, where the salt consumed is produced at the Kohat mines, a duty varying from 2½ to 4 annas a maund was levied. A preventive line extended for some 320 miles along the Indus. In Burma the duty was only 3 annas a maund. The aggregate salt revenue collections fell from 7,266,413 *l.* in 1879-80 to 7,115,988 *l.* in 1880-1, while the expenditure rose from 340,687 *l.* to 363,537 *l.* Thus the net revenue decreased from 6,925,726 *l.* to 6,725,451 *l.* For the decennial period ending with 1880-1 the annual net salt revenue averaged 6,030,369 *l.* It was estimated that the annual average consumption of licit salt in the principal provinces of India per head of the population had been 12 lb. in Madras, 10 lb. in Bombay, 9½ lb. in Bengal, 7½ lb. in the Punjab, 6 lb. in the North-Western Provinces and Oudh, and 5 lb. in Sind. The people of Northern India, both by reason of the climatic influences to which they are exposed, and

of

(1) Figures given in Administration Report.

of the fact that their staple food consists of wheat and pulses, require less SALT. salt than those of Southern India.

In Bengal the improvement in the salt revenue that took place in 1879-80 was not maintained in 1880-1, and the aggregate collections fell from 2,473,995 *l.* to 2,398,243 *l.* Of the total amount of salt imported 77.75 per cent. came from the United Kingdom, 13.04 per cent. from the Arabian and Persian Gulf, 6.69 per cent. from Bombay, and the remainder from Italy, Spain, France, and Madras. Spain appeared for the first time for six years in the list of countries exporting salt to India. The manufacture of excise salt, which in 1879-80 shewed a falling off, rose again in 1880-1, all the salt-producing districts except Cuttack exhibiting a very large increase.

The quantity of salt delivered from the Mayo Mines in the Punjab and Punjab. carried by rail was 811,583 maunds in 1880-1.

Formerly a good deal of salt was made on the coast of Burma and at the brine wells in the kingdom of Ava; but European salt has been coming more and more into general use. In 1880-1 the amount of salt locally manufactured was 8,562 tons, and of imported salt was 56,434 tons. Of the imported salt 20,294 tons were carried by the Irrawaddy flotilla steamers into Upper Burma and to Bamo on the confines of China. The salt revenue collections rose from 20,399 *l.* in 1872-80 to 23,473 *l.* in 1880-1.

The revenue derived from salt pans worked in Mysore rose from 1,136 *l.* in 1879-80 to 2,336 *l.* in 1880-1. This large increase was due to the discontinuance of the practice of farming out the manufacture of earth salt, and in its stead issuing licences for each pan worked at rates varying from 1 anna to *Rs.* 5 per pan. Restrictive measures have been imposed on the manufacture in the province within a five mile radius of British territory.

There was a slight decline in the gross salt collections of the Madras Presidency from 1,573,338 *l.* in 1879-80 to 1,564,336 *l.* in 1880-1. This decline was not in any way caused by a diminution in the amount consumed by the people. Proposals were submitted for the complete reorganisation of the salt department, including the establishment of a properly-paid departmental preventive force on the model of the inland customs' department in the North-Western Provinces and Oudh, for the protection of the salt revenue in the interior and in the swamps and saliferous tracts along the coast.

The gross collections on account of salt in the Bombay Presidency rose from 1,482,932 *l.* in 1879-80 to 1,500,205 *l.* in 1880-1. The quantity of salt manufactured increased considerably, an unusually small amount having been manufactured in the previous year, owing to the cyclone in May 1879. Consequent on small outturns in the seasons of 1879 and 1880, the stock of the large-crystalled salt manufactured at Kharaghora became completely exhausted. Cases of smuggling increased. The principal features of the year were the abolition of the Goa and Daman frontier lines, the closing of the salt-works in the Savantvadi state on payment of compensation, and the working for the first complete year of the commercial treaty with Portugal, under which the duty on Portuguese salt was levied at the works and not at the place of import.

Stamp revenue collections for the whole of British India rose from 3,193,739 *l.* in 1879-80 to 3,250,581 *l.* in 1880-1. Of the latter amount about two-thirds was realised from the sale of court fee stamps and the remaining one-third from the sale of commercial and other stamps. Refunds were made to the amount of 34,158 *l.* and the charges of collection were 107,465 *l.*, so that the true net stamp revenue was 3,108,958 *l.*

In Bengal the most important change of system during 1880-1 in connexion with the stamp revenue was the extension throughout the province of a scheme previously tried with success in the district of the 24-Pergunnahs, under which fees for the preparation of judicial documents are realised by means of impressed stamps instead of in cash. The aggregate collections fell from 1,149,921 *l.* in 1879-80 to 1,139,164 *l.*, and the decrease was entirely under the head of non-judicial stamps, the sales of which during the year 1879-80 had been abnormally increased on the passing of the new law of limitation, while during the year 1880-1 they were much reduced by reason of the abundant harvest, which caused a general improvement in the circumstances of the

SALT.	agricultural classes, and thus lessened the number of loan transactions throughout the country.
Assam.	In Assam the aggregate stamp revenue collections rose from 61,941 <i>l.</i> in 1879-80 to 62,249 <i>l.</i> in 1880-1. There was a falling-off in the revenue from non-judicial stamps due to diminished sales in Sylhet and Cachar, where the low price of rice and the cessation of its export produced a scarcity of money. Judicial stamps gave a small increase of revenue, but there was a falling-off in the amount realised from court-fees in Sylhet.
N. W. Provinces and Oudh.	Taking both classes of stamps together, the receipts both in the North-Western Provinces and in Oudh were larger during the year 1880-1 than in any previous year. The aggregate collections rose from 494,946 <i>l.</i> in 1879-80 to 535,570 <i>l.</i> in 1880-1. A very satisfactory increase occurred in the sale of one-anna adhesive stamps, notwithstanding the extension of the money-order system and some changes in the law that tended to restrict their use. Two causes operated to increase the receipts from court-fee stamps in the North-Western Provinces, namely, the enhanced rates of process fees introduced in the civil courts about June 1880, and the collection for the first time in stamps of the fees for civil court amins. In Oudh process fees were reduced rather than enhanced, but litigation was stimulated by the new organisation of the civil courts, and there was an increase of the revenue from court-fee stamps in all but one of the districts.
Punjab.	During the year 1880-1 there was an increase of 26,912 <i>l.</i> in the stamp revenue collections of the Punjab, namely, from 299,614 <i>l.</i> in 1879-80 to 326,526 <i>l.</i> The income had been fast increasing for some years, and gave hope of continued advancement in the future. Sales of all classes of stamps increased, but those of court-fee stamps most largely contributed to the favorable result; the increase under commercial stamps was attributed to the general prosperity of the country, the impetus given to trade by the extension of railways, and the late Afghan war.
Central Provinces.	The income from stamps in the Central Provinces declined during the year 1880-1, the aggregate collections falling from 119,185 <i>l.</i> in 1879-80 to 113,505 <i>l.</i> The diminution of income was evenly shared by the judicial and the non-judicial classes of stamps, but no sufficient explanation has been afforded of the causes which brought about these results.
British Burma.	In British Burma the stamp revenue has increased greatly since 1871, but during the years 1879-80 and 1880-1, when the respective collections were 78,090 <i>l.</i> and 78,456 <i>l.</i> , it was nearly stationary. The decrease in civil litigation partly accounts for this; the absence of general indebtedness among the people explains to some extent the comparatively limited demand for deed stamps. It was hoped that the measures taken during the year 1880-1 to increase the number of stamp vendors and to enhance the discount allowed, and the opening of new registration offices, would lead to a more general use of stamped documents. So far as could be ascertained, there was no cause for suspecting systematic evasion of the stamp laws.
Ajmere.	A decline occurred during the year 1880-1 in the stamp revenue of the Ajmere and Mbairwara Districts, the aggregate collections falling from (1) 18,870 <i>l.</i> in 1879-80 to (1) 16,751 <i>l.</i> The sales decreased under nearly every head. Bills of exchange have been somewhat superseded by money orders, which have become more popular since their transfer to the Post Office.
Berar.	There was a fall in the aggregate stamp revenue collections of Berar from (1) 54,645 <i>l.</i> in 1879-80 to (1) 52,440 <i>l.</i> in 1880-1. In both classes of stamps there was a decline, the sales of the commercial stamps being lessened by the character of the season, which was generally favorable, while the fall in court-fee labels was due to fluctuations in litigation.
Mysore.	The stamp revenue of Mysore decreased from 50,644 <i>l.</i> in 1879-80 to 46,788 <i>l.</i> in 1880-1; the falling-off was chiefly in the sale of court-fee stamps and labels, and was due to a decrease of litigation resulting from a diminution in dealings on bonds and in banking transactions, while in the Kolar district the downward tendency of the stamp revenue was due to a slackness in all kinds of business and the failure of all the native banks, partly from mismanagement and partly from the reduced circumstances of the people after the famine.

Stamp

(1) Figures taken from Administration Report.

Stamp revenue collections in Coorg declined from 6,717 *l.* in 1879-80 to 6,523 *l.* in 1880-1. STAMPS.
Coorg.

An increase continued during 1880-1 in the collections from stamps in the Madras Presidency, the aggregate receipts rising from 534,603 *l.* in 1879-80 to 546,991 *l.* in 1880-1. The increase occurred chiefly in the districts of Madras, Madura, Vizagapatam, and the Nilgiris, and was due to increased litigation and to the larger number of transactions in Madras and the Nilgiris in connexion with gold-mining. Madras.

During 1880-1 there was a net decrease of 4,549 *l.* in the receipts of stamp revenue in the Bombay Presidency, chiefly caused by less litigation in consequence of local depressions of trade and the introduction of the Deccan Agriculturists Relief Act. The total gross receipts were 421,536 *l.* against 426,085 *l.* in the previous year. Bombay.

Under the heading of assessed taxes in the Finance and Revenue Accounts are entered the licence taxes imposed in Bengal, the North-Western Provinces and Oudh, the Punjab, Madras, and Bombay, and also the *pandhri* tax on traders in the Central Provinces. During the autumn of 1880 the opinions of the several local administrations were requested as to the desirableness of maintaining the licence tax. The Government of Madras considered that the tax, though suitable for municipal purposes, was objectionable as an imperial resource, owing to the defective nature of the staff available in the rural districts for its assessment and collection. The Government of Bombay preferred another form of direct taxation to the licence tax. With these exceptions there was unanimity of opinion on the following points: (1) that the doubt and uncertainty produced in the minds of the people by frequent changes in the modes of taxation were greater evils than the taxes themselves, and that, therefore, any change was much to be deprecated; (2) that any objections which originally existed on account of the pressure of the licence tax on the poorer classes had been met by raising the minimum assessable income to *Rs.* 500; (3) that the people were becoming accustomed to the tax, and that the method of its assessment and collection had been much improved. LICENCE TAXES.

Including the *pandhri* tax in the Central Provinces, the licence taxes in British India produced a net revenue, after deduction of refunds and charges of collection, of 506,857 *l.* during the year 1880-1, as compared with 696,651 *l.* in the preceding year. There were several inequalities in the incidence of the taxation in the several provinces. Excepting in the Madras Presidency, a summary licence tax was levied throughout the greater part of British India. In Madras the tax approached in some respects nearest to an income tax. Excepting in the Bombay Presidency, the maximum fee leviable was *Rs.* 500. In Bombay it was *Rs.* 200. In the North-Western Provinces and Oudh and in the Punjab there were two classes, subdivided into eight grades. In Bengal there were six classes. In Madras there were eight classes. In Bombay there were eleven classes. In Assam and British Burma the tax was not levied at all.

In Bengal the licence tax was during 1880-1 administered under a new Bengal. (¹) Act, by which measure the tax was made uniform throughout the country; all incomes below *Rs.* 500 a year were exempted, and assesseees were absolved from the liability to take out more than one licence, however many places of business they might have. The relief thus afforded to the poorer classes of persons under the former Act was very marked, the number of assesseees in the lowest class being reduced from 115,946 to 49,379. The total number of persons assessed was 88,899, of whom 15,877 were exempted on objection and 1,466 on appeal; the number actually required to take out licences was therefore 71,556. After deduction of refunds the receipts amounted to 156,812 *l.*, while charges of collection were 16,840 *l.*

In the North-Western Provinces and Oudh the discontinuance of taxation of persons with incomes not exceeding *Rs.* 500 per annum, reduced by 71 per cent. the total number of assesseees, and also diminished the yield of the tax by about 24 per cent. of the average yield during the two preceding years. Altogether 49,850 persons were licensed in the united provinces. With very few exceptions, the tax was collected without any difficulty or much resort to coercion. N. W. Provinces
and Oudh.

(¹) Bengal Act II of 1880.

30 STATEMENT EXHIBITING THE MORAL AND MATERIAL

LICENCE TAXES. coercion. After deduction of refunds the net receipts were 120,329 l., while the cost of collection was 695 l.

Punjab. The Punjab was during 1880-1 under the same system of licence taxation as was in force in the North-Western Provinces and Oudh. By the abolition of the third-class of assesses, the number of persons taxed decreased from 303,556 in 1879-80 to 25,498 in 1880-1. Thus 91½ per cent. of the persons taxed in the former year escaped taxation, and, whereas formerly one person in every 60 of the population had to contribute to the tax, in 1880-1 only one person in 754 had to pay. After deduction of refunds the net receipts were 45,040 l., while the cost of collection was 208 l.

Central Provinces. The *pandhri* is a tax on traders and artisans, which has descended from the time of the Maratha rule and is familiar to the people of the Central Provinces. It is on this account retained, and takes the place which in other provinces is taken by licence Acts. During the year 1880-1 the limit of exemption was raised, and the taxable minimum of income was fixed at Rs. 250. There was a decrease from 50,572 to 24,984 in the number of persons assessed. After deduction of refunds the net receipts were 24,916 l., while the cost of collection was 37 l.

Madras. The amendments effected by the (1) Acts of the Governments of India and Madras in the system of licence taxation in the Madras Presidency came into force at the beginning of the year 1880-1, and resulted in a diminution of the receipts after deducting refunds from 78,767 l. in 1879-80 to 50,034 l., while the charges of collection fell from 4,828 l. to 987 l., owing principally to the abolition of the special establishments entertained in the districts for the purpose, and to the reduced amount of commission allowed to municipalities consequent on the exemption of incomes below Rs. 500, under which the largest number of assessments had formerly been made. Great relief appears to have been afforded to the poorer classes, and there was no difficulty in working the Act.

Bombay. Under the (2) Acts in force in the Bombay Presidency during 1880-1 the total gross revenue realised from fees on traders, dealings and industries was 138,559 l., and refunds were made to the amount of 7,604 l., bringing the net receipts to 130,955 l., while the cost of collection was 2,470 l. The total number of assessments did not much exceed 50,000; whereas in the preceding year they were 402,199. The difference represents the number of persons formerly assessed to the tax with incomes under Rs. 500. Financially, in comparison with the figures of the previous year, there was a diminution in the net revenue of 98,405 l. No particular difficulty occurred during the two last years in the collection of the assessment.

(1) Act VI of 1880, and Madras Act III of 1880.

(2) Bombay Act III of 1878 and India Act VI of 1880.

IV.

LAND ADMINISTRATION.

THE fourth report, that for the year 1880-1, of the amalgamated Department of the Survey of India deals with the work of the Trigonometrical, Topographical, and Cadastral Survey parties, with geographical and miscellaneous operations, and with the work of the head-quarter offices at Calcutta and Dehra Dûn. SURVEY OF INDIA.

The principal triangulation of all India was brought to a close during the year under review by the completion of the Northern Section of the Eastern Sind Meridional series. Outside the limits of India Proper a chain of triangles, known as the Eastern Frontier series, was very nearly completed. *Trigonometrical Surveys.*

Thirteen separate parties were engaged in topographical work in connexion with previously projected surveys. Of these three parties were employed in Rajputana and Central India, four in the Bombay Presidency, and the remaining six in various parts of other provinces. The first three parties were working nearly parallel to each other from east to west across the breadth of Central India and Rajputana. The most northerly party had advanced in its survey of Rajputana to the sandy deserts of Jeesulmir, and so devoid is the country of topographical features that a scale of $\frac{1}{4}$ -inch to the mile was considered sufficient. South of this party a second was engaged on the survey of the petty Central India States lying around Mount Aboo. The third and most southerly party had advanced out of Bhopal and Malwa, where it first broke ground in 1870, into Rutlam and Banswara. Over 24,000 square miles of country had already been surveyed by this party, and some 4,000 miles remained before the frontiers of Gujarat would be reached. In a very few years the topographical survey of the whole of Central India and Rajputana, from the Central Provinces on the east to the Punjab and Sind on the west, will be completed, and accurate maps will be available of this comparatively unknown and difficult country. *Topographical Surveys.*

Of the four parties employed in the Bombay Presidency, one was in Gujarat, a second in Khandesh, and two others in the Deccan and in the Concan respectively. The Gujarat party had completed the survey of 14,300 square miles, and had 16,700 more to do. This survey, like the other topographical surveys in the Presidency, was being made chiefly on the 2-inch scale, and mapped both on the 2-inch and on the reduced 1-inch scale. Specimens of the Gujarat maps were exhibited at the Venice Geographical Congress, and obtained the honorable reward of a gold medal. In this survey much of the topographical details were taken from the field maps of the Bombay Revenue Survey. The economy of this is obvious, and the more recent work done by the Survey Settlement Department of the Presidency approaches in its accuracy a scientific survey. In Khandesh the survey was approaching completion, as only 2,650 square miles remained unsurveyed at the close of the season. The Deccan party was chiefly engaged in the survey of the Kaladgi District and the adjoining Native States of the Satara District. The northern half of the Deccan has now been topographically surveyed, and the second party which was formerly employed there was, during the year under review, engaged on the survey of the Concan. Good progress was made by all the four survey parties in the Presidency, though in the Concan the difficult nature of the ground made the outturn relatively small. Topographical surveys were also prosecuted in Kohat and Baluchistan, Cutch, the North-Western Provinces, Sylhet and Mysore. The two former are important from a military point of view. In Baluchistan the party surveyed and mapped several thousand miles of the country north of Quetta and between Quetta and Khelat. These surveys were on the half and quarter inch scales. In Kohat the smallness of the party employed told against the outturn of work for the year. The operations of the Sylhet and Cutch parties do not require particular remark. In Mysore the topographical survey of the province was being pushed on as fast as circumstances would permit; 12,754 miles had

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INDIA.

had been surveyed on the 1-inch scale, and 17,800 miles remained to be done, but most of this latter area had been triangulated in advance. The party in the North-Western Provinces was employed on the topographical survey on the 2-inch scale of the Gangetic Doab. For this survey the boundaries of villages were being ascertained from the Revenue Settlement maps.

Village Surveys.

The one *mauzawar* or revenue survey party, which was employed in the Punjab, completed the survey of Dera Ismail Khan on the 4-inch scale, and also surveyed some small forest areas in the Rawalpindi District. It may be noticed that the term "revenue-survey" as applied to the 4-inch surveys, which has now been practically completed in the Punjab, is a misnomer. It has no immediate connexion with the land-revenue administration or the assessment of revenue, and where settlements are in progress a separate field-to-field survey is made by Provincial survey parties under the Settlement Department. The latter, it is true, are able to utilise the topographical information and fixed points of the Imperial "revenue-survey" maps, but beyond this can derive but little assistance from them.

Cadastral Surveys.

Cadastral or field-survey operations were vigorously prosecuted in the North-Western Provinces and in British Burma. Of the three parties employed in the former province one completed the survey of the Jaunpur District; the second made good progress in Mirzapur; and the third completed the districts of Ghazipur and Ballia with the exception of 858 square miles. The survey of the permanently-settled portion of the North-Western Provinces was thus rapidly approaching completion. In British Burma three parties were at work in connexion with the revision of the land assessment of the province. The largest outturn, 786 miles, surveyed on the 16-inch scale, was attained by the party employed in the Hanthawaddy District. In Bassein progress was impeded by heavy jungle and the scattered character of the cultivation. In the Tharawaddy District the party was a newly-formed one, which began work late in the season, and the outturn was therefore only 461 square miles.

Afghan Surveys.

Geographical knowledge in Afghanistan was extended by the surveys made in Waziristan in connexion with the Waziri expedition. Kandahar and the surrounding country was also surveyed. No less than 39,500 square miles of Afghanistan have been surveyed in more or less detail since the British occupation in 1879. The great services rendered to the army by the Survey Department have been frequently acknowledged by military authorities.

Tidal Operations.

The tidal operations of the Department consist of the registration of tides at 14 ports in India, Burma, and the Andamans. The observations taken at the several stations are reported to the Superintendent in charge of the operations, and furnish the basis of subsequent calculations. The instruments employed were exhibited at the Venice Congress, and obtained a 1st class medal.

Spirit-levelling Operations.

The attempt to connect the mean sea levels of Madras and Bombay by a line of spirit levels carried directly across the Peninsula, was disappointing. The result makes the mean sea level about three feet higher in Madras than Bombay, and the difference is considered to be due to some flaw in the levelling operations.

Maps, &c.

There remain for notice the mapping and other scientific work done during the year in the head-quarter offices of the Department. The issue of a new map of India on the scale of 1-inch to 32 miles was perhaps the most important performance in the map department. It has deservedly been appreciated by the general public for its clearness and fulness of detail. A map of Southern Afghanistan in four sheets, and many other important topographical maps, were also published. The work in connexion with the cadastral surveys was very heavy, as no less than 4,545 new maps were issued, most of them being executed by the photozincographic process.

Cost of Surveys.

The cost of the surveys executed by the Topographical Branch is not given. In this respect the details furnished for the Revenue Branch are more complete. The cost of the topographical work done in that Branch was Rs. 25 the square mile in the Deccan, Rs. 33 in the Concan, and Rs. 31 in the Meerut Division of the North-Western Provinces. There was a satisfactory decrease in the cost of the cadastral surveys; the party in Ghazipur were working at the low rate of Rs. 163 per square mile, and the party in Mirzapur at the still lower rate of Rs. 140. The Burma surveys are naturally more expensive, but the rate of Rs. 200 the mile to which the survey of the Hanthawaddy District had been reduced was considered extremely creditable. It is hoped that the cost of cadastral

* cadastral work may eventually be still further reduced, and the main objection to such surveys removed. The abolition of field-books has proved to be a most economical measure, and conclusive testimony has been supplied from British Burma, and the North-Western Provinces in favour of the present system of plotting the measurements direct on the maps. If this one reform has increased, as has been stated, the outturn of work by one-fourth, the extreme importance of simplifying methods of work, and of utilising existing agencies, is obvious.

SURVEY OF INDIA.

Up to the end of the year 1880-1 eighteen districts of the Madras Presidency had been taken up for survey; altogether 47,802 square miles of revenue survey and 42,000 square miles of topographical survey had been finished, leaving 13,733 square miles of cadastral survey, and 17,258 of topographical survey to be completed in those districts. During the year field parties were employed in ten districts, and the outturn in field demarcation and survey was 1,322 and 1,324 square miles respectively. The publication of maps was carried on as usual in the central office. The traverse work of the revenue survey was connected with 54 stations of the trigonometrical survey, and the comparison of distances shewed a mean error in traversing of 7.55 feet per mile. The total outlay of the Madras Revenue Survey Department during the year 1880-1 was 56,952 l.

MADRAS REVENUE SURVEY.

Thirty-eight parties were employed during 1880-1 on the revenue survey of the Bombay Presidency. The outturn comprised the measurement and classification of 3,416 square miles. Survey operations were in progress in the native states of Savantvadi, Bhor, Kolhapur, and the Southern Maratha Feudatories, the expenditure being defrayed by the respective states. The outlay of the Bombay Revenue Survey Department during 1880-1 was 59,571 l.

BOMBAY REVENUE SURVEY.

The city survey, which had been introduced into ten towns in the Presidency, was still not quite completed for Ahmedabad, Dharwar, and Hubli.

✓ The Statistical Survey of India, which was begun in 1869, was nearly completed in 1881. It was calculated that the District and Provincial accounts would form about 100 printed volumes, aggregating 36,000 pages. Ninety of the volumes had been issued up to the end of 1880-1. Materials were still being collected for the remaining volumes. *The Imperial Gazetteer of India*, which is an outcome of the Statistical Survey, was also nearly ready for publication.

STATISTICAL SURVEY.

On 17 February 1881 the first synchronous census was taken of the population of all India. Previous enumerations had been made at various times, according to special circumstance, in the several provinces, but the general census of 1881 was the first one that was conducted with uniformity of time and system. The information which was required to be recorded regarding each person was as follows: (1) name; (2) conjugal condition; (3) sex; (4) age; (5) religion and sect; (6) caste of Hindus; (7) mother tongue; (8) birthplace; (9) occupation; (10) education, whether literate, illiterate, or learning; (11) whether of unsound mind, or deaf mute, or blind, or a leper.

CENSUS.

With some few exceptions in particular localities, the plan was adopted of making at leisure some time before the date of the actual census a preliminary enumeration, so that on the night of 17th February all that each enumerator had to do was to visit every house in his block and ascertain who were present; he then struck out from his preliminary record the names of all persons absent, and added the names of new comers, with all the requisite details. The results of the entire census will not be fully known for some time, but the rough totals exhibit a population of about 199 millions in the territory under direct British administration, and a population of about 54 millions in the native states. The latter figures include estimates in several cases, the most noteworthy being those of Kashmir, Manipur and Sikkim.

Bengal has a total area of 194,069 square miles, of which 156,801 are under direct British Administration and 37,988 belong to native states. The demeanour of the people during the preliminary operations, as well as on the night of the census, was in most places all that could be desired, but in many places disquieting rumours as to the object in view were spread abroad, and in a few tracts of country there was a show of resistance to the taking of the census. In the Sonthal Pergunnahs, and in those parts of the neighbouring

Bengal.

CENSUS.

districts where Sonthals form a large proportion of the population, interested agitators seized the opportunity for a tribal demonstration. In the districts adjoining the Sonthal Pergunnahs the exertions of the district officers were sufficient to allay the irritation; but in the Sonthal Pergunnahs themselves, where the people were terrified by the rumours circulated among them, and were in a highly excited condition, it was thought advisable to dispense with the final nocturnal checking, and to march detachments of troops through the country. The preliminary figures that have been returned give the population of British territory as 66,530,127, and that of the native states as 2,653,492 (including an estimate of 50,000 for Sikkim), making a total of 69,183,610.

Assam.

Assam has a total area of 46,341 square miles. In the hill districts it was not found possible to carry out a synchronous census. In the Khasi and Jaintia Hills the whole population was counted, but the operations were spread over some time. In the Garo Hills selected villages were taken and fully enumerated, and the averages so ascertained were applied to the number of houses, which alone were counted in other villages. In the Naga Hills, and in the thinly-peopled and wild tracts in the east of the Lachimpur District, no census was taken at all, except of the civil and military population. The results of the enumeration give a total population for the province of 4,815,157, of whom 2,465,453 were males and 2,349,704 females. Making allowance for the areas not censused, the population of Assam cannot be less than five millions.

N. W. Provinces
and Oudh.

The North-Western Provinces contain an area of 86,873 square miles, of which 81,748 are under direct British administration and 5,125 belong to native states. Oudh contains an area of 24,213 square miles. Thus the area of the united provinces aggregates 111,086 square miles. The attitude of the people toward the census was generally one of indifference. In some few places disquieting rumours were spread, at which, however, the people themselves laughed afterwards. No proceedings under the Census Act were required to be instituted. The total population of the North-Western Provinces was found to be 32,720,128 in British territory, and 745,675 in native states, while for Oudh the total was 11,387,741. Thus the population of the united provinces amounted to 44,853,544. These figures shew an increase in Oudh of 1.67 per cent. since the census of 1867, and in the North-Western Provinces of 6.27 per cent. since the census of 1872, or of 5.4 per cent. on the whole country. There was found to be a remarkable increase of population in some of the districts of the Benares division, while in the upper districts where the effects of famine and fever had been most severely felt, the increase was little or none.

Punjab.

The Punjab contains an area of 211,968 square miles, of which 107,010 are under direct British administration and 104,958 belong to native states, the latter figures including 70,000 square miles as the estimated area of Kashmir. In the Punjab and its dependencies, with the exception of Kashmir, the same general scheme of operations was adopted for British and native territory. The feudatory chiefs took up the work with readiness, and carried it out most effectively. The returns gave the population of the territory under British administration as 18,850,437 souls, and the population of the native states, excluding Kashmir, as 3,852,360. If 1,000,000 be taken as an estimate of the population of Kashmir, the entire population of the Punjab would thus have been 23,702,797.

Central Provinces.

The Central Provinces have an area of 113,320 square miles, of which 84,208 are under direct British administration and 29,112 belong to native states. The rough totals of the census of 1881 gave the population of British territory at about 9,800,000 and that of the feudatory states as about 1,700,000. These figures furnish a complete proof of the total inaccuracy of the enumeration in 1872, which, if accepted, would shew an increase of 20 per cent. in the population of British territory, and an increase of 60 per cent. in the population of the feudatory states.

British Burma.

The report on the census of British Burma (area 87,220 square miles) is the only one of the large provincial reports that has yet been received from India. During the 8½ years that had elapsed since the previous census the population of the province had increased by 36 per cent., namely, from 2,747,148 to 3,736,771. Some part of the increase is due to immigration from India and from the kingdom of Ava, whence people are attracted by the fertile soil, the high wages, and the favorable land laws of British Burma. Altogether

541,743 of the inhabitants were born outside the limits of the province, and 316,018 of there were born in Upper Burma. But the main causes of the increase are probably the fecundity and healthiness of the population. Children under 12 years of age formed 33·6 per cent. of the population. The per-centage of males was 53·28, and of females 46·72 the surplus of men being mainly due to the large number of immigrant labourers. About 11 per cent. of the people dwelt in towns, and 68·56 per cent. lived by agriculture. With regard to religion, 87 per cent. returned themselves as Buddhists, 3·8 per cent. as worshippers of spirits, and 2·2 per cent. as Christians. According to the census returns 180,352 houses were built of timber and 531,963 houses of bamboos and thatch; only 2,358 masonry houses were returned for the whole province.

CENSUS.

The census returns of the Ajmere and Mhairwara Districts (area 2,711 square miles) shew a population of 460,722 souls, comprising 248,844 males and 211,878 females. At the previous census in 1876 the total number was 396,331, so that the percentage of increase was 16·25 in five years.

Ajmere.

In Berar (area 17,711 square miles) census figures of 1881, compared with those of 1867, exhibit an increase of 441,108 souls, or nearly 20 per cent., the population having risen in the fourteen years from 2,231,565 to 2,672,673, of which latter number 1,380,492 were males and 1,292,181 were females.

Berar.

Mysore has an area of 24,723 square miles. It was expected that the census of February 1881 would shew a considerable decrease of population as compared with the number recorded in November 1871. Starvation and disease had carried off an appalling number of people in the famine that lasted from 1876 to 1878, and the test census which was taken early in 1878 led the then Famine Commissioners to estimate the loss at 1,050,000 people. By the census of 1881 the actual total was 4,186,188, or 869,224 less than the total population enumerated in 1871.

Mysore.

For Coorg (area 1,583 square miles) the census of 1881 shewed a population of 178,302 souls, of whom 100,439 were males and 77,863 were females. During the past decade the population of the province had increased by about 6 per cent.

Coorg.

The Madras Presidency contains a total area of 150,248 square miles, of which 140,430 are in British territory and 9,818 belong to native states. The operations of the census of 1881 were on the whole satisfactory. It was synchronous throughout the Presidency except in some of the hill tracts, and was effected without any disturbance. The rough totals gave the population of the British territory as 30,839,181, and that of the native states as 3,336,365, thus making the aggregate population of the Presidency to have been 34,175,546 persons. As compared with the numbers enumerated at the previous census of 1871 there was found to be a decrease of about 2·4 per cent. in the population of the British territory, a large portion of which suffered so terribly from the great famine.

Madras.

Including Sind, the Bombay Presidency in 1880-1 contained an area of 191,737 square miles, of which 125,418 were under direct British administration and 66,319 belonged to native states. Except in forest districts, the census of 1881 was taken synchronously on the night of 17th February in British and native territory. The population of the British territory was found to amount to 16,454,414, shewing an increase of only 168,778, or 1·03 per cent. over the figures of the general census of February 1872. No complete figures have yet been received regarding the native states, but the rough totals gave an aggregate population of about 6,900,000 souls. Most of the states had increased in population, but several of them shewed decreases more or less considerable. Aden is also under the direct administration of the Government of Bombay; the settlement had in 1881 an area of 70 square miles, and a population of 34,860 souls.

Bombay.

According to the Finance and Revenue Accounts there was a decrease in the amount of the ordinary land revenue collected in British India from 21,861,150 *l.* in 1879-80, when a considerable amount of arrears was received, to 21,112,995 *l.* in 1880-1, when some remissions and postponements were granted. These totals are exclusive of the amount of land revenue credited to productive public works as being due to irrigation, namely, 602,398 *l.* in 1879-80, and 797,319 *l.* in 1880-1.

LAND REVENUE.

LAND REVENUE.
Bengal.

There was a small increase in the gross amount of the Bengal land revenue collections from 3,733,872 *l.* in 1879-80 to 3,751,808 *l.* in 1880-1. The number of estates on the revenue roll was 150,420, of which 140,007 were permanently settled, 7,670 were temporarily settled, 2,720 were Government estates, and 23 were ryotwari tracts. Some of the increase of revenue was due to the settlement operations in Midnapore and Julpigoree. In two of the temporarily settled estates of Midnapore resistance was offered by the ryots to the new rates, which came into force in September 1879, and which, though only contested in the civil court by 2,654 ryots out of 75,000, were practically repudiated by all the cultivators on the estates. As no case was given entirely in favour of the cultivators, and the vast majority of cases were decided in favour of the Government, the combination among the ryots has been completely broken, but the excitement caused by the litigation seemed likely to last for some time in the district. The gross amount collected in the whole of Bengal represented about 94 per cent. of the aggregate current and arrear demand.

Assam.

In Assam the gross amount of the land revenue collections declined from 383,017 *l.* in 1879-80 to 374,761 *l.* in 1880-1. The decrease was caused by the postponement till after the close of the year, in the case of certain estates in Sylhet, of the latest date of payment, a measure which was dictated by regard for the convenience of the revenue-payers, and a desire to avoid the excessive confusion which was the normal state of things at the Treasury when there was only one last day for the whole district. Permanently settled estates on the revenue roll numbered 50,184, and temporarily settled estates 499,737. Miscellaneous land revenue yielded 27,906 *l.* On the gross collections, towards the close of the year, there were some large arrears unpaid, on account of the royalties on elephants captured in the Assam valley, lime quarries in the Khasi Hills, fisheries in Sylhet and Cachar, and house-tax in the Naga and Garo Hills.

N. W. Provinces
and Oudh.

Under land revenue the gross collections in the North-Western Provinces and Oudh fell from 5,698,870 *l.* in 1879-80 to 5,593,703 *l.* in 1880-1, as shewn in the Finance and Revenue Accounts. An additional sum was credited in each year as revenue from productive public works, the amounts being 66,893 *l.* and 65,084 *l.* respectively. According to the figures given in the administration report relating to the revenue year ending 30 September 1880, the total land revenue collections in the North-Western Provinces under all heads, including cesses and *patwari* rate, were 5,452,671 *l.*, and the collections on account of the current demand were the largest on record. In Oudh the current revenue demand proper was 1,387,063 *l.*, of which 1,383,969 *l.* was collected.

Punjab.

Collections of land revenue in the Punjab fell from 2,018,914 *l.* in 1879-80 to 1,928,982 *l.* in 1880-1, while the amount of land revenue credited to productive public works as due to irrigation rose from 27,583 *l.* to 161,161 *l.*, the increase being chiefly a mere matter of account. Sir Robert Egerton doubted whether the land revenue would expand to a much greater extent, the whole of the province having now been brought under a regular settlement, and in most of the districts a revision of settlement having been made since the rise of prices set in which has marked the last twenty years.

Central Provinces.

The land revenue collections of the Central Provinces rose from 606,007 *l.* in 1879-80 to 609,292 *l.* in 1880-1, and the balance uncollected at the end of the year was inconsiderable. On the whole there is a steady tendency to a rise in the revenue demand, owing to an extension of cultivation under clearance leases and to the closer supervision and stricter assessment of patch cultivation in wild tracts.

British Burma.

In British Burma the gross amount of the collections classed under land revenue fell from 969,357 *l.* in 1879-80 to 899,100 *l.* in 1880-81. Of the latter amount the ordinary land revenue yielded 479,311 *l.*, the capitation tax yielded 289,544 *l.*, and fisheries and miscellaneous yielded 130,245 *l.* As the land revenue of the country, both according to ancient custom and according to recent law, represented an aliquot part of the gross produce, it followed that the revenue should not be collected in case the crop failed, and that in case of partial failure only part of the revenue would be paid, and it has recently been decided to adhere to this old practice. During 1880-1 the land revenue proper, notwithstanding a heavy fall in the price of rice, was collected without difficulty. The capitation tax is an old local impost, which under native rule to some extent took the place of the land tax; under present rules every adult married man, over the greater part of the province, pays *Rs.* 5 a year, and every unmarried

unmarried man Rs. 2. 8; men over 60 years of age, paupers, and Government servants are exempted. In municipal towns another impost, in lieu of capita- LAND REVENUE.
tion tax, is levied for municipal purposes. Most of the fishery revenue is yielded by taxes on inland fishing, and only a small portion by taxes on sea-fisheries and turtle-banks. About 3,000 l. is paid for the lease of sandbanks or islands whereon turtles lay their eggs; on one of the Bassein turtle-banks the take of eggs is sometimes as high as 200,000 in a single week.

In the Ajmere and the Mhairwara Districts the total land revenue collections rose from (1) 35,177 l. in 1879-80 to (1) 38,236 l. in 1880-1, and were made in full without any difficulty or resort to coercive measures. The increase was almost entirely under the head of miscellaneous receipts. Ajmere.

Notwithstanding the unfavourable character of the season in Berar, the land revenue was realised during 1880-1 with the usual facility. The collec- Berar.
tions amounted to (1) 632,264 l. or (1) 3,038 l. less than in the previous year, the decrease being chiefly in fluctuating collections of ordinary revenue.

Gross receipts from land revenue in Mysore amounted to (1) 721,335 l. in 1880-1 as compared with (1) 767,379 l. in the previous year, when large arrears were included. The receipts were still swelled by arrears, as the actual current demand fell from (1) 697,541 l. to (1) 693,113 l., chiefly owing to the decrease in the number of cultivators and to considerable losses of plough cattle by visitations of murrain. The net loss would have been heavier, but for a good fruit season and for a better revenue being derived from pasture lands, the grazing of which is annually put up to auction. Mysore.

Owing chiefly to relinquishment of unprofitable coffee estates, the gross receipts from land revenue in Coorg fell from (1) 37,616 l. in 1879-80 to (1) 35,329 l. in 1880-1. Coorg.

There was a decrease in the land revenue collections of the Madras Presidency from 4,465,629 l. in 1879-80 to 4,121,286 l. in 1880-1, but the amount credited under productive public works as due to irrigation rose from 483,859 l. to 552,160 l. The land revenue of the Presidency consists of (1) permanently-settled revenue paid by zemindars and muttadars, (2) shotriem jodi or quit-rents on villages held on inam or favorable tenure, (3) ryotwar or assessments paid by peasant proprietors on their holdings, and (4) miscellaneous revenue, consisting of quit-rents on minor inams, rents of islands situated in rivers, process service fees, grazing tax, &c. The latest report deals with the figures for the revenue year ending 30 June 1880. There were 729 permanently-settled estates, the amount of peishcush or tribute payable on them to the Government being 513,580 l. Villages paying favorable assessment numbered 3,764, the quit-rent on them amounting to 61,214 l. The aggregate ryotwar settlement, after deduction of both fixed and occasional remissions, was 3,545,714 l., or 13,236 l. more than the average for the five years previous to the famine. Miscellaneous revenue amounted to 425,003 l. Thus the total land revenue demand was 4,545,511 l. Including arrears the total realisable demand was 5,929,149 l., of which 4,677,739 l. was collected within the year. More coercion was used for the collection of arrears than in any of the preceding eight years, and personal and landed property was sold to the value of 131,018 l. Madras.

In the Bombay Presidency the collections of land revenue credited under that head fell from 3,900,729 l. in 1879-80 to 3,744,845 l. in 1880-1, and the amount credited under productive public works as due to irrigation from 24,063 l. to 18,914 l. As the last detailed accounts are for the revenue year ending 31 July 1881, the following are the principal facts relating to that period. Deducting that part of the land revenue derived from irrigation which is credited to productive public works, the total sum settled for collection was 3,238,668 l. of which 3,099,196 l. was on account of the current year and 139,472 l. on account of arrears outstanding from previous seasons. Altogether 3,125,952 l. was realised or written off, leaving an uncollected balance of 112,716 l. Bombay.

Estates under the charge of the Bengal revenue authorities in the year 1880-1 numbered 220, comprising 137 wards' estates and 83 attached estates. Wards' Estates.
Bengal.
The

(1) Figures given in Administration Report.

WARDS' ESTATES.

The aggregate current demand of rent from the tenants was about 520,000 £., while that of the Government revenue was about 178,000 £. The cost of management in wards' estates, including charges for survey and settlement and construction and repairs of official buildings, was 11 per cent. of the current demand of rent, while in attached estates it was only 6 per cent. The question of the best method of educating minors under the court of wards occupied the attention of Government during the year, with the result that it was decided to abolish the Wards' Institution at Calcutta as no longer required, now that district colleges and schools teach up to a higher standard than that usually reached by Government wards.

Assam.

Three wards' estates continued during 1880-1 under the management of the Assam revenue authorities. The owner of one had been rescued from a state of hopeless insolvency, and the other estates were making good progress.

N. W. Provinces and Oudh.

An important feature in the revenue administration of the country is the work performed by the court of wards, which in the North-Western Provinces had during 1880-1 charge of no less than 111 estates, the majority of which were the property of minors, but 25 estates belonged to persons who had sought the intervention of Government to save them from impending ruin and to extricate them from their burden of debts. The current rental demand of the various estates was 285,190 £. When management was assumed, the debts due on the estates amounted to 625,630 £., but this sum had been already reduced to 282,718 £. Sixty-six estates, with an annual rental of 291,757 £., were also under management in Oudh, either on behalf of the court of wards or under the provisions of the Act of 1870 for the relief of encumbered estates. The management of the court has been so successful, that numerous applications are made for estates to be taken over. Many old families have been preserved, and estates that were supposed to be hopelessly involved have been handed back to their owners free from debt, and often with large accumulated savings.

Punjab.

Thirty-six estates in the Punjab were during the year 1880-1 under the management of the court of wards, and three of these belonged to persons, not minors, who came under the court as incapable of managing their affairs. The aggregate income during the year was 58,309 £., which was much more than sufficient to defray the expenditure on account of Government revenue, management, the personal expenses and education of the wards, and other purposes, besides payments in liquidation of debt, while a large sum was invested in Government funds. On the important estate of the Nawab of Mamdot, considerable expenditure was incurred in excavating canals, sinking wells, and otherwise improving the land. The progress of the education of the minor wards was fairly satisfactory.

Central Provinces.

Forty-two estates in the Central Provinces remained under the court of wards at the end of the year 1880-1, two estates having been handed over to the proprietors who had attained their majority, while two more estates were brought under management during the year. The aggregate income of the estates was 42,108 £., and at the end of the year the balance to their credit was 24,978 £. The principle on which district officers are expected to administer the estates is that, while on the one hand they are not to be made a field for mere experiment in agriculture, legitimate expenditure on works which will directly and permanently benefit the property may be incurred with the caution and discrimination which would be used by a good landlord.

British Burma, Berar, Mysore, Coorg.

No estates in the provinces of British Burma, Berar, Mysore, and Coorg, were under the management of the court of wards during the year 1880-1.

Ajmere.

Seven estates in Ajmere were under management by the court of wards at the close of 1880-1, three estates having during the year been made over to their proprietors.

Madras.

In the Madras Presidency the accounts of the court of wards are made up for the year ending 30 June. During 1879-80 three estates were handed over to the proprietors, and four estates were newly taken under management, and the total number at the end of the year was 38. The estates made over had greatly improved while under the court; in the case of one of them the cash balance had risen from 3,394 £. to 22,868 £. Nearly 600,000 acres were under cultivation in the various estates. The gross income from all sources amounted to 286,607 £. The balances in hand, including accumulations of previous years, amounted at the end of the year to 493,713 £., of which 384,740 £.

was

was in Government securities. Ramnad, the largest estate, paid 7,313 *l.* of its debt, but still owed 145,838 *l.* at the close of the year. The minors under tuition continued on the whole to make satisfactory progress. WARDS' ESTATES.

In the Bombay Presidency during the year 1880-1 there was a decrease of five in the number of minors' estates administered by the collectors on behalf of their owners. There were 132 of these at the close of the year, and the balances to their credit aggregated 32,289 *l.*, of which 23,788 *l.* was invested in Government securities. Good progress was made during the year in the liquidation of claims against the estates of landholders in Gujarat, under the administration of the special officer appointed to carry out the two Encumbered Estates Acts applicable to that province. But in Kaira, in consequence of the low prices of produce, only 1,576 *l.* was paid out of a total debt of 31,237 *l.* The two officers appointed to administer the Sind Encumbered Estates Act had at the close of the year paid 69,916 *l.* in satisfaction of claims to the nominal amount of 90,956 *l.*, leaving claims to the extent of 79,004 *l.* to be settled. Bombay.

V.

AGRICULTURE.

SEASONS AND
CROPS.
Bengal.

IN Bengal the year 1880-1 was characterised by diminished temperature, and the humidity was slightly above the average. The rains were generally abundant until the middle of October, and the remaining months of the year were unusually cool. With the exception of two or three districts, in which only an average rice crop was obtained, the principal harvests of the year 1880-1 were exceptionally good, and the result was a great fall in the prices of food-grains throughout the country. In most of the districts of eastern Bengal the crops were the best that had been obtained for many years past. In nearly every division there were districts which yielded bumper crops, and in parts of the Serajgunge subdivision the early rice crop was so heavy that a portion of it is reported to have been lost for want of labour at reaping time. The non-agricultural population and, most of all, the labouring classes benefited from the abundant crops and low prices; and although in many districts the cultivators were dissatisfied with the prices they obtained there is no doubt that they, too, generally gained more by the abundance of the harvest than they lost by the fall in prices. Even in Orissa, where a certain amount of local damage was caused by floods, the year was an exceptionally favorable one, and there was a marked improvement in the material condition of the people.

Assam.

The year 1880 was one of less than average rainfall in both the Assam Valley and the Surma Valley. When compared with 1879, the deficiency was the more marked, as that year was much above the average in its amount of rain. Fortunately the rain was well distributed throughout the year, and the great rice crop was almost everywhere a bumper one. Prices were thus lowered in Assam Proper, while in Sylhet and Cachar, the former of which is ordinarily an exporting tract, the fall was most sudden, owing to the abundant harvests in the adjacent districts of Bengal, which entirely stopped the exit of grain from the Surma Valley. This superabundance of food, in a purely agricultural community, who depend on the sale of their surplus rice for the means of paying rent and of satisfying their other wants, naturally produced some embarrassment; but it was hoped that the ultimate effect would be a permanent fall in wages, as the want of cheap labour is the great difficulty of administration in the province.

N.W. Provinces
and Oudh.

In spite of the terrible fever epidemic which during the previous autumn had prostrated the people of the North-Western Provinces and prevented them from fully preparing the ground for the spring crop, the heavy and late rains brought the ground into such admirable condition for sowing, and so facilitated artificial irrigation, that in the spring of 1880 the entire country was one vast plain of luxuriant wheat and barley crops. A sudden incursion of millions of field rats during the harvest caused some anxiety, and, owing to the apathy of the people, the injury done was in many cases considerable. Prompt measures were taken by Government to meet the evil, and on the whole the damage was less than had been anticipated. Oudh suffered in the same way as the North-Western Provinces from the retarding of the sowings for the spring crop, but a copious and well-distributed rainfall gave an excellent harvest. The total rainfall of 1880 was very much below the average in most parts of the united provinces, and less than half the average for several large divisions. At one time serious apprehensions were entertained of the entire failure of the autumn harvest, but a timely fall of rain in September averted the peril. By the end of 1880-1 the ill-effects of successive seasons of drought and disaster had to a great extent disappeared, prices had fallen to a more normal level, and stocks of food had been replenished.

Punjab.

In the Punjab the harvests of the year 1880-1 were rather below the average. The spring crop of 1880 suffered from deficient rainfall, especially in the frontier

frontier districts. The rainy season set in most favourably, and the area under the autumn crop was larger than had ever been known. But for a partial failure of the rains later on in the season, which caused some injury to the crops in certain divisions, there would have been an abundant harvest. The spring sowings were less than usual, owing to the failure of late autumnal rains, but a few showers afterwards revived prospects. The high prices which had prevailed for some years in the Punjab, coupled with the absence of any long-continued drought or failure of crops, are said to have resulted in a marked improvement of the agricultural classes.

SEASONS AND CROPS.

In the Central Provinces the characteristics of the season of 1880-1 were that, with partial exception in a few districts, the rainfall was favorable to all crops, and that abundant harvests were everywhere reaped. As there was no demand made from without that could not be easily met, the prices of all the staple grains were reduced, in some instances by as much as 50 per cent. These easy prices were a boon to all non-agriculturists, while the agricultural classes sufficiently profited by the general good outturn of their crops.

Central Provinces.

The rainy season of 1880-1 was favorable in British Burma, and the rainfall was as usual bountiful. Inundations were higher and wider than usual, and some breaches of river embankments caused much damage. There was a cessation of rain for the most part soon after the middle of September. This was very good for the low-lying lands, which consequently yielded bumper crops. But on the higher lands and in a great part of Arakan the rice crop was from 10 to 20 per cent. below the average. Efforts were continued to induce the tribes, who chiefly carry on the primitive, mischievous system of crop-raising, known as *toungya* cultivation, to turn their attention to more civilised methods. About 61,000 persons were engaged as *toungya* cultivators, but the area subjected to this class of cultivation was believed to be on the decline.

British Burma.

On the whole the rainfall during 1880-1 was deficient in the Ajmere and Mhairwara Districts, and the crops generally were below the outturn of an average year. Upwards of 15,000 acres, which had been cultivated in the previous year, lay fallow. Prices, however, remained low, and there was consequently no distress among the people.

Ajmere.

In Berar the monsoon of 1880 was of a somewhat abnormal character. It did not begin till much later than usual, and for some time there were apprehensions of a scarcity. But the later rains were very copious, and the results were not so disastrous as had been anticipated. Though in some places the autumn harvest was an almost total failure, in others it was quite up to the average, while the spring crops of 1881 were generally very good. Owing to the late rains in November, *jowari* (*Holcus sorghum* or great millet), the staple food grain of Berar became unfit for storage in the village granaries, and large quantities were all at once thrown upon the market for immediate consumption, thereby greatly reducing its selling price, and causing a fall in the prices of all other food-grains.

Berar.

The season of 1880-1 was on the whole very favorable in Mysore, the rainfall having been copious and well distributed, with the exception of one excessive fall at the end of November, which did considerable damage to the standing crops, especially *ragi* (*Eleusine coracana*). This important millet crop was just being harvested, and much of the grain was washed out of the ear or rotted. However, the outturn of the crops was much above the average. Kolar was the only district that did not fully share in the propitious season.

Mysore.

In Coorg the rainfall of 1880 was copious, but protracted dry weather afterwards did harm to all staple crops of the province. The autumn rice crop was injured by excessive moisture; coffee and cardamoms suffered from drought at a time when rain was essential to set the blossom. Prices of food-grains were favorable to the employer of labour, and cheapness assisted in bringing small cultivators from Mysore to work on the coffee estates.

Coorg.

The rainfall of 1880-1 in the Madras Presidency was above the average of the six years previous to the famine, but the distribution was uneven. The south-west monsoon was deficient in many districts, and the north-east monsoon, though heavier than usual, was not steady. In November a cyclonic storm and heavy rains did serious injury in the districts of South Arcot,

Madras.

SEASONS AND
CROPS.

Tanjore, Trichinopoly, Tinnevely, Coimbatore, and Salem. On the whole the seasons of 1880-1 were unfavorable, though not positively adverse: The area cultivated in zemindaries is not known, but that cultivated in ryotwari and inam lands was more extensive than during the previous year. Still the area of cultivation in the ryotwari lands was below the average for the five years previous to the famine, the decrease being most marked in the districts which then most severely suffered. The outturn of the crops for the whole Presidency was estimated at five-sixths of an average crop for wet grains and at two-thirds of an average crop for dry grains. There was a considerable fall in prices, those of the principal millets reverting to the rates obtaining before the famine, while those of rice and paddy were only slightly in excess of them. The markets generally were well supplied.

Bombay.

In the Bombay Presidency the year 1880-1 was generally a very prosperous one. The rainfall, it is true, was below the average in almost every district except those of Northern Gujarat, and was characterised by a more than ordinarily long interval between the first and second periods of heavy rainfall, which proved somewhat injurious to the early crops. But the later rains were so well timed and so abundant that the spring crops were in many places the best that had been known for years, and with some very trifling exceptions they were nowhere below the average. The general prosperity of the season is shewn by the fact that the prices of almost every important kind of cereal fell throughout the Presidency. The fall in prices was most marked in the various kinds of millet, which constitute the chief food of the poorer classes.

HORTICULTURE,
EXPERIMENTAL
FARMS, &c.
Bengal.

Considerable improvements were effected during the year 1880-1 in the Calcutta botanical garden. The herbarium received many valuable contributions from officers and private gentlemen both in India and in other countries, and as the present building is too small for the collection, it was intended to provide a new herbarium on the general model of that at Kew. The curator of the garden examined during the year a number of grasses that grow on the banks of the Adjai, Damuda, and Bramaputra, with a view to test their capability of yielding a paper fibre, and it was found that the cost of collection and freight of the only parts that could be utilised would be so high as to prevent their transport to Europe from being commercially successful. So far as the manufacture of paper is concerned the plantain appears to be the best of the fibre-producing plants of India, and the Government of Bengal has expressed its readiness to assist any mercantile firm or private persons wishing to try experiments, by supplying them with wild plantain stems free of cost at the outset of the experiment, and afterwards at reasonable rates.

Assam.

Nothing of importance occurred in Assam during the year 1880-1 in the way of horticultural experiments.

N. W. Provinces
and Oudh.

A steam plough was during the year 1880-1 imported from England by the Government of the North-Western Provinces and Oudh, for the purpose of eradicating *kans* grass, and proved completely successful. Reh experiments were also continued. The horticultural garden in Lucknow and the botanical gardens at Saharanpur were maintained in a high state of efficiency, and did valuable work in the distribution of plants and flowers, in experiments with new species and in the improvement of indigenous kinds. The production of vegetable drugs for the medical department was begun, and promised to effect a great saving of expense. Apples, pears, apricots, peaches, plums, and other varieties of English fruit were being acclimatised in Kumaun with complete success, and in a few years a very large supply will probably find its way into the markets, more especially if rapid communication can be established with the plains. Experiments with manures, new staples and improved implements were steadily pursued on the Government farm at Cawnpore, though the deficient rainfall rendered the year an unfavorable one for agricultural operations. An improved plough on the English principle which could be brought within the reach of the native cultivator, and the most economical form of waterlifts, were engaging particular attention. The superiority of deep ploughing over the ordinary method having been demonstrated beyond doubt, steps were being taken for introducing this and similar improvements on estates under the court of wards.

Much

Much valuable co-operation was beginning to be received from some of the large landed proprietors whose sympathies and interest had been awakened in the objects which the department of agriculture and commerce was designed to promote. Arboriculture is now undertaken on a systematic and organised plan in every district, each having its own assignment to meet the outlay incurred. Nearly 4,000 l. was expended during the year in planting avenues along the roadsides and in forming nurseries and plantations. Every endeavour was being made to induce influential zemindars and landowners to come forward and assist in a work of such enduring benefit, which the indiscriminate destruction of groves and trees in the past had begun to make an actual necessity.

HORTICULTURE,
EXPERIMENTAL
FARMS, &c.

Most of the experiments conducted in the Punjab during the year 1880-1 with *Reana luxurians* were failures, but it was ascertained that in some localities the plant, if cultivated with proper care, would yield a very heavy crop of green fodder. Experiments with *Sorghum saccharatum* were not generally successful, but in one or two places the outturn was good. Guinea grass was grown successfully in Rohtak and Dera Ghazi Khan, and proved a very useful fodder plant, requiring, however, a good deal of irrigation. Five Kaisar ploughs were obtained from the agricultural department of the North-Western Provinces, and, after some modifications of construction, established their superiority over native ploughs. In the Muzaffargarh District 17 landholders, after seeing the experiments, applied for ploughs to be made up in the district after the improved Kaisar pattern. An experimental farm was started at Hoshiarpur.

Punjab.

Agricultural experiments in the Central Provinces were conducted during the year 1880-1 only at the Nagpur model farm, which was placed under the charge of a superintendent. Observations were made on the effect of manuring with various materials, and the chief crops that were raised for experiment consisted of sugar-cane, rice, cotton, jowari, and wheat. The work of the agri-horticultural society of Nagpur was restricted to garden operations and to assisting district gardens by means of the supply of seeds and the distribution of useful and ornamental plants. Over 2,000 persons visited the horticultural show in January; not only was the display of specimens larger than usual, but the quality of the exhibits was above the average, and the number of exhibitors from Nagpur and Kamptee proved that a spirit of competition among gardeners was on the increase. Six native scholars were undergoing tuition in the gardens at the close of the year.

Central Provinces.

Potato culture has been tried with varying success in the Toung jo hills of British Burma; although in Thayetmyo potato experiments have, so far, failed. In the gardens of the agri-horticultural society at Rangoon experimental cultivation has been attempted of mahogany, Liberian coffee, Cuzco maize, Manilla hemp, &c., and many varieties of flowering trees, shrubs, and creepers have been cultivated, numbers of them being made over gratis to the Rangoon municipality and to the State railway authorities for planting by roadsides and at railway stations. A model farm was about to be started on land situated close to the reformatory at Pougdeh, and it was intended to utilise on the farm the labour of the inmates.

British Burma.

A small experimental farm with an area of 17 acres was started in Berar during the year 1880-1, but the season was most unfortunate owing to the untimely falling of the rains. All the public gardens were said to be well kept up.

Berar.

Many interesting and valuable horticultural experiments were conducted as usual during 1880-1 in the Lal-Bagh at Bangalore. Continued attention was given to the propagation of rare exotic trees, many varieties of which had been introduced into Mysore, some of them adapted for ornamental planting, and others of economic value.

Mysore.

Attention was paid in Coorg during 1880-1 to the experimental cultivation of palm oil plants, cocoa plants, and carob trees. Liberian coffee is scarcely suited to the climate of the province, and there is no likelihood of its propagation being extended.

Coorg.

During the cropping season of the year 1880-1 the weather was on the whole favorable at the Government farm at Saidapet in the Madras Presidency. In addition to the ordinary crops, Chinese sugarcane, planter's friend, and

Madras.

HORTICULTURE,
EXPERIMENTAL
FARMS, &c.

Madagascar paddy, were grown. The cotton crop yielded from 363 lb. to 159 lb. of seed cotton per acre, in addition to a cereal crop grown on the same land between the rows of cotton plants. Arrowroot gave an outturn of 1,000 lb. to 7,500 lb. of tubers per acre, the latter rate representing a money value of 40 L. an acre. Tobacco experiments were still not very successful. Experiments in manures were begun on a set of plots set apart for the purpose. In the School of Agriculture 34 students were under training, of whom 15 held stipends from the Government and seven from Native States. There were no agricultural exhibitions, but a ploughing match was held at Madras, the result of which was to shew the great superiority of European over native ploughs in turning hard grass-covered soil. With regard to the Government gardens on the Nilgiris it is stated that prickly comfrey and prairie grass continued to be successfully grown, and many new and interesting plants were added to the existing stock. Ceara rubber, West African coffee and cocoa gave very satisfactory results, but ipecacuanha would probably have to be abandoned as a failure. In the medical garden the growth of jalap was most encouraging.

Bombay.

Two experimental farms were during the year 1880-1 in operation in the Bombay Presidency; one of these was in Sind, and the other in Khandesh. As the site of the Sind farm was found unsuitable, it was removed to a more advantageous spot on the bank of the Indus near Hyderabad. At the Bhadgaon farm in Khandesh experiments were conducted with various crops, including cotton of various kinds, millets and other seed crops, several sorts of potatoes, plantains, and sugarcane. The Ganesh Klind gardens near Poona, which have been constituted the chief botanical gardens of the Presidency, were maintained at a cost of 768 L. Specimens of about 2,080 species of the indigenous plants of Western India were already placed in the herbarium. Botanical tuition was continued in the gardens. The five public gardens in the City of Bombay cost the municipality 2,096 L. for maintenance.

AGRICULTURAL
STOCK, &c.
Bengal.

The only fact connected with cattle, mentioned in the Bengal Administration Report for 1880-1, is that there was a severe outbreak of rinderpest at Calcutta during the last quarter of 1880, and that the mortality among both draught and milch cattle was heavy. As stated in a previous chapter, an Act was passed during the year to provide against the spreading of contagious and infectious diseases among horses in the town and suburbs of Calcutta.

N. W. Provinces
and Oudh.

Large numbers of cattle were brought to the great annual fair held at Batesar. Altogether 45,996 horned beasts were present. The fair was not largely frequented by the travelling Banjaras, who carry on a great portion of the cattle trade of the country, but the attendance was principally of regular dealers and villagers, who, having pasture lands, were in a position to breed cattle for themselves. Beasts were sent from great distances, the leading strains being the strong coarse Chambalpari and Bhind breeds, which are preeminently fitted for agricultural purposes, the magnificent cart-bullocks from Haryana and neighbouring Rajput states, and the small but sturdy produce of the Jumna ravines and the Lower Doab. At a cattle show held during March in Lucknow under the auspices of the great landlords of Oudh, animals from all the districts of the province competed for prizes, and the committee went into the question of improvement of cattle by breeding and the introduction of new kinds of fodder.

Punjab.

Cattle disease has for some years become unfortunately prevalent in several districts of the Punjab, especially those lying under the Himalayas, occasioning much distress and in many cases depriving cultivators of the means of tilling the ground. Throughout the year 1880-1 rinderpest was very fatal in Kangra and Kulu, and out of 19,907 cattle attacked 17,645 are reported to have died. The disease made its appearance in several other districts in the north of the province, but with less virulence. The twelve cattle fairs held during the year were well attended, and altogether 308,788 beasts were exhibited. The chief fairs were those of the Hissar division and at Amritsar, and large purchases were made at them to fill up the blanks caused in the north-west of the province by the drain on account of the late war. Breeding from Hissar bulls was very successful, but sheep-breeding from Hissar rams generally failed, except in the Derajat districts.

Central Provinces.

In the Chanda district of the Central Provinces during the year 1880-1 many
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of the plough and cart bullocks were carried off by cattle disease, and in some cases grain could not be taken to the principal markets for want of means of transport. AGRICULTURAL STOCK &c.

Nearly 25,000 head of cattle are imported yearly into British Burma from the countries beyond the border. Both the demand for cattle and mortality among cattle are very large. No year passes without cattle-disease, in epizootic form, prevailing in one or more of the districts, and in Bassein cases have come to light where a majority of the landholders over considerable districts have got into debt by reason of cattle-plague and the cost thereby entailed upon them of replacing their plough-cattle. No general or serious outbreak of the disease occurred during the year 1880-1, but in several districts the people lost a good many of their beasts, and were consequently prevented from tilling their fields. A school for teaching Burman and Karen boys the art of healing cattle was in operation and well attended. Past students of this school are now employed at cattle-markets or practice for themselves, and the offices of these Burman cow-doctors are becoming appreciated by the villagers. The provision and protection of grazing grounds in villages will do much to reduce the great mortality among the plough-cattle of the province. British Burma.

Mortality among cattle in Mysore was unfortunately during the year 1880-1 as high as ever, and upwards of 200,000 head of cattle were reported to have been killed by wild beasts or to have died from disease. The largest number of deaths was from murrain, which prevailed as an epidemic in several parts of the province, notwithstanding the attempts which were made to arrest its progress by enforcing quarantine. Mysore.

Cattle in Coorg were comparatively free from murrain during the year 1880-1. Coorg.

Fodder and pasturage were abundant during 1880-1 in all the districts of the Madras Presidency except South Arcot and Tanjore, where during the early part of the year some inconvenience was felt from want of rain. The mortality among cattle, however, was in excess of that of the preceding year owing to the general prevalence of disease. Medicines were freely distributed, and segregation enforced. At the Saidapet farm, the Aden stock continued to give good results, while the Punganur cows, which have a local reputation, were found to be far inferior as milkers to those of the Aden breed. The sheep-breeding experiments progressed satisfactory, and rams of the Saidapet breed were sent to flock-owners in the Chingleput, Bellary and Tinnevely districts for breeding purposes. Madras.

Horse shows were held during the year 1880-1 in the Bombay Presidency at Poona, Sirur, and Maheji in Khandesh, and also at Wadhwan, the chief town of one of the native states of Kathiawar. The first two and the last were fairly successful; but the competition for prizes at the Maheji shows was unusually small. At Poona the foals and fillies got by the Government stallions were as usual of great merit. There were 78 Government stallions at various places in the Presidency at the close of the year. The number of mares covered was 2,185, against 1,881 in the previous year. The season was in the Presidency proper a very favorable one for cattle. There was no epidemic disease of any importance, except in Khandesh, in which there was a short but severe outbreak of anthrax fever. Forage was plentiful everywhere but in Sind. The returns exhibit an increase in every kind of agricultural stock, especially under the important heading of bullocks, which are the only animals used for ploughing, except in the Konkan, where male buffaloes are to some extent employed, and in Sind, where camels and asses are also used. Bombay.

Returns of the extent and outturn of cotton cultivation in the different provinces of British India are mostly made up for the year ending 30 June. COTTON.

The latest received are those for the year 1879-80, but they are far from complete, as no information is available for Bengal, nor are there any statistics of the outturn of cleaned cotton in Assam. Excluding Bengal, there were altogether 10,708,031 acres under cultivation in British territory, in the Nizam's dominions, and in the native states of the Bombay Presidency; and excluding Bengal and Assam the total outturn of cleaned cotton aggregated 5,181,550 cwt. The average yield of cleaned cotton per acre was said to have been as

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Cotton.

follows: 90 lb. in the Punjab, 68 lb. in the Nizam's dominions, 61½ lb. in the British and Native territory of the Bombay Presidency, 54 lb. in the North-Western Provinces, 46 lb. in Berar, 42 lb. in the Madras Presidency, 34 lb. in Oudh, 25 lb. in Mysore, and 24 lb. in the Central Provinces. With regard to the annual local consumption in each province the only estimates given are 418,363 cwt. in the Punjab, 85,000 cwt. in Berar, 141,009 cwt. in Nizam's dominion, and 900,928 cwt. in the British territory of the Bombay Presidency. During the official year ending 31 March 1881 the quantity of raw cotton exported by sea from British India to foreign countries amounted to 4,541,548 cwt., valued at 13,241,744 l.

Bengal.

Very little cotton is grown in Bengal; the districts which produce the largest quantity are Sarun, the Chittagong Hill Tracts, and Cuttack. During the year 1880-1 the Chittagong crop, though damaged to some extent by rain, yielded well. No further information on the subject of cotton culture is given in the Administration Report.

N. W. Provinces
and Oudh.

American cottons gave excellent results at the Saharanpur botanical gardens and at the Cawnpore experimental farm, while Egyptian cotton, though its staple was remarkably fine, proved a complete failure in the matter of quantity of produce. The indigenous Kulpahar at Cawnpore gave by far the heaviest return of cleaned cotton, but the staple, short and strong, was of inferior value to that of the American varieties.

Punjab.

In the Punjab cotton occupied 785,834 acres, or nearly 8 per cent. of the total area cultivated for the autumn crop of 1880.

Central Provinces.

The area under cotton cultivation in the Central Provinces during the year 1880-1 aggregated 682,962 acres, of which 222,389 were in the Wardha district. Good crops were obtained generally, but in some districts damage was done by excessive moisture.

British Burma.

In British Burma cotton is grown mainly on toungyas (hill gardens) or on the uplands of the Thayetmyo district. The area under this staple during 1880-1 was estimated at 9000 acres. Of recent years the breadth sown with cotton has fallen off considerably; smaller quantities of raw cotton are being imported from Upper Burma, and the local weavers are taking more and more to the use of English yarns.

Berar.

In Berar cotton usually occupies about one-third of the total area under cultivation, but during the season of 1880-1 it occupied only one-fourth of the total area. This decrease was due to the fact that many fields had to be resown two or three times, and as they even then failed owing to the light rainfall at the beginning of the monsoon, they were afterwards reploughed and sown with gram. Very good crops were obtained in some of the districts.

Madras.

Cotton cultivation in the Madras Presidency was somewhat extended during 1880-1, but the area was still below what it was in the year previous to the famine. The increase is ascribed to the large profits anticipated by ryots from the high prices that were obtained during 1879-80, to the low prices of food-grains which induced cultivation of special products, and to the character of the season being generally favorable to the cultivation of cotton. The outturn, however, in two of the most important cotton-producing districts, Bellary and Kurnool, was unsatisfactory and below the average.

Bombay.

As in the case of the Madras Presidency, so in that of the Bombay Presidency, including Sind and the native states, the total area under cotton shewed an increase during 1880-1 as compared with 1879-80, but was still below the area under cotton in 1875-6, although it exceeded the average for the five years preceding the famine. The increase during 1880-1 was chiefly in the sowings of the indigenous varieties of cotton in the Dharwar and Kaladgi districts, and in Kathiawar. The crop on the whole was lighter than that of the preceding year by about 7 per cent., or acre for acre by 32 per cent., a decreased yield being apparent throughout the British districts of the Presidency, while an increase occurred in most of the principal native states, especially those of Kathiawar, Cutch, and the Southern Maratha country. The quality of the cotton produced in Ahmedabad and the southern districts of the Presidency was generally good; that from Broach and Khandesh was somewhat damaged by unfavorable weather. By means of experiments at two Government farms it was ascertained that "Waradi cotton" is identical with "Sind cotton," that "Bengal cotton" is almost identical with those varieties, and that "Warda cotton" is a mixture

a mixture

a mixture of those varieties with "Dharwar cotton." There were only 22 Cotton prosecutions for offences under the Cotton Frauds Act, as compared with 42 in 1879-80 and 62 in 1878-9.

Exports of indigo from British India by sea to foreign countries rose from Indigo. 100,935 cwt. (valued at 2,947,434 L.) in 1879-80 to 116,870 cwt. (valued at 3,571,581 L.) in 1880-1, the outturn of 1879-80 having been a considerable improvement on the wretched outturn of 1878-9. With regard to Bengal the crop contained a very large proportion of indigo of a superior quality, so that the demand was fully met. The lower qualities obtained better relative prices, owing to the shortness of the Madras crop, which usually supplies the Levant markets. The total exports from Bengal to the United Kingdom, 51,232 cwt., valued at 1,674,535 L., against 20,897 cwt., valued at 809,686 L. in 1879-80. The total exports to foreign countries were 88,111 cwt., valued at 2,884,575 L., against 47,928 cwt., valued at 1,880,449 L. in 1879-80. In the North Western Provinces indigo is grown mainly on irrigated land, and is almost independent of the rainfall, though heavy and continuous rain ruins the dyeing quality of the plant. The gross amount grown for export in 1880-1 was 29,554 cwt., valued at 781,524 L., the corresponding figures for the previous year being 18,507 cwt., at 647,730 L. In the Punjab the area under indigo during the year was 72,618 acres, as compared with 62,634 acres in 1879-80, and 93,528 acres in 1878-9.

The operations of the Chinchona plantations in Bengal were confined to yellow CHINCHONA. bark trees and trees of the unnamed hybrid variety. It was not considered necessary to increase the number of succirubra trees from which the chinchona febrifuge is manufactured, as there were more than 4,000,000 of them on the Mungpoo and Sittong plantations, a number quite sufficient to provide red bark for a much larger consumption of febrifuge than there was any reason immediately to anticipate. The produce of the plantations was 377,525 lbs. of dry bark during the year, as against 361,590 lbs. in 1879-80, and 261,659 lbs. in 1878-79. The total expenditure amounted to 7,170 L. During the year the Javanese plan of shaving the bark of living trees to the height of eight or ten feet from the ground, was introduced. Under this treatment the bark is found to be perfectly reproduced, but it remains to be proved whether the renewed is as rich in alkaloids as the original bark. Additions to the factory were commenced, to continue on a larger scale the experiments successfully made in the previous year in the manufacture of pure quinine by a cheap process. The total outturn of the febrifuge factory was 9,296 lbs., against 9,435 lbs. in 1879-80. The cost of manufacture, including the cost of the bark, was Rs. 9. 3 a. 11 p. per lb. against Rs. 10. 2 a. in the previous year. The sales to the public during the year amounted to 3,151 lbs, shewing an increase of 393 lbs., and the actual profit for the year's transactions was 8 per cent., in addition to which there was a large stock in hand, valued at not less than a lakh. This, however, did not represent the whole gain, for the saving to Government from the substitution of the cheap chinchona febrifuge for quinine, which must otherwise have been supplied for the use of public institutions, was estimated at 4½ lakhs. In Madras the Government chinchona plantations on the Nilgiris were transferred to the charge of the Forest Department. The season was favourable both for collection and growth. The crop was 250,271 lbs., as against 183,984 lbs. in 1879-80. The receipts on these plantations from their beginning, in 1860-61, to the end of 1879-80, were 159,962 L., against an expenditure of 186,747 L. The deficit of 26,785 L. was more than recouped during 1880-1, when the receipts were 43,426 L., against an expenditure of 9,610 L. There could no longer be any doubt as to the financial success of the undertaking, as during the last four years receipts had been 141,067 L., and expenditure only 55,395 L.

The number of gardens under tea cultivation in Bengal during 1880-1 was TEA. 274 against 257 in the previous year, but the area under plant hardly increased; it was estimated at 38,668 acres. In the Darjeeling district the season was favourable, and free from blight, though in some gardens the red spider made its appearance. There was an estimated increase of 33,854 lbs. in the gross outturn. Labour, chiefly derived from Nepaul, was more plentiful than in the previous year; but in the Tarai it was scarce owing to the large number of

estates recently opened out. In the Julpigoree district the gross yield amounted to 817,765 lbs., being an increase of nearly 90 per cent. on the previous year's crop. In one of the gardens a tea-drying machine was introduced, which was said to have effected a considerable improvement on the results obtained by the old process of drying over charcoal fires; and elsewhere mechanical means of sieving and sorting the leaves were used with success. From Chittagong, Dacca, and Hazaribagh no precise information is given. The season yielded large returns in quantity, but prices showed few signs of improvement, except for the better qualities which are not grown in large quantities. The area returned as planted with tea in Assam during 1880-1 was 153,657 acres, of which 120,512 were under mature, and the remainder under immature plants, which gives a net increase of 3,047 acres on the area cultivated in the previous year. The estimated outturn of the year was 34,013,583 lbs., against 31,386,636 lbs. in 1879-80. But this estimate is much too low as the returns of river-borne trade show an actual export to Bengal of 37,715,600 lbs., which alone is an increase of 10 per cent. on the local estimate. There were signs of recovery, but no improvement in the depression in the trade. Cultivation has not largely extended, but neither has it diminished, as at one time it was feared would be the case. In the Punjab the area under tea fell to 9,980 acres from 11,736 acres in 1879-80.

In the North-Western Provinces and Oudh during 1880-1 the farms at Ghazipur and Pusa were carried on by Messrs. Begg, Dunlop & Co., who expressed a wish to renew their existing lease for a further term of 50 years. ✓ This is a satisfactory proof of the value of the industry in which the firm has sunk a capital of a lakh. The area under tobacco rose during the year from 314 to 404 acres, the main increase being in the land tilled by ordinary cultivators, who sell their raw produce to the firm. The outturn showed an improvement out of all proportion to the increase of the area cultivated, rising in value from 16,300 l. to 27,000 l. The demand in the Indian market was so great, and prices were so high, that little could be spared for export to England, although the prospects of the market there were encouraging for the future. Five samples were sent to the Director of the Tobacco Monopoly in France, who approved of three, and sent an order for 3,000 kilogrammes, with inquiries as to the supply that could be depended upon for the future. Tobacco was manufactured for the first time in 1879, previous operations not having gone further than curing. The undertaking was a great success, the monthly sales rising from 2,184 lb. in 1879 to 8,900 lb. in 1880. Two kinds of cigars and four of cigarettes are made. The hands employed are two Americans, three Europeans, and nearly 450 Natives daily. In the Punjab the area under tobacco increased from 66,572 acres in 1879-80 to 78,413 acres. In British Burma it was 13,700 acres. The local demand is very great, men and women smoking alike; and there is a large export, not only to other parts of India, but to England. Yet, though the soil and climate are well adapted to the crop, the great bulk of the cigars for foreign consumption are made from imported tobacco. The attention of the local government is being devoted to the development of what ought to become a valuable export staple. In Berar, at the experimental farm, a field was given up to tobacco with most promising results. About 20,000 acres is sown with it throughout the province. In Madras over 73,000 acres were under tobacco. At the Saidapet Farm, where it is cultivated and manufactured scientifically, considerable improvement was shewn, but the chemical analysis of the tobacco shewed that it was little fitted for the European market.

During the year 1880-1 the re-organization of the Forest Department in the several provinces of British India under the Government of India (*i.e.*, everywhere but in the Madras and Bombay Presidencies) was carried out on the basis of connecting the Forest Officers with the Civil Administration. Under this system, which has worked well in Bombay, the District Forest Officers will be under the orders of the Collector, and will, in fact, be assistants to the Collector in forest matters. The position of the Conservators of forests, who form the highest grade of the Forest Department, will be, in the main, that of inspectors and advisers to the Collector, who will have full executive power, except that the control of the departmental finance and organization will remain with the Conservator, acting in consultation with the Collector, all important differences

differences of opinion being referred to the local governments. In short, the Conservator will be responsible for the theory, the collector for the practice. Considerable time must elapse before this scheme is fully worked out; but from the end of 1880-1, in pursuance of it, the superior forest staff was organised and localised, as follows:—

NAME OF LIST.	Conservators.	Deputy Conservators.	Assistant Conservators.	TOTAL.
Bengal and Assam - - - -	2	5	8	15
North-Western Provinces and Oudh -	8	6	9	18
Punjab - - - - -	1	7	10	18
Central Provinces - - - - -	1	6	6	13
British Burma - - - - -	2	8	7	17
Residuary List - - - - -	1	5	6	12
TOTAL - - - -	10	37	46	93

The superior staff is to be recruited by trained officers sent from home. Under them will be a subordinate service of rangers and sub-assistants, appointed in India, and all natives. These will receive their training at the Dehra Dun Forest School, at which in 1881, for the first time, a course of theoretical instruction was held in forestry, botany, mathematics, and surveying. The lectures were attended by some 30 students. Lastly, in connexion with the question of the re-organization of the Department, it must be mentioned that at the beginning of the year a Central Office of Forest Accounts was started as a branch of the Comptroller General's Office to perform the work of departmental audit and control, as well as that of pure audit and account. By this combination of two separate though cognate functions under one branch of the administration, much labour is saved, while the check is as perfect as under the circumstances of the case it can be.

The following table shews the increase in the area of the reserved forests during 1880-1:—

PROVINCE.	Area of Reserve on		PROVINCE.	Area of Reserve on	
	1 April 1880.	1 April 1881.		1 April 1880.	1 April 1881.
	<i>Sq. Miles.</i>	<i>Sq. Miles.</i>		<i>Sq. Miles.</i>	<i>Sq. Miles.</i>
Bengal - - - - -	2,945	3,411	Coorg - - - - -	220	233
North-Western Provinces and Oudh, -	3,279	3,313	Ajmere - - - - -	101	122
Punjab - - - - -	795	943	Assam - - - - -	2,015	2,015
Central Provinces - - - - -	2,535	2,635	Berar - - - - -	1,388	1,388
British Burma - - - - -	1,612	2,288	TOTAL - - - -	14,800	16,246

Great progress was made, it will be seen, in Bengal and British Burma, and the Punjab. In the other provinces the variations are due to rectification of the boundaries of demarcation. In Ajmere, the North-Western Provinces, and the Punjab, steps were taken to establish fodder and fuel reserves. The importance of fodder reserves in districts liable to drought is very great, as preventing mortality among cattle, and any increase in the supply of fuel must tend to restore manure to its natural use, whereas at present it is burned over large stretches of country. The results of fire-protection were good, though the immunity from loss was attributed in a great measure to the favourable nature of the season. But, in many districts, notably in Berar, the people co-operated zealously with the officers of the department in preventing the spread of fires. The number of prosecutions during the year for breaches of forest rules were 6,467, of which 1,874, or 29 per cent. resulted in an acquittal. This is a slight falling off in comparison with 1879-80, when the prosecutions were 6,724, and the acquittals 1,413. Roughly speaking, there was one prosecution for every 10 square miles of forest under departmental management.

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FORESTS.

The financial results of the year are shewn in the following table:—

	RECEIPTS.		CHARGES.		NET REVENUE.	
	1879-80.	1880-81.	1879-80.	1880-81.	1879-80.	1880-81.
	£.	£.	£.	£.	£.	£.
Bengal	44,952	56,134	27,514	33,538	17,438	22,596
North-Western Provinces and Oudh	103,990	94,223	71,659	67,957	32,337	26,266
Punjab	64,981	67,167	48,067	49,536	16,914	17,631
Central Provinces	100,672	85,014	52,257	49,550	48,415	35,464
British Burma	118,019	151,661	75,349	71,256	42,670	80,405
Coorg	10,178	8,785	5,516	5,648	4,662	3,137
Ajmere	186	112	1,375	1,242	-1,189	-1,180
Assam	16,433	16,899	13,282	14,272	3,151	2,627
Berar	30,750	26,655	11,051	12,896	19,699	13,759
TOTAL	490,167	506,650	306,070	305,895	184,097	200,765

Of the charges, 118,822 l. in 1879-80 and 124,916 l. in 1880-81 were on account of establishments. For the whole of India, including Bombay and Madras, the net receipts were 224,645 l. in 1879-80, and 252,297 l. in 1880-81.

The value of forest produce exported during the year was estimated at 1,624,682 l., of which almost all consisted of shell lac, catch and gambiar, and teak. A certain amount of boxwood sent from the Himalayan districts realised a high price, being bought up by engravers, on speculation. The results however proved unsatisfactory, the wood turning out short-grained and soft.

Madras.

The Madras Forest Act was passed during 1880-81 in the local legislature, though it did not come into operation during the year. Progress, however, was made towards the formation of forest reserves, the total area demarcated to the close of the year being about 800 square miles. The total forest produce felled during the year was valued at 14,203 l. against 13,899 l. in the preceding year; the sales rose in value from 19,396 l. to 24,613 l., the increase being chiefly due to the greater demand from Mysore for teak for railway purposes, and to the clearance of old stocks at reduced prices. The total extent of fuel reserves receded from 162,390 acres in 1879-80 to 160,201 acres; the revenue derived from them was 1,826 l. against an expenditure of 638 l. The total area under plantation was 8,820 acres, an increase of 133 acres, due to further planting. The receipts from seigniorage were 23,207 l., or nearly 6,000 l. more than in 1879-80. The chief source of the increase was from junglewood, sleepers in large quantities being required for railways in Calcutta. The total receipts of the Department, under all heads, were 48,671 l.; the charges were 35,199 l. This gives a net surplus of 10,106 l., if allowance is made for the decrease in the stock valuations.

Bombay.

The following table compares the results of the operations of the Forest Department in Bombay for the years 1879-80 and 1880-1:—

DIVISIONS.	Area on	Area on	Receipts.		Expenditure.		Net Revenue.	
	1 March 1880.	1 March 1881.	1879-80.	1880-1.	1879-80.	1880-1.	1879-80.	1880-1.
	Square Miles.	Square Miles.	£.	£.	£.	£.	£.	£.
Northern Division	9,858	9,641	60,762	61,271	48,787	50,330	11,975	10,941
Southern „	4,617	4,659	50,663	48,225	28,119	31,262	22,543	16,968
Sind	-	-	41,046	42,784	28,725	29,917	12,321	12,867
TOTAL	14,275	14,300	152,471	152,280	105,631	111,509	40,840	40,771

The extent of the Sind Forests cannot be shewn with any approach to accuracy. During the year 3,935 acres, of which, however, only 1,415 were of any value as forest, were lost by erosion, while 5,295 acres were thrown up along the river frontages of forests.

Except

Except in the financial point of view, the year was one of advance. Good progress was made with forest demarcation and the settlement of rights; and the people appeared to be beginning to understand that the object of Government was to deal with them justly, and to provide for their ultimate benefit. Efforts were made to provide, as far as possible, for the immediate wants of the inhabitants, and the result was that the opposition to the forest officers in the execution of their duty diminished, while, at the same time, much was done to extend the area available for forests. In the district of the Panch Mahals, the question was raised whether too much land had not been reserved by the Forest Department, to the detriment of agriculture. On investigation it appeared that the area appropriated was some 400 square miles, or about 1-4th of the whole district, and that there was a margin of about 375 square miles of cultivable waste available for the future. Steps were taken to prevent forest interests from prevailing over those of the agricultural population, wherever there was any conflict between the two. At the same time it was not forgotten that the forests of the district would soon acquire much greater importance by the completion of railway communication between the Panch Mahals and the denuded districts of Gujarat and Kathiawar.

The loss by fire during the year was not great, and this was the more satisfactory as the chief cause of the improvement in this respect was the co-operation of the people. In Kolaba, for instance, there were no less than 53 fires, but so ready were the villagers in rendering assistance that only 1,196 acres were destroyed. In the Ratnagiri district only 57 acres, out of a total area of 12,800 acres were burned. Still, in many cases, there was no doubt that the fires were caused willfully; and a certain number of persons were prosecuted and punished. But it was not thought just or politic to punish, with any severity, wild Bhils and others, who did not understand the consequences of their acts.

An attempt was made during the year to counteract the evils of the Kumri system of cultivation by substituting for the small assessment now levied on the nomad tribes who cultivate the land in this manner, a condition that a certain number of the valuable hurda tree should be put down on each acre, as it was abandoned, and that fires should be kept out. In this way a valuable timber tree would be substituted for the useless *karoi* which now flourishes, fires would diminish, and the hill-men, on whose co-operation forest conservancy must to a great extent depend, would be conciliated.

VI.

PUBLIC WORKS.

IRRIGATION AND
CANALS.
Bengal.

THE total outlay in the Irrigation Branch of the Public Works Department, in Bengal, during 1880-1, amounted to 453,206 *l.* Of this sum the expenditure on *tuccavi* works; that is, works executed on private estates from funds advanced by Government, was 18,747 *l.* The balance, 434,459 *l.* was the direct expenditure from Public Works Funds. The principal work in the Orissa Circle was the erection of the outfall lock at Jumboo, of which the foundations had been laid in the previous year. The distributaries of the village channels of the Kendrapara Canal were also nearly completed, and 15½ miles of the left bank of the Patamoondi Canal were embanked to protect the irrigated lands from floods. In Midnapore the chief works under construction were the widening of parts of the canal, the construction of a dock at Mohunpore, and the completion of distributaries. A project for constructing a series of canals, 92 miles in length, to complete the inland water communications between Orissa and Calcutta, was sanctioned but not commenced. The work is one of great importance, as Orissa at present depends on the sea for communication with Bengal, and the ports are so bad that navigation is difficult. In the Sone Circle the principal work was the completion of the Buxar Canal as far as the line of the East Indian Railway. The Joojooty scheme by which a constant supply of pure water is poured into old channels in the Burdwan and Hooghly Districts was far advanced during the year, and has since been completed. The silting up of these channels was for many years the cause of much disease through large tracts of country, and the introduction of an abundant supply of pure water is said already to have produced marked results. The receipts of all kinds for "Productive" Irrigation works in Bengal during 1880-1 amounted to 101,449 *l.*; the working expenses were 99,219 *l.*, and the net revenue 2,230 *l.* This is a falling off of 15,131 *l.*, in comparison with 1879-80, when the working expenses were 92,050 *l.*, the receipts 109,411 *l.*, and the net revenue 17,361 *l.* The falling off in receipts was due to the depression of the rice trade in Orissa; the increase in expenditure was on works in the Sone Circle.

N. W. Provinces
and Oudh.

During 1880-1 the capital outlay on canals in the North-Western Provinces and Oudh, was 202,604 *l.* The canals open and in complete operation were the Ganges, Lower Ganges, Agra, Eastern Jumna, Dun, Rohilkund, and Bijnor Canals.

The area irrigated for the kharif harvest was 700,139 acres, and for the rabi 1,032,010 acres. This latter area was far above the average, and was due to deficient rainfall in the lower districts of the Doab, and to an increased desire on the part of cultivators to avail themselves of irrigation. Sugar-cane, indigo, rice, and cotton are the chief kharif crops irrigated; wheat and other cereals the rabi crops. Much damage was caused to canal works by the heavy floods of the year. The direct income from water rates and miscellaneous revenue was 396,688 *l.*, and the increase in land revenue due to the canals, 94,963 *l.* giving a total of 491,651 *l.* Working expenses were 176,799 *l.*, leaving a net revenue of 314,852 *l.*, to set against interest charges, 266,479 *l.* Thus, the profit to the Government on the year was 48,373 *l.*

Punjab.

In the Punjab during 1880-1, the new main line of the Western Jumna Canal was completed, and a small supply of water was sent down to consolidate the banks. The realignment of the canal will not only provide an ampler distribution of water for irrigation purposes, but improve the health of the population who suffered severely from the swamps formed by the canal in its former course. The Sirhind canal was brought nearly to completion during the year; and some progress was made with the Swat River Canal project for the irrigation of the dry tracts in the north of the Peshawar Valley; but the work was delayed by the great demand for labour for the Punjab Northern State Railway. The total expenditure on irrigation was 386,231 *l.*, exclusive of 85,917 *l.* debited to Native States as their contribution to the Sirhind Canal.

British Burma.

There is no need for irrigation in British Burma; but for many years expenditure

expenditure has been incurred on the embankment of the right bank of the Irrawaddy and the left bank of the Nawoon, in order to protect cultivated lands from flood. At the commencement of 1880-1, 167 miles of the main rivers had been embanked, at a cost of 290,242 *l.* During the year the expenditure was 12,899 *l.*, which was entirely devoted to strengthening and repairing the existing works. An extension of the works proposed by the local engineers, was not sanctioned by the Government of India, on the ground that no further outlay should be incurred till the results of the operations on the lands affected by embankments were more clearly apparent. The important artificial waterway, connecting the Irrawaddy river system with the Sittang river, was nearly finished. The canal is 39 miles in length, and has been constructed from current revenue at a cost of nearly 300,000 *l.* It will be some years before it pays interest on its prime cost; but it already serves a boat traffic of 76,000 tons, besides timber rafts, and it has caused a great extension of cultivation in a district previously water-logged. Much was also done to clearing obstructions from the natural river channels, and converting them into serviceable waterways.

In Mysore, during 1880-1, a sum of 12,591 *l.* was devoted to irrigation. Of this 5,292 *l.* were spent in repairing and extending existing channels, and 7,299 *l.* on irrigation tanks. Mysore.

In Madras, during the year 1880-1, an important administrative change was introduced in the Public Works Department. The maintenance of all minor irrigation works, that is, speaking roughly, of all tanks irrigating less than 200 acres, and of those distribution channels which did not require professional skill for their management, was transferred to the Revenue Department. It was intended that the Revenue officers should compel the villagers to look after the works in which they were immediately interested. The custom of maintaining irrigation works by village labour existed from very early times; but it has become obsolete, and Government took under consideration the question of reviving it by an Irrigation Law. Madras.

On the Godavari Delta system the outlay during the year was 13,773 *l.* The area irrigated was 526,585 acres, against 564,959 acres in 1879-80, the decrease being due to the fall in the price of paddy, caused by the cessation of the famine. The ultimate area of irrigation will be about 610,000 acres. Of the contemplated line of 502 miles of navigable canal, 458 had been completed. On the Kistna Delta system the outlay was 9,636 *l.* The ultimate area of irrigation will be about 470,000 acres, of which about 275,000 acres were actually under irrigation; 277 miles of navigable canal had been opened for traffic, out of a proposed total of 348 miles. On the Srivaikuntham anicut system, 1,031 *l.* were spent, the total capital outlay being 122,392 *l.* The area irrigated during the year was 19,971 acres, and the increase in the revenue was estimated at 4,667 *l.* In the Cauvery Delta about 814,366 acres were under irrigation at the end of 1880-1, and the amount spent on the works was 3,809 *l.* There was no capital outlay on the Penner anicut system. On the Comnamur Canal, the Chembrambakam tank system, and the Palar anicut system, the expenditure under improvements and maintenance amounted to 1,096 *l.* and 4,311 *l.* respectively.

The expenditure on the Madras Irrigation and Canal Company's canal, on capital account, was 14,651 *l.* during 1880-1, the total capital outlay to the end of the year being 1,582,126 *l.* Traffic was started from the 1st October 1880. Till the close of the year, the working expenses of navigation amounted to 1,839 *l.* and the receipts to 578 *l.* The area irrigated was 17,798 acres, against 18,655, in 1879-80; the revenue was 6,149 *l.* against 7,346 *l.*; the charges 13,932 *l.* against 23,250 *l.* Arrangements were initiated during the year for the purchase of the canal by the Secretary of State.

The total expenditure of the Irrigation Branch of the Bombay Public Works Department during 1880-1 was 232,830 *l.* Of this amount 211,869 *l.* were contributed from Imperial revenues, 19,613 *l.* came from Native States, and 1,348 *l.* from local funds. The cost of establishments was 26 per cent. of the whole outlay; the direct revenue was 26,726 *l.* The most important works in the Presidency are those in Gujarat and the Deccan, which command altogether 223,933 acres of irrigable land. The area actually irrigated was 34,444 acres, or 15 per cent. of the whole. The increase in irrigated area amounts to 54 per cent. above that irrigated in 1879-80. In Sind the most important work consisted in the clearance of existing canals and their maintenance during the yearly inundations. Bombay.

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The following Tabular Statements give the principal facts about Indian Railways for the calendar year 1880, in comparison with the figures of 1879, the rupee being taken throughout at the conventional rate of exchange:—

GUARANTEED RAILWAYS.

	Year.	Length Open on 31st December.	Number of Passengers.	Goods Traffic.	Gross Receipts.	Gross Expenses.	Net Earnings.	Capital Outlay to 31st December.	Percentage of Net Earnings to Capital Outlay.
	1.	2.	3.	4.	5.	6.	7.	8.	9.
		Miles.		Tons.	₹.	₹.	₹.	₹.	
Sud. Indian*	1879	1,804	7,980,812	2,884,648	4,828,748	1,420,308	2,908,486	22,942,108	8.23
	1880	1,516	8,081,288	3,471,108	4,291,448	1,416,566	2,876,877	25,839,829	8.71
Eastern Bengal	1879	169	1,228,898	358,629	408,681	178,040	228,541	2,201,762	6.99
	1880	169	1,900,315	414,173	446,132	190,755	255,377	3,216,863	7.67
Oude and Rohilkhand	1879	547	2,800,823	523,557	454,484	232,491	181,992	5,297,238	3.25
	1880	547	2,432,465	601,315	443,513	235,074	180,441	6,779,868	3.20
Sindh, Panjab, and Delhi	1879	663	1,589,018	897,871	1,096,881	809,478	487,108	10,697,787	4.47
	1880	663	4,160,179	251,674	1,216,769	630,436	576,329	11,045,248	5.24
Madras	1879	637	3,335,617	647,077	662,649	455,132	307,517	11,489,583	1.88
	1880	638	4,003,013	809,066	616,264	430,541	186,723	11,086,578	1.77
South Indian	1879	612	5,214,803	455,208	336,207	229,881	106,326	4,090,159	2.60
	1880	653	4,477,335	518,040	355,969	262,868	93,001	4,167,296	2.23
Great Indian Peninsula	1879	1,298	4,496,554	1,098,988	2,824,321	1,506,771	1,019,060	24,828,244	4.10
	1880	1,298	4,761,944	1,166,214	2,498,325	1,284,770	1,110,556	24,997,720	4.44
Bombay, Baroda, and Central India †	1879	444	5,365,984	691,753	715,267	323,657	379,590	8,305,704	4.87
	1880	444	6,237,074	827,295	624,437	350,845	473,592	8,284,245	5.72
TOTAL	1879	6,095	34,891,210	7,432,226	10,805,333	4,988,751	5,816,581	101,047,708	5.48
	1880	6,128	36,183,572	8,267,966	10,690,624	4,918,716	5,772,079	101,716,363	5.48

* Includes Dildharagar and Ghazipur line. Although the R. L. R. was a State line during the year, it is entered here for purposes of comparison.

† Includes Patni line.

STATE RAILWAYS.

	Year.	Length Open on 31st December.	Number of Passengers.	Goods Traffic.	Gross Receipts.	Gross Expenses.	Net Earnings.	Capital Outlay to 31st December.	Percentage of Net Earnings to Capital Outlay.
	1.	2.	3.	4.	5.	6.	7.	8.	9.
		Miles.		Tons.	₹.	₹.	₹.	₹.	
BENGAL:									
Calcutta and South Eastern	1879	36	612,267	29,732	12,409	8,908	4,800	652,964	0.68
	1880	36	696,908	21,821	14,210	10,124	4,076	652,964	0.61
Baldwin	1879	27	126,998	14,298	8,178	6,197	2,281	21,709	9.39
	1880	27	231,081	8,626	6,903	7,365	—873	22,521	—1.15
Northern Bengal	1879	242	642,226	87,325	126,211	115,122	10,989	1,761,296	0.61
	1880	244	796,797	122,154	144,230	85,429	58,801	1,867,572	3.07
Tiboot	1879	82	267,119	82,207	48,873	25,091	20,782	486,906	3.16
	1880	82	375,377	74,143	45,292	26,220	19,072	515,123	3.70
Patna Gya	1879	57	408,891	20,509	22,041	12,872	10,169	284,267	3.58
	1880	57	423,886	44,660	48,148	27,020	21,128	322,065	6.56
TOTAL	1879	440	2,148,143	208,480	216,742	178,201	36,541	2,547,968	1.18
	1880	421	2,421,674	294,227	268,580	166,188	102,392	2,591,165	3.95
NORTH-WESTERN PROVINCES AND OUDH:									
Matra, Hathras	1879	29	816,782	20,677	12,822	8,222	4,671	702,472	6.65
	1880	29	823,478	21,247	12,422	7,755	4,667	702,516	6.60
Oorissa, Panchabul	1879	—	—	—	—	—	—	—	—
	1880	—	7,126	26	220	618	—392	276,208	—0.11
TOTAL	1879	29	816,782	20,677	12,822	8,222	4,671	702,472	6.65
	1880	29	830,604	21,273	12,642	8,268	4,279	702,524	1.61
PUNJAB:									
Panjab, Northern	1879	100	1,698,219	241,247	126,078	147,119	27,259	2,443,202	1.12
	1880	120	1,548,720	273,520	226,228	260,411	66,417	2,042,721	1.09
Siber Valley and Kashmir	1879	502	821,812	232,004	218,021	226,242	62,089	6,700,979	1.10
	1880	523	1,264,024	284,219	647,306	443,240	184,066	6,228,200	2.93
TOTAL	1879	604	1,320,212	473,291	204,629	204,061	100,679	7,152,912	1.12
	1880	672	2,214,214	778,468	294,044	294,044	294,044	10,271,901	2.87

* Includes 80 miles of Darjeeling-Himalaya line, which was opened during the year, but the details of the working of which are not given.

STATE RAILWAYS—continued.

RAILWAYS.

	Year.	Length Open on 31st December.	Number of Passengers.	Goods Traffic.	Gross Receipts.	Gross Expenses.	Net Earnings.	Capital Outlay to 31st December.	Percentage of Net Earnings to Capital Outlay.
	1.	2.	3.	4.	5.	6.	7.	8.	9.
CENTRAL PROVINCES:									
Nagpur and Chattisgarh	1879 1880	<i>Miles.</i> 53	<i>—</i> 139,068	<i>—</i> 107,460	<i>—</i> 10,895	<i>—</i> 8,269	<i>—</i> 2,127	<i>—</i> 808,768	<i>—</i> 0.70
Wardha Coal	1879 1880	46 46	70,467 70,423	47,914 42,471	16,516 15,690	13,483 23,838	3,033 -8,248	479,945 865,348	0.83 -1.47
TOTAL	1879 1880	46 99	70,467 209,491	47,914 149,931	16,516 26,585	13,483 32,106	3,033 -6,121	479,945 865,348	0.70 -0.77
BRITISH BURMA:									
Rangoon and Irrawaddy Valley	1879 1880	161 161	1,032,637 1,112,424	47,962 112,308	86,691 132,271	81,418 80,163	14,176 52,108	1,189,489 1,230,724	1.19 4.23
BOMBAY AND NATIVE STATES:									
Gackwar's	1879 1880	40 57	No information.	No information.	7,208 12,883	4,047 6,369	3,161 6,514	60,768 114,421	4.73 5.69
Nizam's	1879 1880	121 121	260,431 327,469	63,824 80,806	69,140 70,371	60,446 47,841	8,694 22,430	1,161,946 1,206,222	0.77 1.66
Rajputana Malwa†	1879 1880	637 626	2,244,120 3,600,704	390,862 609,948	460,126 877,508	322,026 406,640	147,100 167,968	5,095,730 6,671,706	2.38 2.66
Sindia	1879 1880	67 67	160,882 214,206	14,044 37,045	9,891 20,182	12,269 17,771	-3,178 3,411	732,021 816,190	-0.44 0.20
Khamgaon	1879 1880	8 8	38,781 25,406	21,135 15,484	3,809 2,736	3,835 2,311	-26 425	52,333 50,819	-0.05 0.83
Ammoti	1879 1880	8 8	90,802 71,166	31,119 23,111	6,890 5,987	5,373 4,723	1,617 364	46,160 43,426	8.47 0.44
Dhond Manmad	1879 1880	145 146	173,421 311,938	84,016 71,346	46,755 69,610	49,622 60,688	-2,767 8,822	954,350 1,045,846	-0.29 0.85
TOTAL Bombay and Native States	1879 1880	1,109 1,377	2,966,446 4,610,949	584,020 737,736	612,419 798,177	457,618 549,243	154,801 208,934	8,108,817 9,847,030	1.90 2.12

* The Bhavnagar-Gandari is omitted, which was opened at the end of 1880, and for which no details are published.
† Includes Rajputana, Western Rajputana, Holkar and Sindia-Neemuch.

TOTAL FOR ALL INDIA.

	Year.	Length Open on 31st December.	Number of Passengers.	Goods Traffic.	Gross Receipts.	Gross Expenses.	Net Earnings.	Capital Outlay to 31st December.	Percentage of Net Earnings to Capital Outlay.
	1.	2.	3.	4.	5.	6.	7.	8.	9.
GUARANTEED RAILWAYS	1879 1880	6,086 6,128	34,681,210 86,132,679	7,432,326 8,347,986	10,505,332 10,600,894	4,866,751 4,916,743	5,638,581 5,772,079	101,047,708 101,716,669	5.46 5.43
BENGAL	1879 1880	440 471	2,148,143 2,431,674	205,480 293,427	916,742 269,680	178,201 166,188	38,541 163,392	3,241,808 3,601,103	1.18 7.93
NORTH-WESTERN PROVINCES AND OUDH	1879 1880	39 78	814,762 829,603	30,677 33,282	12,593 13,742	6,922 8,268	5,671 5,474	103,472 379,624	5.48 1.44
PUNJAB	1879 1880	604 878	1,030,937 2,204,215	478,891 770,489	504,635 984,094	404,061 734,251	100,578 249,843	8,188,912 10,971,991	1.23 2.27
CENTRAL PROVINCES	1879 1880	46 99	70,467 209,491	47,914 149,931	16,516 26,585	13,483 32,106	3,033 -6,121	479,945 865,348	0.70 -0.77
BRITISH BURMA	1879 1880	161 161	1,032,637 1,112,424	47,962 112,308	86,691 132,271	81,418 80,163	14,176 52,108	1,189,489 1,230,724	1.19 4.23
BOMBAY AND NATIVE STATES	1879 1880	1,109 1,377	2,966,446 4,610,949	584,020 737,736	612,419 798,177	457,618 549,243	154,801 208,934	8,108,817 9,847,030	1.90 2.12
GRAND TOTAL, ALL INDIA	1879 1880	8,484 9,192	43,144,602 47,030,974	8,825,216 10,463,187	11,963,832 12,364,673	6,128,361 6,478,964	5,835,481 6,366,709	122,329,631 128,612,791	4.77 4.97

The outlay on communications during 1880-81 in Bengal was 191,955 l. from provincial funds. The most important work completed during the year was the suspension bridge over the River Teesta, in the Darjeeling District. It has a clear span of 300 feet, and removes one of the worst breaks in the main trade route between

COMMUNICATIONS.

between Thibet and Bengal. In connection with this bridge, a road was made from it along the Teesta Valley to Sivoke, which will open up communication between the frontier and the plains. It was found necessary to take steps to replace the four suspension bridges on the portion of the Grand Trunk Road which runs through Hooghly and Burdwan.

The expenditure on district roads and other works under district committees amounted to 505,277 *l.*, of which 375,789 *l.* were expended on works proper, and the balance on general management, the collection of tolls, staging bungalows, and other miscellaneous items. Owing to the great demand for engineers for the supervision of the regular provincial public works, there was some difficulty in providing officers for the post of divisional superintendent of public works. Almost all the district road-cess committees saw the importance of maintaining and improving village roads and paths; and, as a rule, the money allotted for these purposes was utilized to the utmost. The policy of entrusting the execution of such works to the inhabitants of the villages interested was generally adopted; and no instance occurred of work being carried out carelessly by them.

Assam.

There was a total expenditure of 54,870 *l.* on communications in Assam during 1880-1. This sum consisted of, provincial expenditure, 32,885 *l.*; local expenditure, 741 *l.*; district funds expenditure, 19,935 *l.*; contributions by individuals, 1,309 *l.* Difficulty was experienced in obtaining labour for the trunk and other roads; and for this reason, little was done during the year. Experiments were made in several places with the view to the introduction of tramways. The provision of a regular service between Dhubri and Dibrugarh on the Brahmaputra was undertaken during the year by a steam company; and in the Surma Valley a small steamer was provided by Government to maintain communication with Sylhet and the upper portions of the valley during the cold season, when the commercial steamers are unable to ply for want of water.

N. W. Provinces
and Oudh.

In the North-Western Provinces and Oudh, during 1880-1, 101,072 *l.* were spent on communications:—23,246 *l.* on original works, and 87,826 *l.* on repairs. From local funds the expenditure was 101,501 *l.*, of which 24,275 *l.* were spent on original works, and 77,226 *l.* on repairs. The most important original works were feeders to the Ghazipur-Dildarnagar branch railways at Ghazipur, and to the Oudh and Rohilkund Railway at Shahjahanpur.

Punjab.

Owing to financial pressure little was spent on communications in the Punjab during 1880-1. The grant which it was possible to make for the purpose sufficed for little more than to maintain existing roads and bridges. The only original work of any importance was the line of communication, undertaken in the previous year for political purposes, between Rawalpindi and Kohat; but operations on this road were suspended on the withdrawal of the British troops from Afghanistan, and part of the Budget provision was re-allotted to other works.

Central Provinces.

In the Central Provinces during 1880-1, 53,116 *l.* were spent from provincial funds on communications:—26,193 *l.* on original works, and 26,923 *l.* on repairs. The expenditure on original works was about 2,500 *l.* less than in the previous year, but on repairs the outlay was greater. The most noteworthy event of the year was the completion of the Eastern Road, which was commenced in 1869. The whole road is 175 miles in length; its total cost was 152,998 *l.*, or 874 *l.* per mile. Some large streams and rivers still remain unbridged, but, as the Nagpur and Chhattisgarh State Railway will soon be open up to Nandgaon, it is not contemplated to spend further money on the road. As regards the district funds, the road-cess yielded a revenue of 13,965 *l.*, while the expenditure was 19,063 *l.*

British Burma.

Apart from maintenance and repairs, the expenditure on new roads in British Burma during 1880-1 was about 55,200 *l.* Thirty-nine roads were under construction, aggregating altogether 678 miles. Most of these were only in an early stage, and very little had been actually metalled and completed. Most progress was made in replacing the part of the road between Rangoon and Prome which had been taken up for the purposes of the railway, and in providing feeder roads to different railway stations. These roads are very expensive, as a great deal of embanking is required through rice-fields, and metal is costly and of bad quality. On the other hand, bridges made of timber are cheap.

Berar.

The expenditure from provincial revenues on communications in Berar during 1880-1 was 58,540 *l.*, of which 44,643 *l.* were on original works. The one per cent.

cent. road-cess yielded over 6,000 *l.*, but of this sum only 3,452 *l.* were spent, the balance being allowed to lapse through the negligence of the civil officers, who failed to submit their Estimates in proper time. COMMUNICATIONS.

The amount spent from provincial revenues on communications in Mysore during 1880-1 was 49,023 *l.*, of which 30,159 *l.* were on repairs. The expenditure from district funds on original works was 6,417 *l.*, and on repairs 17,113 *l.* During the year the existing roads were brought into good condition. Mysore.

The expenditure from provincial revenues on communications in Coorg during 1880-1 was 2,750 *l.* on original works, and 3,572 *l.* on maintenance. From district funds the expenditure was 2,786 *l.* The most important work in hand was the road from Mercara to Siddapur. Throughout the province considerable difficulty was experienced in obtaining labor, and this made it impossible in many cases to work fully up to the allotments. Coorg.

The amount spent on communications in Madras by the Public Works Department during 1880-1, was 47,243 *l.* But this sum represents only a very small share of the outlay on communications during the year, as by far the largest portion of such expenditure is met in Madras through the agency of Local Fund Boards, the operations of which are irrespective of Government. Madras.

The total outlay on communications, including roads, bridges, and accommodation for travellers, during 1880-1 in Bombay, was 298,220 *l.*, of which 80,015 *l.* were spent on original works, 165,288 *l.* on repairs and maintenance, and the remainder, 52,917 *l.*, on establishment and plant. The principal road under construction was from Dhulia, the chief town of the Khandesh district, to Pimpalner, of which 39 miles were completed. A useful road was also under construction to connect Dharamtar (to which a steamer plies daily from Bombay) with the general system of roads in the Satara district, and Poona with the roads in the southern Konkan. A bridge of iron over the Utavali river, close to the chief town of the native state of Vala in Kathiawar, is being constructed at the cost of 1,000 *l.*, contributed by that state. Bombay.

At the close of the year 1880-1 it was found that, owing to the decrease in the number of vessels using the port of Calcutta, the pilot service was in excess of the requirements of the port, and steps were taken for the reduction of the establishment from 67 to 60. Exclusive of local traffic, the number of ships requiring pilotage was 1,999, of which 1,016 were steamers and 983 sailing vessels. Forty-six vessels ran aground during the year, but in no case did serious damage result; and there were seven cases of collision. The necessity, for a careful scientific survey of the banks of the Hooghly has long been recognised. MARINE. Bengal.

The total estimated value of the property held by the Port Commissioners amounted at the of the year to 1,273,675 *l.*, exclusive of the value of the foreshore lands made over to the Commissioners by Government. The total expenditure on new works amounted during the year to 61,957 *l.*, of which 30,923 *l.* was spent on jetty works; 14,217 *l.* on wharves for inland vessels; 5,843 *l.* on tramways; 2,006 *l.* on the Howrah foreshore road; and 8,968 *l.* on miscellaneous works. The liabilities of the trust at the close of the year amounted to 701,856 *l.* A committee was appointed during the year to consider the distribution of the duties of the Port between the Port Officer and the Port Commissioners.

The harbour of Chittagong continued to develop in importance during the year, and there was an increase both in port dues (due to the flourishing condition of the jute trade) and in pilotage receipts. The total income of the port, exclusive of interest on Government securities, was 3,842 *l.*, against 3,508 *l.* in the previous year. As regards the Orissa ports, Balasore, Pooree, and False Point, there was a deficit on the year's transactions of 1,200 *l.*, although the number of vessels registered during the year was 1,082, against 942 in 1879-80, and the tonnage 497,996 tons, against 473,652 tons in the previous year.

The several ports and approaches to harbours in British Burma were kept in good order during 1880-1. The only survey undertaken within port limits was that of the Rangoon river, of which a large scale chart was published. It is hoped that a general survey of the whole of the eastern side of the Bay of Bengal will soon be undertaken. The pilot service during the year was not satisfactory. Many vessels were allowed to go aground through negligence, and serious complaints were made. The pilots were in consequence transferred to the control of the Port Commissioners. The inspection and relief of lighthouses was carried British Burma.

MARINE.

on systematically by the Government steamer "Enterprize." The dues collected yielded a surplus of 10,000 *l.*, which it was proposed to expend on a new light vessel on the Krishna shoal, on a light on Reef Island at the mouth of the Tavoy River, and on a lighthouse on the rocks known as the Terribles off the Arakan coast.

The income of the Rangoon Port Commission during the year was 54,164 *l.*, and the expenditure on port improvements 30,710 *l.* The port funds of Moulmein, Akyab, and Bassein, are managed by the local port officer, under the direction of the divisional commissioner. The total income of the three ports was 26,144 *l.* The funds are able to meet the cost of improvements without the necessity of borrowing.

Madras.

In the Madras Presidency careful surveys were made during 1880-1 of all points along the coast at which it might be possible to construct harbours of refuge; but the various projects proposed were found to involve great expense and little certainty. At Cocanada alone was it thought worth while to undertake works of any importance. At Beypore, the western terminus of the Madras railway, it was deemed hopeless to attempt to construct a harbour or remove the bar.

The progress on the Madras harbour works was better during 1880-1 than in any previous year. The south pier was advanced by 1,489 feet, and the north pier was brought to within 10 feet of its termination, leaving in all 340 feet more to be constructed. The shelter afforded by the breakwaters was very great, and nearly all the large steamers anchored in the harbour. The expenditure on the work during the year was 138,058 *l.*, making a total expenditure to date of 535,289 *l.*

Bombay.

The income of the Bombay Port Trust for 1880-1 was 276,683 *l.*, and the expenditure 270,394 *l.*, inclusive of 152,656 *l.*, interest on capital. The net surplus of 2,688 *l.* was paid in reduction of loans. The year was the first complete one, during which the newly acquired foreshore properties were in the possession of the trust, and during which the Prince's Dock was open. During the first three months of the year the dock was fairly filled with vessels, but, later on, the numbers rapidly decreased. This falling off was attributed to the continued opposition of parties interested in landing and shipping goods in the stream. The result was that the revenue of the year showed a deficiency on the estimates of 24,549 *l.* At the close of the year the expansion of the grain trade began again to attract shipping to the dock.

POST OFFICE.

The leading events in the administration of the post office in British India in 1880-1 were the revision and expansion of the foreign money order system, the reduction in the minimum rate for inland parcels, the revision of the establishment and arrangements of the Calcutta Post Office (to take effect in the following year), and an agreement with the Great Indian Peninsula Railway for additional postage accommodation.

The number of post offices increased by 112, of letter-boxes by 294, and of village postmen by 131. There were in all 4,522 post offices, 6,720 letter-boxes, and 2,833 village postmen under the control of the Post Office. There was an increase of about 11 per cent. on the number of articles of all kinds given out for delivery, which amounted during the year to 158,667,000. Postcards increased nearly 99 per cent., numbering 14,865,000. Paid letters were more by about 9 per cent., having risen from 88 to 96 millions; but registered letters, owing to the expansion of the money-order business, decreased from three millions to 2,710,000. At the Dead Letter offices the number of articles received amounted to 3,300,000, of which 70 per cent. were disposed of satisfactorily. The number of parcels sent by foreign parcels post was nearly 80,000. The gross revenue from the sale of ordinary postage stamps was 502,300 *l.*, as compared with 499,500 *l.* in 1879-80. The increase was chiefly in the sale of postcards and half anna envelopes. The charge for these latter in 1873 was reduced from ten to eight annas per packet of 16. The result was extraordinary. In the year before the change, the gross value of such envelopes sold was only 310 *l.*; in the succeeding year, it was 8,166 *l.*; and the increase in the year under review was so great that the demand exceeded the supply. The gross number sold was 37,898,000, and their gross value 118,400 *l.* A contract has been made for an increased annual supply of 57,600,000 envelopes.

Money-order business was transferred from the district treasuries to the Post Office

Office

Office on the 1st January 1880; and the increased facilities thus offered led to an enormous increase of business. The monthly average value of orders issued under the old system in 1878-79 was 74,400 *l.* In March 1880, under the new system, the average was 311,400 *l.*; and the average monthly value for the year was 381,000 *l.* More than 4½ crores of rupees have thus been transmitted from one part of India to the other, in small sums averaging *Rs.* 28½ for each order. This imposed a novel responsibility on the servants of the department, and it was satisfactory to find that the total amount chargeable to the department on account of defalcations was less than 150 *l.* No better evidence could be given of the honesty of the natives, who form the great bulk of postmasters in India. POST OFFICE.

The financial results of the year compare favorably with those of 1879-80, the purely postal revenue having increased, after payment of all immediate charges, from 109,600 *l.* to 111,900 *l.* But if the cost of railway service, English stores, marine subsidies, pensions and other charges be added, there is a deficit of nearly 30,000 *l.*

The following are the chief facts concerning telegraphs in India during 1880-1. The total length of line opened increased from 72,413 to 74,112 miles. The number of messages (exclusive of telegraph service ones) rose from 1,569,907 to 1,658,647. The receipts increased by 30,409 *l.*, against an increase in the expenditure charged to revenue of 18,080 *l.* On capital account there was an increased outlay of 47,496 *l.* TELEGRAPHS.

VII.

MINERAL RESOURCES.

MINERAL
RESOURCES.
Bengal.

IN the Burdwan division of Bengal the outturn of coal during 1880-1 amounted to 17,190,646 maunds, as compared with 13,285,148 maunds in the previous year, but prices were low, sales dull, and the industry generally in a depressed condition. In the Sonthal Pergunnabs none of the coal mines which formerly existed were worked, the sums realised from them not covering the cost of the mischief they caused the adjoining forests. In the Chota Nagpore division coal was raised in large quantities on the Burrakur river and in the Giridi sub-division. In the same division, to the south-east of the Hazaribagh district, the Kurrumpoora coal field promises well. It is only 72 miles from Gya, and if coal could be sold in Behar at a lower cost than firewood and dried cowdung (which at present constitute the fuel used by the natives), in addition to the direct gain, the forests would be spared and the manure left to be applied to the soil. Coal is now largely used in some of the warmest parts of Bengal, and it ought to be much more popular in the colder climate of Behar if it could be supplied sufficiently cheap. Iron ore, too, is found close to the Kurrumpoora coal fields, and lime; so that the district seems adapted for the establishment of ironworks. In the Patna division, where the demand for metal for the Behar and Bukhtearpore Road has caused extensive quarrying to be carried on, iron ore of more than average richness has been found, but the absence of coal prevents it being worked. In the Rajshahye division offers have been made to the Assistant Commissioner for the lease of the Shurroop copper mines. In the Sonthal Pergunnabs the slate and stone quarries are becoming more important; and the Government quarries in the Damin-i-Koh yielded an increased income of 500 *l*.

Assam.

Limestone was the only mineral from which revenue was derived in Assam during 1880-1, but the trade has not yet given any symptoms of recovery from the depression caused by the breaking-up of the monopolies which existed till the end of 1878. The falling in of leases in the Khasi Hills and low prices even caused a further decrease in the Government revenue for the year; but the superior quality of the lime and the inexhaustible supply of the stone must eventually restore the value of the tracts as a whole to Government. A lease of the coal field at Makum was granted during the year to the Assam Railways and Trading Company, Limited, and it is probable that the petroleum wells in the same region will shortly be made over to the same Company.

N. W. Provinces
and Oudh.

Neither in the North-Western Provinces nor in Oudh are there any minerals of importance.

Punjab.

Rock salt is the chief mineral product of the Punjab. During 1880-1 a considerable extension of coal mining took place in the salt range; and a considerable amount of coal, though of very inferior quality, was raised for the use of the Punjab Northern State Railway. Applications have been made for permission to mine on a still larger scale, and, with the development of railway traffic, the trade may continue to increase. But the coal is limited in quantity and of bad quality.

Central Provinces.

In the Central Provinces the Warora collieries again worked at a loss during 1880-1, but much of the deficit of 2,000 *l*. on the year's operations was due to the cost of new machinery. The outturn, too, was less than it ought to have been, through accidents to the pumping apparatus, which prevented full work till October. Between then and the end of the year 21,000 tons were raised, the total annual outturn being only 25,696 tons. At Mohpani the Nerbudda Coal and Iron Company's mines were further developed, the machinery, which had been completely neglected, being renewed at great cost. The outturn of the year amounted to 12,117 tons, the Government royalties to 213 *l*. During the year experimental borings were commenced in the Shahpur coalfields, independently of any company.

During

During the year 1880-1, in British Burma, the Boronga Oil Company pursued their operations with great energy, importing machinery and skilled engineers from Europe. One of their wells is 1,000 feet deep, and produces 1,000 gallons daily; whereas native workers are unable to raise as much as ten times that amount in the year. The ultimate success of the Company will not however be assured till the whole area on which they intend to operate has been successfully brought into bearing. The Mergui tin mines continued to be worked, though irregularly. The royalty of 5 per cent., levied on all tin exported, was removed; but there has not been enough time to judge of the success of this measure. In the face of the imports of iron from England it was thought useless to work the ore which exists in the Tavoy district. Licenses to prospect for antimony and lead were granted during the year.

MINERAL
RESOURCES.
British Burma.

During 1880-1, the Lomar salt lake, the only source of mineral wealth in Berar, Berar, finally ceased to be worked.

There was no actual increase in the number of mines worked in Mysore during 1880-1, but the discovery of gold in the Kolar district gave rise to much activity, several apparently substantial companies starting preliminary operations under Government leases.

Mysore.

Two applications for permission to prospect for gold were received in Coorg during 1880-1. It was hoped, from the resemblance of the country to the Wynaad, that gold might be found in the quartz reefs, which crop up in many parts of the province.

Coorg.

The total value of minerals, chiefly gravel and stone, worked in 1880-1 in the Madras Presidency was estimated at 50,000*l*. In the Nilgiris gold mining operations were pushed forward, and nearly 100 applications were received by the Board of Revenue for grants of land aggregating about 3,500 acres. Leases were granted under rules published by Government, the chief of which were:— that the leases should be for terms not exceeding 20 years; that an annual rent of *Rs.* 5 should be paid, without further liability, to any royalty or tax except under the provisions of the Local Funds Act; that *bond fide* operations should commence within three months of the execution of a lease; that leases should not be sublet or assigned, nor watercourses diverted without previous sanction. As regards the right of the State to minerals found on agricultural lands Government decided to waive their claims in the case of estates held on sanad of permanent settlement or on equivalent tenures. As regards ryotwari lands, on all puttahs to be granted hereafter, a clause will be inserted reserving to the State the right of assessing for the value of all products that may be developed in the land; while, in reference to lands already occupied, it has not yet been decided whether the State's right should be held to exist in the absence of any agreement to the contrary, or whether it would be preferable merely to take power to impose a royalty on any ores that may be worked.

Madras.

No information as to minerals is given in the Bombay Administration Report for 1880-1. Bombay.

VIII.

M A N U F A C T U R E S.

COTTON.
Bengal.

LITTLE is said about cotton in the Bengal Administration Report for 1880-1; but the imports of twist and yarn (16,572,240 lbs., valued at 1,392,059 l.) increased by over 40 per cent. on the imports of the previous year, and were in excess of the demand. Local manufactures are steadily giving way before the importation of English piece goods.

Assam.

In a detailed account of the local manufactures of Assam given in the Administration Report for 1880-1, it is stated that weaving and cotton-spinning on a small scale is carried on throughout the province chiefly by women. The fabrics thus produced are more durable than English goods, but nevertheless the native industry is dying out before the foreign importations. In the native state of Manipur a valuable cloth is produced and extensively exported.

N. W. Provinces
and Oudh.

No details are given of the conditions of the cotton industry in the North-Western Provinces and Oudh during 1880-1; but the exports rose above those of the previous year owing to the good crop of 1880.

Punjab.

The estimated value of cotton manufactures in the Punjab during 1880-1 was 3,231,764 l. as against 2,796,709 l. in the previous year; but the returns are not considered trustworthy.

Central Provinces.

In the Central Provinces the work done at Nagpore at the Empress Weaving and Spinning Mills exceeded that of the previous year, although the number of looms and spindles had not increased, and was still below the number that existed before the great fire of December 1878. The average number of looms working was 240, of spindles 30,000. Almost 3,000,000 lbs. of cotton were worked up during the year: into twist 1,637,875 lbs., and yarn 1,037,845 lbs., valued respectively at 83,574 l. and 53,198 l. The average number of hands employed were 770 men, 110 women, 221 young persons, and 445 children; total 1,646 persons. In the month of March the electric light was introduced; with a view to carrying on work by night as well as by day, and a great increase in the outturn may consequently be expected. A Factories Act was introduced during the year.

British Burma.

In the Administration Report of British Burma for 1880-1 it is stated that the area sown with cotton has diminished of late years, the local weavers taking more and more to the use of yarns from Europe.

Ajmere.

In Ajmere, in 1880-1, there were estimated to be 50 cotton looms at work, employing 189 artizans, and producing goods to the value of 2,100 l.

Berar.

There were 14 steam cotton presses at work in Berar during 1880-1, with an outturn of 825,015 maunds. There were also 17,094 indigenous looms at work, the productive powers of which are not known. Over 31,000 persons were employed on the industry.

Mysore.

In Mysore, in 1880-1, the estimated value of cotton manufactures was 210,770 l.

Coorg.

In Coorg there were only 122 persons returned as employed in the manufacture of cotton. They produced nothing but coarse cloth, of the kind worn by the poorest classes.

Madras.

The following figures summarise the information given as to cotton in Madras in 1880-1:—Number of mills and large factories, 25; number of private looms or small works, 252,990; number of workmen in large works, men 3,314, women 1,433; number of independent artizans and workmen in small works, 454,034; number of European superintendents in large works, 16; total number of persons of all kinds employed, 458,797; estimated outturn, 39,540,315 lbs.; estimated value, 2,378,989 l.

Bombay. 7

During 1880-1 there were 10 cotton mills working in Bombay itself, and 10 in the Mofussil, the same number as in the previous year; but the number of spindles and looms rose from 1,163,432 to 1,170,820, and the amount of cotton consumed from 900,928 cwt. to 1,061,242 cwt. The average number of hands employed

employed daily was 37,028. Cotton gins worked by steam power increased from 2,254 in the previous year to 2,430. To this increase Surat contributed 100, Khádesb 42, Dhárwar 19, Broach 12, Bombay 2, and Nasik 1. The number of cotton presses licensed to work was 253 against 240 in the previous year, but the number worked by steam decreased from 101 to 97. COTTON.

The exports of silk from Calcutta were less in quantity in 1880-1 than in the previous year. Yet, notwithstanding a fall of 15 per cent. in the local price, they shewed an increase of nearly 6 per cent. in value. The demand indicated by this fact is due to the suitability of Bengal silk for the manufacture of satins and mixed fabrics. SILK.
Bengal.

The silk industry which prevails throughout the Burdwan division was not in a flourishing condition, the filatures which remained open existing only by paying very low wages. The works at Moorshedabad also continued in a languishing condition. In the Rajshahye division, the manufacture of silk was carried on on a large scale by two firms, with head quarters at Surdah and Kaliyah, and with smaller establishments scattered throughout the country. In the Bhagulpore district, although the Melbourne Exhibition is said to have given an impetus to the weaving of tusser in Bhagulpore and to the demand for the silk and mixed fabrics of Maldah, the industry, so far as European enterprise was concerned, was not prosperous. But the export of coarse native reeled silk was brisk. The outturn of raw silk fell, owing to a failure of the mulberry. In Chota Nagpore a development of the tusser manufacture is expected, as soon as the opening out of lines of communication brings the district into direct contact with the great commercial centres. Tusser is at present manufactured mainly in the Hazaribagh district, though the greater part of the silk is exported in the shape of cocoons and reeled silk. The *asan* tree, on which the worm feeds, is as plentiful in the western jungles of the district as in the regions where the trade now flourishes; and there is no reason why it should not be extended.

No information as to the silk industry is given in the Assam Administration Report for 1880-1. Assam.

For eleven months of the year 1880-1, sericultural operations in the North-Western Provinces were conducted by Messrs. Lister & Co., of Bradford, on behalf of Government. In February the firm took over the industry, and Government connection with it ceased. Messrs. Lister are extending the cultivation of the mulberry, and have introduced the castor-oil feeding worm. They have also established a system of cottage cultivation; and more than twelve maunds of cocoons were purchased from the villagers during the year. The firm expect a certain profit, if they can procure cocoons at Rs. 30 the maund, while the cost of cultivation to the villagers ought not to exceed Rs. 12 for the same quantity. Cottage cultivation, however, has now attained its maximum; and the further progress of the trade depends upon the extension of mulberry cultivation. N. W. Provinces
and Oudh.

The estimated outturn of the silk manufactures in the Punjab during 1880-1 was 136,809 L., shewing a slight increase on the figures of the previous year. The largest entries were under the Mooltan, Amritsar, and Delhi districts. Sericulture shewed a satisfactory advance in the Kangra and Gurdáspur districts, the cocoons raised from imported seed being of remarkably fine quality. The country worm has become diseased, but foreign seed is distributed gratuitously. Good progress has been made in mulberry planting, and the banks of the Bari Doab Canal and its distributaries will be utilised for the purpose. Experiments were made with tusser silk, but it was found not to pay the cost of reeling. Punjab.

In the Chatisgarh division of the Central Provinces the tusser silk industry exists, but only to supply local wants. During the year 1880-1 steps were taken to start an export trade in tusser cocoons. Central Provinces.

Silk forms a great part of the clothing of the Burmese; and at Prome and other towns in the Irrawaddy Valley there used to be a large production of piece goods; but latterly imported goods have undersold the local stuffs, and the quantity woven by natives has greatly diminished. The improved looms and shuttles introduced into the jails have succeeded, and an attempt will be made to train the native weavers to use them. British Burma.

SILK.
Ajmere.
Berar.

In Ajmere in 1880-1 there were estimated to be nine silk looms at work, employing 15 hands, and producing goods to the value of 375 l.

In Berar in 1880-1 there were 415 indigenous silk looms at work, employing 993 workmen. The value of the outturn is not stated.

Mysore.

The estimated value of silk manufactures in Mysore in 1880-1 was 19,875 l. Bangalore is the centre of the industry, which is reviving from the depression caused by disease among the worms.

Madras.

In the Madras Presidency, in 1880-1, there were 3,259 private looms at work, employing 8,265 artizans, and producing goods to the estimated value of 742,947 l.

Bombay.

During 1880-1 Major Coussmaker continued his experiments at Poona in tusser silk-worm rearing, but with no great success, although the plantations were reported thriving. About 60 lbs. of wild cocoons, fit for reeling, were collected, chiefly by *employés* in the Forest Department. Experiments were also continued on the Khandesh Model Farm. At Udepur a plantation has been established with the assistance of the Mahārānā.

JUTE.

The exports of jute from Calcutta showed a falling off during 1880-1; but the abundance of the grain crops in Bengal created a large local demand, and no decline in the industry took place, although at the beginning of the year the high price of the raw material, prevailing at the end of 1879-80, to some extent checked manufacture. No information is given as to the condition of the jute works in Madras and Bombay.

RHEA AND PAPER
FIBRES.

Since the failure of the efforts (recorded in the last number of this Report) to discover suitable machines for cleaning the fibre, nothing has been done to foster the cultivation of rhea. The plant, there is no doubt, can be easily grown in certain districts; and it remains to find some cheap means of bringing it into marketable condition.

Experiments were made in Bengal in 1880-1 with such wild grasses as were thought likely to yield a serviceable paper fibre, but without good results. Thus far, the plaintain seems to be the most suitable plant for the purpose, and Government has offered to supply stems to anyone wishing to try experiments in the Chittagong Hill Tracts or elsewhere. The native paper manufactured in Hooghly and Burdwan is being rapidly superseded by English paper and the produce of the Bally Mills, near Calcutta.

In British Burma concessions were granted during 1880-1 to Mr. Routledge to enable him to execute his project of manufacturing paper stock from the bamboo; but no practical steps were taken on the concession. Mr. Routledge is allotted as much bamboo forest as is necessary for his purposes, free of royalty for 10 years; and he is to receive a fee of at least one rupee per ton on all stock which other manufacturers may raise from the Burma forests during the next 30 years. If bamboo stock can be produced as cheaply as esparto grass stock, the establishment of an important industry is secured.

MISCELLANEOUS
MANUFACTURES.
Bengal.

Little is said about the less important manufactures in the Bengal Administration Report for 1880-1. In North Behar the high fee of Rs. 2 levied by the Inland Customs Department on licenses to manufacture crude saltpetre, caused the Nooniyas to refuse to take out licenses; but, towards the close of the year, a few were compelled by want to give in, and the fee has since been lowered to four annas, with the result that the industry has revived. In Orissa the outturn of salt increased in Pooree and Balasore, while it remained stationary in Cuttack. The increase is attributed to more favorable weather; to the expectation of an enhanced demand in consequence of the opening of the Orissa Coast Canal works; and to the endeavour to produce a quantity, the duty on which would be twenty times the cost of the Preventive Establishment, so as to earn the payment of the cost of the Establishment by the State. But, though the outturn was thus artificially increased, the sales fell off.

Assam.

The state of the tea industry in Assam during 1880-1 has been described in Chapter V. The Administration Report of the year contains a detailed account of the indigenous industries of the province, but they are none of them of any great importance. In Sylhet and in the Assam Valley division sugar is made, though

though the process is not carried beyond the stage of geer and treacle. The local production however does not at all meet the demand, and large quantities are imported both for smoking and eating. In the Assam Valley division mustard oil is being produced in increasing quantities. MISCELLANEOUS MANUFACTURES.

During 1880-1 in the North-Western Provinces and Oudh the efforts made to check the decline of native arts and manufactures, which seemed unable to withstand the competition of the cheaper European goods, began to bear fruit. The bazaar opened at Allahabad in 1878 brought many objects of native workmanship into notice, and arrangements were made with certain firms in Bombay and London for the regular supply of certain articles. It is also hoped that the Melbourne and Sydney Exhibitions, where prizes were won by manufactures from the province, may help the local industries. The most important objects produced are jewelry, shawls, metal, ebony carving, and inlaid woods. N. W. Provinces and Oudh.

Next to cotton, gold and silver work and jewelry are the most important products of the Punjab. The outturn of these during 1880-1 was estimated at 2,748,625 *l.* as against 2,307,305 *l.* in the previous year. In this trade Delhi stands preeminent. The value of leather work produced during the year is put at the high figure of 1,300,000 *l.* The following are the estimated value of the remaining important industries: wood, 852,018 *l.*; oil, 838,261 *l.*; iron, 734,048 *l.*; dyeing, 403,947 *l.*; brass and copper, 164,827 *l.*; wool, 122,469 *l.* The total estimated value of all manufactures in the province during the year was put at 12,500,000 *l.*, half of which falls under the heads of cotton, gold, silver, and jewelry. Punjab.

In British Burma three new rice mills were opened during 1880-1, and there are now 49 rice mills, in all, at work. Of these 28 are at Rangoon, and seven at each of the other rice ports, Moulmein, Akyab, and Bassein. Twenty of the Rangoon rice mills can prepare white rice for European consumption. The rest of the mills produce cargo rice, which has again to be passed through cleaning mills on arrival at the port of destination. White rice cannot stand the journey round the Cape, but it does not suffer in quality when sent through the canal. Great improvements have been introduced in the machinery and working of the mills. In some the engines consume rice husk as their only fuel, which is not only an economy but of public advantage, as the innumerable tons of husk which used to be thrown into the creeks every year, threatened to close some of the channels. In four of the larger mills the electric light has been introduced, and they now work day and night in the busy season. British Burma.

Sugar is said to present a good field for enterprise, though many years ago an attempt to establish factories at Moulmein failed. The soil of the Delta districts is well suited to grow sugarcane without irrigation, though little is produced, geer in large quantities being imported from Mandalay, and manufactured sugar by sea.

The following are the details, given in the Ajmere Administration Report for 1880-1, of the estimated outturn of the more important industries of the province: gold and silver lace, 12,316 *l.*; oils, 5,527 *l.*; leather, 4,460 *l.*; iron, 2,443 *l.*; dyeing, 2,385 *l.*; wood, 1,575 *l.*; brass and copper, 1,018 *l.* The value of the total outturn is estimated at 50,391 *l.*; the number of artizans at 2,553. Ajmere.

The oil manufactory established in Berar by the Mofussil Company shewed a falling-off in 1880-1, the outturn being estimated at 3,200 *l.* as against 5,000 *l.* in the previous year. Berar.

The total estimated value of manufactures of all kinds in Mysore in 1880-1 was 628,165 *l.* Mysore.

During 1880-1 an extensive tile manufactory was established at Mercara, where tiles of the Mangalore pattern are made of a quality as good as that of the original. The demand is considerable and growing, and there is abundance of clay well suited for the purpose. Coorg.

The estimated value of manufactures in Madras during 1880-1 was 5,556,158 *l.* as against 5,759,146 *l.* in the previous year. Of these the most important are: cotton, 2,409,782 *l.*; gold and silver, 787,745 *l.*; wood, 676,550 *l.*; iron, 274,713 *l.*; brass and copper, 145,561 *l.*; sugar, 90,524 *l.*; vol, 81,393 *l.*; silk, 74,294 *l.*; wool, 72,041 *l.*; fibres, 53,222 *l.*; arrack, 36,500 *l.*; pottery, 28,853 *l.*; leather, 24,690 *l.*; tiles and bricks, 7,486 *l.*; saltpetre, 4,031 *l.* Madras.

66 STATEMENT EXHIBITING THE MORAL AND MATERIAL

MISCELLANEOUS
MANUFACTURES.
Bombay.

The Bombay Administration Report for 1880-1 contains a detailed account of the minor manufactures carried on in the several districts of the Presidency; but they are not of any great importance.

The law regulating the inspection of steam boilers and prime movers has worked satisfactorily, in all but financial respects. During the year 211 boilers were inspected as against 230 in the previous year. In 11 cases boilers were altogether condemned; in 21 others alterations were ordered. No appeals were made against the inspector's decisions. The fees realised amounted to 599 £, and the deficit in the year of the Steam Boilers' Inspection Fund was 294 £. This is less than in 1879-80; but no real improvement is expected till Bill, No. 9 of 1878, increasing the fee and extending the operations of the Act to boilers of all classes, has been passed. The Bill for the present has been deferred.

X.
TRADE.

The following table is a comparative statement of the total private trade for the last four years. The rupee is taken at the conventional rate of 2 s. SEABORNE TRADE.

	1877-8.	1878-9.	1879-80.	1880-81.
PRIVATE IMPORTS :				
Merchandise - - - - -	£ 39,326,003	£ 36,566,195	£ 39,742,166	£ 50,308,834
Treasure - - - - -	17,955,460	7,056,748	11,655,395	8,988,214
TOTAL - - - - -	56,681,463	43,622,943	51,397,561	69,297,048
PRIVATE EXPORTS :				
Merchandise - - - - -	65,185,713	60,893,611	67,173,158	74,531,282
Treasure - - - - -	2,155,136	3,895,545	1,928,828	1,409,403
TOTAL - - - - -	67,340,849	64,789,156	69,101,986	75,940,685
TOTAL PRIVATE TRADE - - - - -	124,022,312	108,412,099	120,499,547	135,237,733
Excess Exports of Merchandise - - - - -	25,859,710	24,327,416	27,430,992	24,222,448
Excess Imports of Treasure - - - - -	15,200,324	3,161,204	9,726,567	7,587,810
Net Exports of Private Trade - - - - -	10,659,386	21,166,212	17,704,425	16,634,638
Net Exports of Total Trade (including Government transactions).	8,613,679	20,662,399	16,426,112	13,916,503
Percentage of Total Trade <i>via</i> Suez Canal - - -	54.16	48.64	51.64	58.78

The year was one of extraordinary prosperity, recovery from the effects of the famine coinciding with the general revival of trade which, on the whole, has been maintained since September 1879. This prosperity was manifest in the thriving condition of local industries, as well as in imports and exports. The high figures of the latter are stated to be due to a healthy condition of trade, and not to any temporary inflation, such as that which characterised the year 1877-8.

The percentage of the total sea-borne trade (including treasure and Government stores) per head of the population of India was a fraction less than 11 s. ; or, taking only private merchandise into account, it was 9 s. 10½ d. Although this is a low figure in comparison with any European country, it may be considered a very satisfactory one when the poverty of the Indian people is taken into account.

Imports of merchandise were greater by 10½, and exports by over 7 millions, than those of the preceding or any previous year. The excess of exports over imports was considerably below the average.

The extent to which the treasure received in India is used for the purpose of coinage may be gathered from the following table:—

Treasure and Coinage.

	Four Years, 1868-9 to 1871-2.	Four Years, 1872-3 to 1875-6.	Four Years, 1876-7 to 1879-80.	1880-1.
Net Imports of Gold - - - - -	£ 16,598,994	£ 7,344,667	£ *1,529,810	£ 3,664,199
Coinage of Gold - - - - -	123,221	73,477	30,450	13,354
Excess of Imports - - - - -	16,475,773	7,266,190	1,499,360	3,650,845
Net Imports of Silver - - - - -	23,395,672	9,408,525	33,715,643	3,892,574
Coinage of Silver - - - - -	15,089,182	13,798,022	39,919,185	4,249,676
Excess of Imports - - - - -	8,306,490	—	—	—
Excess of Coinage - - - - -	—	4,389,497	6,203,542	357,102
TOTAL (Gold and Silver) :				
Excess of Imports - - - - -	24,782,263	2,876,693	—	3,209,743
Excess of Coinage - - - - -	—	—	4,704,182	—

* The net import during 1879-80 was 1,750,504 L.; in the other three years of the series there was either an insignificant importation or an excess of exports.

SEABORNE TRADE.

The excess of the amount of coinage over the quantity imported of the precious metals during the years immediately preceding the one under review is an index of the distress occasioned by the famine. It is stated in a Government notification (No. 501, 5th February 1881), published in the "Gazette of India," that bullion was thus thrown on the market, in addition to that imported, to the value of 3,320,000 *l.*

An evidence in 1880-1 of the return of prosperity is the very considerable importation of gold, which had fallen to an extremely low ebb. Should this continue at the same rate in future years, the absorption of the precious metals by India for purposes of luxury will approximate the conditions of the times prior to 1872-3, from which year the operation of well-known causes began to contract the capacity of the Indian people for importing treasure.

The amount of the Council bills drawn in 1880-1, at the same nominal exchange as the trade figures, was 18,327,700 *l.*, exceeding the total net exports of the Indian trade by nearly 4½ millions sterling.

The increase in imports under the head of Government Stores (2,807,936 *l.*, against 1,423,837 *l.*) is partly nominal, caused by the transfer to that head of stores imported for the East Indian Railway. There was, however, an actual increase connected with railway construction in the North-West. Orders have been issued enjoining as far as practicable the use of store articles of Indian manufacture.

The private trade was thus divided among the several maritime provinces:—

	1877-8.	1878-9.	1879-80.	1880-81.
	£.	£.	£.	£.
Imports:				
Bengal - - - - -	24,348,845	18,432,196	21,778,651	24,099,954
Bombay - - - - -	26,035,841	18,342,071	22,142,154	25,993,018
Sind - - - - -	391,196	537,797	843,926	1,155,250
Madras - - - - -	3,622,445	3,331,176	3,599,025	4,210,582
British Burma - - - - -	2,283,196	2,979,703	3,033,805	3,840,346
TOTAL Imports - - - £.	56,681,463	43,622,943	51,397,561	59,306,048
Exports:				
Bengal - - - - -	31,265,524	29,850,084	30,704,339	33,608,055
Bombay - - - - -	23,876,366	22,070,464	23,854,538	27,481,860
Sind - - - - -	1,663,920	1,003,160	1,391,062	1,068,547
Madras - - - - -	5,864,592	6,519,490	7,439,087	7,317,187
British Burma - - - - -	4,670,427	5,346,008	5,712,960	6,565,236
TOTAL Exports - - - £.	67,340,849	64,789,156	69,101,986	75,940,685

The imports into Bengal include treasure to the value of 1,835,549 *l.* (against 3,104,089 *l.* in 1879-80), and in the Bombay return is included 6,719,139 *l.* on account of treasure, against 8,025,849 *l.* The increase of merchandise is therefore greater than is apparent from the table. The decline in imported treasure is in fact consequent on the increase of imported, and the decrease of exported merchandise. The general result of the year's trade is that there was a satisfactory increase in the exports at all ports (Madras and Sind excepted). British Burma appears to be maintaining the progress of past years, while Sind does not show signs of fulfilling the brilliant prophecies made as to its future.

ADEN.

The trade at this port is chiefly transit; the total value of imports by sea was 1,977,581 *l.* (exclusive of Government transactions) on 91,082 *l.* in excess of the previous year. The import trade from Berbera shews a diminution in all articles except raw hides and skins. The total trade with Zaila and the other North Eastern Ports of Africa improved 14 per cent. on last year's returns, and 80 per cent. on the returns of 1876-7. The exports by sea (exclusive of Government transactions) stood at 1,553,450 *l.*, being an increase of 34,927 *l.* on the preceding year. The increases were with Italy, the East Coast of Africa, Mauritius, Arabia, and Bombay; and the decreases mainly with France and the United States in coffee, and Zanzibar in treasure. The value of the land import trade aggregated 197,920 *l.*, or 55,539 *l.* less than in the previous year, and of the land exports 111,142 *l.* or decrease of 2,561 *l.*; 2,503 vessels of 1,634,000 tons burden entered and cleared the port against 2,086 vessels of 1,320,765 tons in the previous year.

The

The relative importance of the trade of India with different countries will be apparent from the following statement:—

SEABORNE TRADE.

	1879-80.			1880-81.		
	Imports of Merchandise.	Exports of Merchandise.	Total Trade, including Treasure.	Imports of Merchandise.	Exports of Merchandise.	Total Trade, including Treasure.
	£.	£.	£.	£.	£.	£.
United Kingdom - - -	32,042,848	27,394,925	64,819,854	41,292,635	31,007,511	76,373,691
China - - - - -	1,579,074	15,523,677	21,818,645	1,989,762	14,943,650	18,680,646
France - - - - -	428,279	4,853,885	5,457,730	705,580	6,496,012	7,298,866
Straits Settlements -	1,278,645	2,723,298	4,172,424	1,476,244	3,161,747	4,734,950
Italy - - - - -	449,605	2,214,839	3,000,178	576,327	2,781,204	4,356,251
United States - - -	526,262	3,286,650	3,812,912	490,848	2,618,225	3,109,073
Ceylon - - - - -	481,098	2,002,032	3,713,260	405,381	1,778,532	3,103,597
Austria - - - - -	116,395	1,859,015	2,016,083	228,486	2,226,010	2,652,232
Mauritius - - - - -	883,040	904,660	2,063,248	1,206,190	756,813	2,103,762
Arabia - - - - -	346,819	850,445	1,633,409	334,848	987,482	2,059,275
Persia - - - - -	537,210	1,032,156	1,846,279	490,057	1,043,651	1,764,718
Australia - - - - -	244,360	459,894	712,295	112,056	533,328	940,295
Turkey in Asia - - -	202,494	393,358	816,458	181,922	375,336	781,257
Zanzibar - - - - -	241,676	223,571	596,530	248,832	378,921	686,100

No treasure passes between India and the United States, nor from India to Italy or Australia.

The trade with the United Kingdom stood as follows, in comparison with the preceding three years:—

	1877-8.	1878-9.	1879-80.	1880-1.
	£.	£.	£.	£.
Imports from United Kingdom:				
Merchandise - - - - -	32,211,303	28,912,136	32,042,848	41,292,635
Treasure - - - - -	12,919,423	3,044,263	5,016,079	3,921,443
TOTAL Imports - - -	45,130,726	31,956,399	37,058,927	45,214,078
Exports to United Kingdom:				
Merchandise - - - - -	29,813,606	25,903,847	27,894,925	31,007,511
Treasure - - - - -	1,180,210	2,484,070	366,002	152,102
TOTAL Exports - - -	30,802,816	28,387,917	27,760,927	31,159,613
TOTAL TRADE - - -	75,933,542	60,344,316	64,819,854	76,373,691

Imports of merchandise thus improved by 9½ millions, and exports by more than 3½ millions; the former figure absorbing the greater part of the increase in the import trade of India generally, and the latter being about one half of the total increase of the export trade. The imports equalled the aggregate imports from all countries into British India in any previous year. They exceeded the exports by over 5½ millions, a phenomenon due to the fact that a great deal of the import trade from France is conducted indirectly through England, while, on the other hand, the use made of England as an *entrepôt* for exports to other European countries has decreased with the development of direct communication.

There appears to be a persistent decline in the export trade to the United Kingdom in sugar and in raw silk. In the following articles of export a considerable development appeared: cotton, indigo, rice, wheat, catch, hides and skins, lac, linseed, and teak-wood.

The per-centage of the direct trade between India and the United Kingdom, which had decreased for some years, now shows a rise, from 53.79 to 57.30.

The imports to India amounted to 2,672,412 l. from Hong Kong, of which 1,115,242 l. was treasure, and 1,026,633 l. (treasure 594,041 l.) from the Treaty Ports; the average imports from Hong Kong for the previous three years was 3,547,444 l., and from the Treaty Ports 1,004,821 l. These figures show a total decrease in imports from China of 1,887,913 l., but under the head of merchandise there was an improvement, the diminution in imports of treasure having amounted to 2¼ millions sterling. The exports to Hong Kong for the

SEABORNE TRADE. year were 10,844,523 *l.*, of which 8,182,410 *l.* was on account of opium, and to the Treaty Ports 4,137,077 *l.* (opium, 4,110,920 *l.*), the averages for the last three years being respectively 10,346,229 *l.*, and 3,720,363 *l.* Compared with the figures for the previous year the exports to the Treaty Ports diminished by 1,142,592 *l.*, and to Hong Kong increased by 392,505 *l.*; these variations were mainly in respect of opium; but the quantity of cotton exported from Hong Kong increased markedly. The import trade from the Treaty Ports exhibits a general expansion. The falling off in quantity of opium sent from India to China, as compared with the year 1879-80, amounted to 12,443 chests, weighing 15,976 cwt. The Reports of Her Majesty's Consuls in China for 1880 assign reasons for this diminished importation. An overstocked market, and the scare caused by the anticipated rupture with Russia, are mentioned in two Reports, while there is a general agreement as to the greatly increased cultivation, and in some cases improved quality, of the native drug. In the neighbourhood of Wenchow the cultivation of the poppy is said to be making "giant strides." The Consul at Shanghai remarks:—"While there is reason to believe that the native drug is making itself felt on the seaboard in competition with Indian opium, the latter is making no impression upon the western half of China, where native opium is in general use; in fact, we hear of a considerable quantity of Chinese opium finding its way across the frontier into Upper Burma." Shanghai being regarded mainly an *entrepôt*, Chinkiang is the chief importer of opium among the treaty ports; here there was in 1880 a falling off in each kind of opium, but principally in Malwa, the high price of which, as opium smoking extends, makes it necessary to place cheaper kinds on the market. The improvement in the preparation of Persian opium has rendered it possible to adulterate Malwa with it. Persian is never used alone, owing to the burning taste it leaves in the throat. Formerly Persian was taxed at the same rate with native, but on its sudden increase in 1878, official attention was attracted to its foreign origin, and it has since been classed with foreign opium, which no doubt is one reason for the decline of imports. There is a marked improvement in the trade with France. Under the head of silk piece goods imported there was an advance from 100,309 *l.* to 303,755 *l.*, but the brandy trade has received a check from the growing predilection in India for whiskey. Exported shawls declined in quantity, but increased in value from 7,630 *l.* to 18,461 *l.* The Straits Settlements are a great *entrepôt*, on the one hand for European and American, and on the other for Chinese goods. Among the imports of local production are tin and cigars; the latter have of late considerably fallen off, cigars of Indian manufacture, which are cheap and yearly improving in quality, being more and more preferred to the expensive yet inferior ones obtained from Manilla. Opium represented nearly half of the exports to the Straits. Trade with Italy improved generally. The staple export is cotton, and there is a demand, which it is hardly the interest of India to satisfy, for cheap tobacco. Imports from the United States amounted to 490,848 *l.* against 526,262 *l.* in the previous year, and an average for three years of 384,934 *l.* Exports stood at 2,618,225 *l.* against 3,286,650 *l.* and an average for three years of 2,419,355 *l.* The figures for the year under review show a falling off from the previous year, but an average improvement. The impetus given to imports of grey cotton piece-goods received a check, the quantity falling from 1,104,000 yards to 819,337 yards. It would be better if paper-making material, instead of being exported to America, were utilised in India. A large increase is noted in imports from Mauritius, valued at 1,206,190 *l.*, of which sugar absorbs 1,199,772 *l.* Of the exports of merchandise to Arabia, 248,459 *l.* represented re-exports, and 739,023 *l.* Indian goods. The value of cotton piece-goods of Indian manufacture was 55,373 *l.*, against 157,173 *l.* Manchester goods. Coffee is largely sent to Arabia, partly to supply the deficiency caused by the export thence of the more valuable Arabian coffee, and partly to be re-exported as "genuine Mocha," or mixed with real Mocha. The export trade with Persia is mostly in foreign goods, these were valued at 722,627 *l.*, as compared with 321,024 *l.* goods of Indian origin. In the Australian trade a decrease of imports was accompanied with an increase of exports. The import trade does not seem to be a very encouraging one. The supply of horses from Australia is equal to the demand, and keeps at a steady figure (about 2,000) from year to year. The trade in copper and in coal is very fluctuating. The quality of Australian wines is not such as to commend them

them to the Indian consumer. Woollen goods, while of excellent quality, are too expensive even for the colonists themselves, but may hereafter, by admixture with cotton, become available for use in India. The chief exports are rice, gunny bags, castor oil, and tea. The latter received a great stimulus through the Melbourne Exhibition; there is said to be relatively as good an opening for Indian coffee in Australia as for Indian tea. Notwithstanding the direct steam communication now established with Europe *via* Aden, the trade with Zanzibar appears to maintain itself. Exports of Indian piece-goods are steadily increasing; in 1880-1 they amounted to 10,917,403 yards (more than double the supply of the preceding year), against 11,335,776 yards of English piece-goods.

SEABORNE TRADE.

The subjoined table gives the quantities and values of the principal articles of trade, as compared with the previous year :

Principal Articles of Trade.	1880-81.		More or less than in 1879-80.	
	Quantity.	Value.	Quantity.	Value.
IMPORTS.				
<i>Manufactures, &c.</i>				
Cotton twist and yarn - lbs.	45,876,575	£ 3,699,177	+ 12,663,623	+ 953,871
Cotton piece-goods (grey, white, and colored) - yds.	1,773,864,274	22,384,370	+ 440,302,482	+ 5,810,462
Silk - lbs.	2,311,802	1,067,018	+ 506,782	+ 383,783
Silk piece-goods - yds.	13,574,085	1,348,616	+ 5,070,627	+ 512,639
Woollen manufactures - "	-	1,209,130	-	+ 371,254
Metals - "	3,387,880	3,779,677	+ 549,058	+ 48,412
Machinery - "	-	769,844	-	+ 153,011
Railway materials - "	-	*1,117,765	-	+ 84,716
Coal (including coke, &c.) - tons	683,768	1,239,855	+ 92,845	+ 101,648
Oils - gals.	10,286,671	529,175	+ 243,038	- 16,758
<i>Food.</i>				
Sugar - cwt.	986,321	1,611,157	+ 334,312	+ 542,369
Liquors: Malt - gals.	1,152,678	284,935	+ 87,331	+ 30,673
" Spirits - "	848,238	663,184	+ 33,904	+ 4,064
" Wines, &c. - "	488,463	438,447	+ 35,870	+ 42,544
Provisions - "	-	920,181	-	+ 128,651
Salt - tons	373,376	665,517	+ 21,138	- 97,045
† EXPORTS.				
<i>Raw Products.</i>				
Opium - cwt.	127,484	13,600,148	- 17,154	- 723,166
Cotton - "	4,541,539	13,241,734	+ 593,063	+ 2,096,281
Wool - lbs.	22,602,690	1,014,137	- 5,766,104	- 81,833
Silk - "	1,302,576	548,202	- 93,930	+ 32,045
Oil-seeds - cwt.	10,229,109	6,345,209	+ 3,137,640	+ 1,659,316
Jute - "	5,809,815	3,934,030	- 870,855	- 456,002
Tobacco (including cigars, &c.) lbs.	13,673,141	140,831	+ 2,261,046	+ 11,021
<i>Manufactures, &c.</i>				
Cotton goods (including twist, &c.) - cwt.	56,836,629	1,802,809	+ 5,506,070	+ 262,503
Jute manufactures - "	-	1,130,672	-	+ 64,690
Indigo - cwt.	116,870	3,671,581	+ 15,947	+ 624,355
Hides and skins - "	811,989	3,733,565	- 146,690	- 4,440
<i>Food.</i>				
Rice (not in the husk) - cwt.	26,769,344	8,971,661	+ 4,861,299	+ 929,276
Wheat - "	7,444,375	3,277,942	+ 5,248,825	+ 2,156,927
Tea - lbs.	46,413,510	3,054,240	+ 8,239,389	+ 3,220
Coffee - cwt.	369,357	1,599,609	+ 10,044	- 27,077
Sugar - "	534,174	311,751	+ 219,595	+ 105,880

* Not including materials for East Indian Railway, now transferred to Government stores.

† Indian produce and manufacture only.

The raw cotton imported into India comes mostly from Persia, and is used in the Bombay mills to supplement Indian cotton. The decrease of quantity appears to have been due to the large stock in hand. In cotton twist and yarn, and in white cotton piece-goods, more than the whole of the increase of value was due to increased quantity, prices having been lower; in grey and coloured piece-goods prices as well as quantities improved. Under all classes of cotton goods the trade surpassed that of any former year; competition tended, however, to keep down prices, and to overstock the market. The greater proportion of the increase in the value of raw silk imported was due to a rise of prices, but the increase in that of silk piece-goods was almost entirely caused by increased quantity. The production of raw silk in India appears to be gradually dying out, but the manufacture is maintained, and the imports of the material, mainly from China and Japan, annually increase. The industry flourishes in the

SEABORNE TRADE.

Bombay Presidency; in Bengal, "the very centre of Indian silk production, there is not a mill to be found." A considerable advance appears under the head of woollen goods. The Collector of Customs at Calcutta says that the extension among the lower classes of natives of the practice of wearing woollen clothes in the cold season has led to a demand for the lower and cheaper qualities. In the British Burma Trade Report it is noticed that "the enormous imports met with a ready sale." There was again this year an enormous increase in the quantity of kerosine imported, with a further fall of price. The supply of the oil wells in America is not only in excess of the demand, but also beyond the storage capacity of the warehouses, and therefore runs to waste. A firm working the oil wells in the Borongo island, near Akyab, has succeeded in producing an oil quite equal for illuminating purposes to American oil, and "competition with imports is now only a question of price." The Indian mills at present only produce the coarser kinds of paper, and there was a large increase of imports. The native manufacture is considered capable of great advancement. The increasing competition of aniline dyes threatens to extinguish the native industry, which, "though probably the oldest in the country, may be said to be in its infancy as regards the processes employed." It is hoped that capitalists may take up the business, and conduct it on a large scale, with the aid of the latest improvements. The statistics show the continued displacement of other spirits by whiskey, and a considerable falling off in the importation of claret. Whiskey, taken with soda water, is said by the Collector of Customs at Calcutta to be becoming a far more common beverage at meals, "owing to the recommendations of the medical faculty." China tea is imported for the use of the native population, for whom Indian tea is too expensive. The latter is at present almost entirely prepared in large parcels for export; there is, however, said to be a scheme of making up small quantities for retail in the bazaars. The gold mining projects in the Wynaad district have of late seriously diverted attention from the coffee industry, which partly accounts for the increased imports from other countries. An advance of 3½ millions sterling in 1879-80 in the value of raw cotton exported from India was followed in 1880-1 by a further advance of over 2,000,000 l. The following is a statement for seven years, showing the several maritime provinces from which the exports were sent :

	Bengal.	Madras.	Bombay (including Sind.)	British Burma.	TOTAL.
	£.	£.	£.	£.	£.
1874-5	523,700	1,569,781	13,084,960	78,901	15,257,342
1875-6	816,079	1,577,621	10,373,762	210,601	13,278,063
1876-7	800,886	1,026,515	9,776,862	141,921	11,746,184
1877-8	255,263	328,039	8,601,943	198,289	9,383,534
1878-9	850,614	886,586	6,042,958	123,888	7,913,046
1879-80	2,029,383	1,098,082	7,869,616	148,372	11,145,453
1880-1	2,305,358	613,358	10,604,826	58,192	13,241,734

The recovery from recent depression, as exhibited by this statement, is very satisfactory, and this flourishing condition of the export trade is co-existent with a large local demand for the Indian mills, and with abundant crops in America. There was also a small improvement in the average value. The demand from Lancashire was stimulated by the immense consumption in India of cotton goods of the lower duty free classes. There were, however, besides, large exportations to other countries, as follows: England, 2,019,612 cwt.; Italy, 633,891 cwt.; France, 605,954 cwt.; Austria, 559,100 cwt.; China, 371,185 cwt. The demand from China is on the increase. Exports of cotton twist and yarn, which have been steadily advancing for some years, showed a further substantial increase in 1880-1. The same may be said of cotton manufactures, which (including all sorts) were valued at 626,558 l., against 512,513 l. in the preceding year. The Indian mills have lately begun bleaching their goods. In raw silk there was a decline of quantity, with an increase of value; in silk manufactures an increase of quantity, with a decrease of value. The quantity of the raw material exported (not including chussum and cocoons) compares as follows with

with three former periods. 1877-8, 1,512,819 lbs.; 1878-9, 1,329,599 lbs.; 1879-80, 563,210 lbs.; 1880-1, 550,665 lbs. The prices of silks generally in the European market declined in 1880, but those of Bengal silk did not fall proportionately to those of other qualities; this is accounted for by the demand for this sort, owing to its being specially suitable for the manufacture of satins and of the mixed fabrics which still continued in fashion. The quantity of silk imported was nearly double that exported. There was a very great falling off in the exports of raw wool, with an increase of price. In woollen goods there was an advance. The manufacture of these goods is now being developed in the country. A revival took place in the shawl trade, said to be the result of a change of fashion which has again brought Cashmere shawls into demand. The number of shawls exported was 26,601, value 150,179 *l.* against 21,378, value 88,838 *l.* in the previous year, the average figures for the last three years being, number 26,820, value 121,234 *l.* In all kinds of seeds (except rape-seed) there was considerable advance in the export trade. Linseed, 1879-80, 2,030,602 *l.*; 1880-1, 3,698,126 *l.*; rape-seed, 1879-80, 853,772 *l.*; 1880-1, 671,034 *l.*; til or jinjili, 1879-80, 1,197,904 *l.*; 1880-1, 1,312,693 *l.*; poppy, 1879-80, 375,135 *l.*; 1880-1, 397,625 *l.* A marked decrease appeared in the exports of jute, nor was this occasioned by an increased local manufacture, which also was restricted in consequence of the high price of the raw material. It is said that the Dundee manufacturers found it impossible to work remuneratively at the high rates that prevailed during the early part of 1880. Italy took 46,403 cwt., and Spain 41,918 cwt. The latter country has generally supplied her requirements from the United Kingdom. A very great expansion of the exports of tobacco took place, but there was a decline of average price. The growth and manufacture of tobacco at Poosa by Messrs. Begg, Dunlop, & Co., are stated to be now a complete success; and Madras cigars are also improving very much. The increase in the quantity sent to the United Kingdom was nearly 2½ million lbs. (4,176,080 lbs. against 1,743,116 lbs.) Under the head Indigo there is a recovery in quantity (116,870 cwt. against 100,923 cwt., and a further advance in price, 3,571,581 *l.* against 2,947,226 *l.* in the previous year). The crop was a large one, and the proportion of good indigo unusually great. The unfavorable rates of exchange are stated to have induced many importers to buy indigo as a means of remittance in preference to purchasing drafts. The export trade in lac has revived a little in consequence of the fashion in America for maplewood furniture, for which the very best hard clear lac is required as a basis for the transparent varnish. The increase in the value of rice was 629,976 *l.*, about a third of what it would have been had the prices kept up. The quantity exported was 26,769,344 cwt. The wheat trade is fluctuating, the value ranging during the last seven years between 490,435 *l.* in 1874-5 and 3,277,942 *l.* in the year under report; the figures for last year were 1,121,015 *l.* There was a diminution in price. A very great increase in the quantity of tea exported was accompanied with a further serious depression of prices. Had not the latter taken a more favourable turn after the close of 1880, the industry would have been threatened with ruin. Better prices in London attracted thither nearly the whole of the tea produced in India, notwithstanding the promising market opened up in Australia. In coffee exports there was an increase of quantity, with a marked decrease of value. If the exports from Travancore and Cochin are taken into account, the total is 379,981 cwt. The tendency of coffee planters to neglect their business owing to gold mining speculations has been already referred to. The receipts from import duty amounted to 4,083,521 *l.*, including salt, and 1,771,358 *l.*, excluding salt. The export duty brought in 718,661 *l.* The figures for the preceding year were respectively, 3,975,914 *l.*, 1,592,286 *l.*, and 637,661 *l.* Deducting refunds and drawbacks, the net revenue from imports was 1,729,209 *l.* Of this, 107,018 *l.* was realised from cotton twist, 609,545 *l.* from cotton piece-goods, &c., 376,606 *l.* from liquors, 132,745 *l.* from metals, 102,973 *l.* from silk, 75,406 *l.* from sugar, and 59,526 *l.* from woollen goods. Had duty been leviable on the grey goods now exempted, the amount would have been about 455,000 *l.*; in the preceding year it would have been over 210,000 *l.* In this year, for the first time, rice was the only article remaining on the export tariff; nevertheless, owing to the increased trade in that staple, the revenue was nearly 81,000 *l.* (or net 77,427 *l.*) higher than that of 1879-80.

SEABORNE TRADE.

Customs Revenue.

74 STATEMENT EXHIBITING THE MORAL AND MATERIAL

SHIPPING.

The number and tonnage of vessels engaged in the foreign trade which entered at Indian ports were as follows, compared with preceding years:—

	TOTAL.		Steamers only.	
	Number.	Tonnage.	Number.	Tonnage.
1877-8 - - - - -	6,353	2,877,049	1,123	1,265,687
1878-9 - - - - -	5,780	2,556,961	1,027	1,155,616
1879-80 - - - - -	6,072	2,763,621	1,199	1,375,001
1880-1 - - - - -	6,100	3,168,973	1,468	1,742,255

It will be observed that the aggregate tonnage was considerably in excess of all the previous years. The percentage of steam tonnage to the total tonnage has advanced each year, and in 1880-1 was 55.

FRONTIER TRADE.

The aggregate value of the import and export frontier trade, which had for two years remained stationary, now advanced from 8,891,415 l. to 9,380,271 l. The increase is mainly due to development of trade with Kabul, Kashmir and Nepal. Trade with Kandahar and Upper Burma shewed a material decline. The cessation of hostilities with Kabul caused a revival of trade, which was however chiefly confined to imports from India, while the revival of hostilities in Southern Afghanistan, which culminated in the battle of Maiwand and the subsequent engagements, practically put a stop to the trade with Kandahar. On the disappearance of famine from Kashmir, trade recovered, and a great demand for sleepers on the Punjab Northern State Railway enhanced the totals. The trade with Upper Burma was hampered by the restrictive action of the king in regard to monopolies, &c., and the momentary expectation of a collision between the Governments. It is thought, however, that the clause of the Commercial Treaty which limited to 1 per cent. *ad valorem* the rate of duty on imported goods landed at Rangoon declared for export to Upper Burma, has operated injuriously on the interests of petty traders, inasmuch as it has practically confined the trade to large capitals to the exclusion of the retail peddling traders. Below are the figures of the frontier trade as far as it is registered:

	Imports.	Exports.
	£.	£.
Beloochistan - - - - -	84,743	154,486
Sewestun - - - - -	23,206	59,110
Candahar and Pishin - - - - -	32,732	172,188
Cabul - - - - -	251,838	863,052
Tirah and Bajaur - - - - -	49,018	68,845
Cashmere (not including Ladakh) - - - - -	709,272	334,934
Ladakh - - - - -	17,846	31,168
Thibet and Towang - - - - -	69,445	21,987
Nepal - - - - -	1,606,929	923,723
Sikkim - - - - -	16,796	8,090
Bhootan - - - - -	26,599	20,418
Hill Tribes and Munnipore - - - - -	46,974	23,916
Burma - - - - -	1,613,972	1,712,302
Karennee - - - - -	352,872	104,326
Zimmay und Shan States - - - - -	78,481	32,191
Siam - - - - -	41,325	109,730
TOTAL - - - - £.	5,022,048	4,665,463

X.

PUBLIC HEALTH AND SANITATION.

The following Statement exhibits the registered mortality from the four principal death causes, throughout British India, during 1879-80 and 1880-1:—

HEALTH OF
GENERAL
POPULATION.

PROVINCES.	YEAR.	CHOLERA.		SMALLPOX.		FEVERS.		BOWEL COMPLAINTS.	
		Total Deaths.	Ratio per 1,000.	Total Deaths.	Ratio per 1,000.	Total Deaths.	Ratio per 1,000.	Total Deaths.	Ratio per 1,000.
Bengal	1879	137,549	2.27	23,615	0.39	627,056	10.37	53,753	0.89
	1880	39,643	0.66	22,953	0.38	689,605	11.51	44,969	0.75
Calcutta	1880	805	1.87	114	0.26	3,797	8.83	1,267	2.85
Assam	1879	17,415	4.59	1,418	0.37	26,731	7.05	6,819	1.70
	1880	2,803	0.74	2,239	0.59	31,272	8.24	7,825	2.06
North-Western Provinces and Oudh.	1879	35,892	0.84	73,653	1.72	1,616,108	37.82	73,124	1.71
	1880	71,546	1.67	8,240	0.19	987,220	23.11	80,312	1.88
Punjab	1879	26,135	1.49	49,480	2.63	472,939	27.04	29,612	1.69
	1880	274	0.01	9,145	0.52	327,727	18.74	20,736	1.18
Central Provinces	1879	27,575	3.72	25,492	3.44	135,993	18.34	19,747	2.66
	1880	330	0.04	5,184	0.69	136,840	18.46	19,205	2.59
British Burma	1879	1,828	0.59	2,297	0.74	26,373	8.52	3,332	1.07
	1880	2,638	0.85	5,402	1.73	27,597	8.86	3,500	1.12
Ajmere	1879	120	0.30	397	1.00	7,475	18.83	1,023	2.58
	1880	3	0.00	660	1.66	7,917	19.94	1,473	3.71
Berar	1879	223	0.10	71	0.03	32,475	14.84	8,519	3.89
	1880	1	0.00	39	0.02	31,027	14.18	7,997	3.65
Mysore	1879	14	0.00	278	0.05	54,886	10.86	6,998	1.38
	1880	25	0.01	1,035	0.20	53,000	10.48	5,941	1.17
Coorg	1879	-	-	71	0.42	3,317	19.71	182	1.08
	1880	-	-	29	0.17	3,315	19.70	140	0.83
Madras	1879	13,296	0.45	17,840	0.61	285,477	9.84	23,218	0.80
	1880	613	0.02	14,529	0.50	209,940	7.29	19,622	0.68
Bombay	1879	6,937	0.43	1,156	0.07	286,526	17.65	26,349	1.62
	1880	684	0.44	940	0.06	246,779	15.21	24,452	1.51
TOTAL	1879	266,984	1.41	195,777	1.03	3,575,286	18.93	252,676	1.34
	1880	119,365	0.63	70,509	0.37	2,756,036	14.59	237,439	1.25

During 1880-1 birth-registration was carried on only in 46 towns, *i. e.*, in all Bengal. first class municipalities and in those which in 1879 shewed returns of 25 per 1,000 and upwards. The average was 23.44 against 19.97 in the same towns in the previous year; but though these figures shew an improvement, they are still considerably below the truth. How defective the system of registration is may be judged by the fact that in Darjeeling the births were returned at less than 10 per 1,000 of population; while at Kendrapara and Jamalpore they are placed at over 50 per 1,000. The registered deaths numbered altogether 922,633, or 15.40 per 1,000 against 950,881 or 15.85 in the previous year, the decrease being 28,248. But the death-registration is as inaccurate as that of births, the extremes varying from 6.48 and 8.14 to 32.75 per 1,000.

Fevers prevailed throughout the year; and there was a general consensus of opinion that the prolonged rainfall of the year had a direct influence on their severity. Every district was affected, but the greatest mortality was in Nuddea where the local officers were censured by the Lieutenant Governor for their neglect of sanitary precautions. In the Burdwan division, on the other hand, there was no heavy mortality, although there was a general outbreak of illness.

HEALTH OF
GENERAL
POPULATION.
ASSAM.

There is little doubt that the cause of this immunity is the improvement in the water-supply effected by the Jujuti scheme.

Registration of vital statistics in Assam during 1880 was again exceedingly unsatisfactory, the returns showing a large excess of deaths over births, and of male over female births. The reform of the system which it was hoped would be introduced in the upper districts of the Assam Valley was unavoidably delayed, but it has since been introduced. The number of deaths from fever again increased.

N. W. Provinces
and Oudh.

Great improvement was made in the registration of vital statistics in the North-Western Provinces and Oudh during 1880-1. The year was the second of the general registration of births, and the returns give a total of 1,390,870 children born, or 32.55 per 1,000 of population, against 1,225,832 or 28.69 per 1,000 in the previous year. Births were also registered by municipal committees in 108 towns, with an aggregate population of 2,835,048 persons, among whom the birth-rate was returned as 30.42 per 1,000 as compared with 29.59 in 1879-80. Tested, however, by the registered death-rates, the returns are not so satisfactory; for while the general registration shows an excess of births over deaths of 2.56 per 1,000, the municipal returns give the births as 6.95 per 1,000 below the deaths.

Contrary to what occurred in all other parts of India, cholera was unusually prevalent in the North-Western Provinces and Oudh during 1880-1, the deaths from this cause being nearly double those of the previous year. The cholera mortality of 1879 was attributed by many to the Hurdwar fair, but in the year under review there was no such centre to which its origin might be attributed.

Punjab.

During 1880-1 the system of limiting birth-registration to selected areas in the Punjab was discarded, and a general system of registration introduced. The results were encouraging, considering the difficulties which are inevitable at the beginning of such an undertaking. The number of births registered was 544,659, or 31.15 per 1,000 of the entire population. The deaths decreased from 673,213 or 38 per 1,000 in 1879-80 to 472,731 per 1,000; and the registered deaths were less than the registered births by 11,928 or 4 per 1,000.

Cholera, which had been epidemic during 1879-80, was quiescent during the early part of the year, but in August it broke out in an epidemic form in the Peshawar district, and continued till November, causing 167 deaths out of a total for the whole province of 274. There was also a subsidence of the small-pox epidemic, and fevers also decreased in number, though the mortality from these causes continued greatly in excess of the average of the previous ten years.

Central Provinces.

The number of births registered during the year in the Central Provinces was the greatest yet recorded, amounting to 332,438 or 44.87 per 1,000 of population, as against 38.24 per 1,000 in 1879-80, which, however, was a disastrous year. District birth-rates varied considerably; but on the whole the general accuracy of the statistics is proved by the constant relation in every district both in the excess of male over female births, and in the excess of births over deaths. The deaths for the whole province amounted to 215,647 or 29.10 per 1,000 of the population. The mortality under fevers is very great, but it appears that in many districts deaths are often attributed to fever without reason.

British Burma.

Some improvement was shewn in the registration of vital statistics in British Burma during 1880-1, the increase both in the birth and death rates being attributable to improved registration, and not to natural causes. The number of births registered was 72,121 or 23.16 per 1,000, against 63,701 or 20.58 in 1879. The deaths were 55,185 or 17.72 against 35,618 or 14.74. Little reliance can be placed on the correctness of the 27,597 deaths attributed to fever, the natives generally classing as fevers on diseases not ranked under cholera or smallpox. But there is no doubt that the mortality through malaria is very great indeed.

Berar.

Some improvement was made in the registration of vital statistics in Berar in 1880-1. Nevertheless in large towns, such as Amraoti and Akola, deaths were returned as exceeding births. The birth-rate registered during the year was the highest yet reached, numbering 91,105 or 41.7 per 1,000, as against 82,740 or 37.8 per 1,000 in the previous year. This increase is not considered to be entirely due to improved registration, there being a reaction after the excessive mortality of 1878. Registration in regard to fever mortality was still unreliable,

unreliable, but it serves for the purposes of comparison with other years, and also for tracing the geographical distribution of the disease.

Vital statistics have been collected for some years in the provinces of Mysore and Coorg, and progress is being made in rendering them adequate, especially as regards the statements of mortality. The birth-ratios of both provinces, though the highest yet registered, are obviously understated, being 17·27 per 1,000 in Mysore, and 11·95 in Coorg. In Mysore deaths decreased from 80,291 or 15·88 per 1,000 in 1879-80 to 79,822 or 15·78 per 1,000. In Coorg they fell from 3,700 or 21·98 per 1,000 to 3,612 or 21·46. Of this latter number no less than 3,315 were ascribed to fever.

HEALTH OF
GENERAL
POPULATION.
Mysore and Coorg.

Attention was drawn by the Famine Commission to the unsatisfactory system of registering vital statistics in Madras, but nothing has been done in the matter, although the annual sanitary reports have urged since 1864 the necessity of making registration compulsory by law. The registered births rose from 477,762 or 16·4 per 1,000 in 1879-80 to 659,991 or 22·9 in the year under review, being the highest number recorded during the last 11 years, while the deaths decreased from 549,390 or 18·9 per 1,000 to 454,101 or 15·7 per 1,000. The death-rates for town and rural population were 21·8 and 15·4 per 1,000 respectively. Nearly one-half of the total deaths in the Presidency were registered under the head of fevers, most of which it is supposed were malarious. The districts in which the mortality from this cause was highest were Cuddapah, Kurnool, Malabar, North Arcot, and Vizagapatam, all of which for some years past have stood at the head of the fever list.

Madras.

For the first time since 1874 the vital statistics of Bombay shewed a preponderance of births over deaths both in the Presidency as a whole and in all the districts but six. The number of births registered was 370,873 or 22·85 per 1,000 of population against 287,870 or 17·74 in 1879-80. The deaths numbered 328,673 or 20·25 per 1,000 against 387,542 or 23·88 in 1879. The year was an exceptionally healthy one, and enjoyed an unusual immunity from cholera. In the Poona district alone was there a severe outbreak, which is attributed to the Alandi fair held at the end of 1879.

Bombay.

During 1880-1 vaccination operations throughout India (with the exception of the Punjab), were under the control of the Sanitary Commissioner; the Government Orders amalgamating the Vaccination and the Sanitary Departments, taking effect from the 3rd May 1880-1. The Orders regarding the Punjab were not issued till September 1881. The new arrangement, it is hoped, will prove advantageous to both departments. In Bengal, during 1880-1, the licensed system was more strictly enforced in the metropolitan circles, and was extended to the Pubna and Jalpigari districts. And systematic vaccination through Government agency was introduced in the Tarai, and in parts of the Purneah, Mymensingh, and Patna districts. The area, over which greater protection from smallpox was thus given, covered 10,144 square miles, with a population of 3,394,312.

VACCINATION.
Bengal.

The total number of operations performed was 1,394,312, being 348,683 less than in the previous year. This decrease is attributed to the prevalence of fever, to sickness among the staff of vaccinators, and, in some cases, to the absence of unprotected children. Of the total number of operations 803,545 were performed by licensed vaccinators; 535,467 by the Government staff, and 55,300 by municipal and dispensary vaccinators. The percentage of success in primary vaccinations was 98·60 in the case of operations performed by Government and licensed officers, and 89·25 in the case of municipal and dispensary operations; the figures for the previous year being 98·05 and 83·57 respectively. According to ages the number of children under one successfully vaccinated was 166,853; between one and six, 824,358; and over six, 368,827. But even in Calcutta and in the municipalities of Rampore, Beaulah, Rungpore, Hooghly, and Soory, in which compulsory vaccination is legally enforced, only a small proportion of the children born were vaccinated in the first year after birth. Estimating births as low as 30 per 1,000 of the population, the number vaccinated in the year was only 13·94 per cent. of those born. The highest percentage was reached in the Ranchi circle, viz., 37·4; the suburbs of Calcutta came next, with a percentage of 26·78.

The number of licensed operators during the year was 793 against 273 Government officers. These numbers shew that the self-supporting system is

VACCINATION.

flourishing, and that the licensees find that they can gain a living. But, though the cause of vaccination is gradually gaining ground, the people are still often bitterly opposed to it. During the year the Maharaja of Shurshung requested that vaccinators might be introduced into his estate, and it is hoped that his example may be followed by other native landowners.

Inoculation appears to be practised all over Orissa, and also in parts of Eastern Bengal and Behar, but the law prohibiting the practice is being gradually extended over the districts most concerned. The inoculators are said to take a leading part in stirring up the people against vaccination.

Assam.

Vaccination has always been backward in Assam, and the figures for 1880-1 shew a decrease on those of the previous year, which however is said to be due to greater care in revising the statistics. There is no special vaccination department in the province, and the work is carried on in certain selected districts by 17 vaccinators, by a few medical subordinates attached to dispensaries, and by 58 ex-inoculators, who are licensed by the State, but receive no remuneration. Some of these are skilful, but others are supposed to use their licenses to carry on their old practice of inoculation. The total number of operations performed during the year was 24,179; of which 87.61 per cent. succeeded. Only 2.8 of the estimated births were vaccinated.

N. W. Provinces and Oudh.

Vaccination in the North-Western Provinces and Oudh was most successful in 1880, there being a general recovery from the effects of the fever which prevailed in 1879, especially among children, and which impeded the operations of the vaccinators. The aggregate number of operations performed was 729,185 against 647,427 in 1879; and of these the successful primary cases were 640,224 and 524,735 respectively. The average number of operations performed by each vaccinator was 1,219, but in Kumaum and Garhwal, where vaccination is popular and the population thoroughly protected, each vaccinator performed 4,744 operations.

Punjab.

A special vaccination department was established in the Punjab in 1864; and in 1878-79, the number of successful operations reached a maximum of 359,893. The following year was an exceedingly unhealthy one, and the number of vaccinations fell to 317,504, while the deaths of nearly 50,000 persons from small-pox shewed how much still remained to be done.

The aggregate number of operations performed during 1880-1 was 483,763, inclusive of vaccinations in the native states of the province. The ratio of persons protected by vaccination per 1,000 of population was 21.4, and 43 per cent. of the estimated births during the year were successfully vaccinated. Steps were taken during the year to localise the vaccination establishments, with a view to interest the local authorities in the work of the department. Vaccinators will henceforth reside in, and be paid by, the districts in which they are employed, and will be under the immediate control of the civil surgeons.

Central Provinces.

The vaccination department was more active in the Central Provinces in 1880-1 than in any previous year, and this notwithstanding that the census interfered considerably with the work. In all, 325,021 operations were performed; 301,450 by the regular establishment, and the remainder by the dispensary staff. The percentage of successful operations is recorded to have been 95.0 in primary cases, and 71.3 in re-vaccinations; though the latter of these figures is obviously absurd; 49.6 of the estimated total births of the province were vaccinated, and 38.4 per 1,000 of the total population.

Everything is being done to overcome the prejudices of the people against vaccination; the practice, for instance of commencing vaccination operations with the children of the lower castes is to be abandoned, and, as far as possible, a beginning is to be made with the children of the higher castes.

British Burma.

British Burma still continues behindhand in the matter of vaccination. Although during 1880 there was an increase in the staff of vaccinators, and a rise in the cost of the establishment, the number of operations fell to 46,912 from 52,035 in 1879-80, but the percentage of successful cases rose from 71.87 to 77.5. Only 5.69 of the estimated births and 11 per 1,000 of the population were vaccinated. The badness of the year's results was partly attributed to the want of lymph, and an establishment has since been organised at Thayetmyo for the supply of animal lymph. But the real difficulty in the way of vaccination is the attitude of the people who, though free from caste prejudices, are accustomed to inoculation, which has been practised among them for generations. These prejudices prevented the Vaccination Act, which became law in 1880, being applied

applied to Rangoon, Akyab, and Toungoo, although the municipalities of those towns applied to be brought under the provisions of the Act. VACCINATION.

In Ajmere the total number of primary vaccinations during 1880-1 was 4,545 as compared with 4,923 in 1879-80. Six vaccinators were employed, and the percentage of successful operations was 79·91 against 76·0 in the previous year. Ajmere.

The ratio of successful cases per 1,000 of population is reported to be 9·16, as compared with 11·78, the average of the preceding five years.

Of late years, it is stated, there has been a great improvement in the feeling of the people of Berar about vaccination, which is now regarded with apathy rather than hatred. This apathy is, however, strong enough to be a serious cause of failure where the municipalities, as at Amraoti, refuse to render any assistance. But the readiness of the people to be vaccinated as soon as small-pox appears, shews that they understand the nature of the remedy. The year's work resulted in 85,097 operations against 72,180 in the previous year. There was a slight decrease in the proportion of successful cases, the falling-off being attributed to the use of lymph in badly-prepared tubes. According to age, 58·5 per cent. of the successful primary vaccinations were performed on infants under one, and 40·7 per cent. on children between one and six; while the percentage of infants successfully vaccinated to the annual birth-rate (calculated at 40 per 1,000) was 49·5 in 1880-1, against 4·76 in the previous year. Berar.

The total number of persons vaccinated in Mysore in 1880-1 was 94,010, and the successful cases amounted to 78·41 per cent. of the operations. Thus in comparison with 1879-80 there is a slight increase in the number of operations, and a slight decrease in the proportion of successful cases. The chief obstacle to vaccination in the rural districts appears to be the difficulty of getting vaccinators in the outlying and less healthy localities, especially in the Nagar Division. Prejudice and obstruction are not complained of except in the Bangalore municipal district, where, however, the vaccinators are paid by salary and not by results. Mysore.

The total number of operations performed in Coorg during 1880-1 was 3,718, of which 88·5 were successful, the figures for the previous year being 3,075 and 84·8 per cent. But though the aggregate numbers increased so satisfactorily, it is noteworthy that only 67 infants under one year of age were operated on. This fact of itself explains the attitude of the natives in the matter. Coorg.

Vaccination work was carried on more actively in Madras during 1880-1 than in the previous year, the number of operations increasing from 469,744 to 659,789. But of this increase of 190,015 more than half occurred in the single province of Tanjore, where, through the exertions of the collector, the numbers rose from 56,063 in 1879-80 to 160,979 in 1880-1, an increase of 104,916. There was a satisfactory increase in the number of operations performed on infants, the percentage to estimated births rising from 3·9 in 1879 to 6·69. During the year animal vaccination was successfully established in Madras itself, but the supplies of animal lymph distributed in tubes among the rural vaccinators did not work efficiently. Madras

In Bombay, during 1880, in the comparison with the previous year, there was an increase of 56,004 in the number of primary operations, the figures being 642,505 and 72·79 per cent. against 586,501 and 71·98 per cent. The total number of infants successfully vaccinated was 382,809, and of children between one and six 214,100. The proportion of successful operations to estimated births is 37·9, and the proportion per 1,000 of population 25·2. Bombay.

The Bombay Compulsory Vaccination Act of 1877 continued to work well; and the Karachi Vaccination Act, 1879, produced good results. Animal vaccination had to be abandoned in deference to the prejudices of the Hindus, who however offer no objection to arm-to-arm vaccination, if performed so as to respect their caste prejudices.

During 1880 the entire dispensary system of Bengal was under revision. It had long been thought that the dispensaries in Bengal, as a whole, had failed to accomplish the purposes for which they were maintained; and systematic inquiries were made to ascertain what was the amount of charitable relief afforded by each establishment, what was its financial position apart from the Government grant, how far it was economically administered, and what hope there was, in each case, of local charity being able to support the existing dispensaries efficiently in the event of a reduction of the State grant. It was found that the intentions of Government had been greatly abused, that the MEDICAL RELIEF.
Bengal.

80 STATEMENT EXHIBITING THE MORAL AND MATERIAL

MEDICAL RELIEF. number of aided dispensaries far exceeded anything contemplated when Government first consented to contribute to them, and that the system, which ought to have been a charitable one, was administered in the interest of the rich. The real cause of the great increase in the number of dispensaries during recent years has been the opportunity given by Government for obtaining the services of medical officers at the public cost. The bulk of the contributions was derived from the classes who used the dispensaries themselves, and a withdrawal of subscriptions was the result of any restriction on the gratuitous supply of medicines and medical aid. In many cases it was proved that Government-aided dispensaries did nothing more than supply their subscribers' wants, and that the returns they sent in shewing the numbers of sick poor relieved were quite fictitious. As the result of these inquiries it was decided to close all dispensaries which had been proved not to be fulfilling the conditions for which they were instituted, and, as far as possible, to transfer the management of those which deserved State support to municipal management, in order to enforce some sort of responsibility.

The number of dispensaries at work in Bengal (apart from Calcutta) at the beginning of the year was 255, nine of which were removed from the list during the year. Returns were furnished by 251 institutions, showing the number of patients treated as 911,662, an increase of more than 20,000 on the previous year. Of the total number, 23,567 were in-door patients; but these statistics, as has been said, are not trustworthy. The total income of the dispensaries for the year amounted to 42,655 *l.*, of which 13,058 *l.* was contributed by Government, 12,797 *l.* from local, municipal, and other funds, and 16,800 *l.* by subscriptions.

In Calcutta, although the general health of the population was better than in the previous year, the returns of the six hospitals in the city shew an increase in the number of patients treated, the totals having risen from 265,018 to 273,025. The increase is due entirely to out-door patients, in-patients being less by 1,172 than in the previous year. The total income of the institutions for the year amounted to 41,927 *l.*, of which amount Government contributed 22,164 *l.*

Assam.

There were 23 dispensaries working in Assam at the end of 1880, two of which were new. The total number of patients treated was 44,428 as compared with 37,197 in 1879, the increase being solely under out-patients; in-patients having decreased from 3,083 to 2,665. Of these 414 died against 631 in the previous year. The income of the dispensaries increased from 3,704 *l.* to 3,833 *l.*, and the expenditure fell from 3,193 *l.* to 3,022 *l.* Taking into consideration the falling-off of in-door patients, it was thought that the working of the dispensaries was not altogether satisfactory; and one cause alleged was the want of confidence felt by the people in the medical advice and assistance offered them, not a single officer of the rank of assistant surgeon being attached to any dispensary. An increase of the contribution from provincial revenues was promised to secure the services of officers of the higher grade.

N. W. Provinces and Oudh.

During 1880 three new dispensaries were opened in the North-Western Provinces and Oudh, bringing the total to 204. The number of cases treated was 1,469,940 against 1,433,393 in 1879; and in spite of the cessation of the fever epidemic the out-patients exceeded those for the previous year by 36,974. In fever cases there was a falling-off of 120,295, and an increase under cholera from 3,139 to 4,482. A satisfactory sign was the increase in the number of operations performed, both major and minor, the former numbering 7,649 or 1,301 in excess of the previous year. Of these patients 5,257, according to the returns, recovered and 237 died. Out of 2,672 cataract cases, 1,671 gained good sight. The income of the year from all sources, excluding opening balances, was 37,595 *l.* against 39,419 *l.* in the previous year; the expenditure was 36,604 *l.* showing a falling off of 3,118 *l.*

Punjab.

There were 184 dispensaries at work in the Punjab during 1880-1, or three more than in 1879-80. Patients under treatment numbered 1,368,429, a decrease of 20,430 on the total of the previous year, due to the improved state of public health throughout the province. There were only 154 cases of cholera against upwards of 5,000 in the previous year, and in the number of fever cases there was a decrease of nearly 69,000. In-patients numbered 34,729, or 4,906 less than in 1879, and the death-rate among them fell from 131.7 per 1,000 to 84.7. The net income of the year amounted to 33,956 *l.*, the same as in the previous year; the expenditure decreased from 34,129 *l.* to 33,591 *l.*

There

There was an increased resort to the dispensaries in the frontier districts by people from beyond the border; and "the intercourse thus established," the Lieutenant Governor observes, "will no doubt have a civilising effect and bring the tribes into closer contact and sympathy with our methods of administration."

MEDICAL RELIEF.
Punjab.

The number of dispensaries open in the Central Provinces during 1880 was 81, five more than in the previous year, and the number of persons who applied for relief was 509,361 against 440,995 in 1879. The increase was again entirely among out-patients, in-patients having fallen from 8,141 to 7,882. The ward accommodation of the hospitals is not popular with the villagers, being opposed to their habits and prejudices. The Deputy Surgeon General states that the wants of the people could only be met by a system of separate rooms; but the cost of such an arrangement is quite prohibitory. The total income of the institutions was 11,122 *l.*, and the expenditure 9,956 *l.*

Central Provinces.

In 1880 there was an addition of one new dispensary to the 26 in operation in British Burma during the previous year. The total number of admissions was 108,782, exceeding that of the previous year by 7,145; an increase which is very satisfactory, especially when it is remembered that civil surgeons are for the most part entirely ignorant of Burmese, that the hospital assistants, with one exception, are natives of India, and that even the menial establishments of the dispensaries are almost entirely composed of foreigners. Of the total number of patients treated, 48 per cent. were natives of the country.

British Burma.

The total expenditure during the year was 12,984 *l.*, subscriptions amounted to 1,456 *l.*, and the share borne by Government to 4,430 *l.*

There were seven dispensaries at work in Ajmere during 1880-1; one more than in the previous year. The number of patients treated during the year was 35,294 against 35,723 in 1879-80. The income of the dispensaries amounted to 676 *l.*, and the expenditure to 642 *l.*, the corresponding figures for the previous year being 577 *l.* and 605 *l.*

Ajmere.

In Berar there was an addition of three new dispensaries to the 32 existing at the close of 1879. The number of patients treated rose from 134,879 to 162,709, the increase being generally attributed to the growing confidence with which the sick seek relief at these institutions. The income for the year amounted to 9,017 *l.*, and the expenditure to 8,497 *l.*

Berar.

One new dispensary was opened in Mysore during 1880-1, and the total number of institutions is now 20; 156,989 patients in all were treated during the year, being an increase of 7,442 on the numbers of the previous year. These figures, taken in connection with the low death-rate prevailing in the province, shews how the dispensaries are growing in prosperity. The expenditure on medical relief during the year was 6,735 *l.*, of which Government contributed as much as 6,234 *l.*

Mysore.

One of the two dispensaries in Coorg was increased by three new hospital wards, the cost of which was almost entirely met from subscriptions. There was a slight decrease in the number of persons treated.

Coorg.

Twenty-two new centres of medical relief were opened in Madras during 1880, making a total of 218 institutions. In these there were 1,313,304 cases treated, shewing an increase of 3,078 on the figures of the previous year. There was a falling-off of 10,774 in out-door patients, due to the healthy state of the country and to the cheapness of food. From smallpox, 212 in-patients were under treatment, of whom 31 died. But the number of cases of the disease treated in the hospitals is no test of its prevalence, as in Madras town alone the fatal cases during the year numbered 846. The year's expenditure was nearly 8,000 *l.* less than in 1879-80, the reduction being chiefly due to economy in the use of European medicines, for which ordinary bazaar drugs were substituted in many cases without appreciable evil result.

Madras.

One new civil hospital and five new dispensaries were opened in the Bombay Presidency during 1880 and one dispensary was closed, leaving 187 institutions at work at the close of the year. The total number of patients under treatment was 1,235,455 against 1,195,077 in the previous year. In-door patients fell from 40,187 to 35,059, a decrease of 5,128, which was distributed throughout the province, but which was most strongly marked in the Konkan and Sindh, where there were fallings-off respectively of 2,207 and 1,322. The total net expenditure for the year was 89,013 *l.* against 93,649 *l.* in 1879-80; but the

Bombay.

MEDICAL RELIEF. decrease is due to the fact that many medical officers were withdrawn from civil employment for field service, and that the temporary incumbents of their posts drew pay at lower rates.

LUNATIC ASYLUMS.
Bengal. The number of lunatics in confinement in the five asylums in Bengal during 1880-1 was 1,104, of whom 114 were discharged and 109 died. In 1879-80 the total cases numbered 1,187 and the deaths 131. There was a considerable decrease in the number of recoveries, due mainly to greater caution in admitting patients to asylums. The decrease was most strongly marked in the case of Ganja smokers. Under this head there were in 1878-79, 89 cases with 61 recoveries; in 1879-80, 58 cases with 41 recoveries, while in the year under review there were only 31 recoveries out of 65 cases. As regards sickness there were 516 admissions into hospital during the year, a slightly smaller number than in the previous year, but the daily average sick rose from 38.6 to 40.6. The death-rate fell from 14.7 per cent. of the daily average strength in 1879-80 to 12.3, the average of the decade being 11.5.

Assam. There is one lunatic asylum in Assam at Tezpur. The daily average of patients during 1880-81 was 45.85. The healthiness of the institution was greater than in the previous year, admissions to hospitals falling from 89 to 33.

N. W. Provinces and Oudh. There was a decrease in the number of lunatics in the four asylums of the North-Western Provinces and Oudh, the total falling from 1,158 in 1879-80 to 1,093 in 1880-81. The chief decrease was in criminal lunatics, who numbered 168, or 41 less than in the previous year. The mortality shewed a marked decrease, 76 deaths being recorded against 129 in 1879-80. Out of 282 admissions, the cause of insanity was ascertained only in 137 cases; the large majority being due to physical causes, chief among which was the abuse of bhang and similar drugs.

Punjab. The admissions into the two lunatic asylums in the Punjab fell from 119 in 1879-80 to 87 in the year under review, and the total of patients was 405, of whom 310 were confined at Lahore and 95 at Delhi. In both asylums there was a great improvement in healthiness; and the percentage of deaths to daily average strength fell from 21.6 to 6.8 at Lahore, and from 19.2 to 11.2 at Delhi. An inspection was made of the asylums by the Surgeon General, whose report was most favorable.

Central Provinces. Both as regards admission and total population, the year 1880-1 shewed a decrease in the numbers of lunatics at the Nagpur and Jubbulpore asylums in the Central Provinces. At the former the numbers declined from 145 in 1879-80 to 141; at the latter from 147 to 138. The numbers discharged at Nagpur was only 18, while at Jubbulpore no cures were effected. This is due to the fact that during the last three years all patients were made over to their friends, except the worst and most helpless cases. And during the year, only aggravated cases were admitted; so that it is not likely that many cures will be effected in the future.

British Burma. The accommodation of the Rangoon asylum was increased during 1880-1, and improvements were made in sanitary matters. But the percentage of deaths to average strength was 10.58, which is still high, though lower than it has been for some years. The total number of patients under treatment was 225, against 253 in 1879-80; the daily average strength was 179.6, which is less than in any year since 1876.

Berar. The lunatic asylums at Amraoti in Berar is built to contain 27 patients, and the daily average strength during 1880-1 was 26.06. Another hospital is being built to contain over 100 inmates. It was satisfactory to find that the lunatic asylum was altogether free from scurvy, from which the jails suffered so severely during the year.

Mysore. In Mysore there is a lunatic asylum at Bangalore, the total population of which during 1880-1 was 178. Among the cases there were 31 cures, and only two deaths.

Madras. At the three asylums in the Madras Presidency 182 patients were admitted in 1880-1, and the total number of inmates was 512 against 482 in the previous year. There were discharged as cured 75 against 72 in 1879-80. The general health of the lunatics was good, and in all the hospitals there was an absence of epidemic illness.

Bombay. The total population of the five asylums in the Bombay Presidency during 1880-1 was 913 against 841 in the previous year. The number discharged during

during the year was 230, of whom 87 were cured. Admissions into hospital decreased from 319 to 275; and there was a great decrease in mortality, there being only 37 deaths or 6 per cent. of the daily strength against 69 or 11·7 in the previous year. LUNATIC ASYLUMS.

In 440 cases the cause of insanity was known, 380 being ascribed to physical and 60 to moral causes. Of the former, more than half the instances were attributed to the use of intoxicating drugs and liquors; of the 60 moral cases, 46 were ascribed to grief.

During the session of 1880-1 there were 220 students on the rolls of the Calcutta Medical College against 277 in 1879-80. As in previous years the fluctuations in attendance were very great, owing to the inability of the students to pay the fees. To obviate this, it has been decided that fees are to be paid half-yearly in advance, and no longer monthly. The number of pupils in the four vernacular schools at Sealdah, Banhipore, Cuttack, and Dacca, decreased from 508 to 503. The results of the several examinations were satisfactory. MEDICAL SCHOOLS.
Bengal.

There were 115 students in the Lahore Medical School during 1880-1, of whom 53 were in the English and 62 in the Vernacular Department. Five out of seven candidates passed the final examination in medicine held by the Punjab University, and 26 students of the Vernacular Department passed the examination qualifying for the position of Hospital Assistant and Native Doctor. Punjab.

There were 45 students of all kinds in the Nagpur Medical School during 1880-1, and the result of the examinations was satisfactory. There was added to the regular curriculum a course of lectures in the principles of hygiene, which were attended by vaccinators and others, in addition to the students of the College. Forty-eight of these outsiders received certificates of proficiency, and are qualified, the principal states, "to give good advice to their countrymen as well as afford intelligent assistance to the health officers under whom they may serve." Central Provinces.

During 1880-1 there were 194 students at the Madras Medical College against 228 in the previous year. Of these 64 belonged to the Senior Department, being candidates for the Medical Degree of the Madras University; 79 to the Second Department, being candidates for the Apothecary Grade; and the rest to the Junior Department, qualifying as Hospital Assistants or as Druggists. From the Senior Department five students left for Europe to complete their studies. Madras.

The number of students on the rolls of the Grant Medical College rose to 282 in 1880-1 from 238 in the previous year. Of these 238 pursued the University course, and 44 were Hospital Apprentices. Thirteen students obtained certificates from the College with the view of prosecuting the studies in Europe. Bombay.

The medical schools at Poonah and Ahmedabad were in full working order during the year, each having an average of 57 students. To relieve the great strain put on the Medical Department for want of subordinates, it was found necessary to pass out 12 students before the completion of their regular course. But when the proposed school at Hyderabad is fully organised, there ought to be no longer any want of good and efficient Hospital Assistants.

The municipal expenditure on sanitary work in Bengal during 1880-1 was 698,016 l. against 691,267 l. in the previous year. Drainage and water supply were practically the two objects which monopolised the attention of the Sanitary Department, and in every district something was done to improve them. The Sanitary Commissioner states "that there are many grave defects with regard to every branch of sanitation that exist, to a more or less extent, in the great majority of the larger towns and in almost all the minor towns." The Army Sanitary Commission, however, in their Report, observe, that "it is impossible to read the town reports without seeing that real progress is being made." The same Report says of Calcutta that "it is scarcely too much to say that few municipalities anywhere could shew a better year's work." The corporation during the year, obtained powers to compel the owners of noxious tanks either to fill them up or to improve them; and in this way it is hoped that the standing difficulty in the way of the improvement of the sanitary condition of the town will be removed. SANITATION.
Bengal.

SANITATION.
Assam.

During 1880-1, the eleven municipal towns of Assam expended 6,383*l.* on sanitary improvements. Drainage and water-supply, as elsewhere, were the main objects of attention. At Gaubati an extensive project for the drainage and reclamation of the swamps surrounding the town is being carried out by the Public Works Department. In the tea plantations it is being gradually found out that it is good economy to pay attention to the health of the coolies; and the Sanitary Commissioner testifies to the care which is bestowed, in many estates, to their physical welfare.

N. W. Provinces
and Oudh.

No sanitary work of any magnitude was undertaken in the North-Western Provinces and Oudh during 1880-1, but in almost every town useful work of a humble kind was done. An important project for reforming the water-supply of Benares was under consideration, but for want of funds no practical steps were taken.

Punjab.

In the Punjab during 1880-1 the total expenditure from municipal funds on sanitary improvements was 96,187*l.*, nearly 17,000*l.* more than in the previous year; and there was a steady increase in the sales of manure for agricultural purposes. In all the towns and villages the more important personages are reported to be beginning to take an interest in sanitary matters; and it is hoped that much good may come from the translation into Urdu of a sanitary primer, and its introduction as a text book into the schools.

The most important sanitary works completed and in progress during the year were the drainage and water-supply of Lahore, Simla, Amritsar, and Peshawar. The proposed waterworks at Delhi were about to be commenced, and in connection with this project it was decided to lay down a complete system of sewerage for the town.

Central Provinces.

In sanitary matters water supply was the main object of attention in the Central Provinces during 1880-1, and the amount expended on conservancy in the 19 municipal and head-quarter towns was 12,384*l.*, about one quarter of their total income; but in the smaller towns and villages nothing was done for want mainly of funds. All that it is possible to do, says the Chief Commissioner, "is by constant and continuous pressure to get the people to abandon many of their hereditary insanitary practices." At the same time it is noteworthy that at the two great annual fairs of the province, Ramteh and Birman, each of which is attended by some 250,000 people, no epidemic of any kind appeared. The conservancy arrangements adopted on these two occasions would be quite applicable to every village or other small population group, and "show clearly," says the Report of the Army Sanitary Commission, "what can be done in protecting health in India by simple and inexpensive arrangements."

British Burma.

In the large towns of British Burma during 1880-1 good progress was made in water-supply and drainage operations; although at Moulmein a tax, which it was proposed to levy specially for sanitary purposes, had to be abandoned on account of the hostility the proposals aroused. In the villages and rural districts little could be done; but the sanitary primer of the Government of India has been translated into Burmese, and introduced as a text-book into the schools.

Berar.

Want of funds prevented any sanitary work on a great scale being carried on in Berar in 1880-1. But an important measure regarding the country districts was the introduction of a code of rules on village sanitation, which in many places had begun to give results. "All that is now wanted," the Commissioner states, "is that sustained effort should be made towards the enforcement of the village code. The rules which it contains are all such as it is possible to carry out, and it may be hoped that if the tahsildars and officers on tour really look to their enforcement, obedience to them will before long become habitual, and this without resort to punitive measures." The rules appear to be practical and efficacious.

Mysore.

The municipalities of Mysore during 1880-1 proceeded with drainage works as fast as their funds would admit. Most was done in the towns of Mysore and Bangalore.

Madras.

In Madras in 1880-1 the series of drainage experiments which had for some time been being made, were brought to a conclusion, and the Madras municipality raised a loan of a lac to commence a scheme for the drainage of Black Town, the total cost of which was estimated at 8 lacs. This scheme, however, does not profess to touch the question of house drainage, which the Army Sanitary Commission state to be the vital one. "We would strongly urge," they

they write, "the inexpediency of wasting money on the incomplete and unsatisfactory drainage plan now in process of operation, which does not fulfil any conditions of a proper drainage system, and we would recommend at the same time that a complete system of town and house drainage in combination with an improved and extended water-supply for removing sewage, apart from the rainfall, be at once adopted." SANITATION.

The new drainage works of the city of Bombay were vigorously prosecuted during 1880-1, the condition of Byculla and other parts of the town calling for immediate action. The water supply too was improved; the Tulsi lake was deepened and the Malabar Hill reservoir was completed. In the other municipalities of the Presidency, much good sanitary work was done. In particular progress was made with waterworks at Karachi, Sholapur, Ahmednagar, Raunagiri and Sattara. A scheme for Nasik was prepared, but difficulties arose, the Godavari water, which is considered sacred by the natives, and is therefore preferred by them for drinking, being condemned as unhealthy by the Sanitary Commissioner. Bombay.

XI.

EMIGRATION.

EMIGRATION.
Bengal.

THE principal administrative measure of 1880-1 affecting colonial emigration was the restoration of the rule that not less than 40 per cent. of women to men should be shipped on board each vessel. The rule had been relaxed in 1877, when, with a view to reducing the mortality among the children during the passage down the bay of Bengal in the face of the monsoon, arrangements were made that the proportion of women shipped should be increased as the season advanced. This led to practical inconvenience, and the original rule has been restored. In no case is an excess of women in one year to compensate for a deficiency in another; and when the prescribed proportion for the season cannot be made up before its close, it must be adjusted by a reduction in the number of male emigrants.

The number of coolies asked for and despatched was as follows:—

COLONIES.	1879-80.		1880-1.	
	Statute Adults.		Statute Adults.	
	Required.	Despatched.	Required.	Despatched.
Demerara - - - - -	4,000	4,161	5,500	4,168
Trinidad - - - - -	2,912	2,889	3,130	3,100
Jamaica - - - - -	689	689	350	480
St. Lucia - - - - -	60	60	320	300
St. Vincent - - - - -	200	196	—	—
Mauritius - - - - -	225	* 479	125	* 203
Natal - - - - -	—	—	1,100	918
Surinam - - - - -	300	297	1,000	893
Guadeloupe - - - - -	1,450	1,522	1,300	1,325
TOTAL - - - - -	9,836	10,293	12,825	11,892

* Including women.

The number of licensed recruiters during the year rose to 559 from 443 in 1879-80; only four licenses were cancelled for misconduct.

The difficulty experienced in providing the requisite number of coolies has led to an extension of operations in the North-Western Provinces and the Punjab, which every year contribute in increasing proportions. The following table gives the percentages contributed from the various provinces in 1876-7 and 1880-1:—

	1876-7.	1880-1.
Bengal - - - - -	6.07	1.93
Behar - - - - -	31.62	14.42
North-Western Provinces - - - - -	38.46	58.76
Oudh - - - - -	16.86	15.69
Punjab - - - - -	.65	6.25
Other places - - - - -	6.34	2.95
TOTAL - - - - -	100.00	100.00

The total number of emigrants who returned during the year was 4,137, or less by 261 than in 1879-80. Their aggregate savings were estimated to amount to nearly 7½ lakhs, giving over 180 rupees per head.

The Report of the Committee appointed at Calcutta to inquire into the working of the Labour Transport Act of 1873 was published during 1880-1, and its chief suggestions have since become law. Practical steps were also taken during the year to develop inland emigration. Arrangements were made with the steam companies on the Brahmaputra to convey coolies more cheaply and more quickly; and the journey was further shortened by the construction of a tramway between Dhubri and Teesta. The result was that the land route was hardly used; but, in spite of its greater length, the coolies who travelled by it arrived in better condition than those conveyed by water.

The

Assam.

The number of contractors holding licenses was 11, more than half of whom were general agents, undertaking to supply labourers to any garden in want of hands; but steps are being taken to diminish the number of these general agents, as it is thought desirable that the contractors should be the responsible agents of particular firms. The number of licenses, granted to recruiters working for contractors, fell from 618 in 1879-80 to 506 in the year under review; of these only 10 were cancelled for misconduct. The number of recruiting certificates granted by employers to garden sirdars rose from 2,207 in the previous year, to 2,635.

The number of coolies enlisted during the year was 7,634, against 13,550 in 1879-80 and 28,151 in 1878-79. The falling off was due partly to the depression in tea, which prevented the extension of cultivation, and partly to the great prosperity of the year in the districts from which the coolies were drawn. The condition of the tea-labouring population in the gardens was reported as satisfactory. The mortality among adults during the year was 4,410, or 35.8 per thousand, as compared with 6,695 deaths, in 1879-80, or 50.3 per thousand. This result was due to the general healthiness of the season, as much as to special causes.

The following are the returns of the year, furnished by the district officers:— British Burma.

	Emigration.		Immigration.	
	1879.	1880.	1879.	1880.
Arakan - - - - -	9,050	5,581	8,197	—
Pegu - - - - -	20,077	20,530	24,261	18,832
Irrawaddy - - - - -	21,263	26,702	24,492	25,792
Tenasserim - - - - -	26,869	26,052	39,347	36,313
TOTAL - - - - -	77,259	78,955	96,297	80,937

These figures are fairly accurate as regards the rural districts, but in towns it is less easy to collect accurate information. According to the census there are at present in British Burma 316,018 natives of Upper Burma and 184,729 persons of Indian birth. The latter come as labourers; few of them eventually settle down, and those who proceed home, form the majority of the emigrants. There is a steady current of immigration into Arakan from the neighbouring districts of Chittagong, which will be assisted by the new road which is being constructed over the hills from the Chittagong border. The immigrants to the Pegu and Tenasserim divisions come by sea, chiefly from Madras and Calcutta. To the Irrawaddy division the immigrants come chiefly from Upper Burma, by means of the steamers of the Irrawaddy Flotilla Steam Company.

The following table shows the emigration from Madras during 1880-1, and previous years:— Madras.

	1875-6.	1876-7.	1877-8.	1878-9.	1879-80.	1880-1.
Mauritius and Bourbon - - -	2,507	2,558	2,844	3,697	6,548	3,192
Ceylon - - - - -	87,600	184,919	152,073	99,146	63,344	43,292
British Burma - - - - -	3,118	2,628	4,018	7,337	10,377	6,682
West Indies - - - - -	908	2,881	1,654	105	3,147	2,733
Other places - - - - -	4,216	4,993	8,500	6,863	4,970	5,269
TOTAL - - - - -	98,258	197,979	169,089	177,148	88,386	61,168

The decrease in the numbers is attributable to the prosperity of the season which enabled the people to earn a livelihood without leaving their districts. No steps were taken to promote emigration to Fiji and Surinam, although permission to do so had been obtained in the previous year. Special arrangements were made with the Governments of Mauritius, Trinidad, and British Guiana for the relief of disabled coolies returning from those countries.

No emigration from Bombay took place during 1880-1. With the return of prosperity the large movements of population from the Deccan districts into the Berars and the territories of the Nizam during the famine years has entirely ceased.

XII.
E D U C A T I O N .

EDUCATION.
Bengal.

THE material condition of Bengal in 1880-1 was prosperous, and this prosperity had a stimulating effect on education. There was a steady increase in the number both of schools and scholars, and the receipts from fees were better than the estimates by 4,000 l.

The following tables summarise the returns for the year :—

CLASS OF INSTITUTION.	SCHOOLS.			SCHOLARS.		
	1879-80.	1880-81.	Increase.	1879-80.	1880-81.	Increase.
Government Schools and Colleges - -	301	308	2	29,332	29,775	443
Aided - - ditto - - ditto - -	32,412	40,490	8,078	683,352	777,173	93,821
Unaided - ditto - - ditto - -	6,663	8,714	51	106,346	121,641	15,196
TOTAL - - -	39,376	47,507	8,131	819,030	928,489	109,459
University Colleges -						
{ Males - -	28	28	- -	2,627	3,133	556
{ Females - -	- -	1	1	- -	5	5
Secondary Education - - Males - -	3,336	3,535	199	180,263	189,568	9,305
Primary Education - - Males - -	35,258	41,699	6,441	613,452	688,880	74,928
Secondary Education - - Females - -	* 657	396	171	* 15,158	13,898	19,321
Primary Education - - Females - -		432			20,581	
Special and Technical Schools { Males - -	† 46	30	- 16	+ 2,853	1,497	- 1,361
{ Females - -	4	2	- 2	115	54	- 61
Madrasahs, Toles and Makhtabs - - -	- -	1,384	1,384	- -	11,323	11,323
European and Eurasian Schools - - -	47	- ‡ -	- 47	4,557	- † -	- 4,557
TOTAL - - -	39,376	47,507	8,131	819,030	928,489	109,459

* The Returns of female schools were not accurate, nor classified in 1879-80.

† Including some Madrasahs.

‡ Not shown separately.

The increase it will be seen is due for the most part to the steady increase of the system of primary instruction, the object of which is to bring the existing indigenous village schools under State supervision and control. Most of the scholars, shown in the returns for the first time this year received some sort of instruction previously, and the true function of Government, in the matter of primary instruction, is to discover schools, not to create them. In the case of many primary schools, which are not sufficiently advanced to send their pupils to the central examinations to earn a grant, the Government aid is limited to the payment of a rupee annually to the teacher for keeping the register and submitting an annual return. The *Toles and Makhtabs*, which are shewn separately for the first time this year, are indigenous Sanskrit schools in which the Koran is chiefly taught. It is misleading to enter them as primary schools, since many of them read in their own subjects up to a high standard; nor can they be called secondary, as their course of instruction bears no relation to the departmental standards. European and Eurasians schools are no longer separately shown in the statistical returns, being scattered under the general headings; but their number has increased from 47 to 52, and the number of pupils from 4,495 to 4,911. The majority of these schools are in Calcutta, and a committee was appointed to prepare a draft Code, which, it was hoped, would remove the anomalies of the existing system of distributing the State grants among them. In Behar the demand for English education, which was referred to in last year's Report, continued, and it is hoped that the want of trained vernacular teachers, which is the only difficulty in the way of the organization

organization of English schools throughout the district, will be removed by the reconstitution of the Patna Normal School. EDUCATION.

The expenditure on education in Bengal during 1880-1, including the cost of medical education, but excluding that of unaided schools, was 512,000 £, of which 285,600 £. were contributed from private sources and 226,400 £. by Government. In the previous year the amounts had been 257,100 £. and 219,700 £. respectively. Thus Government expenditure increased by 6,700 £. only, while that from private sources was larger by 28,500 £. It was in 1878-9 that private contributions for the first time exceeded the Government grant; in 1879-80 the latter fell to 46 per cent., and in the year under review to 44 per cent. of the whole expenditure. These amounts are exclusive of the expenditure in unaided schools, which until this year had furnished no information on this head. Adding an item of 46,600 £. on this account, the whole expenditure on education in Bengal for the year was 558,600 £., of which the share paid by the State was a little more than 40 per cent.

The operations of the Education Department have increased to such an extent in Bengal in late years as to relax the hold of the superior controlling staff on individual schools, notwithstanding the relief afforded by the appointment of assistant inspectors in 1879; and the spread of primary education and the system of payment by examination results have converted officers, who were intended originally to examine and inspect schools, into central examiners. The examinations, it is true, distinguish good from bad schools, but the latter are left to themselves, and receiving no criticism from without do not improve, but continue in a vicious groove. To this is due the fact that the standard of primary instruction does not progress at an equal rate with the extension of its area.

The educational statistics of Assam for 1880-1 give favorable results. The following tables summarise the returns for the year:— Assam.

CLASS OF INSTITUTION.	SCHOOLS.			SCHOLARS.		
	1879-80.	1880-81.	Increase.	1879-80.	1880-81.	Increase.
Government Schools - - - - -	34	94	- -	2,736	3,203	467
Aided - ditto - - - - -	1,090	1,148	58	30,956	34,172	3,216
Unaided - ditto - - - - -	76	105	29	2,109	3,296	1,097
TOTAL - - - - -	1,200	1,287	87	35,801	40,671	4,780
Secondary Education -						
{ Males - - - - -	95	94	-1	6,724	7,543	819
{ Females - - - - -	-	-	-	47	49	2
Primary Education - - - - -						
{ Males - - - - -	1,028	1,115	87	27,334	31,159	3,825
{ Females - - - - -	63	66	3	1,373	1,532	159
Special Schools - - - - -						
{ Males - - - - -	14	12	-2	404	381	-23
{ Females - - - - -	-	-	-	9	7	-2
TOTAL - - - - -	1,200	1,287	87	35,891	40,671	4,780

The increase in primary schools is entirely due to Government encouragement. New schools are started, as a speculation, by pupils from middle class schools or from the upper class of pāthsālas; and the Guru, as soon as he has collected a fair muster of scholars, applies for State aid, which is granted if the school shews promise, and is situated in a locality not already supplied with schools. If the Government grant is refused, the school usually closes.

The expenditure during the year amounted to 28,741 £. as against 26,491 £. in 1879-80. Of this the State supplied 19,084 £., or 66 per cent., about the same proportion as in the previous year. The receipts from fees were satisfactory, amounting to 4,897 £., as compared with 4,381 £. in the previous year.

The work of inspection during the year was somewhat interrupted by the census operations, on which the departmental officers were employed. The duty of inspecting primary schools is largely shared by the Deputy and

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EDUCATION.

N. W. Provinces and Oudh.

Assistant Commissioners and by the members of the educational sub-committees of each district.

The progress of education in the North-Western Provinces and Oudh was satisfactory, although the results of the malarial fever of 1879 has not entirely disappeared. The following tables summarise the returns :—

CLASS OF INSTITUTION.	SCHOOLS.			SCHOLARS.		
	1879-80.	1880-81.	Decrease.	1879-80.	1880-81.	Increase.
Government Schools and Colleges	6,377	6,200	-177	201,989	205,006	3,076
Aided - ditto - ditto	369	355	-14	18,257	19,049	792
Unaided - ditto - ditto	64	40	-24	1,371	1,289	-82
TOTAL	6,810	6,595	-215	222,117	225,403	3,286
University Colleges	12	11	-1	729	888	159
Secondary Education	657	634	-23	9,515	8,752	-763
Primary Education	5,773	5,810	+37	201,876	205,008	4,037
Special Schools	18	20	+2	433	438	5
TOTAL	6,810	6,595	-215	222,117	225,403	3,286

The decrease in the number of schools is of no importance, the number of pupils being the real test of educational progress in the province. The smallness of the number of unaided schools is due to the fact that none have been reckoned but those which furnished satisfactory statistics, and thus very many indigenous schools have been omitted. As regards secondary education it is said that the result of the system of examinations has been to make the teachers neglect elementary knowledge, and to hurry their pupils on to advanced subjects without grounding them in the rudiments. The result is that neither the higher nor the lower examinations shew satisfactory results. In Oudh the schools are entirely under the inspector and his staff; but in the North-Western Provinces much of the work is done by the district school committees, though not altogether in a satisfactory manner.

The total expenditure during the year was 197,593 l., being a reduction of 3,480 l. on the amount spent in 1879-80. To this the State contributed 150,624 l., or 76 per cent. In the receipts from fees there was a falling off of 273 l.

Punjab.

The general results of education in the Punjab during 1880-1 were satisfactory, though the figures still fall short of those attained in 1877-8. The improvement is in great part due to the cessation of the disturbing influences of the war. The following are the chief statistics of the year :—

CLASS OF INSTITUTION.	SCHOOLS.			SCHOLARS.		
	1879-80.	1880-81.	Increase.	1879-80.	1880-81.	Increase.
Government Schools and Colleges	1,756	1,752	-4	84,986	88,816	3,830
Aided - ditto - ditto	338	326	-12	15,456	16,307	851
TOTAL	2,094	2,078	-16	100,442	104,923	4,481
University Colleges	1	1	-	78	94	16
Secondary Education	227	225	-2	5,669	6,201	532
Primary Education	1,527	1,524	-3	84,543	88,195	3,652
Special and Technical Schools	11	15	+4	318	502	184
TOTAL	2,094	2,078	-16	100,442	104,923	4,481

The small falling off in the number of schools is of no importance in view of the large increase of the number of scholars. The aided primary schools were again much less successful than the Government ones, and this is the more unsatisfactory as the State grant can only be given under exceptional circumstances to primary schools, which ought to be supported from local resources. In view of this it is proposed to relieve district and local funds of some of their present

present charges, so as to enable them to devote more of their income to primary education. During the year a central training college was opened at Lahore with 52 pupils, qualifying for masterships in the higher schools. Primary school teachers will still be trained in the Normal Institutions at Delhi, Lahore, and Rawal Pindi. The total expenditure of the year amounted to 139,253 l., of which Government contributed 58,441 l., or 42 per cent. In 1879-80 the expenditure was 134,111 l.

EDUCATION.

The following are the statistics of Education in the Central Provinces during 1880-1:—

Central Provinces.

CLASS OF INSTITUTION.	SCHOOLS.			SCHOLARS.		
	1879-80.	1880-81.	Increase.	1879-80.	1880-81.	Increase.
Government Schools and Colleges - - -	944	955	11	55,457	56,443	986
Aided - - ditto - ditto - - -	375	387	12	19,457	19,768	311
Unaided - ditto - ditto - - -	103	95	-8	2,832	3,340	508
TOTAL - - -	1,422	1,437	15	77,746	79,551	1,805
University Colleges - - - - -	2	2	-	44	60	16
Secondary Education - - - - -	53	55	2	2,272	2,518	246
Primary Education - - - - -	1,238	1,270	17	71,186	72,833	1,647
{ Males - - - - -	87	81	-6	3,548	3,375	-173
{ Females - - - - -	26	28	2	683	745	62
Special Schools - - - - -	1	1	-	13	20	7
TOTAL - - -	1,422	1,437	15	77,746	79,551	1,805

The decrease in the number of girls' schools is due to the closing of such schools as were hopelessly bad, but no further diminution on this score is expected. The expenditure during the year was 63,080 l., to which Government contributed 46,249 l., or 73 per cent. In the previous year the total expenditure was 61,009 l., to which Government contributed 45,305 l., or 74 per cent. The receipts from fees rose from 2,056 l. to 2,312 l., and municipal grants amounted to 3,354 l., a small sum in itself, though not unreasonably so, considering the many claims that urgently press for assistance from municipal revenues.

The following are the chief statistics of the year:—

British Burma.

CLASS OF INSTITUTION.	SCHOOLS.			SCHOLARS.		
	1879-80.	1880-81.	Increase.	1879-80.	1880-81.	Increase.
Government Schools and Colleges - - -	48	47	-1	2,176	2,778	602
Aided - - ditto - ditto - - -	761	898	77	31,023	34,247	3,224
Unaided - ditto - ditto - - -	2,850	2,381	31	47,175	51,683	4,508
TOTAL - - -	3,159	3,266	107	80,374	88,708	8,334
University Colleges - - - - -	-	1	1	-	8	8
Secondary Education - - - - -	34	30	2	1,817	1,116	-70
{ Females - - - - -	-	6	-	-	131	-
Primary Education - - - - -	3,107	3,210	103	74,426	80,977	6,551
{ Males - - - - -	14	12	-2	4,508	6,316	1,808
{ Females - - - - -	4	7	3	123	100	37
Special or Technical Education - - -	-	-	-	-	-	-
TOTAL - - -	3,159	3,266	107	80,374	88,708	8,334

The results of the examinations, held for the first time this year, were not satisfactory either for the middle or the primary schools. Even large Government institutions in comparatively advanced towns, such as Henzada, were unable to pass a single pupil. The failure is attributed partly to the novelty of the examinations, and also to the want of vernacular teachers. The knowledge of Burmese as a language is even said to be deteriorating throughout the province. The survey classes, on which much pains and money had been spent, failed to produce any pupils capable of qualifying for survey certificates.

During the year the policy of encouraging the indigenous private schools was further carried out, care being taken to prevent any danger of their being directly or indirectly converted into Government institutions. The schools are inspected, receive payment for results on a special scale, and in some cases are supplied with certificated masters; but in all cases the keepers of the schools

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EDUCATION.

are treated as the responsible heads of the establishment. Thus far the interference of Government in the matter has been welcomed cordially, especially by the Karens, and no obstacles whatever are placed in the way of the departmental officers by the Buddhist Monks.

The total expenditure on education during the year was 41,308 l., of which Government contributed 26,733 l., or 64 per cent. The figures shew an increase of 1,345 l. in Government expenditure, in private of 930 l. These differences come chiefly under the heads of school buildings. The receipts from fees exceeded those of the previous year by 253 l., in spite of a reduction of the rates in force in primary schools.

Ajmere.

The following are the summarised educational statistics for the year :—

CLASS OF INSTITUTION.	SCHOOLS.			SCHOLARS.		
	1879-80.	1880-81.	Increase.	1879-80.	1880-81.	Increase.
Government Schools and Colleges	80	79	-1	3,113	3,275	162
Unaided - ditto - ditto	62	60	-2	1,969	2,142	153
TOTAL	142	139	-3	5,102	5,417	315
University Colleges	1	1	-	188	211	23
Secondary Instruction	139	136	-3	4,800	5,183	293
Primary Instruction	2	1	-1	24	20	-4
Special and Technical Schools	-	1	1	-	3	3
TOTAL	142	139	-3	5,102	5,417	315

Education is not popular in Ajmere, but some progress is made year by year. The expenditure for 1880-1 was 6,394 l. as against 6,195 l. in 1879-80. The increase was almost entirely from local funds, the amount of contribution from which was 2,227 l. against 2,083 l. in the previous year.

Berar.

The following statements summarise the statistics of education in Berar during 1880-1 :—

CLASS OF INSTITUTION.	SCHOOLS.			SCHOLARS.		
	1879-80.	1880-81.	Increase.	1879-80.	1880-81.	Increase.
Government Institutions	479	475	-4	24,433	26,327	1,894
Aided - ditto	49	134	85	1,390	2,856	1,466
Unaided - ditto	164	206	82	2,584	3,088	454
TOTAL	712	675	163	28,407	32,221	3,814
Secondary Education	7	7	-	213	250	37
Primary Education	693	855	162	27,674	31,448	3,774
Normal and Technical Schools	11	12	1	467	452	-15
	1	1	-	53	71	18
TOTAL	712	875	163	28,407	32,221	3,814

The increase in numbers is very considerable, though it is mainly due, not to the creation of fresh schools, but to the bringing of existing schools under inspection for the first time during the year. The increase in unaided schools, of which a large number, each with few pupils, was started during the year, is attributed to a *bona fide* effort on the part of the people to provide for their own educational wants, Government having been unable to comply with numerous applications for schools. The schools, however, in some instances are started speculatively, as in Assam, in the hope that the State may take them over, if they shew fair prospects of success.

The total expenditure on education during the year amounted to 32,912 l. as against 31,122 l. in the previous year. Of this the Government contribution was 22,450 l., or 68 per cent.

Mysore.

The educational year in Mysore was extraordinarily prosperous, as a recital of the bare facts will prove. The number of pupils increased by nearly 6,000, and

and expenditure decreased by 1,155 l. The following tables summarise the Education statistics :—

CLASS OF INSTITUTION.	SCHOOLS.			SCHOLARS.		
	1879-80.	1880-81.	Increase.	1879-80.	1880-81.	Increase.
Government Schools and Colleges	870	809	29	28,054	33,287	5,233
Aided - - ditto - ditto	180	198	8	8,669	9,370	701
TOTAL	1,050	1,087	37	36,723	42,657	5,934
University Colleges	4	4	-	119	132	13
Secondary Education	147	151	19	2,763	2,057	194
{ Male	-	15	-	170	127	43
{ Female	842	855	13	29,821	35,219	5,398
Primary Education	50	52	2	2,858	3,077	219
Technical and Special Schools	7	10	3	992	1,145	153
TOTAL	1,050	1,087	37	36,723	42,657	5,934

During the year the engineering school was reconstructed on a less ambitious scale. Instruction up to the college standard has been discontinued, but scholarships are reserved for youths who may graduate in engineering in any of the Presidency colleges. A botanical school was opened during the year for the benefit of forest students, and a medical school for training medical subordinates of the lower grade. Female education appeared to be gaining in popularity, several applications having been made for the establishment of Hobli schools for girls. The total expenditure of the department during the year was 39,103 l.

The following are the summarised statistics of the year :—

Coorg.

CLASS OF INSTITUTION.	SCHOOLS.			SCHOLARS.		
	1879-80.	1880-81.	Increase.	1879-80.	1880-81.	Increase.
Government Schools	59	56	-3	2,498	2,703	205
Aided - - ditto	3	3	-	67	89	22
TOTAL	62	59	-3	2,565	2,792	227
Secondary Schools	2	2	-	137	145	6
Primary - ditto	58	55	-3	2,395	2,613	218
{ Male	1	1	-	26	30	4
{ Female	1	1	-	7	6	-1
Normal School	1	1	-	7	6	-1
TOTAL	62	59	-3	2,565	2,792	227

The total expenditure during the year was 2,355 l., of which Government contributed all but a trifling part.

The following are the principal statistics of education in Madras during 1880-1 :—

Madras.

CLASS OF INSTITUTION.	SCHOOLS.			SCHOLARS.		
	1879-80.	1880-81.	Increase.	1879-80.	1880-81.	Increase.
Government Colleges and Schools	1,518	1,428	-90	51,069	51,221	152
Aided - - ditto - ditto	4,859	6,078	1,225	144,167	178,609	34,442
Unaided - ditto - ditto	4,162	5,372	1,210	73,143	97,078	24,835
TOTAL	10,533	12,878	2,345	268,379	327,808	59,429
University Colleges	27	28	1	1,308	1,721	413
Secondary Education	370	480	110	17,683	19,953	2,270
{ Male	-	40	40	332	415	83
{ Female	9,656	11,793	2,137	216,840	272,619	53,779
Primary Education	450	500	50	28,931	31,790	2,859
Special or Technical Schools	30	34	4	1,285	1,174	-111
{ Male	-	3	3	-	136	136
{ Female	-	-	-	-	-	-
TOTAL	10,533	12,878	2,345	268,379	327,808	59,429

* Not shown separately.

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The figures for the year are the highest yet reached, the number of scholars being nearly 40,000 more than in the year preceding the famine. The total expenditure was 310,771 l. against 282,347 l. in 1879-80, Government contributions falling from 103,605 l. to 94,517 l., and receipts from fees rising from 74,907 l. to 88,192 l.

Bombay.

The following are the statistics for the year :—

CLASS OF INSTITUTION.	SCHOOLS.			SCHOLARS.		
	1879-80.	1880-81.	Increase.	1879-80.	1880-81.	Increase.
Government Institutions - - - -	4,024	4,424	400	229,797	266,798	37,001
Aided - - ditto - - - -	229	255	26	18,180	19,979	1,799
Unaided - ditto - - - -	622	664	42	27,156	30,197	3,041
TOTAL - - - -	4,875	5,343	468	275,133	316,974	41,841
University Colleges - - Male - -	11	11	-	1,104	1,139	35
Secondary Education - { Male - -	225	274	49	29,318	20,028	-9,290
{ Female - -	*	18	*	*	1,334	*
Primary Education - - { Male - -	4,341	4,705	364	227,107	275,642	48,535
{ Female - -	284	298	32	16,577	17,612	2,369
Special or Technical Schools Male - -	14	37	23	1,027	1,219	192
TOTAL - - - -	4,875	5,343	468	275,133	316,974	41,841

* Not shown separately. Increase shown under head of Primary, Female.

In the above returns indigenous schools are not included, their number however, though not known accurately, must be very great. In the Central Division alone, where inquiries were carefully carried out, it was estimated that there were 24,222 children attending these hedge schools, as they may be called, against 74,547 pupils on the rolls of the recognised institutions. The total expenditure of the department during the year was 314,990 l. against 313,825 l. in the previous year. Government contributions fell from 110,263 l. to 108,912 l., but there was a large increase in receipts from fines and local taxation. This last source of income, however, cannot well be further developed; and the further extension of primary education depends upon the ability of Government to make a larger grant in aid to schools mainly supported from local funds. All the larger and more costly institutions were the first to be established on a satisfactory footing, so that a comparatively small increase in the Imperial grant would go a long way to meet the wants of villages now demanding assistance. As regards educational funds it is noteworthy that the Director of Public Instruction reports that "the Kathiawar Agency and several of the most advanced of the native states have long ago beaten our worst and will doubtless soon rival our best districts."

UNIVERSITIES AND COLLEGES.
Bengal.

The total number of students in Bengal during the year was 2,526, shewing an unprecedented increase of 21 per cent. on the figures of the previous year. But though the numbers increased, the expenditure shewed a decrease in receipts from private sources, and a corresponding advance in Government expenditure. While the numbers steadily progress every year, the cost of colleges to the State ought to diminish; and the fees in future will be raised, though only by moderate amounts, the middle classes to which the students as a rule belong, not being well enough off to pay anything like the whole cost of a high education. The highest fee at present is Rs. 12 a month, which is the charge at the Presidency College. In the private colleges the fees never exceed Rs. 5 a month.

The various examinations gave favorable results, and the year was signalled by the success, for the first time in India, of two girls, one from the Bethune and the other from the Normal School, who passed respectively in the second and third divisions of the first arts examination. They are now reading in the Bethune School for the degree examination, with special scholarships granted for the purpose.

Assam.

In consequence of the many applications to Government to re-open the Lower Grade College at Gauhati, it was decided to offer half the cost of the College (Rs. 290 a month) on condition that the other half was supplied from private sources. But though provisions were made in the Budget of 1880-1 for

for the purpose, no attempt to raise the requisite funds was made by the public.

The examinations during the year gave favorable results; but the excessive cost of university education in the province is most unsatisfactory. The cost of the students at the various colleges varies from 42*l.* per head in the aided institutions to 161*l.* at the Agra College; and as the amount which can be devoted by the State to education is limited, the provision of so costly a training for an infinitesimal portion of the population seriously prejudices the interests of elementary instruction. For instance, 300 boys could be instructed in a primary school at the same rate as a single student in the Agra College, and as this institution, in spite of its excellence of system, is almost empty, the question of closing it has been seriously raised.

During the year 1880-1 the conditions required in order to enable the Punjab University College to be raised to the status of an university with power to confer degrees were fulfilled, and the necessary legislation has been since carried. The examination results for the year were satisfactory.

Application was made during 1880-1 for the conversion of the Jubbulpore High School into a college. The claims of the school was founded mainly on a comparison of the pupils passed from it with those passed in the North-Western Provinces and Oudh; but the average of those who pass the first arts examination annually is only nine, not enough to justify the foundation of an expensive institution for their special benefit.

The college department of the Rangoon High School had only eight pupils on the rolls during 1880-1, and the average cost of educating each student was 218*l.* The money would no doubt be more effectively spent on the endowment of scholarships tenable by Burman boys in the colleges at Calcutta, where also a better education would be given. But Burman parents are very unwilling to send their sons across the seas, and on the whole it is considered expedient to persevere in the attempt to establish a college department in Rangoon.

During 1880-1 the Ajmere Government College was constituted by the authorities of the Punjab University as a centre for their examinations. Two youths from the college passed the necessary examinations and proceeded to join the law classes at Lahore.

During 1880-1 there were eight students from Rerar in the Bombay University.

The examination results for 1880-1 were satisfactory.

In 1880-1 for the first time students were sent up direct from Coorg for the Bombay University examinations. Four passed the matriculation, and one the first arts examination.

The examination results for 1880-1 were satisfactory.

The number of successful candidates in the examinations rose from 223 in 1878-79 to 394, but only 34 proceeded to the B.A. degree against 51 in the previous year.

There were 114,550 Mahomedans in all attending school in Bengal during 1880-1, their proportion having increased from 18½ to 20 per cent. of school population. The ordinary primary schools are believed to be as fully suited for them as for Hindus, the vernacular of the two races being usually the same. In addition to these schools, the *Tols* and *Maktabs* are subsidised to teach the vernacular and a little arithmetic as well as the Koran. In the Madrassas the number of pupils increased by 30 per cent. and the Government expenditure only by 3 per cent. During the year it was proposed by an influential Mahomedan gentleman to close three of the Madrassas to provide funds for the establishment of college classes in the Calcutta Madrassa, and generally to give more prominence to English over Oriental learning. This proposal was considered inconsistent with the spirit of the Mohsin endowment, especially as the increasing number of pupils proved that the existing institutions supplied a real want; but it was determined to defray from the Mohsin endowment two-thirds of the fees of Mahomedans reading in any of the Calcutta colleges.

In Assam there were 5,498 Mahomedans returned as attending schools; in the North-Western Provinces and Oudh, 37,330; in the Punjab, 39,368; in the Central Provinces, 5,381; in Ajmere, 230; in Berar, 3,570; in Mysore, 4,330; in Coorg, 76; in Madras, 22,075. From the Madras statistics it appears that Mahomedans are not, as is generally supposed, behind Hindus in education,

UNIVERSITIES AND COLLEGES.

N. W. Provinces and Oudh.

Punjab.

Central Provinces.

British Burma.

Ajmere.

Berar.

Mysore.

Coorg.

Madras.

Bombay.

MAHOMEDAN EDUCATION. Bengal.

MAHOMEDAN
EDUCATION.

education, the proportional per-centage of Mahomedan boys being one-and-a-half higher than that of Hindus, while as regards girls it is not one-third lower. However, of the Mahomedans under instruction more than 96 per cent. attend primary schools. In Bombay there was a satisfactory increase everywhere of the number of Mahomedans under instruction, the figures for the year being 35,865 as against 29,478 in 1879-80. But the desire for education, except in the Koran, appeared languid as ever.

SCIENCE AND ART.

There was nothing of importance to record under this head during 1880-81.

LITERATURE AND
THE PRESS.
Bengal.

The publication of 1,822 books was officially recorded in Bengal during 1880. The number was unusually large, exceeding that of the previous year by 431. Of the total, 959 were written in Bengali, and 172 in English. There were 23 biographies (one of which was a Life of Mazzini); 127 dramas, which "though written with a laudable purpose, occasionally defeat their object by their manner of treating their subjects, which is often immoral, sometimes obscene, and never in good taste." There were 201 volumes of poetry, 88 novels, 247 treatises on language, and 289 on religion.

The number of native newspapers recorded was 39, one more than in the previous year. Of these only 10 have a circulation of more than 500 copies, and only three of more than 1,000 copies. Six of the papers were daily, 28 weekly, 2 fortnightly, and 3 monthly. The native press is said to be of little value, rarely containing an intelligent article.

Assam.

There were three newspapers published in Assam during 1880, the same number as in the previous year. Ten books were registered, as against 12 in 1879. Of these 10, only four were in the vernacular; but to the total must be added 11 books in Assamese issued in Bengal.

N. W. Provinces
and Oudh.

Only 409 publications were issued in the North Western Provinces and Oudh in 1880, as against 541 in 1879. 69 vernacular newspapers were published during the year, 48 in the North Western Provinces, and 21 in Oudh. Neither books nor newspapers were of importance.

Punjab.

Twenty-seven vernacular newspapers were published in the Punjab during 1880-81. Of these, 24 were written in Urdu, 10 were published at Delhi, and 10 at Lahore. The total number of books and pamphlets registered was 766.

Central Provinces.

There are three lithographic presses at work in the Central Provinces, which are required to print text-books, and other educational works. At one of these a newspaper is printed every month in Marathi, Hindi, and Urya.

British Burma.

Ninety-six original works were published in British Burma in 1880-81, 18 more than in 1879; 21 republications were issued, and six translations, making a total of 124. The majority of these were missionary works in Burmese, and Karen. There were also several metrical romances published, a class of literature which enjoys a considerable popularity. Four vernacular papers were published regularly.

Berar.

The only original books published in Berar during 1880-81 were a novel, and a religious treatise. There were 16 literary institutions and reading-rooms open, nine of which were said to be doing well.

Mysore.

The number of books and pamphlets registered in Mysore during 1880 was 43, of which 25 were in the vernacular. The majority of these were on language, law, and religion.

Madras.

The number of publications registered in Madras during 1880 was 875, an increase of 100 on the previous year. Of these 670 were in the vernacular, 92 in English, 63 in classical languages, and 50 in more than one language. Only 209 publications were original, the rest being translations and republications. No information as to the vernacular press is forthcoming.

Bombay.

The total number of publications registered in Bombay during 1880-81 was 980, 117 less than in the previous year. Of these, 91 were in European languages, 78 in classical languages, 279 in more than one language, and 532 in the vernacular. Of the total 293 works were original, the rest being reprints and translations. The number of vernacular papers published in the Presidency during the year was 76, being five less than in 1879-80. There were also two papers, under native management, published entirely in English. The majority of the papers were in Marathi and Gujarathi. Four of the vernacular papers were professedly comic.

XIII.

NATIVE STATES.

THERE were no reports for 1880-1 from Hyderabad or Baroda.

NATIVE STATES.
HYDERABAD.
BARODA.
RAJPUTANA
AGENCY.

The year 1880-1 in Rajputana was marked by the death of the Maharaja of Jeypoor, one of the most enlightened of Native Princes, at the early age of 48. On his deathbed he named as his successor the younger brother of his collateral, the Thakoor of Isurda, and his choice was acquiesced in by the Council of the State and confirmed by the Viceroy. The new Maharaja was 19 years old at the time of his accession, and therefore not a minor; but, in consideration of his want of education and of experience, it was decided that the constitution of the Council should be altered so as to give the leading nobles a share in the administration, and that the Political Agent should for a time direct the affairs of the State.

Towards the close of the year there was an outbreak among the Bhils of Meywar, occasioned mainly by the dearness of salt, their dislike of the census, and other causes; but the revolt and its pacification belong to the history of 1881-2. The census itself, it should however be stated, was taken without any disturbance in the Bhil villages. No house-to-house enumeration of individuals was attempted; but the number of huts was ascertained through the village headmen, and a rough estimate then framed by reckoning four inmates to each habitation. In other parts of the country the census was not regarded with dislike; and it is thought that although the details will not be so carefully tabulated as in British territory, the general results will be fairly correct. The principal returns are as follows: Meywar Agency, 1,808,848; Western States Agency, 401,370; Eastern States Agency (Jeypore, &c.), 3,463,208; Ulwur, 671,915; Jhawallar Agency, 340,488; rough total for all Rajputana, 8,000,000. The census has special interest, as showing the result of the steps taken to put down female infanticide among the Paniar Meenes. Forty years ago the practice was openly avowed, and not a single female infant was to be found in many of the villages. The following table shews the improvement that has taken place:—

STATE.	Percentage of Girls to Boys.			
	1860-1.		1880-1.	
	Paniar Meenes.	Other Castes.	Paniar Meenes.	Other Castes.
Meywar	28.88	60.73	50.00	77.6
Jeypoor	29.60	70.08	48.8	70.2
Boondee	53.23	79.71	73.9	74.4

The rainfall of 1880-1 was on the whole satisfactory, and the crops in most states were well up to the average; but in Bikanir, Jeypoor, Tonk, Boondee, and Shahpura, they were scanty. With the exception of smallpox, which prevailed severely in several states, the year was healthy. There was a decrease in the death-rate in jails from 103 to 48 per thousand. The highest rate was at Bhurtpoor, where the mortality was 124 per thousand, but this was less by nearly one-half than in 1879. The vaccination returns shew an improvement of 12 per cent. on the previous year. The general administration of the states was described as good, especially in Jeypoor, Oodeypoor, Bhurtpoor, Ulwur, and Kotah. The backward states were Serohi, Kerowli, and Tonk. Education made fair progress during the year; and the Mayo College at Ajmere, certainly, increased in favor with the chiefs and nobles, the number of students having risen from 32 to 45, while their conduct both in and out of college was

RAJPUTANA
AGENCY.

well spoken of. In the Public Works Department the completion of the Western Rajputana Railway, linking Ahmedabad to Agra and Delhi, was the most important event of the year.

CENTRAL INDIA
AGENCY.

The principal event recorded in the Administration Report of the Central India Agency was the retirement of Lieutenant General Sir Henry Daly, K.C.B., from the post of Agent to the Governor General, which he had held since 1869. He was succeeded in February 1881 by Sir Lepel Griffin.

The census operations were regarded with dislike by the chiefs, and no great exactitude is claimed for the returns, which shewed a total of 10,268,392. In the export of opium there was a considerable decrease, the number of chests falling from 46,204 in 1879-80 to 36,649, and the amount of duty levied from 314 to 256½ lakhs of rupees. The check on exports is attributed to the accumulation of opium in China and Bombay awaiting sale, and to speculation. Post offices generally gained ground, and during the year two chiefs voluntarily applied for the establishment of offices in their states. Education, too, was well spoken of, the management of the Rajkumar College being especially praised. The Bhopal Battalion and two wings of each regiment of the Central India Horse, were employed on active service in Afghanistan. The cavalry was absent for a year, and won high praise for discipline and smartness. The infantry corps proved itself equal in every respect to the regular regiments of the line; and it was urged that, being no longer a purely local corps in enlistment and service, it should receive a larger staff of European officers.

In the Bhil districts much trouble was caused by Pathan immigrants and settlers, who endeavoured to create disturbances under the impression that British arms had been worsted in Afghanistan. A band of these men, joined by some Bhils, committed a most daring dacoity at the Dhar village of Kharode. A detachment of the Central India Horse, with a contingent of the Malwa Bhil Corps, was despatched against the marauders; the chiefs generally gave the help demanded of them, and the gang was hunted down and dispersed. The leader was put to death, and 15 of his chief followers were sentenced to transportation for life.

During 1880-1 the Sindia-Holkar Railway was opened as far as Chitor; and in Bhopal the construction was begun of a broad gauge line between Bhopal and Hoshungabad, connecting the capital with the Great Indian Peninsula system. The Begum gave 35 lakhs of rupees, without guarantee, towards this work; and her grandmother, the Kudsia Begum, already celebrated for her munificence, gave 15 lakhs.

Gwalior.

Of the details of administration in the various states, there is little of marked importance to record. In Gwalior the rainfall was scanty, and the harvests, both spring and autumn, below the average; but the condition of the people was on the whole prosperous. The revenue of the year was rather more than 42½ lakhs, and left a surplus of 4¾ lakhs, against an opening balance of rather more than 4½ lakhs. The attention of the Maharaja Scindia was turned to the establishment of iron-works, for which there appeared a good opening in his territories. The paper mill established by His Highness was well spoken of. In Indore the harvests were good, and the year one of general prosperity. It was reported that, during the year, 1,036 ryots, with 807 ploughs and 1,754 bullocks, came into the Indore State, from surrounding territories, to settle; while 571 ryots, with 409 ploughs and 829 bullocks, emigrated. Advances of over a lakh were made to ryots for purchasing cattle and sinking wells. The revenues amounted to 58½ lakhs, against 53 lakhs in the previous year; but in the expenditure there was a more than corresponding rise from 46 lakhs to 53 lakhs. Under the head of "Palace" there was an increase of expenditure of nearly 3 lakhs, due to a trip taken by the Maharaja Holkar in the Deccan, and to the cost of festivities in honor of the birth to His Highness of a grandson.

Indore.

States under the Government of Bengal.

Kuch Behar.

During 1880-1 the state of Kuch Behar was still under the management of a British Commissioner. The year was one of general prosperity; the harvest was good, and no want of food grain was felt. There was however a falling off in land revenue receipts, the ryots being prevented by the low prices ruling in Bengal from selling their produce to advantage. In other respects the finances

of the year were good, and there was a surplus of 10,984 *l.*, instead of a deficit of 13,156 *l.* as estimated. These results were due chiefly to a saving in expenditure upon the Palace. The judicial and police administration of the state was satisfactory, and there was a continued decrease in crime. The progress of education was for the first time checked in the year under report. There was no decrease in the number of state institutions; but the curtailment of the grants to aided schools, and the absence of schoolmasters employed on census operations, led to a falling off in the number of grant-in-aid and unassisted schools. The census was taken with difficulty, but without disturbance. The population amounted to 600,946, shewing an increase of 68,381 over the numbers in 1872.

CENTRAL INDIA
AGENCY.

In Hill Tipperah the harvest for 1880-1 was, for the third time in succession, good, and rice fell in value from 17 seers per rupee to 22. The result was the same as in Kuch Behar; the ryots, though their material condition had never been better, were unable to procure money to pay their reuts. The revenue of 1880-1 was 23,267 *l.*, as compared with 19,237 *l.* the average of the three preceding years. The principal source of increase was the cotton tax, which, as noticed in the last Report, was for the first time under direct management. There was a large decrease in the royalties on elephants caught, only 30 beasts being taken, as compared with 131 in the previous year. No progress was made with education, owing the apathy of the state officials. The census was taken without difficulty, the Maharaja interfering to make matters easy. It was the first held in the state, and the population which had been estimated at 92,000, was found to amount to 95,637.

Hill Tipperah.

With one exception the tributes of all the chiefs were paid in full. The arrangements made in the previous year for the management of the Narsingpore, Talchere, and Daspulla states by native Ministers nominated by the superintendent, led to a very marked improvement. In Narsingpore the chief, under the influence of his courtiers, attempted to prevent the arrangements which were being made for effecting a land settlement; but the people stood firm, and the lands were duly measured. A regular settlement of the land is highly to be desired, and the people appeared to be beginning to understand this. In Kindole they exacted a promise from the Raja for a regular measurement of their land and settlement. The census was taken without difficulty. In Cuttack the population had risen from 1,283,309 in 1872 to 1,624,310; in Chota Nagpore it had fallen to 448,302 from 498,607 in 1872.

Cuttack and Chota
Nagpore Mehals.

States under the Government of the Punjab.

During 1880-1, in the minority of the Maharaja, the administration of Patiala was in the hands of the Council of Regency, appointed in 1876. There were some differences of opinion between the members of the Council, which called for the interference of the British authorities, but on the whole the Government was conducted in the enlightened spirit of the late Maharaja. The loyalty of Patiala has always been conspicuous; and on the occasion of the Durbar held at Lahore by the Viceroy, several of the principal officers of the state were rewarded with titles of honour and other concessions, in recognition of their services during the Kabul campaigns. Similar distinctions were conferred on the chiefs of Jind and Nabha, the general administration of both of which states was well spoken of. The state of Bhawalpur was administered during the year by the young Nawab, who was installed as ruler on his eighteenth birthday; till he is 21 he will be assisted by a Council, the constitution of which will be regulated by the local Government. The year was a favourable one, the canals which had been completed during the Nawab's minority contributing largely to the excellence of the harvest. Towards the end of the year religious disturbances broke out between the Hindus and Mahomedans. Kapurthala continued, under the direction of a British Superintendent during the minority of the Raja, with undiminished good results. The revenue increased by a lakh and a half during 1880-1, and the cash balances amounted to five lakhs. Two lakhs were spent on public works; the other duties were reformed, and taxes on exports abolished, to the great advantage of the agriculturists. The census shewed a total population of 252,617 souls, giving an average of 417 to the square mile. These numbers are slightly less than

Patiala.

Jind and Nabha.
Bhawalpur.

Kapurthala.

Chamba.

Mandi.

Kashmir.

than those recorded at the enumeration of 1877, and the difference must be attributed to the fever epidemic which raged in the autumn of 1878. The Chamba State was also under British administration during 1880-1. The harvest was scanty, the local merchants did nothing to import grain, and the superintendent had to take measures to avert distress; nevertheless, the land revenue was paid punctually. Experiments were made in sericulture and in the cultivation of hops. The state of Mandi was distracted during 1880-1 by intrigues and disturbances, caused by the unpopularity of one of the principal ministers, whose rivals stirred the people up against a very sensible reform, by which the system of forced labour in vogue in the state was to be commuted for an annual payment. The Raja made concessions, and peace was restored; but the revenue suffered, and there was a deficit of Rs. 74,000 on the year. The census shewed an increase of population from 140,000 to 147,017.

The forecast of a favorable harvest in Kashmir was fortunately realised in 1880-1, and the crops of wheat and barley were unusually abundant. It must, however, be long before the people of the valley can recover from the effects of the famine of 1879. Though it was not thought that there had been any absolute starvation, the agricultural classes were sunk in the deepest poverty. In many villages the houses were still in ruins, and only one quarter of the former population remained. Large orders for shawls could not be executed for want of workmen. The Maharaja at one time proposed to substitute payment of revenue in cash for the usual demand of a share of the crops. The change would have been beneficial, but the cash assessment was fixed too high, and nothing was done. Towards the close of 1880 the disturbed state of Gilgit gave rise to some anxiety.

States under the Government of the Central Provinces.

CENTRAL
PROVINCES
STATES.

Of the 15 feudatory states attached to the Central Provinces, four, viz., Patna, Sarangarh, Khairagarh, and Sakti, were under Government management. These all made steady progress in 1880-1, and regarding those administered by their own chiefs few complaints were made to the British authorities.

The Commissioner of Chhattisgarh made a tour during the year through the Patna State, and found the country "fertile, well wooded and well watered, cultivation spreading, new tanks being made, and the people not only happy and prosperous, but peculiarly friendly." The land revenue was increased during the year, 13 jungle villages having been brought under assessment, and steps were taken to increase cultivation by offering waste lands to immigrants on favorable terms. The revenue of the state was 7,000 l., the expenditure 5,000 l., leaving a closing balance of 5,000 l. This balance it was proposed to expend in making a regular survey and settlement of the cultivated area. Sakti and Sarangarh have been under Government management for six and three years respectively; they are both making progress, and with careful attention should become thriving states. From Khairagarh the reports were favorable. Of the states under independent chiefs nothing of any importance was reported. The chiefs have much less authority than the larger potentates in other parts of India.

States under the Government of Madras.

MADRAS STATES.
Travancore.

The year 1055 of the Malayalam era was marked by the death of the Maharaja of Travancore, and by the accession of his brother. The new ruler issued a proclamation, remitting seven lakhs of arrears of tax and other state dues up to the year 1050. The greater part of this was probably irrecoverable, and the remission was beneficial as removing opportunities of oppression. The year was one of general prosperity and progress in every department, except in the administration of civil justice. The Munsifs courts did a large quantity of work, disposing of 28,527 cases out of a file of 30,540; but, in the appealable cases, of which some 2,000 went for further trial, no less than 52 per cent. were modified or reversed. The difference between judicial receipts and charges amounted to a surplus of nearly a lakh and a half; and it was suggested that this sum should be devoted to the improvement of the civil courts. The disposal of criminal cases was more satisfactory. The gross revenue of the state was the highest yet recorded, 65 lakhs; the expenditure was 60½ lakhs, and the total balance no less than 54½ lakhs.

The

The Cochin State, in the year under review, lost the services of the Dewan, T. Sbunguni Menon, C.S.I., who retired, after filling the office for 19 years with marked success. He was succeeded by his brother. The administration of justice was not good, comparing unfavorably even with that of Travancore; and the Rajah was requested by Government to take steps to remedy so discreditable a state of things. In other respects the year was satisfactory. The revenue amounted to 14½ lakhs, the expenditure to 13¾ lakhs; and the total balance to nearly 32 lakhs.

MADRAS STATES.
Cochin.

The disturbances, originated by Chendraya in the Rampa district, continued during 1880-1. More than once it seemed as though all trouble was at end, but it was not till the beginning of 1881 that order was finally restored, and Mr. Carmichael, a member of Council, qualified for the work by his long residence in the Northern districts, introduced a settlement, similar to that made by Mr. Sullivan in Rampa. In other respects the administration of the agencies was uneventful.

GODAVARI AND
VIZAGAPATAM
AGENCIES.

The season in Pudukota was on the whole unfavorable, and the collection of land revenue suffered considerably. The expenditure on public works was, however, reduced, and the year ended with a small surplus, the total balance amounting to 1½ lakhs. The general administration was good. In Banganapalle there was nothing of importance to record. In Sandur the most important event of the year was the marriage of the chief's daughter, which necessitated the expenditure of Rs. 11,000 and a loan of Rs. 4,000 at a time when the finances of the state most needed retrenchment. The Rajah's personal expenses were however Rs. 2,000 less than in the previous year. The revenue of the state amounted to Rs. 32,200, and it is indebted to the extent of nearly a lakh.

Pudukota,
Banganapalle, and
Sandur.

States under the Government of Bombay.

It was found necessary at the beginning of the year to dismiss the Council of Regency which administered the state during the minority of the Prince, and to appoint a fresh one, presided over by a new Divan. The year was one of prosperity. The survey made good progress; but although the tentative introduction of a cash settlement in three villages gave good results, it was decided to adhere for the time to the old system, for fear of offending the people. The season was on the whole favorable, but in some districts the rainfall was poor, and the cattle had to be removed to Sind for pasturage. The revenue of the year was 16½ lakhs, the expenditure 15 lakhs, including 2½ lakhs spent on public works. Of this latter sum more than a half was devoted to harbour works, which conduce greatly to the material welfare of the state. At the port of Mandvi 50 new vessels were built during the year. The census of 1881 gave 510,639 as the population, which in 1872 was 487,305.

GUJARAT STATES
Cutch.

In Palanpur and the minor states of the agency the year 1880-1 was prosperous, the rain being favorable and the crops abundant. Courts have been constituted by the Government of India for the trial of cases arising in the territory assigned by the Palanpur State for the Western Rajputana State Railway. The population, which in 1872 had been 502,586, was found to be 578,732.

Palanpur.

This agency comprises 58 states, of which 16 were under the management of Government, during 1880-1, owing to insolvency or the minority of the chief. The chief events of 1880-1 were the holding of a Border Court for the settlement of disputes between the states of the agency and Meywar, and the settlement of the compensation to be paid to the various states on account of their loss of revenue through the enforcement of the Government Opium Monopoly. The census shewed a population of 517,485; the numbers in 1872 had been 447,056.

Mahi Kanta.

In the province of Kathiawar (which comprises 186 separate states), 1880-1 was a prosperous year in all respects. The most important event was the opening of the Bhavnagar-Gondal Railway in December. The railway is 194 miles in length, and was finished within 22 months from its commencement. The total cost is estimated to have been 84 lakhs, of which Bhavnagar paid 58 lakhs, and Gondal 26 lakhs. The net receipts for the three months to March 1881, during which it was open, were Rs. 1,31,000, and the working expenses Rs. 101,000. The states most remarkable for progress were Morvi and Junagad, the chief of the latter contributing over three lakhs to public works.

Kathiawar.

- GUJARAT STATES.** works. The Rājasthānik Court, established to settle disputes between landholders and their chiefs, worked most satisfactorily. It disposed of 1,088 suits in the course of the year, 46 per cent. of which were in favor of the chief, and 54 in favour of the landholder. From these decisions there was only one appeal to Government. The number of outlawed landholders increased from 11 to 14, but none of them had any organised band of followers, and there were no raids on villages. The census shewed a population of 2,348,325, as against 2,312,629 in 1872.
- Cambay.** The death of the Nawab, the accession of his son, and the appointment of a new Divan, marked the beginning of the year in Cambay. The new Minister, Shamrao Narayan Laud, instituted vigorous reforms in every branch of the public service, cutting down the Palace expenditure, enforcing a stricter collection of the revenue, and in all respects endeavouring to follow the administrative example set in British territory. The population was returned as 83,494.
- Rewa Kanta.** This agency consists of 61 states. The chief event of the year was the introduction of the new agreements with regard to the Government opium monopoly. The season was good and the people began to shew signs of recovery from the late distress, as was shown by a remarkable decrease in the number of offences against property. The population was returned as 505,732.
- Narukot.** This small state of Narukot continued under Government administration. The population consists of aboriginal tribes, whose mode of cultivation is most primitive, in many cases the land not being even ploughed. The season was prosperous, and the people in consequence well behaved. The census shewed a falling off from 6,837 in 1872 to 5,517.
- MARATHA STATES.** There is nothing of importance to record of the wild forest tracts of the Khandhesh Dangs, except that the census gives the population as 60,270, while in 1872 it was only returned at 39,111.
- The Khandhesh Dangs.** In Jawhar further steps were taken to improve the administration of the finances. The excise revenue had been brought into order in the previous year; in the present one, measures were taken to get rid of the vexatious system of export and transit duties. Survey operations were commenced. The population was returned as 37,406.
- Jawhar.** Janjira continued under Government administration in 1880-1. A new system of land revenue was proposed for the old one, which had failed; but there was no money forthcoming to meet the cost of a survey. An investigation into the finances of the state brought to light large outstanding balances, sufficient, it was hoped, to meet the liabilities. The season was on the whole unfavorable, the monsoon rains failing. The census shewed that the population had risen from 71,996 in 1872 to 332,115.
- Janjira.** Savantvadi was under Government administration in 1880-1. The season was propitious and food-grains cheap. Good progress was made with the survey, but the expenditure on this account, together with that on public works, caused a small deficit, which, however, was met from the balances in hand. There was a great falling-off in salt-smuggling cases, in consequence of the Portuguese salt-works being under British control. The British Abkari system was introduced during the year with good results, financial and moral. The census shewed that the population had fallen from 190,814 in 1872 to 174,412.
- Savantvadi.** The year 1880-1 was prosperous in the five feudatory Satara states. Great progress was made in the state of Jath, under direct Government administration, more than a lakh of debt having been paid off. From having been the worst, it is now the best of these states. The census shewed that the population had fallen from 336,227 in 1872 to 313,813.
- Satara Feudatories.** The season of 1880-1 was good in Akalkot. There was an increase in cultivation and also in the demand for land, though it will take a long time to restore to cultivation the area of 88,000 acres, estimated to have been deserted during the famine. The census only gave a population of 57,899 as against 81,068 in 1872.
- Akalkot.** Kholapur had been for 15 years under British administration at the end of 1880-1, during the minority of two successive chiefs. The present chief was beginning to shew signs of insanity. The financial result of the Government administration was a balance of over 30 lakhs. The expenditure on public works was 4½ lakhs. The season was on the whole poor, but the condition of the
- Kholapur.**

the people was good, and offences against property decreased. The census gave a population of 800,267 as compared with 802,691 in 1872. MARATHA STATES.

The eight Southern Maratha States are recovering very slowly from the effects of the famine. In 1880-1 there was a decided increase in the revenues of all but two, although the season was not very favorable. The manufacture of earth-salt and opium and the cultivation of the poppy were suppressed during the year, the states being allowed to purchase opium from Government at a reduction of one-fifth of the pass-fee. The census shewed that the population had decreased from 386,765 in 1872 to 329,363. Southern Maratha States.

During 1880-81, in Sangli, no less than 34,071 acres of assessed waste were taken into cultivation, reducing the arable waste to a little over 63,363 acres. The chief event of the year was the restoration of the chief to a voice in the Government. The census shewed that the population had fallen from 223,669 in 1872 to 196,281. Sangli.

Little is known of the Khairpur State in Sind, the government of which is conducted on the patriarchal plan which prevailed throughout the country before the British conquest. The season was favorable, and the revenue continued to increase, realising more than 7½ lakhs. The census shewed that the population had increased from 127,000 in 1872 to 129,174. Khairpur.

XIV.

FRONTIER RELATIONS.

FRONTIER
RELATIONS.
Punjab Border.

IN spite of the war or military operations in Afghanistan, the border tribes of the Punjab were quiet during 1880-1. Satisfactory arrangements were made with the Khyber Afridis on the withdrawal of the British forces, for the safety of the Pass. The representatives of the tribes came down to Peshawur, and it was settled with them that the independence of the tribes of the Pass within proper limits should be recognized, and British influence exercised to the exclusion of that of any other power. A small subsidy was agreed upon to be paid them, on condition that they accepted the entire responsibility for the safety of the Pass, and did not levy any tolls but those authorized by the British Government. In the Kurram Valley, on the withdrawal of the British forces, it was decided that the Kurram river should continue the frontier of the Kohat district, and that the administration of the valley should be in the hand of two delegates appointed by the Council of the Turi tribes, which form the bulk of the population. In other respects the most important event of the year was a military expedition against the Mahsud Waziris. The tribe had been under blockade since their raid upon Tank in 1879; but this measure had so little effect, that in April 1880 they attacked the town of Gurnal. The tribe refused to make reparation, and it was necessary to despatch two columns of troops into their territory. The expedition was altogether successful, little or no resistance being shewn, and the tribe being brought to complete submission. The most satisfactory feature of the affair was the unconditional surrender at an early stage of four of the six most guilty headmen. The precedent is one of great importance, as hitherto the surrender under compulsion of individual offenders had been unheard of in Pathan tradition.

Bengal Frontier.

In consequence of the neglect of the Deb Rajah of Bhootan to restore the captives taken in the raid of March 1880, and to deliver up the offenders, it became necessary to withhold his subsidy under the terms of the treaty of 1865. After great delay those of the captives who had not escaped were restored and the offenders were surrendered. On the eastern frontier the peace was maintained, although the Houlongs did not show any friendly feeling. Communications will, however, it is hoped, be soon resumed, as the most hostile of the chiefs has died. The people themselves show no unwillingness to have dealings with British subjects. The efficiency of the frontier police force was materially improved during the year by the arming of the men with breech-loaders; and a new Frontier Police Regulation was enacted, which will improve the efficiency and discipline of the force.

Assam Frontier.

Along the Assam frontier the year was peaceful. In the Naga hills perfect tranquillity prevailed, and the Chief Commissioner was able to relax the severity of the terms imposed as the result of the military expedition in the previous year.

Burmese Frontier.

The relations between the British and Burma Governments continued during 1880-1 to be unsatisfactory, although no open rupture took place. No British resident was stationed at Mandalay, but communications were maintained with the Avan Court. Towards the end of the year the Burmese Government began to establish those trade monopolies which have since been increased to so damaging an extent. In the month of June the Nyong Oke Prince, one of the refugees who quitted Mandalay shortly after the death of the former king, attempted an insurrection. He was compelled to fly, and took refuge in British territory.

Our relations with other states along the border call for no remark. In Yahaing, in Siamese territory, some trouble was given by marauding bands which plundered along the frontier. The police on the British side had to be strengthened, and the King of Siam was moved to enforce order on his side.

XV.

MILITARY.

The total established strength of the army in India during 1880-1 consisted of 190,597 officers, non-commissioned officers, and men. Of these 64,509 were British, and 126,088 native troops. The gross military expenditure (including 11,368,489 l. on account of military operations in Afghanistan) was 28,086,495 l. The net expenditure was 23,864,761 l.

STRENGTH, COST, &c., OF THE INDIAN ARMY.

The following table, published by the Sanitary Commissioner with the Government of India, shows the sickness and mortality among the British troops in India during the year, excluding those on active service in Afghanistan:—

HEALTH OF BRITISH TROOPS.

PERIOD.	Average Strength.	Average Annual Ratio per 1,000.				
		Admissions into Hospital.	Daily Sick.	Deaths from		
				Cholera.	Other Diseases.	Total.
Bengal - - - - -	31,583	1,813	75	4.84	22.89	27.73
Madras - - - - -	10,310	1,368	64	0.10	10.08	10.18
Bombay - - - - -	9,903	2,150	78	—	30.90	30.90
TOTAL - - - - -	51,796	1,789	74	—	—	24.85

The death-rate among the troops occupying the cantonments of Bengal shewed an improvement of 2 per 1,000 in comparison with 1879. This improvement, however, was entirely due to the absence of cholera; for if cholera is excluded from the account in both years, the death-rate for 1880, instead of being 2 per 1,000 less, is almost 2 per 1,000 more than in 1879. The admission-rate and the daily sick-rate were, each, nearly a mean between the rates of 1878 and 1879. As regards the most prevalent diseases, the admission-rate per 1,000 from fevers was 810, and from venereal disease 276.

Bengal.

The average strength of British troops from Bengal, employed in Afghanistan during 1880, was 7,921. The average ratio per 1,000 of daily sick was 65, and of deaths 51. The daily sick-rate was considerably higher than in 1879, but the death-rate was 37.12 per 1,000 less, owing entirely to immunity from cholera, from which only 14 men (or 1.77 per 1,000) died, as compared with 365 (or 38.42 per 1,000) in the previous year. Excluding deaths from this cause, and casualties, the mortality in 1879 was 36.23, and in 1880, 40.39 per 1,000. No returns were submitted for the Bombay portion of the force.

Afghanistan.

The health of the troops in Madras in 1880 was exceptionally favorable, the mortality, 10.18 per 1,000, being the lowest ever recorded. This was due to the almost entire absence of cholera, from which there was only one casualty in the year. The admission-rate, however, and the daily sick-rate were higher than the average of the years 1870-77. Admissions to hospital from venereal disease were 275 per 1,000. Malarial fevers were, as usual, much rarer than in the other Presidencies, the cases only numbering 450 per 1,000.

Madras.

In Bombay the death-rate (30.90) was almost double what it had been in 1879, and that, although there was absolute immunity from cholera; but the admission-rate and the daily sick-rate were not higher than in the previous year. Admissions to hospital for venereal disease were 269 per 1,000, so that the average of cases from this cause is much the same in every part of India. Malarial fever cases were 1117 per 1,000. A careful examination was made of

Bombay.

106 STATEMENT EXHIBITING THE MORAL AND MATERIAL

HEALTH OF
BRITISH TROOPS.

the barracks in which the fever was most prevalent, but no sanitary defects were discovered, to account for the presence of this form of illness.

Drunkenness.

The following table shews that, while there was an increase of temperance among the British troops in Madras and Bombay, drunkenness increased in Bengal:—

PRESIDENCY.	Total Abstainers.		Cases of Drunkenness.	
	1879.	1880.	1879.	1880.
Bengal - - - - -	3,620	3,409	8,859	10,860
Madras - - - - -	1,165	1,731	4,942	3,262
Bombay - - - - -	1,108	1,126	3,648	2,797

HEALTH OF
NATIVE TROOPS.

The vital statistics of the Native army for 1880, taken as a whole, shew a decrease of sickness, as compared with 1879. On an average present strength of 126,385, the admissions into hospital fell from 1735 to 1545 per 1,000, and the daily sick-rate from 58 to 56 per 1,000, while the death-rate rose from 35·15 to 39·92 per 1,000. Including the deaths of men absent from their regiments, the mortality for the year was 41·12 per 1,000, compared with 37·79 in the previous year. The decrease in sickness was chiefly owing to the absence of cholera and to the great diminution in the cases of intermittent fever, there being only 101 cases of cholera and 67 deaths, while in the previous year the numbers were 894 and 558 respectively. Respiratory diseases were the chief death causes, contributing 12·30 per 1,000. There were 908 deaths out of hospital, against 342 in the previous year; and it is to losses in action, not to sickness that the increase in the death-rate per 1,000, from 35·15 in 1879 to 39·22 in the year under review, is due. The following table summarises the returns of the year:—

	Average Daily Strength.	Ratio per 1,000.		
		Admissions.	Daily Sick.	Deaths.
Bengal Native Army - { Cantonments	30,365	1,609	65	33·85
{ Afghanistan -	17,254	1,964	72	82·24
Madras Native Army { Cantonments	27,198	1,399	54	15·57
{ Afghanistan -	1,512	1,211	28	31·03
Bombay Native Army { Cantonments	15,328	1,283	45	10·44
{ Afghanistan -	9,247	1,739	50	* 134·10
Central India Regiments - - - - -	5,463	1,131	38	25·08
Punjab Frontier Field Force { Cantonments	8,490	1,874	60	24·03
{ Afghanistan -	4,276	1,662	49	61·97
Hyderabad Contingent - - - - -	7,253	1,030	30	7·80
TOTAL - - - - -	126,386	1,545	56	30·22

* 600 casualties at battles of Maiwand and Deh Kohja.

Bengal Native
Army.

The health of the Bengal forces in the field compared unfavorably with that of the troops in cantonment. Among the former the admission-rate was 1964 per 1,000 as against 2080 in 1879, and the death-rate 82·24 against 84·95. In Afghanistan the chief cause of mortality was respiratory disease, which occasioned nearly one-half of the total casualties. The deaths from this one cause were five times more numerous in the field than in cantonments. Among the troops in garrison there was an increase of mortality, though not of illness. In the stations of Bengal proper and Assam the death-rate rose from 25·57 per 1,000 to 40·63; in Agra and Central India it was 12·45 per 1,000 in excess of that of the previous year, and in the Gangetic provinces it was nearly doubled.

In 1880, as in the previous year, the Madras troops were on the whole the healthiest in India. Excluding the contingent in Afghanistan, the admission-rate, in comparison with 1879, was 1399 per 1,000 against 1268, and the death-rate 15·57 against 18·89. The troops from Madras in Afghanistan were healthy, but those serving in the Rumpa district, in connection with the disturbances which occurred in the early part of the year, suffered considerably, the admission-rate being 4268 per 1,000, and the death-rate 43·03.

HEALTH OF
NATIVE TROOPS.
Madras Native
Army.

The vital statistics of the Bombay Native army, as a whole, give an admission-rate of 1455 per 1,000, and a death-rate of 56·97. Among the troops in cantonments these ratios were 1283 and 10·44 per 1,000, respectively, against 1665 and 20·22 in the previous year; while among those in Afghanistan they were 1734 and 134·10. This excessive death-rate is due to the heavy losses sustained in action, 626 men having been killed at Maiwand, and 64 at Deh Kohja. Excluding these, the death-rate on active service is reduced to 59·47 per 1,000, of which respiratory diseases contributed 24·44.

Bombay Native
Army.