

EAST INDIA (PROGRESS AND CONDITION).

STATEMENT

EXHIBITING THE

MORAL AND MATERIAL PROGRESS AND CONDITION

OF

INDIA

DURING THE YEAR 1892-93.

TWENTY-NINTH NUMBER.

(PRESENTED PURSUANT TO ACT OF PARLIAMENT.)

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TABLE OF CONTENTS.

PAGE	PAGE
I. ADMINISTRATION AND LEGISLATION :	IX. AGRICULTURE AND MINERAL RE-SOURCES :
Administration - - - - - 3	Agriculture - - - - - 90
Legislation - - - - - 4	Horse Breeding - - - - - 95
II. LOCAL GOVERNMENT, MUNICIPALITIES, AND SANITATION :	Wheat - - - - - 96
Local Self Government - - - - 5	Oilseeds - - - - - 96
Municipalities - - - - - 5	Rice - - - - - 97
District Boards - - - - - 12	Cotton - - - - - 97
Port Trusts - - - - - 15	Tea - - - - - 98
Sanitation - - - - - 19	Coffee - - - - - 99
III. CRIME, POLICE, JAILS, AND JUSTICE :	Chinchona - - - - - 99
Crime and Police - - - - - 24	Jute - - - - - 100
Criminal Justice - - - - - 27	Indigo - - - - - 100
Jails - - - - - 30	Coal - - - - - 100
Civil Justice - - - - - 32	Iron - - - - - 101
IV. REGISTRATION :	Earth Oil - - - - - 101
Registration - - - - - 35	Gold - - - - - 102
Joint Stock Companies - - - - 37	Rubies - - - - - 102
V. FINANCE :	X. PUBLIC WORKS :
Finance - - - - - 39	Public Works - - - - - 103
Capital Outlay on Public Works - - - - - 41	Railways - - - - - 104
Debt - - - - - 41	Irrigation - - - - - 110
Savings Banks and other Deposits - - - - - 42	Buildings and Roads - - - - 120
Cash Balances - - - - - 42	Military Works - - - - - 121
Coinage and Paper Currency - - 43	Civil Works - - - - - 121
Opium - - - - - 44	XI. POST OFFICE AND TELEGRAPHS :
Salt - - - - - 46	Post Office - - - - - 131
Excise - - - - - 49	Telegraphs - - - - - 133
Stamps - - - - - 60	Indo-European Telegraph Department - - - - - 137
Customs - - - - - 61	XII. EDUCATION AND LITERATURE :
Provincial Rates - - - - - 61	Education - - - - - 140
Income Tax - - - - - 62	Literature and the Press - - 144
VI. SURVEYS AND SETTLEMENTS :	XIII. EMIGRATION AND MIGRATION :
Surveys - - - - - 65	Emigration - - - - - 146
Settlements and Cadastral Surveys - - - - - 68	Migration - - - - - 147
VII. LAND REVENUE (INCLUDING FISHERIES, CAPITATION TAX, &c.) AND GOVERNMENT AND WARDS' ESTATES :	XIV. TRADE AND MANUFACTURES :
Land Revenue - - - - - 74	Trade - - - - - 148
Government and Wards' Estates - - - - - 81	Manufactures - - - - - 150
VIII. FORESTS - - - - - 84	Factory Act - - - - - 151
	XV. NATIVE STATES AND FRONTIER RELATIONS, ARMY, AND MILITARY OPERATIONS :
	Frontier Relations - - - - - 16
	Internal States - - - - - 59
	Transmarine Dependencies and Interests - - - - - 167
	Army - - - - - 168
	Military Operations - - - - - 170
	APPENDIX :
	Tables of Net Revenue and Expenditure - - - - - 174

India Office, }
2 July 1894. }

A. Godley,
Under Secretary of State for India.

I.

ADMINISTRATION AND LEGISLATION.

In the Home Administration the Right Honourable Viscount Cross, G.C.B., continued to be Secretary of State until the 19th of August, when the Right Honourable the Earl of Kimberley, K.G., assumed charge of the office. Mr. Arthur Godley, C.B. (now Sir Arthur Godley, K.C.B.), continued to be Permanent Under Secretary of State throughout the year. The Honourable George N. Curzon, M.P., remained in office as Parliamentary Under Secretary of State, until succeeded on the 19th August by Mr. George W. E. Russell, M.P. There were no changes in the Council of India.

The Marquis of Lansdowne, G.M.S.I., G.C.M.G., G.M.I.E., continued to be Governor General of India during the year. On the 7th April Sir Charles Crosthwaite, K.C.S.I., entered upon the office of Ordinary Member of the Council of the Governor General, to which he had been re-appointed, in place of Colonel Robert C. B. Pemberton, R.E., a Temporary Member of the Council. On the 28th of November Sir Charles Crosthwaite succeeded to the office of Lieutenant Governor of the North Western Provinces and Chief Commissioner of Oudh, and his place in the Council was taken by Sir Charles Pritchard, C.S.I., K.C.I.E. There were no other changes in the constitution of the Council of the Governor General.

Sir Charles Elliott, K.C.S.I., was Lieutenant Governor of Bengal throughout the year. Bengal.

Sir Auckland Colvin, K.C.M.G., K.C.S.I., C.I.E., continued to be Lieutenant Governor of the North Western Provinces and Chief Commissioner of Oudh until the 28th of November, when he was succeeded by Sir Charles Crosthwaite, K.C.S.I. North Western Provinces and Oudh.

Sir Dennis Fitzpatrick, K.C.S.I., continued to be Lieutenant Governor of the Punjab throughout the year. Punjab.

Sir Alexander Mackenzie, K.C.S.I., continued to be Chief Commissioner of Burma until the 14th of May, when he obtained furlough out of India. In his absence, Mr. Frederick W. R. Fryer, C.S.I., was appointed to officiate as Chief Commissioner. Burma.

Sir Antony MacDonnell, K.C.S.I., continued to be Chief Commissioner of the Central Provinces. Central Provinces.

Mr. William E. Ward, C.S.I., continued to be Chief Commissioner of Assam. Assam.

Colonel George H. Trevor, C.S.I., continued to be Chief Commissioner of Ajmere-Merwara during the year. Ajmere-Merwara.

General Sir Harry N. Prendergast, K.C.B., V.C., officiated as Chief Commissioner of Coorg and Resident at Bangalore until the 16th of April, when Colonel Philip D. Henderson, C.S.I., was appointed to the office. Coorg and Bangalore.

The Right Honourable Lord Wenlock, G.C.I.E., continued to be Governor of Madras; Lieutenant-General Sir James Dormer, K.C.B., to be Commander in Chief and second in Council; and Sir Henry Stokes, K.C.S.I., and Mr. John H. Garstin, C.S.I., to be Senior and Second Civil Members of Council, respectively, throughout the year. Madras.

The Right Honourable Lord Harris, G.C.I.E., continued to be Governor of Bombay during the year; and Sir George R. Greaves, K.C.B., K.C.M.G., to be Commander in Chief. Sir Raymond West, K.C.I.E., continued to be Third Member of Council until the 23rd of April, when his place was taken by Sir Charles Pritchard, K.C.I.E., C.S.I., and Mr. Herbert M. Birdwood succeeded Sir Charles Pritchard as Fourth Member. On the 16th of November Mr. Arthur C. Trevor took his seat as Fourth Member, a vacancy in the Council having been caused by the appointment of Sir Charles Pritchard as an Ordinary Member of the Council of the Governor General. Bombay.

1 STATEMENT EXHIBITING THE MORAL AND MATERIAL

LEGISLATION.

LEGISLATION.

During the year 1892 the Indian Councils Act of 1861 was amended by Act 55 & 56 Vict. c. 14, which enabled the Governments in India to make considerable additions to their Legislative Councils, and introduced for the first time the principle of popular representation into those Councils. In the exercise of the powers thus conferred on them, the Government of India and the Governments of the various provinces have made rules for, and have proceeded with, the nomination of additional members of their Councils. But, in some cases these measures were not taken till after the end of the year with which this Statement deals, the account of them is deferred until the next number.

In the year 1892-93 twelve Acts passed by the Council of the Governor General for making laws and regulations received the assent of the Governor General. The first meeting of the Council at Simla was held on the 28th July, and the last on the 20th October. The Council reassembled at Calcutta on the 12th January 1893.

Of the Acts passed, the most important were Act IX. of 1892, which provided for the administration by head-men of towns in Lower Burma; Act IV. of 1893, which empowers the Courts in certain circumstances to effect the partition of estates by sale and distribution of the proceeds, instead of by actual division; and Act VII. of 1893, which made some important amendments in the Inland Emigration Act of 1882.

No Acts passed by the Council of the Lieutenant Governor of Bengal received the assent of the Governor General during the year under review.

Three Acts were passed by the Council of the Lieutenant Governor of the North Western Provinces and Oudh, and received the assent of the Governor General, providing, respectively, for the regulation of lodging-houses in municipalities, for village sanitation, and for the constitution of Village Courts.

Two Acts, viz., an Act to amend the City of Madras Municipal Act, and an Act to repeal certain obsolete enactments, were passed by the Madras Council, and assented to by the Governor General.

Three Acts were passed by the Bombay Council, and received the assent of the Governor General, viz., the Bombay District Vaccination Act, and Acts to amend the Bombay Salt Act and the Bombay Abkari Act respectively.

CHAPTER II.

LOCAL SELF-GOVERNMENT, MUNICIPALITIES, AND SANITATION.

LOCAL SELF-GOVERNMENT, MUNICIPALITIES, AND SANITATION.

In every province of India a great deal of local business is done, considerable funds are raised and spent, and valuable service to the public is performed, by local bodies which are constituted and exercise their functions under different enactments. Municipal committees exist in most towns of the Indian Empire, and have charge of municipal business generally, including the care and superintendence of streets, roads, water supply, education, hospitals, and police. The number of such committees in each province is given in the body of this chapter. Local and district boards have charge of local roads, sanitary works, schools, hospitals, and dispensaries in rural districts. Bodies of port trustees have charge of harbour-works, port approaches and pilotage. There are, besides, less numerous local bodies discharging similar duties in towns, other than constituted municipalities, and in cantonments. The importance of the work of local administration performed by these various authorities is best shown by a statement of the funds at their disposal. The income of the municipalities for 1892-93, apart from loans obtained for special works, was Rx. 3,496,922. The sources of this income and the yield of each source are shown in the Table on page 18. Figures are not available for an exact statement of the revenue enjoyed by the local and district boards during the year; but the chief source of income, the local cess levied on land "for expenditure on roads, schools, hospitals, and general purposes," gave a gross yield of Rx. 2,058,273; and among other sources of income belonging to the local boards are tolls on ferries and roads, school fees, the rent of corporate property, and the grants made by Government for educational and medical purposes. The educational grant in 1892-93 was Rx. 1,434,234, and the medical grant was Rx. 926,165; a great part of these sums is administered by local boards.

The port funds, under the management of port trustees and other local bodies, amounted in 1892-93 to Rx. 1,161,794.

Cantonment funds amounted to Rx. 193,705; and town and bazaar funds to Rx. 80,394.

Thus, the revenue from all sources managed by the various local bodies amounts to more than Rx. 9,000,000; of which amount less than half is shown in the Accounts of the Government of India and in the financial section and appendix of this Statement, founded thereon.

MUNICIPALITIES.

MUNICIPALITIES. General.

Throughout India the cities and larger towns manage their own local affairs through the agency of commissioners or committees appointed from among the citizens. The municipal bodies exist, raise funds, and exercise powers under enactments which provide, separately for the special requirements of each province, and of the three presidency capitals, Bombay, Calcutta, and Madras. In most places the majority of the commissioners or committees are elected by the townfolk under legal rules, but in every town some, and in some minor towns all, are appointed by the Government; and in almost every municipal body one or more Government officials sit as members; the number of Indian and non-official members, however, everywhere exceeds the number of Europeans and officials. The municipal bodies are subject to the control of the Government in so far that no new tax can be imposed, no loan can be raised, no work costing more than a definite sum can be undertaken, and no serious departure from the sanctioned budget for the year can be made, without the previous sanction of the Government; and no rules or bye-laws can be enforced without similar sanction and full publication.

The sources of municipal revenue are mainly:—

- | | |
|-------------------------|--------------------------------|
| House tax, | Water rates, |
| Tax on rentals, | Conservancy rates, |
| Octroi duties, | Rents of public lands and pro- |
| Bazaar or market rents, | perties, |
| Carriage tax, | Public gardens and parks. |

6 STATEMENT EXHIBITING THE MORAL AND MATERIAL

MUNICIPALITIES.

The objects on which municipal funds can be spent are, mainly, water supply, hospitals and dispensaries, streets and roads, vaccination, drainage, sanitation and education. Municipalities do more for the benefit of their citizens under these heads than was done before by Government officers; and the commissioners or committees generally evince diligence and public spirit in the performance of their honorary duties. The interest in the municipal elections, and in municipal affairs generally, has in some places slackened; but for the most part, as education and knowledge advance, interest in the management of local affairs gradually increases. It is reported from most provinces that municipal work is fairly well done, and municipal responsibilities are on the whole faithfully discharged, though occasional shortcomings and failures occur in particular towns. The tendency of these local bodies is to be slow in incurring new expenditure; and they are generally unwilling to impose new taxes even for purposes that are in themselves beneficial. Many members of municipal bodies are diligent in their attendance to work, whether at meetings for business or on benches for decision of petty criminal cases. The more important totals of municipal statistics for British India for 1892-93 were—

Number of municipal towns	-	761
Total population of ditto as per census of 1881	-	15,024,308
Total income of ditto inclusive of loans	-	Rx. 4,220,561
Total expenditure of ditto	-	„ 4,013,696
Yield of octroi duties	-	„ 804,450
Yield of direct taxes, or imposts other than octroi	-	„ 1,440,045
Amount of loans credited in the income of the year	-	„ 1,184,547

Bengal. Calcutta.

The Calcutta Municipality consists of 75 commissioners, of whom 50 are elected and 25 nominated. The executive consists of a general committee of 18, seven standing committees, and a number of special committees which are appointed as occasion arises. The various bodies held 231 meetings during the year, at which the average attendance was 57 per cent. of the respective members. The average attendance of the elected commissioners was 14 per cent. higher than that of the nominated commissioners. The income of the municipality during the year was Rx. 430,043, the chief items being Rates, Rx. 331,199, and Taxes on Professions, &c., Rx. 53,661. The expenditure of the year was Rx. 436,363. The total debt of the city is Rx. 2,300,611. During the year there was paid off Rx. 23,305. The stock commands a high price in the market. The income is likely to increase considerably owing to the re-assessment which is continually going on in the city.

Satisfactory progress was made with some important public undertakings during the year. The Harrison and the Lansdowne roads were completed, the water supply was improved by the construction of two new settling tanks to hold 48,000,000 gallons, and a flushing reservoir holding 300,000 gallons was constructed in connection with the drainage system near the Bhawanipur pumping station. The drainage system of the town is virtually completed. The total daily water supply is now more than 24,000,000 gallons, of which more than 20,000,000 gallons are filtered. The municipality is still very backward in its contributions towards education.

The opinion of the local government on the work of the year was that “the commissioners, as a whole, displayed a care and attention to their duties which were very meritorious, and in some cases rose to the level of devotion.” A want of vigour in certain executive matters is, however, noticed, especially in the collection of the rates.

Bengal. Interior of Province.

In the interior of Bengal there were 146 municipalities, one small new one having been established at the beginning of the year. The population living within municipal limits was 2,731,182 persons, or 3.9 per cent. of the whole population of Bengal, excluding Calcutta. The number of ratepayers entitled to vote at municipal elections was 464,800, or one in six of the municipal population. The municipalities varied in size, from Patna with 167,000 inhabitants, and Howrah with 116,000, to Nalchiti in Backergunge with 1,675; the majority, however, had populations of between 5,000 and 15,000 inhabitants. In 118 of the 146 municipalities two-thirds of the commissioners are elected by the ratepayers, in the rest the government, in consequence either of the backwardness of the locality or of the intensity of party feeling, exercises the power of nomination. In two municipalities, general elections took place during the year, and in each case there were fourteen candidates

At seats. There were 88 bye-elections, of which 43 were two failed altogether; in the one case because no candidate was, and in the other because of the non-attendance of voters. Among commissioners there were 1,158 elected and 981 nominated, 369 non-officials, 1,770 non-officials, 1,946 Indians and 193 Europeans. Among official commissioners were included 481 zamindars, 508 pleaders and 270 merchants and money-lenders.

The number of meetings held during the year showed a general improvement on the preceding year. In 40 municipalities more than 20 meetings were held, against 37 in 1891-92; in only 15, as against 22 in 1891-92, were there less than the prescribed minimum of one in each month. The attendance was unequal; in only 86 out of the 146 was it on the average more than 50 per cent. of the members, in three it was less than 10 per cent. The amount and nature of the business done is best seen from the figures, which show how the municipal funds were collected and expended. Exclusive of extraordinary and debt account the total income was 28 $\frac{7}{10}$ lakhs, of which 21 $\frac{3}{4}$ lakhs came from municipal taxation, and nearly 3 lakhs from municipal property and powers apart from taxation. The total expenditure was 28 $\frac{9}{10}$ lakhs. The chief heads of outlay were: administration 3 $\frac{2}{5}$ lakhs, public safety (fire establishments, lighting, police, &c.) 2 lakhs, water supply 2 $\frac{1}{2}$, drainage 1, conservancy 8 $\frac{2}{5}$, hospitals and dispensaries 2 $\frac{3}{4}$, education 1 $\frac{1}{2}$. There was a closing balance to the credit of the municipalities of 4 $\frac{1}{2}$ lakhs. The most noteworthy feature of the year's accounts is the great increase (amounting to 141 per cent.) in the amount spent on water works. In nearly all the divisions of the Province the municipalities have made greater efforts than in preceding years to procure a much-needed increase in the supply. Improvements in drainage are rendered difficult by the absence of professional supervision and the want of funds to carry out comprehensive schemes. In some large towns, however, considerable sums have been spent under this head, and levels have been taken preliminary to the preparation of satisfactory schemes. In various parts of Bengal the expense of medical and other public establishments, which would otherwise have had to be provided, if at all, by the municipalities, has been met by the kindness of native gentlemen.

The number of municipalities in the North-West Provinces and Oudh was 103, being the same as in the previous year. In all but seven of these towns the majority of the members of municipal boards are elected by the ratepayers, who amount to about 1.7 per cent. of the municipal population of 3,267,999. Elections were held in 68 municipalities during the year, the proportion of the electorate that went to the poll ranged from 16 to 87 per cent. In 97 towns the municipal boards elected their own chairman, but in only six cases did they choose non-officials. The total number of municipal members was 1,562, divided thus:—

North-West
Provinces
and Oudh.

Elected	-	-	1,248	Non-officials	-	1,268	Indians	-	1,403
Nominated or <i>ex-officio</i> .	-	314		Officials	-	294	Europeans	-	159

Each municipality held, on the average, 20 general meetings in the year; eight held 30 meetings and over. For all the municipalities of the province the average attendance of members at each meeting was 54 per cent.; in one town, Káshipur, the average attendance at each meeting reached 80 per cent., and in one it fell as low as 40 per cent. of the total members. Most municipalities have provided themselves with bye-laws, which are carefully revised from time to time.

The chief source of municipal taxation is the octroi duty, which is in force in 83 towns, and yielded Rx. 219,847; while other taxes yielded Rx. 44,228; Rx. 75,000 accrued from rents and miscellaneous sources. The incidence of income from taxation was 12 $\frac{2}{5}$ annas (over three quarters of a rupee) per head of the municipal population. The total municipal income of the year was Rx. 369,500, besides Rx. 122,035 borrowed from Government, for works of water supply and drainage. Out of the normal expenditure of Rx. 500,000, 45 per cent. was devoted to conservancy, hospitals, drainage, streets, roads, public works, and other objects for promoting the public health and convenience; 3 $\frac{1}{2}$ per cent. was spent on education, 13 $\frac{1}{2}$ per cent. on police, lighting, and fire establishments.

8 STATEMENT EXHIBITING THE MONETARY AND MATERIAL

MUNICIPALITIES.

The towns which spent most on water supply, drainage, water supply, during the year were Cawnpore, Rx. 87,000; Benares, Rx. 75,000; Agra, Rx. 16,000, and Allahabad, Rx. 14,500. In Benares the foundation stone of the new waterworks was laid by Sir Auckland B. the commission- March 1892, and in 1892-93 Rx. 30,000 was taken as a loan from the Government towards their erection. In Benares the waterworks, which cost Rx. 255,822, were completed and opened in November 1892, and are working very well; the contract for the new drainage works was given out and the work has been commenced; the estimated cost of the new drainage works is Rx. 190,000. In Naini Tal and Mussoorie important waterworks and drainage works are rapidly approaching completion.

The local government is of opinion that on the whole the result of the year's working was good, and that the progress made with sanitation in the large cities was marked.

Punjab.

The number of municipalities in the Punjab was 149, containing a population of 2,014,833, and during the year four small towns were given a modified form of municipal administration without being constituted as municipalities. On 110 municipal committees, two-thirds or more of the members are chosen by the ratepayers, in 11 all the members are *ex-officio* or nominated, in one town the deputy commissioner of the district exercises the power of a committee. The total number of members on all the committees was 1,657, divided thus:—

Non-official	:	-	-	1,342	Indians	-	-	-	1,529
Official	-	-	-	315	Europeans or Eurasians	-	-	-	128

Elections were held during the year in several considerable towns, such as Delhi, Simla, Ferozepore, Amritsar, Mooltan, Rawal Pindi. In most cases a fair amount of interest was displayed. In Delhi there were voted for two contested seats 144 out of 255 persons entitled to do so. In Amritsar 85 per cent. of the voting papers issued at the general election were utilised. At Ludhiana more than half the voters polled. In 47 towns the committees failed to hold the minimum of 12 meetings as prescribed by law. Standing sub-committees have been appointed in all but the smallest municipalities, and have been found to afford great assistance to the general committees. The working of the committees was reported to be generally satisfactory in all the divisions.

The chief municipal tax was the octroi, which yielded Rx. 257,611 in 145 towns, while the other taxes produced Rx. 18,952; the incidence of the total revenue from taxation was about 1½ rupees per head of the population; the yield of taxation was about 4 per cent. below the total of the preceding year, which was one of unusual prosperity. The total municipal income of the year from all sources was Rx. 446,756, of which Rx. 62,373 was from loans and other extraordinary sources; and the expenditure was Rx. 449,797, out of which Rx. 221,521 were devoted to conservancy, waterworks, hospitals, buildings, roads, and other objects for promoting the public health and convenience; 14 per cent., Rx. 53,365, were spent on education, and Rx. 63,207 on fire, lighting, and police establishments, and other ways of promoting the public safety. The liabilities of the municipalities at the end of the year were Rx. 363,214, of which Rx. 342,914 was owing to Government. The loans had been raised for waterworks, sewerage, and protection against inundation.

Burma.

The number of municipalities in Lower Burma was 25, as in the previous year, and they contained a total population of 513,365. In 39 of these towns a majority of the municipal members are elected by the ratepayers, in 2 rather less than half are elected, in 14 all the members hold their position either *ex-officio* or by special nomination. The decision in the case of each municipality, as to whether the method of election or that of nomination shall be adopted, rests with the local government. There are in all 322 members on the several committees, divided thus:—

Elected	-	-	105	Non-officials	-	240	Asiatics	-	240
<i>Ex-officio</i> and nominated.	-	-	217	Officials	-	82	Europeans	-	82

Several

Several elections were held during the year. The provincial report mentions that in the important towns of Moulmein, Akyab, and Pegu little interest was aroused. MUNICIPALITIES.

The chief sources of municipal taxation are the rates on the annual value of houses and lands, yielding Rx. 45,728 out of the total income from taxation of Rx. 87,346; water rates yielding Rx. 16,678, and conservancy rates Rx. 13,598. The other chief sources of municipal revenue were municipal property and powers, apart from taxation, Rx. 79,410, provincial and other grants and contributions Rs. 44,487. The total income of the year, apart from loans and debt account was Rx. 229,459. The receipts under the head Extraordinary and Debt amounted to Rx. 36,233. The total expenditure of the year, apart from the debt account, was Rx. 212,337, of which the chief items were Rx. 141,577 spent on water supply, drainage works, conservancy, hospitals, vaccination, markets, slaughter-houses, pounds, registration, public works, and other objects for the promotion of the public health and convenience, and Rx. 16,212 spent on public instruction. The expenditure that came under debt accounts was Rx. 44,409.

In Rangoon the Shone sewage system has been further extended during the year, and arrangements have been made for reclaiming the low-lying area at the east of the town, and for improving and increasing the water supply. In some, especially of the smaller municipalities, education and sanitation are not yet making satisfactory progress. Besides municipalities there are ten other places in Lower Burma where town funds are raised, the amount during the present year being Rx. 21,746, and are managed by committees nominated from among the townsfolk.

The number of municipalities in Upper Burma fell from 16 to 15; Mandalay, Myingyan, Pakokku, Salin, and Pyinmana are the only towns that contain a population of over 10,000. The total municipal population is 326,802, of whom 188,815 belong to Mandalay. The total number of members of municipal committees is 189, of whom 86 are non-officials and 103 are officials, while 124 are Asiatics, and 65 are Europeans. All the members are nominated, none are elected.

The total income of all municipalities in Upper Burma, apart from extraordinary and debt account was Rx. 66,382, of which Rx. 42,967 pertained to Mandalay. The total ordinary expenditure was Rx. 64,024. Public health and convenience (including the same items as in the accounts of Lower Burma) cost Rx. 38,540, public safety (fire brigade, lighting, and police) Rx. 14,046, and public instruction Rx. 617.

The number of municipalities in the Central Provinces was 56, as in the preceding year; but orders for the closing of one had been issued in 1892, and similar orders for the closing of another that could not meet its engagements were sanctioned and carried out shortly after the close of the year under report. A majority of the members of all committees, except three, are elected; out of 629 members on all committees, 440 were elected, 184 were nominated, and 5 held their position *ex-officio*; 149 were officials, and 480 non-officials; 51 were Europeans, and 578 were natives of India. A fair amount of interest was shown in most elections, and a considerable proportion of voters went to the poll. The chief exception was in the municipality of Nagpur, where the old members of the committee retained their seats, having won the confidence of their fellow-citizens by work of which the Local Government speaks in terms of high praise. The total municipal receipts of the year were Rx. 124,404, of which Rx. 73,364 accrued from octroi duties. The total income, apart from loans, was Rx. 20,000 below similar receipts in the previous year. The falling off was all under the head of octroi duties. The total municipal expenditure was Rx. 145,969, or Rx. 21,000 more than in the preceding year. The expenditure on waterworks was Rx. 39,000; on schools and colleges Rx. 10,000; on dispensaries and hospitals Rx. 10,000. All these items of expenditure show a substantial increase when compared with the figures for the preceding year. But there are still many municipalities with balances so large that the Local Government suggests to them the advisability of either spending more freely on useful public works, or else reducing their taxation. Central Provinces.

10 STATEMENT EXHIBITING THE MORAL AND MATERIAL

MUNICIPALITIES.
Assam.

The number of municipal bodies in Assam was 12, as in the preceding year, of these three were first class, and three were second class municipalities, three were stations, and three were unions.

The total income of the 12 towns fell from Rx. 15,611 to Rx. 15,403, of which Rx. 8,728 accrued from taxation. The two chief items of taxation were Rx. 3,754 from rates on houses, &c., and Rx. 2,471 from tolls on roads and ferries. Among the other receipts, the larger items were Rx. 1,580 from grants, and Rx. 1,518 from markets and slaughter-houses. The incidence of municipal taxation was R. 1. 2. 6. per head of the population. The total expenditure was Rx. 15,291, of which the chief items were Rx. 7,714 on medical institutions, conservancy, drainage, and water supply, and Rx. 3,714 on roads, markets, and buildings.

Madras.
Madras City.

In the municipality of Madras there are 34 members, of whom 25 are elected by 4,560 ratepayers. There was no general election during the year, and the three bye elections were all uncontested. The names on the roll of qualified voters form a little more than 1 per cent. of the total inhabitants of the city. At 21 meetings of the Commissioners, the average attendance of members was 12; nine members attended less than 10 meetings during the year; and six members lost their seats by absenting themselves from three consecutive general meetings. The total income of the year, apart from loans, was Rx. 136,947, or Rx. 3,587 more than in the preceding year; of the year's total, Rx. 108,499 accrued from taxation, which fell on the population at the rate of 2½ rupees per head; the principal tax is one of 10 per cent. on houses and lands. The only new tax levied during the year was a duty on tobacco, which was imposed in July 1892, and in the nine months from then to the end of the official year brought in Rx. 4,987. The total expenditure came to Rx. 109,865, of which Rx. 42,044 were spent on sanitation and conservancy; Rx. 22,212 on streets, roads, and other public works; and Rx. 18,562 on the interest for and repayment of debt. The scheme for the new water supply was slightly advanced during the year. Water from the Red Hills Lake, the chief source of supply in the municipality, was again pronounced by the analyst after each test to be "suspicious." Considerable extensions were made in the drainage of the town. The registered municipal death-rate was 46 per mille against 52·6 in 1891, and 43·1 in 1890. The mean of the decade is 37·4. The high price of food is given by the local authorities as the cause of the abnormally high rate. The condition and repair of the city roads was said to be satisfactory, four miles of road having been metalled for the first time. The outstanding debt of the municipality amounts to Rx. 272,000, against which must be set the sinking fund, which now amounts to Rx. 91,430. The payments to the sinking fund during the year were Rx. 5,106.

Interior of the
Madras Presidency.

The number of municipalities in the interior of Madras was 55, as in the previous year. The councils were partly elective in 33 of these towns, as against 32 in the previous year. In 36 towns the councils elect their own chairman. There are 863 municipal councillors in all, divided thus:—

Elected	-	383	Non-officials	-	668	Indians	-	713
Nominated	-	480	Officials	-	195	Europeans and Eurasians	-	150

There was an increase in the total municipal income, which came to Rx. 258,533; of this Rx. 129,499 came from taxation, the chief items being Rx. 59,331 from rates on lands and houses, Rx. 34,586 from tolls; and the average incidence of taxation was 12·17 annas per head of the population. The chief sources of miscellaneous receipts were fees and revenue from markets and slaughterhouses, Rx. 13,274, and grants from Government, local funds, and other sources, Rx. 48,622. The total expenditure of the year was Rx. 268,472, of which the chief items were public works, including drainage and water supply, Rx. 96,268; education, Rx. 30,089; medical services and sanitation, Rx. 76,786; lighting and miscellaneous purposes, Rx. 18,684; supervision and management, Rx. 16,668. The outstanding public debt of all municipalities was Rx. 25,839, after deducting moneys at credit of the various sinking funds.

Each town council in the interior of Madras held, on the average, 28 meetings during the year, with an average attendance of 8·5, against 8·3 in the previous year,

year, out of a strength of 16 members. During the year the construction of nine important drainage and water supply works was proceeded with, and schemes of improvement were prepared for six other municipalities. MUNICIPALITIES.

The Municipality of Bombay is administered by a committee consisting of 72 members, of whom 16 are nominated by the Government, 36 elected by the ratepayers, 16 by the justices, 2 by the Chamber of Commerce, and 2 by the University.

The total income of the municipality, exclusive of loans, was Rx. 666,518, or Rx. 58,048 more than in the previous year; of this total, Rx. 564,448 accrued from municipal taxation rates and market receipts, the balance being chiefly received from Government and as revenue from property. The chief items of revenue were the general tax, which yielded Rx. 193,933, the water tax, which yielded Rx. 140,708, and the town duties, which yielded Rx. 97,392. The total expenditure of the year came to Rx. 921,119, of which Rx. 266,568 were from borrowed money. The chief items of outlay from current revenue were Rx. 130,156 on the public health department, Rx. 167,251 on streets and other public works, and Rx. 219,723 on the interest and sinking fund of the city debt. The daily supply of water to the city has, by the use of a new source, been increased from 16½ to 29 millions of gallons. The death-rate of the year in Bombay was 32·26 per mille against 29 in the previous year. The outstanding debt of the city at the end of the year was Rx. 2,897,626; the amount paid off during the year was Rx. 27,413. Bombay.
Bombay City.

The total number of municipalities in the interior of Bombay was 176 against 174 in the previous year. The population within municipal limits was 2,292,208, or 12 per cent. of the total population of the British territory in the Presidency. The total number of municipal commissioners in these towns was 2,430, of whom 909 were elected, and the rest nominated by the Government; the proportion of Asiatics to Europeans was 10·6 to 1, and of non-officials to officials 2·5 to 1 on these bodies. Interior of the
Bombay
Presidency.

Throughout the greater part of the Presidency meetings were held regularly, and were well attended; but in six municipalities of the Northern Division more than half the number of members failed to attend two-thirds of the general meetings, and in three municipalities of the southern division the average attendance was less than half the members. The total income of all municipalities during the year, excluding extraordinary and debt account, was Rx. 393,925, of which Rx. 152,319 was yielded by octroi, Rx. 123,832 by other rates and taxes, Rx. 73,928 by municipal property and powers apart from taxation. The extraordinary and debt account showed a total of Rx. 113,156, the chief items being sale of securities, loans, and advances from general fund and deposits. The total expenditure, apart from extraordinary and debt account, was Rx. 391,825, of which Rx. 224,306 was spent on promoting "Public Health and Convenience," Rx. 67,998 on public instruction, Rx. 23,678 on public safety, and Rx. 49,746 on administration and collection charges. The payments under extraordinary and debt account amounted to Rx. 44,755. In Karachi new drainage work, for which an expenditure of 6 lakhs has been sanctioned, is being undertaken, in Ahmedabad large drainage works and waterworks have proved eminently successful, and in various towns new waterworks are in contemplation, or in progress. The Inspection Reports on Municipal Schools were, on the whole, fairly satisfactory.

The number of municipalities in Berar was eight, as in the previous year, and in all but one the majority of the members are elected by the ratepayers. Berar.

There are altogether 129 members, divided thus:—

Elected -	- 90	Non-officials	- 94	Asiatics	- 110
Nominated	- 39	Officials	- 35	Europeans	- 19

In seven municipalities there occurred 30 vacancies, for which 72 candidates presented themselves. Out of 5,276 registered voters, 1,480 recorded their votes; and the proportion of voters going to the poll ranged from 17 to 49 per cent. in the different towns. The total income of the municipalities was Rx. 20,799, of which Rx. 4,450 accrued from taxes on trades and professions, Rx. 1,275 from water-rates, Rx. 1,923 from conservancy, Rx. 2,573 from a special tax on bargains in cotton and grain levied in two municipalities, and Rx. 7,371 from municipal property, markets, and institutions. The percentage of revenue from taxation to total revenue ranged from 23 per cent. to 63 per

12 STATEMENT EXHIBITING THE MORAL AND MATERIAL

MUNICIPALITIES.

cent. in different municipalities. The total expenditure was Rx. 19,478, of which Rx. 14,425 were spent on public health and convenience, Rx. 792 on public safety, Rx. 1,733 on public instruction, and Rx. 1,363 on administration and collection charges. Seven out of the eight municipalities contribute towards schools or colleges, and six towards libraries; two spend money on fire establishments, and six on water supply. The average attendance at municipal meetings was about half of the members of each committee.

DISTRICT BOARDS.

DISTRICT BOARDS. General.

The constitution of district boards with precise powers and responsibilities under the law took place more recently than the creation of municipalities; but in most provinces district committees had for many years given assistance or exercised control in the administration of local roads, local hospitals, and local schools. In Madras the Local Funds Act of 1871, and in Bengal the Road Cess Act of 1871, had constituted local bodies with specified powers. In all the more advanced provinces, district boards are now constituted under different enactments. In Madras, the boards have the power of proposing local taxation, and in Bengal they are empowered to decide at what rate, within the legal maximum, the road cess shall be levied in each district; but for the most part the district boards do not possess powers of taxation; they administer funds, or the yield of specific imposts, made over to them for expenditure on roads, schools, hospitals, and sanitation, within their jurisdiction. In most provinces the district boards delegate much of their detailed work to sub-divisional, or minor boards, which are constituted under the law, and are responsible for subdivisions or parts of a district.

Bengal.

In Bengal there were 38 district boards and 104 local boards. On the district boards were 793 members, of whom 309 were elected; on the local boards were 1,230 members, of whom 465 were elected. Out of the total number of 2,023 members, 395 were officials and 296 were Europeans or Eurasians. Of the non-official members, 776 were large landholders or their agents, and 510 were lawyers. During the year, there was held the third general election for members of those Boards which were constituted very soon after the passing of the Bengal Local Self-Government Act of 1885. Except in a few places the election excited little or no interest. By the constitution of the boards, every resident of a thana, or unit of police jurisdiction, who pays one rupee of local rates in the year, is entitled to vote for the member who represents his thana; a list of electors is published before each election. Elective members of district boards are chosen by all the members of local boards for the district. Members sit for three years, and are then eligible for re-election. At least 10 per cent. of the registered electors must vote at every contested election. Several of the elections in 1892-93 fell through because the required proportion of voters did not attend. In the year 1892-93 each district board held on the average 16.4 meetings; no board held more than 24, and none less than 12; and the average attendance at each meeting was less than 10 members or about 45 per cent. of the full strength. The local boards held on the average 10 meetings apiece, at which the average attendance was less than six members, or a little less than half the full strength.

The Bengal boards enjoyed during the year an income of Rx. 719,380, of which the largest items were provincial rates, levied in the form of a road cess, Rx. 362,767; contributions from provincial funds, Rx. 115,458; cattle pound fees, Rx. 45,715; and receipts from ferries and other similar sources of profit, Rx. 44,451. The provincial rates receipts showed an increase of Rx. 11,744 as compared with the previous year; and the provincial contributions an increase of Rx. 35,339. There is included in the nominal income the sum of Rx. 118,813 advanced on loan by the Government to the boards on account of various undertakings. The expenditure of the year was Rx. 702,375, of which the chief items were roads, bridges, and waterways, Rx. 428,874; education, Rx. 105,447; and famine relief, Rx. 28,671. The expenditure on sanitation, water supply, and drainage, shows an increase, but is still considered by the local government to be smaller than it should be. Of the money devoted by the boards to education, rather less than half was spent on primary education. The expenditure on famine relief was incurred chiefly in Darbhanga, where

Rx. 26,981

Rx. 26,981 was spent ; on the district boards falls the cost of only the earlier and minor measures of relief ; when gratuitous relief or larger relief measures are required, the cost falls on the provincial or imperial funds ; the relief works of the district board of Darbhanga were open from March 1892 to July 1893 ; and in consequence of the drain on the funds at the disposal of the board a grant of one lakh of rupees and a loan of 1½ lakhs were made from provincial revenues. Out of the expenditure on roads, &c., a sum of Rx. 34,033 was devoted to village roads and paths, and this outlay was in some localities supplemented by private contributions.

In the North-West Provinces and Oudh there were, as in the previous year, four district committees and forty-four district boards. The boards consisted of 1,638 members, who were divided as follows :—

Elected	-	-	1,286	Non-officials	-	1,354	Indians	-	-	1,558
Nominated	-	-	352	Officials	-	-	Europeans	-	-	80

The committees consist of 77 members, who were divided as follows :—

Nominated	-	-	-	52	Indians	-	-	-	-	61
<i>Ex-officio</i>	-	-	-	25	Europeans	-	-	-	-	16

The total expenditure of the boards and committees during the year was Rx. 387,794. The normal income of Rx. 263,706 (of which Rx. 190,800 came from local rates) had to be supplemented by contributions from provincial and other revenues of over 12 lakhs.

The district boards held on an average 13 meetings each, and the district committees 8 meetings each. Both on the boards and the committees the average attendance at meetings was small ; at the boards it was less than 30 per cent. of the members, and at the committees less than 50 per cent.

The administration of the boards and committees during the year was, in the opinion of the Lieutenant-Governor, generally successful, and was of great help as a supplement to the general work of the government of the Province. The supervision of education and of medical relief was performed particularly well. The public works administration, which was concerned chiefly with the construction and maintenance of district roads, is also reported to have been carried out in a satisfactory manner.

In every district of the Punjab, except Simla, there was a district board constituted under Act XX. of 1883, and in every district, except Simla and seven frontier districts, there were subordinate local boards acting under the district boards. In 12 districts, situated on or near the frontier, the boards are composed entirely of nominated members, and in the other 18 the members are in part nominated, in part sit *ex officio*, and in part are elected delegates from the local boards. Of the 83 local boards 15 are filled up wholly by nomination, and 68 partly by nomination and partly by election. The total number of elected members in the whole province was 989, and of nominated and *ex-officio* members 595. Elections to the local boards were held in 12 districts during the year ; in four there were just as many candidates as vacancies, in two some of the places were in default of candidates filled up by nomination, and the largest proportion of contested to uncontested seats in any district given in the Report of the Local Government is 3 to 14. The proportion of those who voted to those who were qualified to do so varied in the districts in which polls were taken from 13 to 65 per cent. ; 12 out of the 30 district boards held a less number of meetings than is required by the rule of their constitution ; in 13 the average attendance at meetings was less than half the number of members. Nevertheless the district officers for the most part report favourably as to the conduct and value of district boards, though unfavourably concerning the local boards. In three districts and a part of a fourth the abolition of local boards has been sanctioned by the local government.

Excluding debt transactions, the year's income of all the boards came to Rx. 278,607, of which the chief items were Rx. 220,964 from local rates ; Rx. 6,278 from school fees ; Rx. 14,746 from ferry receipts ; and Rx. 7,955 from gardens, veterinary establishments, fairs, &c. The total expenditure of the year was Rx. 292,268, of which the chief items were, education, Rx. 60,000 ; hospitals, vaccination, and other medical or sanitary charges, Rx. 33,960 ;

14 STATEMENT EXHIBITING THE MORAL AND MATERIAL

DISTRICT BOARDS. experimental cultivation, horse and cattle fairs, veterinary and botanical charges, &c., Rx. 15,100; civil works, Rx. 112,671; to provincial funds Rx. 44,078; general administration, Rx. 12,058. Both in this year and in the previous year the district boards have spent, in addition to their annual income, a certain proportion of the large balances which have accumulated to their credit in consequence of the short outlay of earlier years.

Central Provinces. In every district of the Central Provinces except the backward tract of Mandla, district councils and local boards, subordinate to those councils, have been established. The total number of members on these bodies was 1,194, divided thus:—

Elected members, -	909	Non-officials	1,073	Asiatics	- 1,170
Nominated or <i>ex officio</i> .	294	Officials	- 121	Europeans or Eurasians.	24

Five hundred and ninety-four meetings were called, of which only 461 were held, the other 133 falling through because the attendance was not large enough to make a quorum. In several cases the meetings of local boards fell below the prescribed yearly minimum. The local Government consider that the insufficient interest shown in these institutions is largely due to the recency of their introduction, and that with time and wise treatment better results may be looked for.

The maintenance and construction of metalled roads is undertaken by the Provincial Public Works Department in behalf of the councils, which, however, advise upon all road projects within their jurisdiction. Education is the most important matter with which the councils deal; they have charge of all primary and many middle schools, and they administer the grant-in-aid funds available for rural schools. In many cases their efforts have been seconded by the liberality of private persons. A scheme for rural sanitary reform has been started, whereby it is hoped that sanitary improvement may become a reality, and district councils have been called upon to allot in its help a certain portion of their funds. The total grant-in-aid made for that purpose in 1892-93 was Rx. 5,000. The amount spent in improving the water supply shows a satisfactory increase on the previous year, being Rx. 15,821, as against Rx. 7,212 in 1891-92, and there has been of late a general increase of activity in the matter of village sanitary improvement. The income of the councils and boards was Rx. 77,084, of which the bulk was yielded by local rates, the main items of their expenditure were Rx. 31,613 on roads and other works, Rx. 24,783 on schools, and Rx. 6,434 on hospitals and vaccination.

Assam. In Assam there are 19 local boards, constituted under the Assam Local Rates Regulation of 1879. They enjoyed for the year 1892-93 an income of Rx. 115,792, and spent Rx. 90,214; 68 per cent. of the total expenditure was devoted to public works and 18½ per cent. to education.

Madras. In Madras there are 21 district boards, with not less than 24 members on each, of whom one-half are elected by the taluk or subdivisional boards. The members of 86 taluk boards are appointed by Government from the residents and ratepayers of the taluk. On all the boards there were 1,792 members, of whom 1,243 were non-officials and 549 were officials; out of the latter number 72 were members elected by taluk boards to be their representatives on the district boards. Below the taluk boards were 320 village unions, which were occupied chiefly with local sanitation and the management of elementary schools, markets, and other local institutions, entrusted to them by the taluk boards. The district boards held 236 meetings, at which the average attendance was 15 (10 non-officials and five officials), out of an average strength of 31 members. The taluk boards held 1,177 meetings, at which the average attendance was seven members (five non-officials and two officials) out of an average strength of 14 on each board. The village unions held 4,112 meetings, or 503 more than in the previous year. The local government considered the working of the taluk boards and of the village unions to have been on the whole satisfactory, and considerable attention was paid to sanitation.

The income of all the boards during the year was Rx. 828,263, or Rx. 108,757 more than in the previous year. The chief sources of income were local rates, Rx. 586,277; grants from provincial and other funds, Rx. 89,974; school fees,

fees, Rx. 17,343 ; endowments and miscellaneous, Rx. 104,238. The expenditure of the year was Rx. 822,996, of which Rx. 385,382 were spent on roads, ferries, and other public works ; Rx. 159,907 on medical and sanitary purposes, and Rx. 104,597 on education. Out of the public works outlay, Rx. 94,841 were spent on new roads, bridges, school-houses, &c., and Rx. 290,541 were spent on the maintenance of old works.

DISTRICT BOARDS.

The length of new roads made during the year was 216 miles, and of roads kept in repair by local boards was 20,572 miles. The expenditure on sanitation, as distinguished from hospitals and vaccination, which cost Rx. 46,084, was Rx. 48,249, of which Rx. 13,621 were spent on improving the water supply.

In Bombay there were 23 district and 201 taluk (or subdivisional) boards ; all these boards are elective, except in three backward districts, and seven exceptional sub-divisions. On the boards sat 3,430 members, divided thus :

Bombay.

Elected	-	1,544	Non-officials	2,709	Asiatics	-	3,286
Nominated	-	1,877	Officials	-	Europeans and		204
				781	Eurasians.		

The total income of the boards was Rx. 442,602, of which more than half accrued from local rates or cesses on land ; in addition there were available for spending balances as large in most cases as two-thirds of the year's revenue ; the total expenditure was Rx. 467,570, the chief items being education and public works. In 10 districts the average attendance at board meetings exceeded 50 per cent. of the members, and in 13 other districts it fell very little short of that proportion. The Bombay Government regarded this result "as satisfactory, seeing that many members live at a considerable distance from the places of meeting." The Commissioners of the northern and southern divisions reported that the administration of the local boards was on the whole satisfactory ; that "there was still great room for improvement" ; that "the funds at the disposal of the boards are on the whole economically and usefully administered" ; but that "it is difficult to find money for the many needs that arise."

PORT TRUSTS.

The custody of harbours and the administration of harbour and shore affairs are placed by law in the hands of Port Commissioners, who are appointed for each of the chief ports. Members of these Port Trusts are for the most part appointed by the local governments, and are usually representative of the various Indian and commercial interests of the place. Port Trustees are empowered, subject to the control of the Government, to levy dues, to contract loans for port improvements, to do all that may be needed for the maintenance of the harbour and its approaches, and to erect warehouses, jetties, and docks for the convenience of traders and shipping. The local governments, and so far as can be judged, the public, are well satisfied with the work done by the various Port Trusts. The Commissioners of Port Trusts are the only members of local public bodies who receive a small fee for each attendance at meetings for business. No members of municipal councils, or of districts or local boards, receive any fees for the performance of their local duties.

PORT TRUSTS.

The Bombay Port Trust had during 1892-93 an income of Rx. 450,000, or Rx. 30,000 less than in the previous year. The decrease was due to the fall in the exports of wheat and some other staples. The chief items of income were wharfage and dock fees Rx. 226,000, ground and warehouse rents Rx. 86,000 ; all these items showed a decrease compared with 1891-92. The expenditure of the year came to Rx. 465,000, of which the largest items were Rx. 223,000 for interest on and repayment of debt, and Rx. 115,000 outlay on docks ; the deficit of Rx. 15,500 was met from the accumulated reserve of Rx. 150,000. The Port Trust debt at the end of the year was Rx. 4,939,000, and the Port Trust had spent up to date, Rx. 5,240,000 on improving and adding to their property. During the year a 4½ per cent. debenture loan of Rx. 616,000 was successfully converted into a 4 per cent. loan ; the subscriptions to the new loan were at an average of 100¼ per cent. The new graving dock, which cost Rx. 109,000, and had been opened in 1891, received 119 vessels, against 63 in the previous year.

Bombay.

PORT TRUSTS.
Calcutta.

The income of the Calcutta Port Trust during the year was Rx. 303,000, and the expenditure was Rx. 283,000, exclusive of the Kidderpore dock account. The new docks were opened in September 1892; they have cost Rx. 2,876,000, which sum has now to be added to the previous Port Trust Debt of Rx. 1,161,000. Only 42 steamers and 19 sailing vessels resorted to the new docks during the year. In order to meet the charges on account of the docks the port duty of 4 annas per ton on all vessels entering the port, which had been abolished in 1884, was re-imposed. It was found that after allowing for this duty, and absorbing the surplus accruing on the old jetties and wharves, there would still be a deficit of Rx. 95,500 in the port finances; and an additional rate of 4 annas per ton was imposed on all goods landed from or shipped into any vessel lying within the limits of the port. It is hoped that this rate will nearly meet the deficit, and that gradually, as more vessels resort to the docks, it may be possible to reduce the rate. Apart from the docks, several departments of the Port Trust felt the effect of the general depression of trade, and made smaller earnings than in the previous year. The number and tonnage of vessels entering and leaving the port was smaller than in the year 1891-92, but greater than in any previous year. Steamers arriving were 844, and sailing vessels 221, with an aggregate tonnage of 2,642,249 tons, against 2,699,567 in the year 1891-92.

Rangoon.

The year 1892-93 showed a further increase of 26,000 tons, or 2 per cent., in the shipping visiting the port of Rangoon; though the tonnage of steamers direct from Europe by the Suez Canal decreased. The revenue of the Port Trust increased 4 per cent. as compared with 1891-92, while the expenditure decreased 8 per cent. The total net charge on account of interest on the port debts was Rx. 2,100; and Rx. 5,200 of debt was paid off during the year. Rx. 28,000 were spent on original works of improvement, among which were extensions of wharves and jetties, reclamation of the strand bank, putting down moorings and erection of storehouses. The scale of pilotage fees and the schedule of rates for use of the jetties were revised during the year. Six accidents to shipping took place during the year in the harbour and approaches; in no case was material damage done.

Madras.

The receipts of the Madras Port Trust were Rx. 51,600, or Rx. 7,200 less than in the preceding year, and the expenditure of the year was Rx. 49,600. Trade was dull, though there were large receipts of grain from the coast ports. The decrease of exports was partly due to the fact that cotton and ground nuts, which used to be exported from Madras, are now being carried by rail to Bombay and Pondicherry for export thence.

A further expenditure of Rx. 25,600 was incurred on the Madras harbour works, against Rx. 65,200 in the previous year; and by the end of the year 1892-93 the total outlay had reached Rx. 1,194,000, against the total sanctioned estimate of Rx. 1,238,000. The work of the year was confined to the pier heads at the ends of the arms of the breakwater.

Karachi.

The income and expenditure of the Karachi Port Trust were respectively Rx. 64,000 and Rx. 49,000, as compared with Rx. 95,000 and Rx. 51,000 in the previous year. There was a large decrease in the export trade; the wheat exportations were 225,000 tons, against 618,000 tons in the previous year, and there was some decrease in the exports of oilseeds and cotton; hides alone showed a considerable increase. The shrinkage of trade was largely due to short harvests. The principal improvements of the year were the extension of one wharf and the deepening of the port entrance and channel, from which 605,000 tons of sand were removed by dredging during the year.

The troopships from England with regiments to or from the North West Frontier or the Punjab brought to, and carried away from, Karachi 31,964 men during the year. The outstanding debt at the end of the year was Rx. 440,000, of which Rx. 200,000 were borrowed for specific works during the year 1892.

There are other minor ports in which smaller sums are raised yearly and expended on improvements. The increase in the value of the total foreign trade of the five principal ports during the past ten years is set forth below:

Madras

Madras alone shows advance as compared with the previous year; Karachi PORT TRUSTS. shows a very large decrease.

NAME OF PORT.	Value of the Total Foreign Trade, in Merchandise only during the Year			
	1883-84.	1889-90.	1891-92.	1893-94.
	Rx.	Rx.	Rx.	Rx.
Bombay - - - - -	53,257,000	65,748,000	66,352,000	65,674,000
Calcutta - - - - -	57,335,000	63,112,000	63,932,000	63,640,000
Rangoon - - - - -	7,810,000	10,893,000	12,615,000	12,525,000
Madras - - - - -	7,823,000	10,339,000	8,918,000	9,068,000
Karachi - - - - -	5,048,000	8,405,000	11,311,000	7,546,000

STATEMENT showing the Number of Municipalities in India, their Receipts and their Expenditure, for the Year 1892-93.

	Bengal.		North Western Provinces and Oudh.	Punjab.	Burma.	Central Provinces.	Assam.	Madras.		Bombay.		Minor Provinces.	TOTAL.
	Presidency Corporation.	District Municipalities.						Presidency Corporation.	District Municipalities.	Presidency Corporation.	District Municipalities.		
Number of Municipalities	1	146	103	149	41	56	12	1	55	1	176	10	751
Population according to the census of 1891	681,560	2,731,182	3,154,741	2,014,833	840,167	697,104	75,156	452,518	1,648,449	821,764	2,292,208	243,199	15,652,881
Receipts:	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	R	Rx.	Rx.
Octroi	-	-	219,848	257,594	-	73,364	-	4,988	-	128,975	151,008	26,584	862,421
Other Taxation	393,009	217,537	44,228	18,952	113,213	22,592	8,729	91,392	129,500	436,160	124,414	2,159	1,601,885
Sources other than Taxation (excluding Deposits and Advances).	171,931	69,368	105,420	107,820	189,204	28,448	6,236	29,483	95,364	102,158	115,400	11,724	1,032,616
Loans	-	5,500	130,036	48,552	13,900	10,000	360	-	21,529	25,000	80,500	6,530	344,907
TOTAL Rx.	564,940	292,405	499,532	432,918	316,317	134,404	15,325	125,863	246,393	692,293	471,442	49,097	3,841,829
TOTAL (1891-92) Rx.	744,346	271,558	589,218	438,927	288,454	184,652	15,487	105,265	228,595	947,487	402,580	49,941	4,240,519
Expenditure:													
Cost of Collection and Administration	51,688	34,080	43,529	55,838	29,937	31,012	1,736	9,063	19,414	50,393	47,708	7,471	383,669
Public Health and Conveniences	384,705	205,293	362,841	221,521	180,117	96,069	12,122	68,311	174,287	544,814	223,216	31,383	2,505,379
Public Safety	47,896	20,562	53,346	63,208	25,538	1,019	321	5,116	9,505	85,349	23,793	3,894	339,457
Repayment of and Interest on Debt	100,202	2,154	16,586	14,959	20,807	3,850	57	13,328	1,532	173,503	11,739	985	368,500
Miscellaneous	32,807	28,519	56,641	93,369	37,009	10,183	924	9,085	39,338	37,891	90,427	8,564	453,757
TOTAL Rx.	620,298	290,608	532,943	448,895	293,208	152,942	15,160	105,801	244,076	891,950	308,793	52,297	4,050,971
TOTAL (1891-92) Rx.	654,700	268,492	515,575	431,654	320,455	130,945	14,723	110,069	194,071	943,082	400,650	54,888	4,050,104

SANITATION.

SANITATION.

European Troops

Owing chiefly to the prevalence of influenza and malaria, the general health of the European troops in India during 1892 was not so good as in the previous year. The total admissions into hospital were in the ratio of 1,517 per 1,000 of the average strength of 68,137, against 1,379 in 1891; the daily average sick-rate was 84, or five per 1,000 more, and the death-rate was 17·07, as compared with 15·89. The chief causes of admission were, as usual, venereal diseases and ague, which accounted for 27 and 28 per cent. respectively of the total sickness. Enteric fever was the chief cause of mortality, yielding a death-rate of 5·52 per 1,000, a slight decrease on 5·73, the ratio of the previous year. This fever alone caused 32 per cent. of the total deaths. The liability of young and unacclimatised soldiers to enteric fever is again shown in the year's statistics, for among troops under 25 years of age the death-rate from this disease was 8·44 per 1,000, while among men between the ages of 25 and 29, and between 30 and 34, the mortality equalled 2·92 and 1·65 per 1,000 respectively; and whereas among men of less than two years' service in India the death-rate from enteric fever was 10·69 per 1,000, among men of three to five years' service it was 3·76, and among men of 6 to 10 years' service the rate was 2·15 per 1,000. In his report for the year under notice the Sanitary Commissioner, Dr. Rice, gives, as usual, a number of extracts from the reports of medical officers in stations in which there were outbreaks of the fever during the year; but the officers, he says, "were usually unable, even to their own satisfaction, to trace out in any given outbreak a definite insanitary condition to which the outbreak might, with certainty, be attributed."

Cholera was not so prevalent among the European troops as in 1891; but the disease ranked next to enteric fever in order of mortality, having caused 10 per cent. of the total deaths. The fatal cases decreased from 168, or 2·51 per 1,000 of strength, to 121, or 1·78. Of these, 102, representing a ratio of 2·42 per 1,000, occurred among troops in the Bengal Army, against 114, or 2·78, in the previous year. In the Madras Army there were seven cholera deaths, as compared with 21 in 1891, and the Bombay Army recorded 12 deaths from the disease, against 33.

The loss to the whole European Army in India by invaliding during 1892 amounted to 1,661 men, equal to 24·37 per 1,000 of strength, against 1,793, or 26·78, in 1891. Of the three armies, the proportion of invalids to strength was highest in Madras, viz., 33·05; in the case of Bengal the proportion was 22·57, and in that of Bombay, 21·33. Out of the total number invalided, 40 per cent. were discharged as unfit for further service, being 6 per cent. more than in 1891. As regards the influence of age and length of residence in India upon invaliding, 53·41 per cent. of the number invalided were under 25 years of age, against 54·01 in 1891, while 35 per cent. were of less than two years' service, and 77 per cent. were of less than five years' service. In the European Army, 79 per cent. of the total strength had seen less than five years' Indian service.

Though there was more sickness in the Native Army of India during 1892, owing to the influence of influenza and malaria, than in the previous year, the mortality was not so high. On an average strength of 127,355 the admissions into hospital were in the ratio of 1,092 per 1,000, against 972; the daily sick-rate was 37, an increase of two per 1,000, and the death-rate was 14·97, against 15·44. Ague continued to rank first among the causes of admission, and yielded 48 per cent. of the total. Respiratory diseases, as usual, were the chief causes of death, and represented a ratio of 4·27 per 1,000 of average strength, against 3·56 in 1891. The death-rates under this head, of all branches of the Army except that of Central India and Rajputana, were higher than in 1891. Pneumonia alone accounted for 415 deaths, or 3·26 per 1,000 of strength. Among Native troops the mortality from this disease was more than five times as high as that among European soldiers. From malarial fevers there were 181 deaths, equal to 1·42 per 1,000. From these two causes, pneumonia and malarial fever, 36 per cent. of the total deaths were recorded. From cholera the death-rate was 2·14 per 1,000, against 2·64 in 1891. Fevers of all kinds

SANITATION.

were the cause of 17 per cent. of the total deaths, while among the European troops 41 per cent. of all the deaths were from fevers. From ague, remittent and simple continued fevers, the deaths among the Native troops yielded a ratio of 2·45 per 1,000. Among the European troops the proportion was only 1·42. On the other hand, the death-rate from enteric fever among the Native troops was only 0·13 per 1,000, as compared with 5·52 among the European troops.

Jails.

The health of the prison population of India during 1892 was not on the whole satisfactory. The ratios of admission into hospital and daily average sick per 1,000 of strength were 1,116·87 and 37·94 respectively, against 978·57 and 33·60 in 1891. The death-rate also rose from 30·19 per 1,000 to 35·94. The average rate of mortality ranged from 58·97 in Assam to 17·16 in Berar. The increase in the death-rate was spread over all the 10 provinces, except Coorg, where the jail death-rate declined from 32·64 per 1,000 to 30·33. Increased mortality was most noticeable in the Central Provinces and Madras Presidency. In the former the jail death-rate rose from 30·37 in 1891 to 44·66, and in the latter, from 35·33 to 45·14. The increase in the general death-rate was mainly due to the prevalence of cholera and bowel complaints, the deaths from which rose respectively from 324 and 738 in 1891 to 510 and 820. Berar and Coorg were the only provinces in which the jails were free from cholera. The proportion of deaths from this disease, per 1,000 of strength, was greatest in the jails of the Madras Presidency.

General population.

Births were registered throughout all the 10 provinces during 1892. In Bengal until the end of 1891 the registration of births was confined to selected towns, and was effected by municipal agency. Since the beginning of 1892 registration has been extended to all towns and rural areas, and the work has been entrusted to the police. The highest mean provincial birth-rates recorded were: in Berar, 39·9 per 1,000 of population; the Central Provinces, 38·39; and the Punjab, 38·16. In the remaining provinces the rates ranged between 36·17 in the North Western Provinces and Oudh and 22·12 in Coorg. Of the 10 provinces, the birth-rates were higher in four than in the previous year, and in the remainder, excepting Bengal, in which no comparison can be made, they were lower. In all but four of the provinces (Bengal, the Punjab, Assam, and Coorg) the birth-rates exceeded the death-rates, the excess per 1,000 varying between 11·1 in Berar and 2·06 in the North Western Provinces and Oudh. The year 1892 was not a healthy one, and the death-rate for all the provinces rose from 28·42 per 1,000 of population in 1891 to 32·48. The highest death-rates were registered in the Punjab, 49·48; in Assam, 34·21; in the Central Provinces, 34·14; and in the North West Provinces and Oudh, 34·11. In the remaining six provinces the rates ranged from 32·50 in Bombay to 20·0 in Lower Burma. The abnormal mortality in the Punjab amounted to about 20 per 1,000, and was attributed to excessive outbreaks of cholera, fever, and influenza.

From all the chief diseases, except dysentery and diarrhoea, more deaths were registered than in 1891. Cholera was the cause of 724,015 deaths in 1892, being in the ratio of 3·39 per 1,000 of population, against 582,430, or 2·81, in the previous year. The increase was spread over all the provinces, except Berar, Madras, and Assam, and the excess was most marked in the Punjab, Bombay, and Lower Burma. A comparison of the cholera mortality in individual provinces since 1877 shows that in Bengal, the Punjab, and Coorg the number of recorded deaths was never so great as in 1892. The highest death-rate from cholera was registered by Assam, viz., 4·29 per 1,000, which, however, was a slight improvement on the rate of the previous year of 4·76. The greatest improvement occurred in Berar, where the cholera death-rate declined from 2·8 in 1891 to 0·7 per 1,000.

From small-pox there were 92,680 deaths, representing a rate of 0·43 per 1,000, against 93,745, or 0·45, in 1891. The decrease, however, was confined to Assam and the North Western Provinces and Oudh, for in all the other provinces the mortality from this disease was greater than in the previous year. But only in Madras Presidency and Coorg did the death-rate exceed one per 1,000, the former having recorded a ratio of 1·75, and the latter of 5·27.

Fevers were more prevalent in all the provinces, excepting the Central Provinces and Berar, than in 1891, and in the combined provinces the total deaths numbered 4,589,496, equal to 21·06 per 1,000 of population, as compared with 3,784,051, or 18·27. This shows an increase in 1892 of 805,445.

The

The excess was greatest in the Punjab, where the fever deaths rose from 442,254, or 21·52, to 715,890, or 34·83. The vast majority of these deaths, however, were, it is reported, caused by fevers of malarial origin, and occurred in the last four months of the year. SANITATION.

The total number of deaths returned under dysentery and diarrhoea was 231,427, or 1·07 per 1,000, against 239,953, or 1·15, in 1891. Of the 10 provinces, five shared in the decrease of 10,890, and in the other five the mortality was greater than in 1891.

The total number of successful vaccinations performed during 1892-93 was 6,396,480, being an increase of 513,797 on the previous year's work. Vaccination. 2½ millions of the total were under one year of age, and about three millions were between the ages of one and six years. The proportion of population protected by the year's operations ranged from 63·80 per 1,000 in Coorg, and 37·0 in Berar, to 20·34 in the North Western Provinces and Oudh, and 19·29 in Upper Burma. In the vaccination of infants the best results were, as usual, obtained from Berar, where 66 per cent. of the children born during the year, estimating the annual births at 40 per 1,000 of population, were protected against small-pox. In three other provinces (Bombay, Central Provinces, and the Punjab) the percentage was over 50, and in the remainder it ranged from 22·5 in the North Western Provinces and Oudh to 11·4 in Bengal.

Some of the important sanitary works which have been either completed, in progress or under consideration, during 1892, were as follows:—In Calcutta progress, was made in the improvement of bustees and in road-making. The construction of two new settling tanks increased the supply of water per head of population to 37 gallons in the town proper, and about 17½ gallons in the added area. Eighteen miles of distribution pipes were also laid, bringing the total up to 285·73 miles, and the total number of premises supplied at the close of the year was 22,831. Improvements continued also to be made in the drainage of the town. During the year a large flushing reservoir, holding 300,000 gallons, was constructed near the Bhawanipur Pumping Station, and provision has been made in the Loans Budget for 1893-94 for a large extension of the flushing system. Much, however, still remains to be done in the added area, where it is reported there are some 200 miles of open drains which can be adapted and used for surface drainage. This matter was receiving the careful attention of the Commissioners. The municipalities of the interior of Bengal spent Rx. 147,871 on sanitation, being an increase of Rx. 14,114 on the sum expended in the previous year. In improving town and rural areas the local bodies spent Rx. 33,466, and a further sum of Rx. 31,947 was contributed by private individuals, the most important work being the construction of waterworks at Nasirabad by Raja Surya Kanto Acharji Bahadur, at a cost of Rx. 14,276. The Bengal Sanitary Board was not able to hold more than one meeting during the year, owing to the frequent absence of some of the members on tour. Among the more important matters which came under their consideration were the drainage and water-supply of the town of Pabna, and the drainage of the towns of Dinajpur and Jamalpur. Several projects for water-supply and drainage proposed by Municipal Commissioners and District Boards were also submitted to the Sanitary Board; in fact they became so numerous that the Lieutenant Governor found it necessary to define the duties of the Board with regard to the preparation of such projects, and precise instructions on the subject were issued. In the North Western Provinces and Oudh the Benares waterworks were completed, and opened on the 18th November by the Lieutenant Governor; water-supply projects for Cawnpore and Lucknow were sanctioned and their construction put in hand; minor waterworks were completed at Haldwani and Naini Tal, and others were either in progress or under consideration. At Naini Tal the drainage and sewerage scheme was nearly completed, and a similar project was sanctioned for Benares; the Kali Barhganga drainage scheme was completed. The question of the reconstitution of the Sanitary Board was before the Local Government during the year, but at its close final orders had not been issued. The more urgent projects for the relief of obstructed drainage in certain tracts has for some time past been under the consideration of the Board, and the question of carrying into effect the Village Sanitation Act (Act II. of 1892) has been referred to them. In the Punjab, the Delhi and Abbottabad waterworks were completed, Sanitation.

SANITATION.

and the former was formally opened by the Lieutenant Governor in November of the year under notice; rapid progress was being made in the extension of the waterworks at Simla, and in the execution of those for the town and cantonment of Kohat, while in several other cities works of a similar character were either in progress or under consideration. The intramural drainage works at Gujranwala were approaching completion, the drainage scheme at Kohat was finished, and the drainage of Peshawar was greatly improved. The Sanitary Board held six meetings, when they considered and recommended the adoption of improvement in the rules for the collection of vital statistics, which the Local Government ultimately approved. Acting on the suggestion made by the Army Sanitary Commission, the Board recommended to the Government the appointment of a first class executive or superintending engineer to their body. In Burma no sanitary works of any magnitude were undertaken, but much activity is said to have been displayed throughout the larger towns of the province in the matter of conservancy. The Shone and Ault sewerage system in Rangoon worked satisfactorily during the year, and 587 new house connections were made, bringing the total up to 1,180. "It is gratifying to find," the Sanitary Commissioner states, "that as the houses become connected with the sewerage system, the death-rate in areas which are served by this means steadily declines." The Municipal Committee now propose to borrow seven lakhs of rupees for increasing the pressure on the water-supply of the town, the present pressure being inadequate. Another important measure for the welfare of Rangoon is the scheme for the reclamation of the low-lying lands in the east of the town, which has received the sanction of the Government of India. The work of the Burma Sanitary Board consisted mainly in considering the survey of selected towns. In the Central Provinces the most important sanitary works completed or under consideration were the following:—The Raipur waterworks were opened on the 30th December with excellent results, and a scheme on the same lines was sanctioned for Rajnandgaon, at a cost of Rx. 18,936. In several towns the water-supply was improved, and in others water and drainage surveys were either completed or being carried out. The Sanitary Board was chiefly occupied with village sanitation. In many villages the water-supply and drainage were improved, and the sites of others cleansed, under the direction of the Board. In Assam no sanitary work of special importance was carried out during the year, but much attention was given to general sanitary improvements. The Sanitary Board had under their consideration the improvement of the water-supply of villages, and particularly village conservancy. In the Madras Presidency the sanitary works undertaken and carried out during 1892 consisted chiefly in the sinking and repairing of wells, construction and repairing of tanks, and other minor improvements. The municipalities set apart 60 per cent. of their total income for sanitary work, and the District Boards 8 per cent. In the Sanitary Engineering Department considerable progress was made. Nine water-supply and drainage works, estimated to cost Rx. 146,100, were in course of construction, while schemes for the improvement of water supply in five towns and of drainage in another, estimated to cost about Rx. 214,800, were submitted to the Government. In addition to other work, the Department also sanctioned 165 plans and 202 estimates for sanitary works, of the value of Rx. 21,771, and furnished plans and designs wherever necessary. In Madras city the question of improving the water-supply and drainage was still engaging the attention of the Municipal Commissioners. A considerable sum was expended on the conservancy of the city. In the Bombay Presidency several water-supply and drainage projects were in progress. The Ahmedabad waterworks, which were opened in the previous year, proved eminently successful, as did also the drainage project, so far as completed. Arrangements were being made for supplying the city of Surat with water from wells, or galleries, sunk near the river at Warucha. The waterworks at Hubli and Dhulia were nearing completion, and the plans and estimates for those at Dharwar were finally approved. Besides these, a large number of works for the improvement of the water-supply of the smaller municipal towns were completed or in progress. The Sanitary Board entered on their duties in January, and among the more important of their transactions were projects for the water-supply of several towns, and improvements in this respect in others. The expenditure of the Health Department of the city of Bombay on sanitary measures during the year was Rx. 117,552. The daily quantity of water was increased

increased from 16½ to 29 gallons by the introduction of the Tansa supply. Various improvements were made in the drainage of the city. The sewerage of Colaba division on the Shone system, at a cost of Rx. 70,961, was sanctioned by the Corporation just before the close of the year. In Berar the municipalities spent over 60 per cent. of their income upon sanitary work. Great attention was paid to conservancy, and good progress was made in improving the Akola water-supply at Kapsi. A complete system of drainage for the city of Amraoti was considered, and will be taken in hand as soon as funds are available. Excluding municipalities, the expenditure on sanitary improvements in Berar amounted to Rx. 14,857, principally incurred on village conservancy and minor improvements. The District Sanitary Boards were chiefly occupied in projects for improving the sanitary state of villages. Village Sanitary Boards do not appear, so far, to have proved very active in Berar.

SANITATION.

III.

CRIME AND POLICE, CRIMINAL JUSTICE, JAILS AND
CIVIL JUSTICE.

CRIME AND POLICE.

CRIME AND POLICE.

THE organisation of the Indian Police underwent no material change in the year under review. Towards the close of the year, however, a proposal made by the Government of India to recruit a portion of the Assistant Superintendents by a competitive examination to be held in London, was approved by the Secretary of State.

Efforts were made to obtain better recruits for the subordinate ranks by offering improved pay and prospects; and schemes to provide these were sanctioned or were under consideration in almost every Province. Schools for the instruction of constables and subordinate officers had been opened in some of the Provinces, and trained reserves of armed police were being organised at the headquarters of many districts for the maintenance of order, and to avoid too frequent resource to the military. Energetic action had been taken by the Governments of the North-West and Central Provinces, acting in co-operation with the Central Indian States, to suppress the gangs of dacoits by which their frontiers had long been harassed.

Detailed statements will be found in the Statistical Abstract relating to British India, showing (1) particulars of the strength, cost, &c., of the police, and (2) the numbers of the principal offences reported to have been committed in each Province.

Much attention was paid by the Provincial authorities to measures for the prevention of crime, such as the registration of bad characters and patrolling by the police.

In considering the numbers of reported crimes in each Province, it should be borne in mind that on the average at least 6 per cent. of these are declared by the magistrates never to have occurred, and far more are found by the police either never to have occurred, or to be of too petty a character to call for action.

Bengal

There was in Bengal during the year under review the heaviest outbreak of serious crime that has occurred for many years; it is attributed to the high prices of food resulting from deficient crops. The number of reported cognizable offences (*i.e.* offences for which a police officer may arrest without warrant, and which are, speaking generally, grave offences against property, the person or the State) rose from 128,472 in 1891 to 146,185; while the number of persons brought to trial for such offences rose from 206,925 to 221,456, of whom 137,515 were convicted, as compared with 123,961 in the previous year.

There was also an increase of 2,553 in the number of non-cognizable offences; *i.e.* minor offences, on account of which the police are not empowered to arrest.

The value of property stolen rose from Rx. 131,313 in 1891 to Rx. 147,117, of which only 18.9 per cent. was recovered, as compared with 21.1 per cent. in the former year.

The actual strength of the regular police force (exclusive of the railway police which numbers about 600 of all ranks) at the close of the year was 74 superior officers with 22,295 subordinates, and the cost amounted to Rx. 430,371, an increase of Rx. 7,752 over that for 1891. Their conduct continues to show a satisfactory improvement, but the number of educated subordinate officers and men slightly decreased.

The village or rural police numbered 169,081, and cost Rx. 674,890. Their conduct was still very indifferent, and whereas only .8 per cent. were rewarded for good work, 11.9 per cent. were punished for misbehaviour.

In

In the North-West Provinces and Oudh there was a striking diminution in the volume of crime, which is attributed partly to the favourable season, and partly to the vigorous action taken against the criminal classes in previous years; but the serious offence of dacoity (robbery by five or more persons) increased materially; and in this, as well as in the other more heinous crimes, the proportion of undetected cases continued to grow. Active measures were taken in the districts infested by the dacoits during the year, which resulted in breaking up several gangs. Reports of cognizable offences decreased by 30,734 as compared with 1891. Property valued at Rx. 181,456 was stolen during the year, of which 31 per cent. was recovered; and 91,689 persons were made amenable to justice, of whom 68,838 were convicted.

CRIME AND POLICE.
North-West Pro-
vinces and Oudh.

Non-cognizable offences also decreased by 6,129. For such offences process issued against 139,781 persons, of whom 44,700 were convicted.

The sanctioned strength of the regular police was 23,531 of all ranks, and its cost Rx. 478,484. The quality of the force continued to be indifferent, and the standard of education low, but good results were expected from the improvement of its prospects and the institution of training schools.

The rural police numbered 90,086, and cost Rx. 292,098. There was a marked decrease in the number of punishments inflicted on village policemen.

There was a diminution of serious crime in the Punjab in 1892, although the number of murders committed in the Peshawar district was unusually large. In cognizable crime the figures show an increase of 2,155 cases, as compared with 1891, but the increase is more than accounted for by the larger number of cases under special laws, relating to Forests, Excise, Sanitation, &c. During the year 82,306 persons were brought to trial, of whom 52,507 were convicted. Process issued in 45,868 non-cognizable cases, and 28,419 persons were convicted. The value of property stolen was estimated at Rx. 103,986, of which about 38 per cent. was recovered.

Punjab.

The strength of the police force was 20,543 officers and men, and it cost Rx. 338,583. Its conduct during the year showed considerable improvement. A school of instruction was established early in the year at Phillour, which was doing good, and the number of educated constables had increased.

The Burma Police is organised in two branches, Military and Civil.

Burma.

In Lower Burma the strength of the Military branch was increased during the year by 1,995 officers and men, and steps were taken to improve the quality and organisation of the force, which numbered at the close of the year 3,449 of all ranks, organised in two complete battalions with one detached company, and composed mainly of Sikhs, Jats, Punjabis and Gurkhas from India, and indigenous Karens. Its cost for the year (exclusive of hospital charges and rations) was Rx. 64,960.

The Civil Police was reduced at the same time from 8,485 of all ranks to 6,165, and its cost by Rx. 30,843. Training schools were being established at the headquarters of each district, and care was being taken that each man should be taught his duties. Village police were also being organised throughout Lower Burma by the resuscitation of the old indigenous system.

There was an increase during the year in crimes of violence, though cognizable crime in general showed a decrease; 32,186 cognizable cases were reported, with the result that 41,772 persons were brought to trial, of whom 27,617 were convicted. Process also issued in 11,339 non-cognizable cases, and 10,088 persons were convicted. Property valued at Rx. 92,827 was stolen, of which 35 per cent. was recovered.

In Upper Burma a large reduction was effected in the Military Police, two battalions being transferred to the Native Army, and the remaining 12 battalions reduced in the aggregate by 226 men. The cost has thus been reduced from Rx. 464,820 to Rx. 384,227, and the strength from about 15,000 to about 13,200 of all ranks.

CRIME AND POLICE. An addition was made to the Civil Police during the year of 14 officers and 350 men, and the force was thus brought up to a strength of 8,264 of all ranks, costing Rx. 172,071.

The returns of violent crimes show a marked diminution, and the pacification of the country made satisfactory progress; 13,339 cognizable cases were reported, and of 16,231 persons brought to trial, 11,053 were convicted. Process issued also in 3,334 non-cognizable cases, in respect of which 2,434 persons were convicted. Property was stolen to the value of Rx. 43,299, of which only 19 per cent. was recovered.

Central Provinces. Cholera was rife in certain districts of the Central Provinces during the year, and the consequent state of confusion resulted in a large number of petty thefts, which raised the total of cognizable offences reported to 24,282 as compared with 23,595 in 1891. The completion of the Kutni-Bilaspur branch railway also led to an influx of professional criminals, and the organisation of a railway police force had to be undertaken. There was a falling off in the detective success of the police in cases of robbery, the percentage of convictions to persons arrested having fallen from 77·87 to 75·29 per cent., and the proportion of stolen property recovered from 34 to 33 per cent. On the other hand two notorious gangs of dacoits were broken up in the Saugor District in the course of the year. Process issued in 9,532 non-cognizable cases, and led to the conviction of 6,584 persons.

The total strength of the police force was 8,574 of all ranks, and its cost Rx. 150,880. Its conduct and relations with the public were satisfactory.

Assam. The Assam Police is, like the Burma Police, divided into two branches, Military and Civil. The Military branch is organised in four battalions and a detached company, having a total strength of 2,556 of all ranks, and costing Rx. 70,152. The Surma Valley battalions did excellent service during the year in operations in the Lushai Hills; and the whole force is reported to have been in a high state of efficiency.

The Civil Police numbered 2,118 of all ranks, and cost Rx. 42,511. Besides these there were in this Province rural police numbering 6,812, and costing Rx. 29,396. The material of which the subordinate police are composed is not good, and can only be improved by an offer of better pay and prospects, which is not possible in the present state of the provincial finances.

There was a small decrease during the year in reported cognizable crime (from 10,441 to 10,301 cases), and 10,512 persons were brought to trial for such offences, 6,424 being convicted. In non-cognizable cases process issued against 10,931 persons, of whom 7,028 were convicted. The value of property stolen during the year is estimated at Rx. 12,952, of which about 32 per cent. was recovered.

Berar. In the Berar Districts the police do not appear to work very efficiently, and there has been an increase of cognizable crime. The total number of such cases reported was 9,151, and 8,649 persons were brought to trial, of whom 5,592 were convicted. Property was stolen to the value of Rx. 23,976, of which 27 per cent. was recovered. Process issued in 7,265 non-cognizable cases against 14,882 persons, of whom 3,696 were convicted.

Madras. The increase of crime in Madras, consequent on scarcity and the high prices of food-grains, was even more marked in 1892 than in the preceding year, and, as might be expected, occurs chiefly under the head of thefts. The general proportion of cases detected (47 per cent.) is the highest that has been achieved during the last 10 years, but out of 333 murders only 105 were detected, and out of 339 reported dacoities only 121. Under the head of cognizable crime 154,239 cases were reported, 190,675 persons were made amenable to justice, and 119,274 were convicted; property valued at Rx. 143,238 was stolen, of which about 22 per cent was recovered. Process issued in 109,083 non-cognizable cases against 205,376 persons, of whom 65,733 were convicted.

The police force comprised 54 superior officers and 22,445 subordinate officers and men, and cost Rx. 414,439. A proposed addition to it had been recommended to the Government of India, and several improvements in its organisation were adopted in the course of the year. The village police numbered

numbered only 166, and cost Rx. 646. Its re-organisation was engaging attention. CRIME AND POLICE

This year was marked, as regards the Presidency proper of Bombay, by a further reduction in the volume of crime, which is ascribed to the favourable season and to the efficient working of preventive measures. A similar result was obtained in Sind, notwithstanding less favourable circumstances. In Bombay City, however, there was a large increase in the number of burglaries and thefts. The chief feature in the police annals for the year was an outbreak of dacoity in the Central Division, which required special repressive measures. The total number of cognizable offences reported was 46,830, and for these 52,890 persons were brought to trial, of whom 35,859 were convicted. Property valued at Rx. 150,350 was stolen, of which about 45 per cent. was recovered. In respect of non-cognizable offences process issued in 109,820 cases against 179,749 persons, of whom 39,866 were convicted. Bombay.

The total strength of the regular police (including Bombay Town and Sind) is 20,755 officers and men, costing Rx. 381,359. There is, in addition, a system of village police.

The efficiency of the regular force is reported to have been good, except in Sind, where improved pay and prospects were much needed, and a scheme to provide these was under consideration.

CRIMINAL JUSTICE.

A full account of the Criminal Courts in India will be found in the Decennial Reports for the year 1882-83 and for 1891-92. CRIMINAL JUSTICE.

As previously noticed, 1892 was a year of scarcity and high prices in some provinces, which caused a considerable increase in the total number of convictions, principally for theft and similar offences.

A general improvement in the efficiency of the honorary magistrates is a satisfactory feature of the Bengal report. Though their number was less and the number of benches which sat during the year was 216, or two less than in 1891, the number of persons tried by them rose from 53,142 to 59,166, or 26.5 per cent. of the number tried by the magistracy throughout the Province; considerable relief was thus afforded to the stipendiary magistrates. The total number of persons tried by all Courts during the year was 275,050. Of these 228 were Europeans, nearly half of whom were prosecuted under special and local laws. The percentage of convictions to persons tried was 68.4. The most conspicuous features in the returns are the increases (1) in the number of offences against property, due to the bad seasons, and (2) in the number of those by, or concerning, public servants. Bengal.

Trial by jury obtains in some Sessions Courts, and these remained unaltered. On and after the 1st November, however, the list of offences to be so tried was altered by the removal of cases of murder and of some other offences, and by the addition of offences relating to marriage. The number of cases so tried was 294, in 264 of which the judge approved or did not dissent from the verdict, while in six he expressed a partial disagreement; 24 cases were referred under Section 304 of the Procedure Code to the High Court, with the result that the verdict was set aside in nine, modified in one, and sustained in six cases, the remainder being undecided at the close of the year.

The number of appeals again shows a large increase. This increase is ascribed in the case of the subordinate Appellate Courts partly to the increased number of appealable sentences passed, but partly also to the withdrawal from these Courts by the Code of 1882 of the power to enhance sentences. Of appeals to the High Court 61.2 were rejected as compared with 51.7 in the previous year. In the Sessions and District Magistrates Courts 31.9 and 15.1 per cent. of appeals were unsuccessful, against 29.8 and 15.9, respectively, in 1891. Of 845 cases received for revision by the High Court, the sentence of the Lower Court was affirmed in 440, reversed in 249, varied in 102, and otherwise disposed of in 54. In the Subordinate Courts 67.1 per cent. of the applications for revision were rejected.

CRIMINAL JUSTICE.
North-West Pro-
vinces and Oudh.

In the North-West Provinces also an increasing part in the administration of justice was taken by the honorary magistrates in 1892, and one new bench was created. The number of persons tried by all courts during the year was less than in the preceding year by 9,331, the only considerable increase being under the head of offences against special and local laws, and due to increased energy in enforcing sanitary laws in Benares. Of 96 Europeans tried in the North-West Provinces, 44 were convicted. The percentage of convictions fell from 52 to 50·5 per cent. in the North-West Provinces, and from 47·61 to 44·16 in Oudh. The lowness of these percentages is attributed principally to the large number of petty thefts and other trivial offences coming before the lowest class of magistrates. One hundred and fifty-eight trials by jury were held during the year. The judge accepted the verdict in 136 cases, while in 15 he made a reference to the High Court or Judicial Commissioner, with the result that in six of the 10 cases disposed of by the end of the year the verdict was set aside or modified. The appeals and revision cases disposed of by all courts amounted to 25,064; 83 per cent. of the former and 69 per cent. of the latter were unsuccessful in the North-West Provinces, and 67 and 74 per cent. respectively in Oudh. All the sentences of death that came before the Judicial Commissioner in Oudh for confirmation were confirmed; and in the North-West Provinces 73 out of 95 were upheld by the High Court.

Punjab.

In the Punjab honorary magistrates, sitting in benches, dealt with 14,979 accused persons during the year, and sitting singly, with 16,549; but the percentage of convictions in the latter class of cases was only 26. District magistrates exercised their enhanced powers (Sections 30 & 34) in 806 cases, of which 316 were triable by Sessions Courts; 1,062 cases in the frontier districts were tried by Courts of Elders, and resulted in conviction in about 48 per cent. Of the total number of offences found true, 69 per cent. were under the Penal Code, and 31 per cent. under special and local laws. The percentage of convictions was 42, but in Penal Code cases only 28. Eighty-four Europeans were tried, more than half for crimes of violence, and 32 of these 84 were convicted. The number of appealable sentences passed was 65,230, and against about 30 per cent. appeals were presented. About 65 per cent. of the appeals were unsuccessful, the orders appealed against being confirmed. Of the applications made for revision about 76 per cent. were rejected. Of 177 capital sentences passed, 79 were confirmed by the Chief Court, 31 were varied, and 39 reversed; the remainder were not disposed of before the end of the year.

Burma.

In Lower Burma the highest court of appeal is the Special Court, consisting of the Recorder and Judicial Commissioner sitting together. Honorary magistrates did less work in 1892 than in previous years,—especially in Akyab and Henzada, where certain changes had been made in the system. Owing to an increase in the graver forms of crime there was a large increase in every description of punishment awarded except fines and whipping. Death sentences rose from 30 to 49, though no special cause for this large increase is assigned. Under the Penal Code convictions before magistrates were obtained in 49 per cent. of the cases tried, and before Sessions Courts in 60 per cent. Stricter rules regarding the evidence necessary for requiring security for good behaviour caused a large decrease in the number of persons bound over. The number of appeals to subordinate courts was slightly less than in the previous year; 79 per cent. of appeals to the Recorder and the Judicial Commissioner were unsuccessful; and out of 39 appeals to the Special Court, 35 failed.

In Upper Burma the highest court of appeal is the Judicial Commissioner. The number of cases disposed of by honorary magistrates rose from 299 in 1891 to 2,262. The work of the year was generally disposed of in a satisfactory manner. More cases came up for trial than in the previous year, owing to the progress of administration, but the number of the more serious offences declined. There appears to have been some carelessness in the preparation of evidence for the prosecution in cases before magistrates, which resulted in a falling off in the percentage of convictions. There were few appeals to the subordinate courts, and only 29 per cent. of these were successful. Of appeals to the Judicial Commissioner 75 per cent. were unsuccessful.

Satisfactory

Satisfactory work was done in the Central Provinces by honorary magistrates, who disposed of about 30 per cent. of the total number of magistrates' cases. The fall in the proportion of convictions obtained has engaged the attention of the authorities, and steps are being taken to secure the better management of prosecutions. The Courts of Session were somewhat overweighted, and a proposal to increase the number of Sessions Judges was under consideration. The year was normal as regards the total number of cases tried, but offences against property, as already noticed, were unusually numerous. The large majority, however, were not of a heinous nature. Whipping was to a considerable extent substituted in the year under review for short terms of imprisonment, but a more deterrent scale of punishments is reported to be required throughout the province. The number of appeals disposed of by all courts was 2,897, of which 68·9 per cent. were unsuccessful.

CRIMINAL JUSTICE.
Central Provinces.

The system of employing honorary magistrates received no further development in Assam during 1892. There were no benches, but in most districts some work was done by honorary magistrates sitting singly. The number of Penal Code cases was slightly in excess of that in 1891, chiefly in respect of crimes of violence. The percentage of convictions (62·3) was greater than in any of the preceding five years. Eighteen Europeans (out of 36 tried) were convicted, chiefly of assault; 18 cases were tried by jury, only one of which was referred to the High Court by the judge; appeals were lodged against 31 per cent. of the appealable sentences passed, and 61 per cent. of the appeals failed. The orders of lower courts were upheld on revision in 57·6 per cent. of decided cases, and reversed in only 25·4 per cent.

Assam.

The work done by honorary magistrates in Berar (5·9 per cent. of the cases disposed of by magistrates), though slightly less than in 1891, was on the whole satisfactory. The chief shortcoming in the administration of justice was the scanty use of the powers to exact security for good behaviour. Owing to pressure of business in the Sessions Courts, much sessions work had to be disposed of by district magistrates under their enhanced powers. The percentage of convictions was only 39. Of appeals to all courts, 52 per cent. failed; and of sentences revised by superior courts, 48 per cent. were left undisturbed.

Berar.

About 4 per cent. of the criminal business in Madras is done by village magistrates, but an increased tendency was shown in the present year towards their displacement by honorary and lower-grade stipendiary magistrates. Owing to the bad season cases under the Penal Code showed a further increase of 8·2 per cent. on the high figures of the previous year. The advance in the percentage of convictions in magistrates' courts, which began in 1889, was still maintained, and reached 43. There was a large increase in the work done by the Sessions Courts; 470 cases were tried by jury, in 93 per cent. of which the judge accepted the verdict. The sentences inflicted by the courts in general showed a tendency towards heavier fines and longer sentences of imprisonment; also towards the more frequent infliction of whipping, especially in the case of juvenile offenders. About 10 per cent. of appealable sentences were appealed against, and about 55 per cent. of the appellants failed. Of sentences revised by superior courts, about 69 per cent. were not interfered with; but, out of 61 capital sentences, only 30 were confirmed by the High Court.

Madras.

In Bombay there were, in the Presidency proper, only 67 honorary magistrates, and in Sind, none. Of these magistrates, 41 were distributed into eight benches, the remainder sitting singly. In magistrates' courts the percentage of convictions was rather less than 36, a decrease as compared with 1891. The increase in the number of true cases was due partly to the occurrence of more crimes of violence, but principally to greater activity in enforcing local and special laws. In Sessions Courts the percentage of convictions was 43; while in the High Court, on its original side, it was 82; 38 cases were tried by jury in the High Court, and 174 in Sessions Courts. Of the latter, 10 were referred to the High Court, which set aside the verdict in four cases out of seven heard by the end of the year. There was

Bombay.

CRIMINAL JUSTICE a small increase in the number of appeals. In the High Court 80·44 per cent., and in subordinate courts about 66 per cent., were unsuccessful.

In revision, the High Court left the sentence undisturbed in 62 per cent., Sessions Courts in 69 per cent., and District Magistrates' Courts in 77 per cent., of the cases that came before them.

JAILS.

JAILS.

Prisoners of all kinds.

Convicts.

Guarding of prisoners.

Religion and nationality.

Age.

Reformatories.

Education.

Employment previous to conviction.

Sentences.

At the beginning of the year 1892 the jail population in British India was 95,616. During the year 437,395 prisoners were admitted, 437,843 were discharged, and the year closed with a jail population of 95,168, the daily average being 96,202. The average daily number of female prisoners was about three per cent. of the whole, but the percentage of females admitted and discharged within the year was about five. The convict population at the beginning of the year numbered 88,429; 183,684 convicts were received during the year, and 179,732 were discharged. The number of convicts undergoing sentence at the end of the year was 88,570, and the average daily number throughout the year was 88,801. The average proportion of female to male convicts was a little over three per cent. The number of convicts deported to the Andamans, or from Burma to Indian jails, shows a steady decrease, owing to (1) the retention in India of all but life-convicts, and (2) the pacification of Burma. Two serious outbreaks of convicts occurred during the year, at Akola in Berar and at Akyat in Burma, neither being suppressed without some loss of life. The number of prisoners who effected their escape was again high, especially in Madras, where it is ascribed to the removal of fetters from extra-mural gangs; a discretion has now been granted to the jail authorities to order the use of light fetters for such gangs.

The proportions of convicts in each class to the total population of that class were as follows:—Buddhists and Jains, 1·4 per cent.; Native Christians, 1; Muhammadans, 8; Hindus and Sikhs, 5; all other classes, 3.

By far the greatest number of convicts were from 16 to 40 years of age, viz., 147,394; from 40 to 60 years of age, there were 30,918; over 60 years, 3,144; and under 16 years, 2,232.

The total number of juveniles in reformatory schools at the end of the year was 1,029, as compared with 926 at the end of the previous year. The working of these institutions was in the main satisfactory, and so were the reports on the lads who had been discharged from them.

About 80 per cent. of the convicts imprisoned during the year were illiterate, and not quite 3 per cent. could read and write well. The endeavour to educate adult convicts were abandoned, and attempts at education in jails were restricted to such prisoners, under the age of 18, as were not transferred to reformatory schools. These were instructed, not only in reading and writing, but also, where possible, in some simple handicraft.

There was a large increase in the number of men engaged in agricultural pursuits who were admitted to prison during the year; the figures relating to other employments are normal. In the case of female convicts, the largest actual increase in the number of admissions occurred amongst married women and widows; the largest proportionate increase amongst those returned as unmarried, although most Indian girls are married at a very early age.

The percentage of convicts admitted for terms not exceeding one month was 37 against 35·77 in 1891; from one to three months, 19·67 against 19·44 in 1891; from three to six months, 17·27 against 17·55 in 1891; from six to 12 months, 12·85 against 13·26 in 1891; from one to two years, 7·40 against 7·97 in 1891; two to five years, 3·62 against 3·61 in 1891; five to 10 years, 0·99 (the same as in 1891); and exceeding 10 years, 0·05 against 0·06 in 1891. That of convicts sentenced to transportation for life was 49 against 62 in 1891, and to transportation for a term of years, 35 against 43 in 1891. The number sentenced to death was 31, as compared with 30 in 1891. The increase, therefore, took place chiefly among prisoners whose sentences did not exceed one month, these being more than one-third of the whole

whole number of convicts ; and in the case of 86,79 of the convicts admitted the sentences did not exceed one year. JAILS.

Up to the end of the year the attempts made to secure the recognition of habitual offenders had not led to very encouraging results. In Madras the Bertillon system of anthropometry was being introduced, but had not been brought into working order. In Bombay there was a large increase in the number of prisoners classified as habitual, but it is not clear what system of identification was employed. In Bengal further progress was made in the use of the anthropometrical system, but no reconviction was proved by its help during the year. In the North-Western Provinces and Oudh, the Punjab, and Assam, steps were being taken to introduce the Bertillon system, which had been attended with satisfactory results in Burma. Habitual offenders.

The number of prisoners available for labour averaged 74,244 ; about 45 per cent. were employed on manufactures, and about 16 per cent. in the preparation of articles for consumption in jails ; 5.7 per cent. were employed as prison officers ; and the remainder as prison servants, in gardening, on jail repairs, or on outside labour. In connection with the Lucknow jail a dairy was started with good results, and a similar experiment was being tried in Lower Bengal. Jail employments.

There was a large increase of 11 per cent. in the number of recorded offences committed by convicts—from 99,601 in 1891 to 112,857 in 1892. Criminal offences rose about 8 per cent., but the principal increase was in offences relating to work and prison discipline ; 576 convicts were sentenced to further punishment by criminal courts, as compared with 528 in the previous year, and punishments by prison officers increased by 13,200. Except in Burma, where some of the jails were very large and the prisoners appear to be more refractory than in other provinces, there was a decrease in the number of punishments by solitary confinement with reduced diet. In the absence of a uniform method of recording jail offences and punishments, no reasonable comparison can be made between the discipline enforced and the punishments awarded in various provinces. This subject was receiving the attention of the Government of India, and a draft Bill for securing some uniformity of system was under consideration. Meanwhile, instructions had been given that all reported offences, however trivial, must be recorded, and this accounts for the marked rise in their number. Prison offences.

There was an increase in the number of convicts who earned remission under the mark system, as compared with the previous year ; and, of those released during the year, only 34 had failed to earn remission, one man having earned in the course of a long imprisonment as much as 1,374 days. The maximum gratuity earned by a prisoner discharged during the year was Rs. 28 (as compared with Rs. 50 in 1891) ; but it is now recognised that what is needed, is not so much a system whereby prisoners may earn a money reward, rather than marks counting towards a substantial remission of sentence, as one securing to indigent prisoners, on their release, a sufficient subsistence allowance to enable them to reach their homes. Mark system.

The gross expenditure on jails rose from Rx. 547,804 in 1891 to Rx. 584,321 in 1892. The largest increase occurs under the head of "Rations," the cost of rations per head having risen from Rs. 25.12 in 1891 to Rs. 27.255. The cost of establishments, which had been Rx. 193,799 in 1891, rose to Rx. 196,168. Steps were being gradually taken to substitute warders for police guards in those provinces where the change had not already taken effect. Hospital charges also increased—principally in Bengal, where they amounted to Rs. 2. 12. 6. per head of the average daily strength. Cost of maintenance.

The total cash earnings of prisoners were less than in the previous year by Rx. 11,990, but from this sum should be deducted about Rx. 1,802 which were earned, but not brought to audit, in the Central Provinces.

The net expenditure on jails was Rx. 459,178, as compared with Rx. 410,671 in 1891, and the net cost per head averaged Rs. 59. 9. 5., being lowest in Burma (Rs. 45. 15. 3.), and highest in the Central Provinces (Rs. 65. 5. 9.), owing to the outstanding earnings above alluded to.

JAILS.
Mortality and
health.

On the whole, the health of the jail population, which had improved in 1891, fell back considerably in 1892. The admissions into hospital rose from 978·57 per mille in 1891 to 1,116·87; the daily average number of sick from 33·60 to 37·94; and deaths from 30·19 to 35·94. Bowel complaints and cholera were, as usual, the principal causes of death, but fevers were less fatal than in the previous year. In Madras, the Central Provinces, and Burma, the increase in the death-rate is ascribed to the prevalence of cholera. In Bombay, the rise was caused by the abnormal mortality in the jails of Sind, and notably in that at Shikarpur where it exceeded 116 per mille. A proposal to remove this jail to a more healthy situation at Sakkar was under consideration. In Bengal, the high death-rate was attributable to the general unhealthiness of the year and the high price of food-grains, which caused a number of criminals to be admitted in a weakly condition. In the remaining Provinces the death-rate was not abnormally high. The death-rate in jails compared unfavourably with that of the free population in all Provinces, except the North-West Provinces and Oudh, the Punjab, Coorg and Berar, but it should be remembered that, whereas the jail returns are absolutely accurate, the registration of vital statistics among the free population is still very defective.

CIVIL JUSTICE.

CIVIL JUSTICE.

The general system of administration of Civil Justice in both Regulation and Non-Regulation Provinces is fully described in previous reports, and no important alterations were made in the year under review.

Bengal.

For the last 20 years there has been in Bengal a gradual increase of litigation of all kinds, and this has been specially marked in the year under review. The rise in the number of rent-suits (made cognizable by Civil Courts in 1870) was fully maintained in 1892 and accounts for a large part of the total increase. The business of the Civil Courts has also been considerably enhanced by the growing number of "miscellaneous" cases, which often require as much time as regular suits. Existing Courts had for several years been unable to cope with the increasing work, and, as a temporary expedient, many additional munsifs had been employed. After an exhaustive discussion as to the amount of help really required, the judicial staff was permanently augmented in 1892 by the addition of four subordinate judges, and 55 munsifs. Appellate business increased considerably, but not in proportion to original work, a fact which is probably attributable to the extension of the system of summary trial under the Small Cause Court procedure in suits for money or moveables. The accumulation of arrears in many Courts continued to be a difficulty, and a scheme for the improvement of the ministerial establishments was under consideration.

North-West
Provinces and
Oudh.

In the North-West Provinces the decline in litigation which had been noticed in the previous four years, ceased in 1892, and the number of cases instituted approached very nearly to the figure for 1889. This result is ascribed to the more favourable harvests of the year. In Oudh there was a small decrease as compared with the previous year. A satisfactory feature of the report for the North-West Provinces is that there were only three suits relating to religion and caste; the tendency has been for this class of suit to become rarer every year. Material assistance was afforded to the Civil Courts in Oudh by Honorary Assistant Commissioners, who disposed of 9·6 per cent. of the total number of suits instituted. Both in the North-West Provinces and in Oudh the Courts were somewhat overtasked, and considerable arrears accumulated, especially in appellate business.

Punjab.

In the Punjab the large decrease in the number of suits instituted in 1892 as compared with the average of the previous four years, is ascribed to the prevalence of cholera and fever over large areas, and to the scarcity which existed in some districts. The number of suits referred to arbitration continued to decline—a fact which is variously attributed to the unpopularity of the provisions of the law, to the increased bitterness of feeling engendered by litigation, and to the absence of anything like official pressure or even encouragement. Great improvement has been effected in the distribution

of

of civil business, and land suits are now more largely tried by the lower grade of officers. A satisfactory share of attention was given by Divisional and District Judges to the duty of inspecting subordinate Courts. CIVIL JUSTICE.

In Lower Burma there was a large increase of civil litigation, which was mainly due to the high price of rice in the dry season of 1892, and the consequent rise in the value of land. The result was that the Courts were unable to keep pace with the business, and the number of original cases pending was considerably greater at the end of the year than at its beginning. The increase also extended to appeals, and here the assistance of an additional Sessions Judge for the Pegu and Irrawaddy Division enabled the Appellate Courts to prevent any large accumulation of arrears. The small proportion (51 per cent.) of confirmations on appeal to the Judicial Commissioner does not seem creditable to the lower Courts. Burma.

In Upper Burma the number of suits instituted continued to increase, especially suits between former and present occupiers in respect of land in the drier districts, which had greatly risen in value. The same thing had been observed in Lower Burma, when the delta of the Irrawaddy began to be opened up to supply rice for the export trade. The percentage of confirmations by the Judicial Commissioner on appeal was no better than in Lower Burma.

In the Central Provinces the year 1891 had been an exceptional one in respect of the small number of suits instituted, but in 1892 the number exceeded the average of the previous seven years. The increase occurred in suits of all values, except in those under Rs. 10, but is particularly noticeable in the more valuable classes. The reasons assigned for these changes are (1) the growth of trade and rise in standard of expenditure; and (2) the wider recognition by creditors of the trouble and expense involved in enforcing petty claims. The number of appeals was normal, and a considerable portion of this class of business was transferred from the Deputy Commissioners to newly-established Courts of Judges. The results of the disposal of appeals do not indicate any material variation from 1891. There was some slackness of supervision over subordinate Courts by Deputy Commissioners. Central Provinces.

The number of civil suits instituted in Assam in 1892 was slightly greater than in 1891, but both these years show a considerable decline as compared with the eight preceding years. As in Bengal, however, the number of rent-suits increased, and there were also more suits involving disputes as to title. In Sylhet the number of original suits was smaller than in 1891, owing partly to an outbreak of cholera and failure of the crops, and partly to settlement operations. The average value of suits for money was Rs. 84·4, of rent-suits, Rs. 25·4, and of title and other suits Rs. 681·6, as compared with Rs. 96·4, 50·4, and 131·1, respectively, in 1891. The decrease in the value of the suits occurred in the Assam Valley and Cachar districts, but the returns from Sylhet account for the large increase as regards suits involving title, several suits of an unusually high value having been brought under the Jhum Regulation. Compared with the returns for 1891, the result of appeals was very favourable to Courts of First Instance in Sylhet, where the percentage of decisions upheld was 80·8; in Cachar it was 63·6, and in the Assam Valley Districts, 58·8. Assam.

The volume of work which came before the Civil Courts in the Hyderabad Assigned Districts in 1892 was unusually large, and about 88·7 per cent. of the whole number of cases were disposed of within the year, or nearly 5,000 more than in the previous year. The Judicial Staff was nominally stronger by three Assistant Commissioners than in 1891, but the officers newly added were unable to give much assistance during the year. There was nothing special in the character of the litigation, which related chiefly to small loans for agricultural purposes. Nearly 75 per cent. of the cases which came to a hearing were disposed of without a contest. The result of appeals was, on the whole, creditable to the lower Courts, about 73 per cent. of their decisions being confirmed. Berar.

In Madras four important changes in the judicial administration were effected during the year, viz.:—(1) The establishment of the Madras City Civil Court; (2) the permanent addition of six District Munsifs' Courts; (3) a reorganizing of the staff of district munsifs; and (4) the opening of the Madras.

CIVIL JUSTICE.

new Law Courts at Madras. The amount of civil original litigation reached the highest figure it has ever attained in every class of Court except the Cantonment Courts of Small Causes, and the Revenue and District Courts. Varying, and in some respects conflicting, reasons are given for this increase, but it is probable that it is connected with the falling off in 1891 for the first time since 1887, and that many suits which might have been filed in that year were held over till the present year. A similar result is shown in the figures relating to appellate litigation. A satisfactory increase is shown in the work disposed of by all classes of Courts, except District Courts in which pressure of criminal business caused a slight falling off. In the High Court a continuance of the growth of the original work, and a decline in the appellate work, are the salient features of the year's report. In about 65 per cent. of the appeals preferred during the year the decisions of the lower Courts were affirmed.

Bombay.

In the Presidency proper there was a large increase in the number of suits instituted in 1892 as compared with the previous year, and it was distributed amongst all classes of tribunals except the District Courts. In Khandesh, where the rise was most remarkable, it is attributed partly to a good outturn of the crops and partly to the apprehension on the part of the money-lenders that the Dekkhan Agriculturists Relief Act would be extended to that district. In Sind there was a decrease in litigation. Though a larger amount of work was disposed of by all Courts in the Presidency than in the previous year, the arrears were heavier at the close of the year. The number of appeals was slightly in excess of those in 1891.

Two subordinate Judges were added during the year to the staff employed under the Dekkhan Agriculturists Relief Act, and there was a substantial increase in the number of proceedings under that Act as compared with 1891, in which, however, abnormally few cases were instituted. About 51 per cent. of the cases concerned agriculturists only. The report of the Commission appointed to inquire into the working of this Act was submitted to the Government of India during 1892.

IV.

REGISTRATION.

IN a previous Statement was given a short account of the Registration law. It will suffice to say here that the law makes compulsory the registration of all non-testamentary documents affecting immovable property of the value of Rx. 10 or upwards, while it permits the optional registration of other documents. Officers are established in every district for the registration of documents and for keeping copies of such documents. *Ad valorem* fees are charged for registration, and a small fixed fee for searching the records. At the end of 1892-93 there were in the British India 1,899 registration offices; the total number of documents registered during the year was 2,739,510, or twenty-four per cent. more than in 1890-91. The total registration fee receipts of the year 1892-93 were Rx. 430,064, as compared with Rx. 398,000 in the preceding year; and the cost of the registration offices was Rx. 213,116, leaving a surplus after allowing for refunds of Rx. 225,550 against Rx. 190,000 in the year 1891-92. It is claimed for the Indian registration system that it operates to prevent fraud, as well as to secure and simplify titles.

REGISTRATION.
General.

The number of registration offices in Bengal increased from 333 to 346. The total number of documents registered was 1,102,321, against 988,463 in 1891-92. The increase occurred under documents of which registration is optional, as well under those for which it is compulsory; 85 per cent. of all the documents brought for registration related to immovable property. The number of registered transfers of holding by ryots (tenants), paying at fixed rates or enjoying occupancy right, rose from 88,337 in 1887-88, and 141,296 in 1891-92, to 168,999 in 1892-93; the transfer was made in 101,220 cases to other ryots, in 24,016 to traders or money-lenders, and in 4,473 cases to landlords of the land transferred. The average area of a fixed rent holding was 1.9 acres, with a price equal to 13.9 times the rental; while the average occupancy right holding had an area of 1.7 acres, and fetched 13½ years' purchase of the rental; the average area is smaller and the price higher in each case than in the year 1891-92. The number of ceremonies registered under the Muhammadan Marriage Act rose from 10,176 to 12,175, the highest number since the law was passed. The Act is in force in 19 districts, as compared with 14 districts in the years 1876-91. The total fee receipts from all registrations were Rx. 143,500, or 7 per cent. larger than in the previous year; the expenditure increased from Rx. 68,400 to Rx. 72,600; and the surplus increased by Rx. 5,900 to Rx. 70,800.

Bengal.

The total number of documents registered in the year 1892-93 in the North-West Provinces and Oudh was 207,162, which showed a decrease of 798, or $\frac{1}{3}$ per cent., in the number of documents registered as compared with the previous year. The decrease occurred entirely under documents for which registration was optional. The number of registration offices open in the combined Provinces at the end of the year was 339, against 343 in the previous year; 233 out of the 309 sub-registrars are either special officers or non-officials. In large towns there is clear ground for thinking that the special officers serve the public better than *ex-officio* registrars, who perform registration duties in addition to their other work; but in smaller places remote from supervision where sub-divisional officers are less busy and the work is less heavy, the superiority of the special registrars is less clear. In Oudh where all sub-registrars are special officers registration is less popular and less efficiently done than in the North-West Provinces. There was an increase of 2 per cent. in the registration receipts as compared with 1891-92. The surplus of receipts over expenditure was Rx. 19,000, compared with Rx. 19,600 in the previous year. The number of mortgages registered showed an increase of 3 per cent. as compared with the last three years; the number of leases declined 6 per cent. during the same period; sales of land increased 7 per cent., and the total number of wills registered in the year fell from 32 to 22. The number of documents relating to movable property for which registration was optional, was,

North-West
Provinces and
Oudh.

36 STATEMENT EXHIBITING THE MORAL AND MATERIAL

REGISTRATION.

during the past three years, 48,722, 46,616 and 46,533 respectively. The total value of the property regarding which documents were registered during the year was Rx. 9,089,000, or Rx. 473,000 more than in the previous year. Prosecutions for breach of the registration law rose from two to eight.

Punjab.

The number of registration offices was 258, or 14 more than at the end of the previous year. The total number of documents registered in the Punjab was 127,146, or 22 per cent. above the previous year's total, while the fee receipts increased by 27 per cent., and the surplus of the Department by 35 per cent. The increase of business was chiefly due to decisions of the courts to the effect that titles to immovable property are liable to be insecure without registration; the number of optional registrations was about one quarter of the total. The chief increase in the year's registrations was under the head of mortgages of land, which rose in one year from 55,053 to 76,410. Even now the registered transfers of land are less than half the number of transfers shown in the returns of the Revenue Department. The total value of property to which registered documents related was Rx. 4,981,000, or Rx. 643,000 more than in the preceding year. The registration receipts rose to Rx. 32,339, and the surplus to Rx. 21,182.

Burma.

The number of registration offices in Lower Burma rose to 120, three new offices having been opened during the year; and the number of registrations increased from 10,822 in 1889-90 to 17,369. The aggregate value of all property registered was Rx. 2,178,000, or 43 per cent. larger than in 1891-92. The fee receipts rose from Rx. 4,027 in the previous year to Rx. 5,475. The surplus of receipts over expenditure was Rx. 2,215 against Rx. 1,190 in the previous year.

Twenty registration offices were open in Upper Burma, four having been added during the year; 2,402 documents were registered, or 303 more than in the previous year. As yet the provisions of the law are imperfectly known in Upper Burma outside Mandalay and a few parts on the Irrawaddy.

Central Provinces.

The number of registration offices was 86, against 84 in the previous year; and the number of documents registered during the year in the Central Provinces was 31,103, or 4½ per cent. more than in the preceding year. The increase was proportionately the same under compulsory and optional registrations. The value of the property concerned was Rx. 1,025,000. Of the documents registered 75 per cent. were of classes for which registration is compulsory. The cost of the Registration Department was 43 per cent. of the receipts, and the net revenue was Rx. 6,371, as compared with Rx. 6,814 in the preceding year.

Assam.

In Assam there were 24 registration offices, of which three were opened during the year; 30,993 documents were registered, or 295 more than the total of the preceding year; 78 per cent. were compulsory registrations, a slightly smaller proportion than in 1891. The value of the property registered rose to Rx. 425,000 from Rx. 415,000 in the previous year. The fee receipts were Rx. 4,429, and the expenditure was Rx. 2,420, leaving a surplus of Rx. 2,009, which is larger than the surplus in any preceding year.

The marriages registered under the Muhammadan Marriage Act were 317, as compared with 592 in the preceding year; the number of these marriage registrations in Assam has been decreasing rapidly during the past two years.

Berar.

The number of registration offices in Berar was 63, as at the end of the previous year; the number of documents registered was 31,162, or 8 per cent. more than in the previous year, but slightly fewer than in 1889-90, in which year there had been a sudden and abnormal increase of 12 per cent. The value of the property registered was Rx. 921,000, or 15 per cent. larger than in the previous year; the fee receipts increased 7 per cent. but the expenditure rose 25 per cent., and the surplus decreased 15 per cent. The increase of expenditure, and consequent diminution of the surplus, were due to the substitution of special paid sub-registrars for several of the *ex-officio* sub-registrars.

Madras

Ten new registration offices were opened in Madras, bringing up the total to 398. The number of documents registered was 873,161, showing an increase of 8 per cent. over the previous year. The increase was 11 per cent. in documents of which registration was compulsory, and 5 per cent. in optional

optional registrations. The total value of the property concerned in all the registrations was 17½ millions, against 15¼ million Rx. in the preceding year. The registration receipts were Rx. 131,478; the expenditure was Rx. 83,316, and the surplus was Rx. 48,162, or 36 per cent. more than in the previous year. The ratio of increase was larger under compulsory than under optional registrations. The number of documents of which registrations was refused rose from 2,042 to 2,090. In Madras, registrations are, with reference to the population, twice as numerous as in Bengal, and four times as numerous as in the North-West Provinces. The Registrar General, an accomplished Hindoo gentleman, has subjected the registration results of Madras during the past 12 years to a detailed review. He considers that the registration statistics show that the demand for land is increasing rather than declining; that the price of land is rising, especially in the irrigated districts and in tracts into which railways have recently penetrated; that the rate of interest on borrowed money is slowly falling; that petty landholders are less dependent than formerly on professional money-lenders; that loans between one agriculturist and another are more common than they were; that the transactions of mutual credit societies composed of villagers are extending in three or four districts; and that the ownership of land is not passing from the agricultural to the non-agricultural classes to any injurious extent.

The number of registry offices in Bombay was 245, or the same as in the previous year. The number of registrations was 177,170, or 5 per cent. larger than in 1891-92. The increase took place mainly under compulsory registrations. The value of the property affected was Rx. 8,870,000. The fee receipts were Rx. 51,288. The registration surplus of the year, under all heads, was Rx. 24,843, as compared with Rx. 21,718 in the year 1891-92.

Under the special law for the protection of Dekkhan agriculturists in the four districts of Poona, Sattara, Ahmadnagar, and Sholapur, there were 137,521 registrations, or 8 per cent. above the total of the previous year. Of the registered sales, leases, and mortgages of land, 46 per cent., or almost the same proportion as in the previous year, were between agriculturists on both sides, and 54 per cent. between agriculturists and money-lenders. The aggregate value of property concerned in these special registrations was Rx. 702,000, or 8 per cent. more than in the previous year. There was an increase in the fee receipts; and the net deficit on these registration proceedings was Rx. 791, as compared with Rx. 1,181, in the preceding year, and over Rx. 1,600 in earlier years.

JOINT STOCK COMPANIES.

During the year 1892-93, for all Provinces of India, the number of new joint stock companies registered was 71, with a nominal capital of Rx. 3,602,000; and at the end of the year there were in operation 956 companies, with a nominal capital of Rx. 35,372,000, and a paid-up capital of Rx. 26,585,000. Sixty-nine companies ceased to work during the year. The total paid-up capital of all surviving companies had, increased by about Rx. 2,000,000 in the two years 1891-93. The companies work chiefly in the Provinces of Bengal and Bombay; in no other Province did the aggregate paid-up capital of registered companies reach two millions. The distribution of paid-up capital among registered companies for different classes of industry was somewhat as follows:—

	Rx. of Paid-up Capital		Rx. of Paid-up Capital
Banking and insurance	- 3,829,000	Mills and presses	- - 12,285,000
Trading and shipping	- 3,825,000	Tea and planting	- - 3,770,000
Mining and quarrying	- 1,161,000	Miscellaneous	- - 936,000
Brewery companies	- 169,000		

The companies with the largest aggregate subscribed capital, Rx 12,285,000, were for weaving and spinning or for pressing cotton, jute, wool and silk, and

38 STATEMENT EXHIBITING THE MORAL AND MATERIAL

JOINT STOCK
COMPANIES.

more than two-thirds of the capital of such undertakings belonged to the Bombay Presidency. The capital invested in mills increased by less than one per cent. during the year, and the capital in mining increased by $2\frac{3}{4}$ per cent.; capital invested in tea showed a small decrease; and on the whole there was hardly any expansion of joint-stock enterprise during the year.

Bengal.

In Bengal, 20 new companies were registered, with a nominal capital of Rx. 393,000. Nineteen companies, with a total nominal capital of Rx. 1,124,000, ceased to work. At the end of the year 1892-93 there were 325 registered joint-stock companies at work with a paid-up capital of Rx. 11,910,000.

Bombay

In Bombay, 20 new companies were registered, with a nominal capital of Rx. 448,000. Thirteen companies went into liquidation, with a registered capital of Rx. 466,000. At the end of the year 233 joint-stock companies were in existence, with a paid-up capital of Rx. 10,674,000. Of these, 148 companies, with a paid-up capital of Rx. 8,289,000, were working cotton mills and presses.

V.

FINANCE.

FINANCE.

[The denomination Rx. means tens of rupees.]

THE gross revenue and expenditure of British India in 1892-93 may be thus compared with the figures for 1891-92 :—

	1891-92.	1892-93.	Increase.	Decrease.
	Rx.	Rx.	Rx.	Rx.
Revenue - - - - -	89,143,283	90,172,438	1,029,155	—
Expenditure - - - - -	88,675,748	91,005,850	2,330,102	—
Surplus - - - - -	467,535	—	} Result worse by - - Rx. 1,300,947	
Deficit - - - - -	—	833,412		

In the gross revenue are included very large receipts, amounting altogether to little less than one-third of the whole, which (being derived from the working of the railways and canals, the operations of the Postal and Telegraph Departments, the interest received on loans to municipalities, landholders, &c., and on the investments of the Currency Department, the seignorage on coinage, the contributions by officers towards their pensions, the sale of stores, and the receipts of the various administrative departments), are rather of the nature of a set-off against the corresponding charges than revenue proper; and, on the other hand, there are included in the expenditure, firstly, one set of charges which must be regarded as a direct set-off against corresponding items of income, viz., the cost of collection of revenue; and, secondly, two very variable charges, viz., (1) that which is incurred for the production of opium, and is subject to variations caused by the state of the season and of trade, and (2) that which is incurred for the establishment and maintenance of public works, and necessarily increases as more works are brought into operation. The financial position of the Government can, therefore, be much better appreciated by looking at the net revenue and expenditure, a statement of which is regularly appended to the Financial Statement annually laid before Parliament.* The following is the comparison of the net revenue, *i. t.*, of the gross revenue after the deduction of the cost of collection and other direct demands, with the net expenditure, *i. t.*, the expenditure after the deduction of the various departmental receipts :—

NET REVENUE.

REVENUE.	1891-92.				1892-93.				NET REVENUE.	
	Gross Revenue.	Deductions.		Net Revenue.	Gross Revenue.	Deductions.		Net Revenue.	Increase.	Decrease.
		Refunds and Draw-backs.	Charges in respect of Collection.			Refunds and Draw-backs.	Charges in respect of Collection.			
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue - - - - -	23,965,774	64,490	3,835,126	20,066,158	21,905,328	55,000	3,936,345	20,913,983	847,825	—
Opium - - - - -	8,012,380	12	1,861,813	6,150,555	7,993,180	135	1,602,496	6,390,549	239,994	—
Salt - - - - -	8,636,192	38,112	459,034	8,139,036	8,656,104	29,986	458,707	8,167,411	28,375	—
Stamps - - - - -	4,262,156	47,198	138,447	4,076,511	4,448,510	63,744	141,264	4,263,532	177,021	—
Excise - - - - -	8,117,264	31,355	190,097	4,896,812	5,242,443	32,210	193,013	6,017,190	120,378	—
Provincial Rates - - -	3,502,837	5,493	51,703	3,433,671	3,706,499	7,849	55,659	3,642,990	204,319	—
Customs - - - - -	1,701,238	49,977	136,363	1,517,948	1,617,633	68,836	140,634	1,418,163	—	99,786
Assessed Taxes - - -	1,852,823	14,728	29,577	1,808,520	1,686,141	15,615	30,171	1,840,355	31,635	—
Forest - - - - -	1,490,582	5,657	843,926	640,999	1,591,332	2,486	865,225	723,622	82,623	—
Registration - - - - -	399,892	1,393	207,863	190,576	430,064	1,398	213,116	215,550	24,974	—
Tributes from Native States.	775,961	—	—	775,961	790,112	—	—	790,112	14,151	—
	59,517,049	254,353	7,700,049	51,561,747	61,067,375	267,288	7,638,630	53,173,457	1,071,710	—
Deduct,— Assignments and Com- pensations.	—	—	—	1,531,860	—	—	—	1,567,776	35,916	—
TOTAL NET REVENUE - - - - -	—	—	—	49,069,887	—	—	—	51,605,681	1,635,794	—

* See page 68 of Financial Statement for 1893-94 (Commons Paper, 207 of 1893), and the corresponding page of 4th Financial Statement for 1894-95.

NET EXPENDITURE.

EXPENDITURE	1891-92.			1892-93.			NET EXPENDITURE.	
	Gross Expenditure.	Receipts.	Net Expenditure.	Gross Expenditure.	Receipts.	Net Expenditure.	Increase.	Decrease.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Interest - - - - -	4,315,176	879,443	3,435,733	4,374,263	869,727	3,504,536	68,803	—
Post Office, Telegraph, and Mint	2,439,188	2,575,736	—146,548	2,505,625	2,736,953	—231,328	—	84,780
Civil Departments - - -	13,853,842	1,656,157	12,197,685	14,269,912	1,607,876	12,662,036	454,351	—
Miscellaneous Civil Charges -	5,046,622	897,234	4,149,388	5,537,840	876,994	4,660,846	511,508	—
Famine Relief and Insurance -	1,268,319	—	1,268,319	1,116,103	—	1,116,103	—	152,216
Construction of Railways (charged against Revenue, in addition to that under Famine Insurance).	163,233	—	163,233	339,437	—	339,437	176,254	—
Railway Revenue Account -	20,253,910	19,938,046	315,864	20,924,155	19,077,103	1,847,052	1,531,188	—
Irrigation - - - - -	2,945,019	2,272,040	672,979	2,940,479	2,418,902	521,577	—	151,402
Buildings and Roads - - -	6,308,752	627,124	5,681,628	5,846,480	653,188	5,193,292	—	388,336
Army - - - - -	22,280,601	780,404	21,500,197	23,419,111	864,320	22,554,791	1,054,594	—
Special Defence Works - - -	604,848	—	604,848	458,060	—	458,060	—	146,788
	79,369,510	29,626,234	49,743,276	61,721,515	29,105,063	52,616,452	2,873,176	—
Provincial and Local Surpluses -	—	—	—	—	—	—	—	—
" " Deficits -	—	—	240,924	—	—	177,359	63,565	—
TOTAL NET EXPENDITURE	—	—	49,502,352	—	—	52,439,093	2,936,741	—

Thus, there was an increase of the net revenue by Rx. 1,635,794, and of the net expenditure by Rx. 2,936,741, making the result worse by Rx. 1,300,947, and turning the surplus of Rx. 467,535 in 1891-92, into a deficit of Rx. 833,412 in 1892-93. This is entirely attributable to the fall in exchange from 16·733*d.* per rupee in the former, to 14·985*d.* in the latter year, the effect being to increase the net charge for exchange by Rx. 2,869,567. Of this amount, Rx. 988,828 occurred in the Railway Revenue Account, Rx. 951,761 in the army charges, Rx. 328,640 in interest, Rx. 322,638 in Civil Superannuation, Rx. 116,807 under Marine, and Rx. 160,893 under other heads. Apart from Exchange, there was a net improvement of Rx. 1,568,620, the net revenue being better by Rx. 1,640,766, while the net expenditure was higher by Rx. 72,146. The increase in the net revenue occurred in all the principal heads except Customs, more than half being attributable to land revenue, which rose by Rx. 838,379; opium was better by Rx. 240,221; provincial rates by Rx. 206,705; stamps by Rx. 187,573; excise by Rx. 122,240; and other heads by Rx. 45,648. The increase in the net expenditure was the outcome of various changes; the railway revenue account was worse by Rx. 542,360, the net receipts on the State lines having been much less than in the previous year; the cost of the civil departments was enhanced by Rx. 273,918, much of which arose from heavy payments for the construction of vessels for the Marine Department; the charge for interest was less by Rx. 259,837, in consequence mainly of the lower payment for discount on a sterling loan; there was a reduction of Rx. 412,080 under buildings and roads; and of Rx. 72,215 under other heads.

In the tables in the Appendix, the net revenue and expenditure in India of the several provinces under the chief heads are shown for the years 1891-92 and 1892-93, to which is added a table of the net payments in England, with the loss by exchange thereon, the figures in all the tables combined resulting in the totals of net revenue and expenditure given above. The

revenue

revenue and expenditure of Berar, which form no part of the general FINANCE. finances of the Government of India, are not given in this chapter, but are referred to under Hyderabad, in the chapter on Native States. The surplus revenue of the various Provinces, as shown in the Summary on page 182, defrayed the general charges in India and in England in approximately the following proportions: in 1891-92, Bengal, 38 per cent.; North West Provinces, 21; Bombay, 15; Punjab, 11; Madras, 7; Burma, 4; Central Provinces, 3, and Assam, 1; in 1892-93, Bengal, 41; North West Provinces, 20, and the Punjab, 9 per cent., the other Provinces contributing in the same proportion as in the previous year.

CAPITAL OUTLAY ON PUBLIC WORKS.

The total capital outlay on railways and irrigation works, the expenditure in England being converted into Indian currency at the average rate obtained for the Secretary of State's bills during the year, was as follows:—

	1891-92.	1892-93.	Increase.	Decrease.
Amount supplied by borrowing or from the Cash Balances, without being charged against the Revenue of the Year:	Rx.	Rx.	Rx.	Rx.
State Railways - - - - -	2,770,336	3,455,199	684,863	—
Irrigation Works - - - - -	729,664	531,091	—	198,573
TOTAL . - - - -	3,500,000	3,986,290	486,290	—
Amount defrayed from Revenue:				
Provincial Railways, &c. - - - - -	187,854	† 339,487	} 619,227	—
Protective Railways - - - - -	484,795	984,469		
Protective Irrigation Works - - - - -	77,931	60,793		
Other Irrigation Works* - - - - -	25,452	10,510		
TOTAL Direct Outlay by the State -	4,276,032	5,381,549	1,105,517	—
In addition to this, the outlay by companies guaranteed or subsidised by the Government was - - - - -	1,300,229	1,309,000	8,771	—
So that the TOTAL Outlay was -	5,576,261	6,690,549	1,114,288	—

* Excluding capital outlay on the minor works, against which interest is not charged in the Accounts.
 † Including Rx. 201,225 contributed by Madras for the East Coast Railway.

DEBT.

The following alterations were made in the amount of the debt in Debt. 1891-92 and 1892-93 respectively:—

	1891-92.	1892-93.	Increase.	Decrease.
In India - - - - - Rx.	— 54,345	245,235	299,580	—
In England - - - - - £.	2,995,935	— 720,876	—	3,716,311
0.73. - - - - - F				In

FINANCE.

In 1891-92 no loan was raised for public works in India, and debt to the amount of Rx. 54,345 was discharged. In England a loan of 2,600,000*l.* India 3 per cent. Stock was issued, at an average price of 94*l.* 10*s.* 2½*d.* per cent., of which 1,597,394*l.* was applied to the discharge of India 3½ per cent. Debentures, and of debentures of the Oude and Rohilkund and South Indian Railways bearing the same rate of interest; the remainder was needed for advances to companies constructing railways in India under engagements with the Government. Later in the year there was an unexpected demand caused by the necessity of discharging certain guaranteed railway debentures, which the holders were unwilling to renew on the terms offered by the Government; owing to this reduction of the cash balance, and in order to be in a position to discharge 1,000,000*l.* Oude and Rohilkund Railway debentures falling due on the 1st of April 1892, it became necessary to sell a further amount of 2,000,000*l.* India 3 per cent. Stock. The total sterling debt raised was, therefore, 4,600,000*l.* at 3 per cent.; the amount discharged was 1,503,100*l.* debentures at 3½ per cent., and also 4,262*l.* of India stock at 4 per cent., and 96,703*l.* at 3½ per cent.; consequently the net increase was 2,995,935*l.*

In 1892-93, for the third time in succession, the Government of India was able to dispense with a public loan; but Rx. 250,000 was borrowed, at 4 per cent., from the Rampur State, towards the construction of a line of railway from Moradabad to Bareilly through Rampur; and, debt being discharged to the amount of Rx. 4,765, the net increase was Rx. 245,235. In England a loan of 1,300,000*l.* India 3 per cent. Stock, which was subscribed on the 29th of April 1892, at an average price of 96*l.* 18*s.* 4*d.* per cent., was issued for the discharge, in addition to the 1,000,000*l.* of Oude and Rohilkund Railway debentures already mentioned, of 920,300*l.* of railway debentures similarly bearing 3½ per cent. interest, while 1,340*l.* of India stock at higher rates was also paid off, as well as 98,736*l.* of stock bearing 3½ per cent. interest; there was, therefore, a net reduction of debt to the amount of 720,376*l.*

SAVINGS BANKS AND OTHER OBLIGATIONS.

Savings Banks
and other
Obligations.

The following table shows the amount received and paid on account of savings banks, loans to municipalities, and other obligations in India :—

	1891-92.	1892-93.
	Rx.	Rx.
Savings Banks, &c. (net deposits) - - - - -	851,173	922,339
Loans to Port Trusts, Municipalities, Native States, &c. (net disbursements) - - - - -	-458,787	-356,268
Provincial Advances and Loans (net disbursements) - - - - -	-465,405	-493,340
Other Obligations (net receipts) - - - - -	421,728	310,175
TOTAL - - - - -	318,709	382,906

CASH BALANCES.

Cash Balances.

The following statement shows the amount of the cash balances, and the extent to which they were increased or reduced by the transactions of the year :—

	On 1st April			Increase or Decrease.	
	1891.	1892.	1893.	In 1891-92.	In 1892-93.
In India - - Rx.	17,876,244	17,287,005	15,271,756	-559,239	-2,015,249
In England - - £.	3,835,050	4,122,626	2,268,388	287,576	-1,854,238

COINAGE AND PAPER CURRENCY.

The value of the coinage at the Mints of Calcutta and Bombay was :—

Coinage and Paper Currency.

	CALCUTTA.		BOMBAY.		TOTAL.	
	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Gold - - -	24,786	—	11	—	24,797	—
Silver - - -	1,479,020	2,998,018	4,074,950	9,613,510	5,553,970	12,611,528
Copper - - -	166,317	131,119	—	—	166,317	131,119
TOTAL - - -	1,670,123	3,129,137	4,074,961	9,613,510	5,745,084	12,742,647

The receipts and expenditure of the Indian Mints were as follows :—

	1891-92.	1892-93.
	Rx.	Rx.
Receipts - - - - -	210,046	310,335
Expenditure - - - - -	97,109	112,007
Net Receipts - - -	112,937	198,328

On the 31st of March 1893 the amount of notes in circulation was Rx. 26,401,820, being Rx. 2,325,412 more than on the corresponding date in 1892. The reserve was, in silver coin Rx. 17,538,574, in silver bullion Rx. 868,246, and in Government securities Rx. 8,000,000, while a deduction of Rx. 5,000 must be made for notes in transit from Calcutta to Bombay.

Opium.
General.

The opium revenue is raised partly by a monopoly of opium in Bengal, and partly by the levy of a duty on all opium exported from Native States. Though the poppy can be grown in most parts of India, its cultivation in British territory is permitted only in parts of Bengal and of the North West Provinces and Oudh. A few thousand acres of opium are grown in the Punjab for local consumption. The cultivator of opium in the monopoly districts receives advances to enable him to prepare the land for the crop, and he is required to deliver the whole of the produce at a fixed price to opium agents, by whom it is despatched to the Government factories at Patna and Ghazipur to be prepared for the China market. The chests of manufactured opium are sold by auction at monthly sales which take place in Calcutta; and in order to prevent speculation and to steady prices, the quantity to be offered at each sale during each year is notified in the previous year. A sufficient reserve is retained to supply the deficiencies of bad seasons; but owing to a succession of four bad opium crops the reserve is now exhausted. A small quantity of opium is used by the Indian excise departments. In 1861 the average price of opium sold by auction for the China market was as high as Rx. 185 per chest of 133 lbs. weight, but since that year it has fallen. In the calendar year 1893 the average price was Rx. 115½; it had been Rx. 116 in 1892, 103¼ in 1891, and 105½ in 1890.

Opium is grown in the Native States of Rajputana and Central India. Some of these States have agreed to assimilate their internal opium arrangements to the British excise system, and to prevent contraband dealings. They levy heavy dues on opium exported from their territories for the China market, and such opium pays to the Indian Treasury a duty which amounted in 1892-93 to Rx. 60 per chest on exportation.

After the close of the year 1892-93 a Royal Commission was appointed to investigate and report upon the Indian opium question.

The yield of the opium revenue for the past four years has been :—

	1889-90.	1890-91.	1891-92.	1892-93.
Opium Receipts :	Rx.	Rx.	Rx.	Px.
- Auction sales of monopoly opium - -	6,477,079	5,914,320	5,954,292	6,096,227
- Duty on Bombay or Malwa opium - -	1,890,854	1,754,088	1,844,281	1,675,653
Cost of opium issued to the Excise and other Departments.	215,123	210,774	213,867	221,300
Total - - - Rx.	8,583,056	7,879,182	8,012,440	7,993,180
Opium expenditure, chiefly in Bengal - -	1,605,107	2,180,797	1,861,813	1,602,496
Net Opium Revenue - - - Rx.	6,977,949	5,698,385	6,150,627	6,390,684

The number of chests of Bengal opium sold in the two earlier years was 57,000, but it fell to 56,250 in the year 1891-92, and to 48,852 chests in the year 1892-93; the number of chests of Bombay opium paying duty was 28,372 in the year 1889-90, 28,413 in 1890-91, 30,654 in 1891-92, and 27,845 in the year 1892-93. The receipts shown above are outside the provincial opium duties of Rx. 747,792, shown in the excise section of this Statement as the receipts of 1892-93.

The

The net revenue from opium for 1892-93, though considerably below what it was in former years, shows an increase on that of 1891-92, which is mainly due to the poor opium crop, whereby the expenditure on payments to opium-growers was diminished in Bengal. The net opium revenue during recent years has been as follows :—

Net Opium Revenue in		Net Opium Revenue in	
	Rx.		Rx.
1872-73 - - - -	6,870,423	1888-89 - - - -	5,964,404
1875-76 - - - -	6,250,860	1890-91 - - - -	5,698,385
1878-79 - - - -	7,700,671	1891-92 - - - -	6,150,627
1880-81 - - - -	8,451,276	1892-93 - - - -	6,390,684
1883-84 - - - -	7,701,518		

The area actually cultivated with the poppy in the Ganges Valley, which had been 556,527 acres in 1885, was 463,664 acres in 1891-92, and 454,244 acres in 1892-93. The yield of opium had been very short in 1891-92, and was again poor in 1892-93 ; the total quantity manufactured was 39,701 and 42,890 chests in the two years, as compared with 74,325 chests in 1887-88. In 1892-93 the yield of opium was 12½ lbs. per acre, against 11½ lbs. in the preceding season, and against a normal out-turn of 18 lbs. per acre in a year of good harvests. The opium reserve in Calcutta, which ought to stand at 30,000 chests at the end of every year, is expected to have entirely disappeared by December 1894, notwithstanding that the yearly sales have been reduced by 12,000 chests. It is reported that cultivators of opium have lost heart, after experiencing several bad opium seasons in succession ; that "poppy does not pay as well as it used to do," and that "the previous unfavourable seasons, coupled with the competition of potato, sugar-cane, and wheat have had their effect on the cultivators." The number of prosecutions for breaches of the Opium Laws in the year 1892-93 was 618, or the same number as in the preceding year. The percentage of convictions was 87 per cent. as compared with 93 per cent. in the year 1891-92.

The number of chests of duty-paid Malwa opium brought into Bombay from Rajputana and Central India was 26,655, or 13 per cent. less than in the preceding year. The rate of duty was the same as in 1891-92. Of the Malwa supply, 10 chests were exported to African ports, and 57 chests to Cochin and Allepey ; and 25,243 chests were sent to China, or 3,878 less than in 1891-92. The licit consumption of opium in British districts of the Bombay presidency was 127,149 lbs., as compared with 140,638 in the previous year. The issue price of opium from the Government depôts was ten rupees per lb. The quantity of opium taken by Native States from the Bombay Government during the year was 93,364 lbs, as compared with 106,665 lbs. and 102,052 lbs. in the two previous years.

SALT.

SALT.
General.

The salt revenue is raised by a duty on all salt imported into, or manufactured in, India. The rate of duty has in past times ranged from $\frac{1}{4}$ th of a rupee (in Burma) to $3\frac{1}{4}$ rupees (in Bengal) per maund of 82 lbs.; during the year 1892-93 the rate was $2\frac{1}{2}$ rupees over the whole of India, except Burma, where it was fixed at one rupee per maund. The Indian sources of salt supply are the coast, where salt is manufactured for the consumption of all southern and western India and part of Burma and Central India; the salt lakes and other sources of Rajputana, which supply the North-Western Provinces, Oudh, and a part of Central India; the salt mines of the Punjab, which supply that province and a varying area southward; importations from beyond the sea, which supply Bengal and the greater part of Burma. The duty is levied on salt at the place of manufacture, or at the port of importation, before it passes into consumption. The regions supplied from each source contract or extend, according to varying circumstances of the season, or of markets, or of means of carriage; for instance, when an unusually wet season limits salt production by solar evaporation on the coast, the inland sources of supply send salt to make up for the deficiency; when a railway was opened to the Punjab mines, salt made its way thence further south and east.

The SALT REVENUES and CHARGES in the year 1892-93 were as follows:—

PROVINCE.	Price of and Excise on Salt made Locally.	Duty on Imported Salt from England.	Duty on Salt Imported from other Sources.	Miscellaneous.	TOTAL.	Charges.	Net Salt Revenue.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Northern India	1,913,533	—	—	16,969	1,930,502	116,457	1,814,045
Burma	17,251	140,648	—	920	158,819	738	158,081
Bengal	—	1,605,635	701,031	12,822	2,319,488	6,826	2,312,662
Madras	1,930,358	415	—	21,010	1,951,783	169,379	1,782,404
Bombay	2,158,280	613	739	6,144	2,165,776	135,126	2,030,650
TOTAL, 1892-93	6,016,432	1,747,311	701,770	57,865	8,523,368	428,526	8,094,842
1891-92	5,751,574	1,856,869	523,546	65,750	8,197,739	412,462	7,785,277

The charges above shown do not include a sum of about Rx. 300,000 paid under treaties to Native Chiefs who have assigned the management of their salt sources to the British Government. An increase of Rx. 512,000 in the salt revenue was shown in 1889-90, and now a further increase of Rx. 319,566 is shown for the year 1892-93. This advance of the revenue is due to the increase of consumption, as there has been no enhancement of duty. The alteration in the duty in 1888 temporarily checked consumption, which fell in 1888-89 below the average of the two previous years, but has since 1891-92 been higher than before 1888, thus:—

In the Year	Total Actual Consumption of Duty-paid Salt in India, inclusive of Burma.
1885-86 - - - - -	32,289,000 Maunds, each maund being equal to 82 $\frac{1}{2}$ lbs. avoirdupois.
1886-87 - - - - -	34,330,000 "
1888-89 (The rate of duty was raised in January 1888 from 2 Rs. to 2 $\frac{1}{2}$ Rs. per maund).	31,474,000 "
1889-90 - - - - -	33,486,000 "
1890-91 - - - - -	33,722,000 "
1891-92 - - - - -	34,851,000 "
1892-93 - - - - -	35,451,000 "

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The amount of local salt consumed in Burma is not precisely known, but in the foregoing figures is estimated at 400,000 maunds in 1889-90 and subsequent years, but at 560,000 maunds in each previous year. SALT.

The duty-paid salt probably provides for about 270 million people in British and Native India. At this rate the total consumption (35,451,000 maunds for 270,000,000 people) falls at about 10 $\frac{3}{4}$ lbs. per head. But the average consumption differs widely in the several provinces, ranging from 18 $\frac{3}{4}$ lbs. per head in Burma and 16 $\frac{1}{2}$ lbs. in Madras to 10 $\frac{1}{4}$ lbs. per head in Bengal and about 8 lbs. per head in the North-Western Provinces and Oudh.

The North India Salt Department controls the salt sources of the Punjab and of Rajputana, whence are supplied the wants of the Punjab, Oudh, the North-Western Provinces, the northern districts of the Central Provinces, and the greater part of the Rajputana and Central India States. The sales of duty-paid and free salt at the northern salt sources amounted to 8,897,000 maunds, or 8 per cent. above the sales of the previous year; the total consumption of 1892-93 was 19 per cent. higher than the average consumption of the three years before the enhancement of the duty in 1888. A large increase of consumption occurred in salt from the Sambhur Lake works and also in Punjab salt; Didwana salt alone showed a decrease, and can no longer compete with Sambhur Salt. Of the total consumption, the Sambhur salt lake supplied 5,109,000 maunds, the Mayo mine in the Punjab supplied 2,083,000 maunds, and the remainder came from minor salt sources. The gross receipts of salt revenue increased from Rx. 1,957,000 to Rx. 2,129,000, and were the highest ever realised; the charges came to 4.8 per cent. on the receipts, as against 6 per cent. in the previous year. A further reduction was effected in the price of Sambhur salt, which since the year 1872, when the Rajputana salt sources were first leased by Government, has fallen from 10 $\frac{3}{4}$ annas, exclusive of duty, to 2 $\frac{2}{3}$ annas a maund. The number of prosecutions for breach of the salt law fell from 775 to 541; of this latter number 42 persons were acquitted and only 15 were sentenced to imprisonment. Northern India.

The price of Sambhur salt at the Cawnpore market rose from 3 $\frac{1}{4}$ to 3 $\frac{5}{16}$ rupees per maund; Punjab rock salt ruled a trifle cheaper than in the preceding year.

The total quantity of salt on which duty was paid in Bengal during the year was 10,143,000 maunds, or about one per cent. more than in the previous year; the amount imported and manufactured during the year was 9,451,000 maunds, of which there came from, Bengal.

	Maunds.		Maunds.
The United Kingdom - - -	5,941,000	Red Sea and Persian Gulf Ports	887,000
Germany - - - - -	938,000	Aden - - - - -	1,000,000
Bombay - - - - -	544,000	Orissa Coast Factories - - -	67,000
Madras - - - - -	74,000		

The gross salt revenue was Rx. 2,431,000, or 1 per cent. above the receipts of the preceding year, against an expenditure of Rx. 44,800. The consumption of licit salt in the seven saliferous districts outside Orissa decreased by 5 per cent. In Orissa the consumption of locally-manufactured salt, and also of salt from Calcutta showed an increase over the previous year; but imports from Ganjam fell off largely; and the total consumption of Orissa was nearly 2 per cent. less than in the year 1891-92. The number of prosecutions for offences under the salt laws rose from 1,366 in the previous year to 1,472, of which 682 occurred in Orissa, and in 118 cases the accused persons were acquitted. The stocks of salt were unusually low at the end of the year; prices ranged from 3 $\frac{1}{4}$ rupees per maund in Calcutta at the cheapest season, to 4 $\frac{3}{4}$ rupees per maund in Lohardugga at the dearest season; in Orissa the price ranged from 3 $\frac{1}{8}$ to 3 $\frac{7}{8}$ rupees per maund. The average consumption of salt in Bengal, according to the census figures of 1891, was 10 $\frac{1}{4}$ lbs. per head; it was the same in the saliferous as in the non-saliferous tracts, save in Orissa, where it was 9 $\frac{1}{2}$ lbs per head.

48 STATEMENT EXHIBITING THE MORAL AND MATERIAL

SALT.
Madras.

It was explained in a previous statement that in Madras, where salt is made on the coast by solar evaporation, a limited number of Government salt factories had been re-opened in order to remedy the evils of high prices and small stocks, which had resulted from the handing over of the manufacture of salt to capitalists under an excise system. The intention is to create as soon as possible a reserve of Government salt, but not to disturb the market by selling Government stocks unless the supply should run short or prices be forced up at any salt mart; the Government reserve stocks are eventually to be somewhat more than one-third of a year's consumption. During the year 1892-93 there were 60 factories at work, of which 17 were Government establishments. The reserve of Government salt was brought up to 3,105,000 maunds. The average price of bonded salt throughout the presidency, which had been $6\frac{1}{12}$ annas per maund under the excise system in 1887-88, was further reduced to $3\frac{1}{2}$ annas per maund in 1892-93; and the highest maximum in any district was 9 annas at Negapatam for a short time while stocks were low. The total quantity of salt manufactured during the year was 9,244,000 maunds against 9,733,000 in the preceding year, and an average of 5,260,000 maunds in the two years 1885-87, when the output of salt was too low. The salt stocks at the end of the year were equal to 23 months' supply, as compared with the 20 months' supply at the end of the previous year, and five months' supply at the end of 1886-87. The reason for maintaining such large stocks is that an unfavourable season may in any year reduce the output of existing factories by 50 per cent.

The issues of Madras salt for home and inland consumption were 8,157,000 maunds, or 0.34 per cent. below the issues of the preceding year. The decrease was attributed to the decreased demand for Ganjam salt in Orissa. It continues to be clear that the enhancement of the salt duty from Rs. 2 to Rs. $2\frac{1}{2}$ a maund in January 1888 has had no permanent effect on the consumption of salt in the Madras Presidency. The average yearly issues of Madras salt for home and inland consumption have been:—

Period.	Rate of Duty per Maund.				Average Yearly Issues for Consumption.
	Rs.	a.	p.	Maunds.	
1861-65	-	-	1 5	- -	6,372,000
1866-68	-	-	1 8	- -	6,728,000
1869-75	-	-	1 13	- -	6,509,000
1878-81	-	-	2 8	- -	6,178,000
1882-87	-	-	2 -	- -	7,459,000
1888-89	-	-	2 8	- -	7,724,000
1890-91	-	-	2 8	- -	7,923,000
1892-93	-	-	2 8	- -	8,157,000

} Exclusive of salt issued at low rates for fish curing.

The consumption of local salt is thus now 32 per cent. higher than it was in the previous era of the same rate of duty, namely, from 1878 to 1881. The consumption of salt by 34,288,000 of the population of South India, including Mysore, Coorg, and certain Native State, came to $15\frac{1}{2}$ lbs. per head; the consumption by the population of the Madras Presidency only, exclusive of four coast districts, came to $16\frac{1}{2}$ lbs. per head. These ratios are reckoned on the increased population shown by the census of 1891.

The gross revenue from Madras salt was Rx. 1,930,000, or $3\frac{1}{2}$ per cent. below the receipts of the preceding year. The decrease was due mainly to the reduced demand for Orissa, and partly to an increase in credit sales of salt. Prosecutions under the salt laws, though slightly fewer than in the previous year, were still numerous; 18,719 persons were charged with salt offences, of whom 4,453 were released by departmental officers with a warning, and 13,947 were sent for trial. Of the persons tried during the year by magistrates nearly 99 per cent. were convicted. The average fine imposed on offenders against the salt laws was $1\frac{1}{2}$ rupees.

During the year 140 bonded yards in the Madras Presidency were open for curing fish under special regulations, whereby cheap salt is sold to fish curers. The quantity of fish brought to be cured was 45,036 tons, or 5 per cent. less than in the previous year; 5,899 tons of salt were sold for curing fish

fish in bond; and the average quantity of salt used was 2 cwts. 69 lbs. to every ton of fish. The cost of the yards to the treasury was more than covered by the price realised for salt. Nearly all the salt fish is consumed within the presidency, the exports being returned at 3,770 tons, valued at $1\frac{1}{2}$ annas (about $1\frac{1}{2}$ pence) per pound.

On the Bombay coast salt is made partly by boiling, and partly by solar evaporation, at 384 factories; no new factories or salt works were opened during the year 1892-93; but 62 salt works were closed at Sanikatta on the North Kanara coast. Owing to the termination of the Portuguese treaty British salt from the Bombay coast is now able to compete with Goa salt in the Malabar and Mysore markets on more favourable terms. The amount of salt manufactured was 9,156,000 maunds, or 1,604,000 maunds less than in the previous year; the quantity of salt written off as wastage was $8\frac{1}{2}$ per cent., being about the same as in the previous year. The total removal of salt for consumption came to 8,715,000 maunds. The amount of duty paid salt issued for consumption in the Bombay Presidency was 3,228,000 maunds, or 11.11 lbs. per head of the population, as compared with 11.82 lbs. in the previous year. It is said that consumption has not really decreased issues from Government stocks fell off because local markets had been glutted with salt at the end of the previous year. In Guzerat the rate was 8.05 lbs. per head, and in the rest of the presidency it was 12.84 lbs.; yet Guzerat is the richest part of the province. The gross salt revenue receipts were Rx. 2,180,000, or Rx. 83,000 below the total of the previous year, and Rx. 78,000 above the corresponding figure for 1890-91. During the year, the average price of salt, exclusive of duty, ranged from 1 anna 11 pie per maund at the Konkan works to $3\frac{3}{4}$ annas per maund at the Shiroda works; the wholesale price of duty-paid salt ranged from Rs. 3 per maund in the cheapest district, Kolaba, during April to Rs. 4, per maund in Kanara, the dearest district, during December. In Bombay only five fish-curing yards were at work; the quantity of fish brought to be cured in bond was 1,001 tons, and 318 maunds of cheap salt were issued to fish curers. The number of persons tried for offences under the salt laws was 872 against 724 in the previous year; the number convicted was 773, against 639.

In Sind the amount of duty-paid salt passed into consumption rose from 244,000 maunds to 249,000 maunds, and the salt revenue was Rx. 70,300, or Rx. 2,370 above the receipts of the previous year. The consumption of duty-paid salt came to 7.4 lbs. per head of the population against 7.27 lbs. in the previous year. The number of prosecutions for salt offences rose from 213 to 232; the quantity of illicit salt seized was only $7\frac{1}{4}$ maunds. The average retail price of salt remained stationary at Rs. 3. 6a. 5p. per maund.

The amount of salt imported into Burma in 1892-93 was 1,422,000 maunds, against 1,359,000, 1,406,000 and 1,190,000 maunds in the three previous years. The revenue on salt manufactured locally was Rx. 17,673, as compared with Rx. 16,611 in the year 1891-92, representing a production of perhaps 400,000 maunds in each year. The total salt revenue of Burma was Rx. 162,200, against Rx. 161,000 in the preceding; and the total consumption was approximately 1,822,000 maunds during the year, equal to about $18\frac{3}{4}$ per head for 8 million people in Burma and the Shan States.

EXCISE.

The excise revenue of India is raised by duties upon, and by fees for, licenses to sell liquors and intoxicating drugs. Tobacco, which is grown in almost every village, and is consumed by nearly all men and by many women in the empire, is not subjected to any duty; tea and coffee, which are grown largely for Indian consumption and for exportation, are also free from all duties. Excise duties are raised, under legislative enactments, partly by the periodic sale of monopolies in specified excisable articles over defined areas; partly by a stillhead duty on all spirits manufactured at distilleries; partly by the issue of licenses for the working of stills at specified places; and partly by fees on licenses to sell different kinds of liquors. The duties on intoxicating drugs, and on fermented liquors other than beer brewed after the European fashion, are raised mainly by yearly sales of monopoly licenses. A customs duty is also levied on all imported spirits,

EXCISE.

wines and beer. The import duty is six rupees per gallon on London proof spirit; 2½ rupees per gallon on sparkling wines; one rupee per gallon on other wines; and one anna per gallon on beer. Over almost the whole of Bombay and the Punjab; over the populous parts of Madras, the North Western Provinces, Oudh, and Burma, and over some parts of Bengal and the Central Provinces, a still-head duty is levied on all Indian spirit according to its alcoholic strength. The still-head duty ranges as high as five rupees per gallon of London proof spirit; if the cost of licenses be added, the total duties are in places more than seven rupees per gallon of spirits. The system of excise management followed in these tracts is called the central distillery system. Over a large, but decreasing part of Bengal, and over most of the Central Provinces, over the whole of Assam and Berar, and over limited tracts in other provinces, revenue is levied on Indian spirits by leasing the spirit monopoly to the highest bidder, which is called the farming system; or by licensing the establishment of private stills, which is called the out-still system. The central distillery system is admittedly the best for preventing the spread and consumption of cheap liquor; and the Government of India have decided to extend that system, and to restrict the farming and out-still systems as narrowly as possible. The difficulty is that in sparsely-peopled forest tracts the materials for illicit distillation are everywhere available; the tribes addicted to drinking often live in these regions; an adequate and trustworthy preventive staff cannot be kept in such places; and illicit practices prevail, to the consequent demoralisation of the people, if weak liquor cannot be obtained in some lawful way. Licensed out-stills are sometimes the only means of meeting the requirements of such exceptional tracts.

The following table gives the excise revenue of 1892-93 for each province under the different heads, as shown in the financial accounts:—

	India, General.	Bengal.	North West Provinces and Oudh.	Punjab.	Burma.	Central Provinces.	Assam.	Madras.	Bombay.	TOTAL.
License and Distillery Fees, and Duties for the Sale of Spirits, Fermented Liquors and Drugs, viz:—	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
License Fees and Farmers' Rent.	6,310	605,578	134,833	57,348	182,265	43,064	32,218	630,778	58,389	1,757,780
Distillery Fees - - -	22,400	6,065	87	354	5,569	112,733	-	130	37,723	184,601
Still-head Duty - - -	64,952	194,333	253,173	59,665	62,729	16,114	1,778	286,400	665,772	1,605,016
License Fees for sale of Opium and its preparations.	2,336	51,063	17,450	84,326	61,337	28,532	28,080	33,454	9,305	266,884
License Fees for sale of other drugs.	1,758	19,534	73,892	17,059	-	13,776	16,925	4,531	2,918	152,293
Rent of Toddy Trees - - -	1,075	809	7,880	-	21	2,782	-	211,681	113,814	837,362
Total - - -	101,831	876,860	487,115	168,752	474,737	216,542	84,001	1,166,972	887,821	4,303,924
Duty on Opium consumed in India.	2,182	160,942	62,086	89,038	162,603	44,458	168,710	40,307	107,459	747,792
Average on Land cultivated with the Poppy.	-	-	-	4,234	-	-	-	-	-	4,234
Fines, Confiscations, Miscellaneous.	619	1,053	676	260	112	2,098	63	3,867	8,023	16,771
Duty on Ganja - - - -	268	120,583	-	-	-	12,510	13,956	-	22,397	169,710
TOTAL Revenue - - -	104,907	1,159,458	549,877	182,284	474,737	276,608	258,780	1,211,146	1,025,690	5,242,443
Charges - - - -	3,873	65,666	15,783	5,095	6,076	4,231	1,271	57,414	23,604	193,013
Net Revenue, 1892-93 -	101,034	1,093,792	534,094	177,189	468,661	271,377	257,509	1,153,732	992,086	5,049,430
Net Revenue, 1891-92 -	91,778	1,046,831	510,103	178,840	419,867	272,146	259,529	1,167,884	990,465	4,927,243

To this total must be added the sum of Rx. 610,253, yielded by import duties on liquors and spirits imported into India during the year 1892-93, whereby the whole drink and drugs revenue of India is raised to somewhat more than four annas a head on the whole population of British India. There

There has been considerable increase in the excise revenue during the past 30 years; but this increase, though in part due to enhanced consumption of liquors caused by the growth of population and the general increase of earnings, is yet largely, and in some localities mainly, the result of improved excise administration, which has doubled or trebled the rates of liquor duty, and has, at the same time, restricted the use of illicit intoxicants. The totals of the excise and customs revenues on liquors and drugs consumed in India during the past 20 years compare thus :—

	Rx.		Rx.
1874-75	2,633,369	1889-90	5,294,420
1880-81	3,515,062	1890-91	5,373,699
1883-84	4,259,099	1891-92	5,516,827
1886-87	4,864,764	1892-93	5,659,685

For the 221½ millions of people who inhabit the several provinces of British India and Berar, the total number of shops licensed for the retail sale of spirits, fermented liquors, opium and drugs, is as follows, province by province :—

PROVINCE.	Number of Retail Shops licensed in 1892-93 for the Sale of					
	Spirits made in India.	Imported Spirits or Liquors.	Toddy and Rice Beer or other Indian Fermented Drinks.	Opium and its Compounds.	Narcotic or Intoxicating Drugs, other than Opium.	Quantity of Opium sold for Local Consumption so far as known.
Bengal	3,006	535	17,346	1,998	2,672	<i>Maunds, 82 lbs. each.</i> 1,984
North West Provinces and Oudh.	6,819	207	4,411	1,040	3,872	1,703
Punjab	1,271	438	38	1,780	1,621	1,523
Burma	50	* 431	932	34	None.	1,736
Central Provinces	6,792	46	751	1,133	1,047	633
Assam	192	120	14	866	272	1,333
Madras	11,974	693	18,755	1,030	246	889
Bombay	2,863	412	1,793	1,162	1,253	1,550
Berar	1,122	19	973	478	484	437
TOTAL	34,089	2,901	45,013	9,521	11,467	11,738

* In Burma the same shops are often licensed so sell foreign and central distillery liquor.

In Bengal the total excise revenues of 1892-93 and the two previous years were as follows :—

Receipts from	1890-91.	1891-92.	1892-93.
	<i>Rx.</i>	<i>Rx.</i>	<i>Rx.</i>
Country spirits	452,826	481,464	502,342
Foreign liquors and rum	32,948	45,379	62,700
Fermented local liquors, toddy and rice-beer	111,787	126,151	138,425
Opium and its compounds	211,964	224,050	219,581
Ganja, bhang, and their compounds	235,941	235,056	245,070
Miscellaneous	622	881	1,148
TOTAL	1,046,088	1,112,981	1,150,266
Add duties on imported liquors	161,311	160,360	167,693
GRAND TOTAL	1,207,399	1,273,341	1,326,959

EXCISE.
Bengal.

The policy of substituting the central distillery system for the out-still system of raising revenue from country spirits was not carried further in Bengal during the year. Out-stills had been abolished in 1890 over all districts of the Burdwan, Presidency, Dacca and Orissa divisions, containing a population of 30 millions. The number of central distilleries remained at 34, as in the previous year. The maximum number of licensed out-stills in the whole province was 1,931, as compared with 1,770 in the previous year, and 5,250 out-stills in the year 1881-82. In districts where out-stills are retained, special steps are taken to check and restrict the out-turn of spirit, and to keep the retail price at a higher rate than heretofore. The total number of retail licenses for the sale of country spirits, rum and imported liquors, during the past three years, has been :—

	1890-91.	1891-92.	1892-93.
Number of licenses granted for the retail sale of—			
Country spirits from out-stills - - -	1,719	1,770	1,931
Country spirits from central distilleries -	1,308	1,149	1,175
Rum, imported wines, spirits and other liquors.	613	582	635
	3,635	3,501	3,641

Before a new license of the kind is issued for any locality, every care is taken to ascertain the opinion of the residents. No trustworthy estimate can be offered of the quantity of spirit passing into consumption from out-stills; but much of the out-still liquor consumed in Behar is said to be nearly 90° below London proof and vendors are encouraged to deal in weak liquor. The out-turn from central distilleries in the year was 398,478 gallons L.P. against 399,384 gallons in the previous year. The still-head duty levied on central distillery liquor ranges from 1½ to 5 rupees per gallon of proof spirit. Including still-head duty, license fees and other taxation, the total revenue on distillery liquor came to Rx. 240,306, or 6.03 rupees per gallon of London proof spirit. The revenue on country spirits raised from out-stills was Rx. 262,035, against Rx. 245,014 in the preceding year. The total revenue from country spirits, Rx. 502,341, was larger than that of any of the three preceding years, but was less than that of 1888-89 by nearly Rx. 7,000. The increase during the year was greater in the tracts supplied by out-stills than in the central distillery area.

The revenue from toddy was Rx. 94,970, as compared with Rx. 95,740 in the previous year, though the number of licensed shops was 15,675 against 16,920 in 1891-92, and 30,268 in the year 1881-82. The number of pach-wai, or rice-beer shops, was 1,671; the number of licensed ganja shops was 2,672, as compared with 2,578 in the preceding year, and the amount of licit ganja consumed was 5,451 maunds, against 5,677, and 6,095 in the two preceding years. The number of shops licensed for the retail sale of opium was 1,714, or 16 more than in the preceding year; the amount of licit opium consumed fell from 2,005 to 1,934 maunds. The number of shops licensed for selling opium, prepared after the Chinese fashion, known as chandu, was 71, against 72 in the previous year; and the licenses for selling madak, or opium prepared after the Bengalee manner, was reduced from 302 to 263. Smoking on licensed premises was forbidden.

The number of arrests for excise offences fell to 4,634, a decrease of 6½ per cent., and convictions were obtained against 3,934 persons; of whom 282 persons were convicted of the offence of illicit distillation.

EXCISE.
North-Western
Provinces and
Oudh.

The latest excise report for the North-Western Provinces and Oudh relates to the year ending in September 1892. For the last three years the excise revenues have been :—

Receipts from	1889-90.	1890-91.	1891-92.
	Rx.	Rx.	Rx.
Country spirits - - - - -	334,300	307,965	322,193
Foreign liquors and rum - - - - -	42,900	45,822	45,313
Opium - - - - -	78,900	77,328	78,050
Other drugs - - - - -	73,100	69,221	71,209
Toddy and miscellaneous - - - - -	11,800	10,156	8,819
TOTAL - - - - -	541,000	510,492	525,584

Though there was an increase of Rx. 15,092 over the revenue of the preceding year, still the total excise revenue was lower by Rx. 45,000 than it was in 1888-89. The falling off had been entirely under the revenue from country spirits, which, however, showed some recovery in the year under report.

The revenue from country spirits was raised as follows :—

- (a) Rx. 284,100 under the central distillery system, which extends over districts inhabited by 37½ millions of people.
- (b) Rx. 24,500 under the out-still system, which extends over tracts containing 6 millions of people.
- (c) Rx. 13,500 under the farming system, which extends over tracts containing 3½ millions of people.

These areas show some small change from the corresponding figures for the previous year. The total amount of spirit passed out of all central distilleries was 1,368,623 gallons, against 1,443,963 gallons in the previous year, and against 2,056,314 gallons in the year 1885-86. None of the liquor issued during the year was stronger than 25° below proof, and 13 per cent. of it was weaker than 50° below proof. The number of distilleries was 45, against 51 in the previous year. The number of licensed retail shops for country spirits in the two provinces further fell from 5,427 to 5,315 in the central distillery tracts; and rose from 1,464 to 1,504 in the tracts where the out-still and farming systems prevailed; while the retail licenses for rum and foreign spirits rose from 201 to 207; the consumption of rum from the Rosa factory rose from 21,034 gallons to 31,962 gallons.

The number of shops licensed for the sale of opium and its compounds was 1,016, as compared with 1,166 in the previous year. The allocation of opium licenses in the several districts is being considered. The chandu and madak shops, licensed for selling opium prepared for smoking, were reduced from 54 in the year 1888-89 to 26 in the year under report. The quantity of licit opium passed into consumption was 1,703 maunds, against 1,649 maunds in the previous year. The increase is attributed to the repression of illicit opium; and the quantity is identical with that consumed in 1889-90. The number of shops licensed for the sale of other narcotic drugs was 3,872, as compared with 3,903 in the previous year. The number of licensed toddy shops increased from 4,396 to 4,411, of which 3,067 are situated in the Benares and Gorakpur division, and only 901 in the other 7 divisions.

Prosecutions under the Excise Act increased 26 per cent., and those under the Opium Laws decreased slightly in comparison with the previous year; the prosecutions for illicit distillation were 252 against 98 in the preceding year. The proportion of convictions to prosecutions was 80 per cent., as in 1891-2.

54 STATEMENT EXHIBITING THE MORAL AND MATERIAL

Excise.
Punjab.

The excise revenues of the Punjab in the last three years were raised as follows:—

Receipts from	1890-91.	1891-92.	1892-93.
	Rx.	Rx.	Rx.
Country spirits - - - - -	93,579	97,094	99,027
Imported liquors and rum - - - - -	27,779	30,600	32,435
Opium - - - - -	45,948	46,177	47,773
Other drugs and miscellaneous - - - - -	17,321	19,060	15,909
TOTAL - - - - -	184,627	192,931	195,144

The increase of 1½ per cent. in the revenue was small, as compared with 8 per cent. in the previous year. It is explained that the prevalence of epidemic fever during three months of the year tended to restrict the consumption of spirits and to promote the use of opium.

The central distillery system is in force throughout the whole province, save in small parts of the Gurgaon and Kangra districts, and there were during the year 29 central distilleries. The rates of still-head duty are four rupees per gallon of proof spirit, three rupees per gallon of spirit less than 25° below proof; 2½ rupees for spirit from 50° to 25° below proof, and two rupees for spirit more than 50° below proof. Country spirits in the Punjab are distilled from molasses. The total consumption of licit spirits and the number of licensed shops for the past two years are returned thus:—

Consumption, &c.	1890-91.	1891-92.	1892-93.
Country spirits computed at London proof, in gallons.	180,662	188,292	192,279
Rum, London proof, in gallons - - - - -	34,435	39,337	37,664
Other imported spirits, in gallons - - - - -	84,279	85,481	79,234
Licensed retail shops for country spirits - - - - -	1,461	1,389	1,271
Licensed retail shops for rum and imported liquors.	475	451	438

The opium revenue comprised Rx. 2,821 from an acreage fee on lands growing the poppy, and Rx. 35,915 from licenses for the vend of opium, besides Rx. 5,838, the duty on imported opium. The area licensed for poppy cultivation has shrunk from 15,254 acres in the year 1888-89 to 12,643 acres in 1891-92, and 9,857 acres in the year under report. The number of licensed opium shops was 1,780, as compared with 1,785 in the previous year, and 1,910 in the year 1889-90; the quantity of licit opium returned as consumed was 1,523 maunds, as compared with 1,566 maunds in 1891-92, and the total visible supply received into the province during the year was 1,705 maunds, against 2,921 maunds in the previous year. Licenses for shops where opium preparations could be consumed on the premises, *chandu* shops, or "opium dens," as they have been called, were all withdrawn years ago. It is reported that few people, and those mostly immigrants from outside the province, now indulge in smoking opium in private. The number of shops licensed to sell hemp and other drugs was 1,621, against 1,697 in the previous year.

It is reported that, in consequence of the stringent measures taken during the past four years, illicit distillation has much abated. The excise system of Native States has improved, and generally the Chiefs have closed all liquor shops within three miles of the British border. Some smuggling from Native States, however, still goes on. Prosecutions under the liquor laws

laws fell from 368 to 335, and under the opium laws from 917 to 482, as compared with the previous year. The decrease was chiefly under the head of trivial offences by opium cultivators.

In Burma the excise revenue during the past three years was raised thus :—

Receipts from	1890-91.	1891-92.	1892-93.
Lower Burma :	Rx.	Rx.	Rx.
Distillery and imported liquors - - -	89,068	104,150	116,992
Out-stills - - - - -	8,362	6,800	6,905
Toddy - - - - -	26,508	27,997	30,015
Other fermented liquors - - - - -	41,727	53,810	49,287
Opium - - - - -	197,420	191,162	214,202
TOTAL - - -	363,085	383,719	417,431
Add duty on imported liquors - - -	91,227	86,784	103,283
Upper Burma excise - - - - -	42,010	51,264	58,463
GRAND TOTAL - - -	496,322	521,767	579,177

Two central distilleries only were working during the year; they produced 22,353 gallons of spirits, as compared with 47,292 gallons produced by three distilleries in the preceding year. The Rangoon distillery was closed, as its liquor could not compete with the spirit imported from Madras and from abroad. The importations of foreign and Madras spirits increased considerably. At the end of the year the duty was raised from five rupees to six rupees a gallon on local distillery and Madras liquor at London proof. The number of out-stills in Lower Burma was 36, against 37 in the previous year; and in Upper Burma 12 against 14. Three central distilleries were at work in the upper province, and produced 33,057 gallons of spirits, against 19,629 gallons in the previous year.

The number of retail shops licensed under the excise and opium laws in the two sections of the province during the last two years was :—

	Lower Burma.		Upper Burma.	
	1891-92.	1892-93.	1891-92.	1892-93.
Out-still shops - - - - -	37	36	12	14
Distillery spirit and foreign liquor shops	293	291	139	143
Toddy shops - - - - -	898	858	71	74
Rice beer and other fermented liquor shops.	204	205	—	—
Opium shops - - - - -	20	20	12	14
Licit opium consumed in maunds -	1,326	1,603	128	138

The large increase in the sales of opium were accompanied by a considerable fall in the sums paid for opium licenses. After the close of the year the sale of opium to, and possession of opium by, Burmans and Karens were prohibited; and the issue of opium to licensed vendors, in both Lower and Upper Burma, is restricted to the quantities likely to be consumed

Excise.

consumed by the classes still permitted to use opium. Special vigilance is to be exercised against the smuggling of opium from outside. It is reported that "according to the general opinion of district officers the taste for opium and liquor is not spreading among the Burmese of the upper province." No attempt has been made to stop the cultivation of opium in the Kachin and Chin highlands, where it is largely consumed by the local tribes; the people have been warned against smuggling the drug into Burma. The manufacture and sale of fermented liquor is free among these and kindred hill races.

Prosecutions under the excise and opium laws fell from 3,346 to 3,178; and 2,440 persons were convicted. In the Arakan divisions most of the convictions were for illicit dealings in opium, and several gangs of smugglers were put down. The number of illicit stills detected in the Irrawaddy division fell from 57 to 32 during the year. In Upper Burma, 749 offences against the excise laws, of which 375 were opium cases. The number of illicit stills suppressed was 43, as compared with 70 in the previous year.

Central Provinces.

In the Central Provinces the excise receipts of the past three years have been as follows:—

Receipts from	1890-91.	1891-92.	1892-93.
	Rx.	Rx.	Rx.
Country spirits - - - - -	164,519	173,447	175,525
Opium - - - - -	93,016	97,967	96,137
Ganja - - - - -	21,996	23,669	26,335
Toddy - - - - -	1,989	1,882	2,882
Miscellaneous - - - - -	6,743	2,832	2,733
TOTAL - - - - -	288,263	298,507	302,394

The greater part of the country is supplied with spirits from out-stills, of which there were licensed 1,959 at the close of the year; besides 15 central distilleries and five contract stills. The only change on the previous year's figures was that 32 out-stills were closed; the area supplied by central distilleries and by out-stills have been respectively increased and reduced by 1,521 square miles. At contract-stills a fixed daily fee is levied on each still actually in use, and care is taken that no still is used on any day for which the prescribed fee has not been paid. At out-stills the restrictions on manufacture of spirit are the limitation of the number of shops to be supplied, and the limitation of the number and size of the vessels used for distillation. Most of the spirit consumed is about 60° below proof. The duty ranges from 12 annas on liquor 45° below proof, to 3 rupees a gallon on proof spirit.

The receipts on account of country spirits, so far as they can be distinguished, were in round numbers as follows:—

	Rx.
From central distilleries - - - - -	53,000
„ contract stills - - - - -	4,000
„ out-stills - - - - -	117,000

The number of licensed retail liquor shops had been reduced in the previous year to 6,832, and 90 more shops were closed during the year, whereby the total was reduced to 6,792; after the end of the year a further considerable number of shops were closed. No trustworthy information exists regarding the quantity or strength of the liquor made at out-stills, so no estimate of the total liquor consumption can be offered; at most of the shops in the interior the liquor is usually of very low alcoholic strength. The material from which liquor is distilled is everywhere the flower of the mhowa tree. The number of licenses for the retail of imported liquors was 46, against 48 in the previous year.

The

The number of shops licensed for the sale of opium and its compounds ^{Excise.} was reduced during the year from 1,161 to 1,133 ; and the quantity of Government opium sold to the licensed vendors fell from 639 maunds to 633 maunds. The orders prohibiting the consumption of opium or drugs on the premises of licensed shops are strictly enforced, and are expected to be beneficial. The amount of opium supplied on payment to feudatory chiefs and zemindars, decreased from 171 maunds to 155 maunds. The number of shops licensed for the retail sale of ganja and its compounds was 1,047, or seven less than in the preceding year ; the quantity of ganja passing into consumption rose from 1,156 to 1,194 maunds ; while the quantity sold to feudatory chiefs increased from 241 to 273 maunds.

There was a decrease of 54 in the number of prosecutions under the excise laws, and an increase of six in cases under the opium laws. Out of 408 cases under the Opium Act, 270 were for the possession of smuggled opium ; but the number of cases in which more than 20 lbs. of smuggled opium was found was only two in all. Out of 547 prosecutions under the Excise Act, 54 were for the illicit distillation of spirits, and 236 for illegal possession of spirits.

The excise demand of Assam for the year 1892-93 and previous years ^{Assam.} was distributed thus :—

Receipts from	1890-91.	1891-92.	1892-93.
	Rx.	Rx.	Rx.
Country spirits - - - - -	34,298	35,126	38,499
Imported liquors and rum - - - - -	3,391	3,598	3,524
Opium and its compounds - - - - -	180,273	190,205	187,521
Ganja and its compounds - - - - -	27,244	28,671	30,712
Miscellaneous, including Toddy, &c. - - -	302	863	600
TOTAL - - -	245,508	259,163	260,863

The whole revenue of the year was collected with the exception of a small arrear of Rx. 15 in two districts. The revenue from country spirits is raised entirely under the out-still system ; the sites of shops are fixed ; the right to have one still, and to sell spirits at each shop, is sold annually by auction. The number of licensed retail shops for country spirits was 192, against 194 in the previous year. Much of the liquor is weak ; it sells at from six annas to one rupee per quart bottle. The number of retail shops licensed to sell rum was 31 against 38 in 1891-92 ; this rum is sold at from one to two rupees per quart bottle. The quantity of rum distilled in the provinces rose from 7,457 gallons to 10,402 gallons ; while the imported rum fell from 10,796 to 3,447 gallons ; there was a net decrease of 4,404, or 23 per cent. in the consumption of the year. The number of shops licensed for the sale of foreign liquors, including licenses on board steamers, was 89, or 11 less than in the previous year. The total consumption of foreign spirits in Assam was 15,456 gallons, showing an increase of 20 per cent. compared with the previous year. For toddy three licenses, and for rice-beer 11 licenses were issued. The number of licensed ganja shops was 272, or 10 less than in the previous year ; and the quantity of ganja disposed of during the year was 687 maunds, against 791 in the year 1891-92 ; ganja is consumed chiefly in the two districts of the Surma valley. Opium continues to yield three-quarters of the total excise revenue of Assam. The number of licensed opium shops has been gradually reduced from 1,283 in the year 1883-84 to 953 in the year 1891-92, and to 866 in the year 1892-93 ; while the quantity of licit opium consumed was 1,333 maunds, against 1,369 maunds in the preceding year, and 1,494 in the year 1889-90. The number of shops licensed for the sale of madak and chandu, preparations of opium, was reduced from 24 to 16 during the year.

58 STATEMENT EXHIBITING THE MORAL AND MATERIAL

EXCISE.

The number of prosecutions under the excise and opium laws rose from 456 to 754, and convictions were obtained against 84 per cent. of the accused persons. Nine cases of unlawful cultivation of the poppy and 47 cases of unlawful cultivation of ganja came to light; 61 cases of illicit manufacture and sale of spirits were prosecuted. Most of the other cases were of trifling character; and the only four cases of opium smuggling were reported during the year.

Madras.

The excise revenue of Madras during the last three years was raised thus:—

Receipts from	1890-91.	1891-92.	1892-93.
	Rx.	Rx.	Rx.
Country spirits - - - - -	571,921	545,023	524,829
Toddy and spirits combined - - - - -	7,167	4,869	2
Toddy alone - - - - -	517,637	549,668	576,616
Foreign liquor and miscellaneous - - - - -	38,031	36,643	40,600
Opium and other drugs - - - - -	72,353	68,679	69,695
TOTAL Rx. - - - - -	1,207,109	1,204,882	1,201,742
Add.— Customs Duties on imported liquors - - - - -	95,703	102,474	102,302
GRAND TOTAL Rx. - - - - -	1,302,812	1,307,356	1,304,044

Duties on country spirits are raised under the central distillery system over the whole presidency, except in Malabar, Ganjam, Godavery, Vizagapatam, and parts of two other districts. In these exceptional tracts, which contain a population of five millions, or one-seventh of the presidency, the farming system obtains. Shop licenses are sold by auction in all the towns, and in most of the rural circles. Over a gradually increasing area a tree tax is imposed on all palm trees tapped for toddy, while the shops for retail sale of toddy are sold by auction to the highest bidder. The rates of stillhead duty range from $4\frac{3}{4}$ rupees a gallon on proof spirit to $\frac{3}{4}$ of a rupee per gallon on spirits 60° under proof; while the total taxation, including license fees, ranges from $2\frac{1}{2}$ rupees to $7\frac{1}{2}$ rupees per gallon of proof spirit in the several districts. In the districts where a farmer holds the exclusive privilege of distilling, the duty is from $2\frac{1}{2}$ to 4 rupees a gallon for proof spirit. Much of the spirit consumed in the Madras presidency is made from sugar at large distilleries worked with modern appliances. The number of licensed retail spirit shops was reduced from 17,736 in 1888-89 to 11,974 during the year 1892-93; the licenses for the sale of foreign liquors were 693 against 741 in the preceding year. The quantity of foreign spirit imported into Madras was 180,083 gallons, or 522 gallons less than in the previous year. The total quantity of licit spirits issued from the distilleries, reduced to London proof strength, was 879,149 gallons against 928,023 gallons in the preceding year 1891-92. There was thus a decrease of about 6 per cent. in the consumption.

The number of licensed toddy shops was 18,755 in 1892-93 against 26,180 in the year 1888-89. The number of licensed shops for opium and its preparation was 1,030, besides 246 shops licensed for the sale of other narcotic drugs. The total quantity of opium consumed rose from 66,083 lbs. in the year 1891-92 to 72,907 lbs. in the year 1892-93. The consumption of ganja and bhang was 1,667 maunds.

The total excise revenue of Madras fell on the population at the rate of about $5\frac{1}{2}$ annas per head in all. The number of persons prosecuted for offences against the excise laws was 24,255 against 20,645 in the previous year, and 97 per cent. of those tried were convicted. The number of reported cases of illicit distillation and possession of illicit spirits rose from 1,755

1,755 to 1,853, while the reported cases of illicit manufacture of toddy increased from 11,957 to 14,834. The increase in the number of excise offences is ascribed to the energy of the preventive staff, and to the extension of the tree tax system for toddy. Excise.

In the Bombay presidency the central distillery system obtains nearly everywhere, and the area over which the outstill and farming systems prevail consists of two comparatively uncivilised tracts in the Panch Mehals. In several of the minor Native States the British system of excise management has been adopted; in some others the chiefs have engaged to manage their excise affairs so as to avoid competition with British excise arrangements. The main peculiarities of the Bombay system are, that spirit must be sold of specified maximum or minimum alcoholic strength; and that in some districts a tax is imposed on every toddy tree that is tapped for its juice. In the Bombay presidency spirits are distilled from fermented mowra (or mhowa) flower and from fermented toddy, or juice drawn from incisions in the trunk of three or four species of palms. The general fiscal results of the excise management of the last two years were:— Bombay.

Receipts from	1891-92.	1892-93.
	Rx.	Rx.
Locally-made liquors, including toddy - - - - -	852,794	877,241
Licenses on foreign liquors - - - - -	11,072	11,202
Opium - - - - -	105,105	92,733
Intoxicating drugs - - - - -	29,811	30,804
Miscellaneous items - - - - -	14,906	8,344
TOTAL EXCISE - - - Rx.	1,013,688	1,020,324
Import duties on liquors for Bombay and Sind - - - - -	239,967	231,941
TOTAL REVENUE - - - Rx.	1,253,655	1,252,265

The rate of still-head duty ranges from four rupees to one rupee per gallon of London proof spirit; and the average over the greater part of the presidency is about three rupees per gallon.

The number of licensed shops in Bombay and Sind during the past four years is returned at,—

	1889-90.	1890-91.	1891-92.	1892-93.
For—				
Country spirit - - - - -	2,993	2,960	2,930	2,863
Toddy - - - - -	2,093	1,873	1,803	1,793
Drugs other than opium - - - - -	1,309	1,312	1,241	1,253
Opium - - - - -	1,281	1,283	1,248	1,162
Imported liquor - - - - -	471	479	475	412

There were no changes of system during the year; but rates of still-head duty were enhanced in Bombay city and in some districts of the interior; the rates of tax on toddy trees were also enhanced in four districts of Guzerat and the Konkau. The increase of revenue on country spirits accrued chiefly in Sind, Guzerat, Thana, and Khandesh; and was attributed in part to the satisfactory character of the season. The total consumption of excised country spirits in the presidency proper has been 2,572,000, 2,525,000, 2,457,000, and 2,576,000 gallons of spirit, 25° under London proof during the past four years; so there has been no great increase. The consumption

60 STATEMENT EXHIBITING THE MORAL AND MATERIAL

Excise.

consumption of opium in British Districts fell to 1,550 maunds in 1892-93 from 1,715 maunds in the previous year and 1,837 maunds the average of the three years 1889-90.

Berar.

In Berar the excise revenue demand of the last three years has been as follows :—

	1890-91.	1891-92.	1892-93.
	Rx.	Rx.	Rx.
Country spirit - - - - -	128,850	138,309	133,637
Opium and drugs - - - - -	30,723	30,080	26,497
Toddy - - - - -	4,596	4,568	4,591
Foreign liquors - - - - -	165	180	185
Total - - -	164,334	150,902	152,251

The revenue on country spirits was still raised by selling annually at auction the monopoly of the spirit trade in the 68 circles into which the province was divided, but considerable changes of system were introduced into two districts from the 1st April 1893. The uncollected revenue at the end of the year was Rx. 4,782 against Rx. 1,751 at the beginning. The number of shops licensed for the retail sale of country spirits was 1,122, as in the previous year, and for imported liquors 19 against 18. The number of licensed toddy shops remained unchanged at 973. The number of licensed opium shops was reduced to 478 from 585 in the previous year, and the quantity of opium consumed fell to 460 maunds against 472 in the previous year and 515 maunds in the years 1889-90. The number of licensed ganja shops fell from 586 to 484, and the quantity of ganja consumed from 530 maunds to 437 maunds. Prosecutions under the excise law rose from 57 to 73, and under the opium law from 117 to 137. There were five prosecutions for smuggling opium, and several ingenious attempts to smuggle the drug were frustrated.

STAMPS.

Stamps.

The stamp revenue is leviable under Act VII. of 1870 (the Court Fees Act), which imposes fees on plaints, petitions, and other documents filed before civil, criminal, or revenue courts, and under Act I. of 1879 (the Stamp Act), which imposes duties on commercial transactions recorded in writing, such as conveyances, bonds, cheques, bills of exchange, receipts, and the like. The following table gives the receipts and charges, province by province, for the year 1892-93 :—

	Bengal.	North Western Provinces and Outh.	Punjab.	Burma.	Central Provinces.	Assam.	India, General.	Madras.	Bombay.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Sale of court fee stamps -	1,119,393	541,025	256,631	95,715	119,378	57,124	29,598	454,355	322,180	2,205,369
Sale of commercial and other stamps.	421,441	172,256	149,326	57,184	49,159	24,065	22,534	271,426	198,459	1,374,859
Fines and miscellaneous -	3,750	1,975	4,425	2,530	494	3.7	472	10,628	54,297	79,971
TOTAL Stamp Revenue of 1892-93 - Rx.	1,554,584	715,256	410,385	155,429	169,031	81,226	52,704	736,412	573,116	4,446,549
TOTAL of 1891-92 - Rx.	1,510,046	693,515	406,930	132,398	159,503	82,083	48,087	674,737	544,534	4,253,155

The refunds of the year were Rx. 53,744, and the charges of collection came to Rx. 141,264. There was an increase in revenue of 4½ per cent. as compared

compared with an increase of 5 per cent. in the previous year, for the whole of India. Court fees still yield rather more than two-thirds of the whole stamp revenue, and general stamps yield something under one-third. The increase in the year 1892-93 accrued under both classes of the stamps; but increase in the receipts from commercial stamps has for some years been proportionately larger than under court-fees. The increase was notably large in both Upper and Lower Burma. In nearly every province there was the usual advance in the revenue from general or commercial stamps; but in some provinces, especially the Panjab, there was a decline in the revenue from judicial stamps. STAMPS.

CUSTOMS.

No change in the tariff was made during 1892-93. It will be seen from the following statement of the gross realizations from import duties that there was an increase under each main head. CUSTOMS.

GROSS RECEIPTS FROM IMPORT DUTIES.

	Arms, Ammunition, &c.	Liquors.	Opium and Miscellaneous.	Petroleum.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.
1887-88	22,370	527,792	255	13,709	564,121
1889-90	23,866	559,265	285	162,392	745,808
1891-92	—	—	—	—	—
1892-93	31,162	610,253	456	202,309	844,174

The gross receipts from export duty on rice fell from Rx. 881,957 to Rx. 743,356. The total net customs revenue, excluding receipts on salt, was Rx. 1,558,000, as compared with Rx. 1,654,000 in the year 1891-92, and Rx. 1,608,000 in the previous year.

PROVINCIAL RATES.

Provincial rates are levied for the most part on the land. They are imposed under the law to meet charges for local roads, local schools, local sanitary work, local postal arrangements, and in some provinces for village police. In the temporarily settled provinces the rates take the form of a percentage on the land revenue, and the revenue payers and tenants have to pay that percentage in addition to the land revenue. In Bengal the cesses are levied by a rate upon the rental, and are payable partly by landlord and partly by tenant. The net receipts under this head were Rx. 3,698,649 in the year 1892-93, as against Rx. 3,497,000 in the preceding year; nearly one-half of the whole pertains to the provinces of Bengal and Madras; in the latter province the system of local funds and local administration has been carried out successfully for many years. In Bengal about half of the rates belongs to the Provincial Government; in the North Western Provinces nearly one quarter is similarly credited; in other provinces the whole, or almost the whole, of the provincial rates income is spent on local objects by local bodies. The provincial rates increase with the land revenue, and in Bengal the road cess may be increased by votes of the district boards within the legal maximum, or by alteration in the periodical valuations of the rental. The provincial rates are collected punctually with the land revenue and by the same agency. PROVINCIAL RATES.

PROVINCIAL
RATES.

The following is a table of the rates and cesses collected during the year :—

	India, General.	Bengal.	Assam.	North- Western Provinces and Oudh.	Punjab.	Central Provinces.	Burma (Lower).	Madras.	Bombay.	TOTAL.
REVENUE.										
District Local Fund:	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Cess on Land for expenditure on Roads, Schools, Hospitals, and general purposes.	3,076	409,531	84,950	458,490	221,362	31,472	102,992	515,762	265,529	2,069,278
Provincial:										
Cess on Land for expenditure on Roads, Schools, &c.	—	419,426	—	32,972	—	351	—	—	—	452,849
Cess on Land for Famine Assurance, Canals, and Railways.	—	—	—	170,049	55,289	14,814	—	—	—	240,162
Cess on Land for District Post - - -	—	43,741	—	2,662	—	3,735	—	—	—	51,139
Cess on Land for Village Service and Patwaries.	3,256	—	—	236,092	128,768	45,718	—	120,742	36,396	840,872
Assessment on Wards' Estates for Establishment Charges.	—	7,668	—	—	2,917	2,357	—	—	—	13,542
Miscellaneous - - - - -	2,090	—	—	40,253	600	—	—	6,166	—	49,111
TOTAL Receipts - - -	7,422	850,466	84,950	938,531	406,966	99,427	102,082	912,670	301,924	3,706,498
Refunds - - - - -	—	1,485	17	1,393	484	48	46	2,758	1,618	7,849
Net Receipts, 1892-98 - - -	7,422	848,981	84,933	937,138	406,482	99,419	102,036	909,912	300,306	3,698,649
Net Receipts, 1891-92 - - -	6,949	849,709	84,783	937,306	398,866	99,963	99,776	746,512	303,491	3,497,374

INCOME TAX.

General.

INCOME TAX.

There was no change in the Income Tax Law [Act II. of 1886] during the year, or in the rate at which the tax was levied. The principal provisions of the Act are, that incomes derived from salaries, pensions, and interest on securities, if amounting to Rs. 2,000 per annum, should pay five pie in the rupee (2½ per cent.), and if less than Rs. 2,000, four pie in the rupee (about 2 per cent.); that companies should pay five pie in the rupee on their net profits; and that income derived from other sources should pay according to a graded scale from Rs. 10 on Rs. 500 to Rs. 42 on Rs. 1,999, the tax on incomes of Rs. 2,000 and upwards being five pie in the rupee. All incomes of less than Rs. 500 a year are exempted, and the tax is not levied on profits or incomes derived from agriculture (which are otherwise taxed under legislation imposed in 1877-78), or on military salaries of less than Rs. 500 a month.

The receipts and charges on account of income tax in each province were as follows :—

	Gross Collections.	Refunds.	Net Receipts.	Charges for Assessment and Collection.
	Rx.	Rx.	Rx.	Rx.
Bengal - - - - -	429,855	5,260	424,595	18,409
North-Western Provinces and Oudh - - - - -	231,712	2,109	229,603	1,880
Punjab - - - - -	134,953	892	134,061	1,111
Burma - - - - -	76,473	426	76,047	1,705
Central Provinces - - - - -	41,507	473	41,034	52
Assam - - - - -	23,632	43	23,589	107
India, General - - - - -	148,340	906	147,434	98
Madras - - - - -	202,844	1,560	201,284	1,741
Bombay - - - - -	383,171	3,946	384,225	5,068
TOTAL, 1892-93 - - -	1,677,487	15,615	1,661,872	30,171
TOTAL, 1891-92 - - -	1,652,823	14,726	1,638,097	29,577

The taxable minimum of income is lower than in the United Kingdom; but the average of earnings and of the cost of living is also much lower in India. The total assessment represents, in round numbers, a taxable income of Rx. 65 millions from securities, companies, trades, and professions; and this total, though not in all respects comparable, is small by the side of the total annual value of 413 millions assessed to income tax under Schedules C., D., and E. of the British Act during the year 1890. The contrast is the more marked because the population of British India is nearly six times as great as that of the United Kingdom. About three-fifths of the whole income tax revenue is paid by the provinces of Bengal and Bombay. A very large share is in each case contributed by the presidency town; Calcutta yielded one-half of the whole income tax levied in Bengal, though it contains less than 1 per cent. of the population of the province; and Bombay city, with a population of 800,000, paid Rx. 172,000 of income tax on trades and professions, as compared with Rx. 125,000 on trades and professions paid by the rest of the presidency, with a population of 18 millions, and as compared with Rx. 50,000 paid on Government salaries and interest on Government securities. From most provinces it is still reported that the income tax is an unpopular form of taxation; but the objection is rather against the levy of such a tax at all, and against the taxable minimum being as low as Rx. 50, than against the manner of its working. The proportion of income tax paid by official salaries and pensions continues to be high everywhere in comparison with the total receipts. The large number of objections against assessments, and the considerable proportion of successful objections, go to show that the persons assessed are ready and able to defeat attempts at excessive taxation on the part of assessors. The objections are almost entirely against assessments on trade and professional incomes under Part IV. of the Income Tax Schedule.

In Bengal the number of objections against assessments was 11,640, as compared with 12,388 and 15,027 in the two previous years; about 36 per cent. of the objectors were more or less successful, as in the previous year; and the final demand was 3 per cent. below the original assessments, the same proportion as in the previous year. In about two per cent. of the 103,894 assessments property was distrained, and in one-third per cent. goods were sold for the realisation of the tax. The total receipts in Bengal showed a decrease of 1·8 per cent., as compared with 1891-92. Provincial details.

In the North-Western Provinces and Oudh, out of 66,393 assessments the number of objections was 21,013; 31 per cent. of the objectors were in some degree successful, the same proportion as in the previous year; and the final demand was 5 per cent. below the original assessment, as in 1891-92. Notices of arrear were issued in 4,363 cases, and in 753 cases further coercive measures had to be taken against defaulters; in 193 cases attached property had to be sold for arrears. The total receipts showed an increase of 1·5 per cent. over the previous year. The number of persons assessed was 1½ per mile of the whole population. Of the whole tax 77 per cent. was paid by trades and professions.

In the Punjab the number of objections against 42,948 assessments under Part IV. was 11,181, of which 37 per cent. were successful, being the same proportion as in the previous year; and the final demand was 5½ per cent. below the original assessment, as compared with 7 per cent. in 1891-92. Rx. 719 of the year's demand were uncollected at the end of March. The total receipts in the Punjab showed an increase of 2¼ per cent. on the receipts of the previous year, the increase being mainly under Part IV., namely assessments on trading and professional incomes. More than 20 per cent. of the whole collections accrued on salaries and pensions. The number of coercive processes issued against was considerably smaller than in the previous year.

In Burma the income tax was applied to all Government servants and to 46 towns in the lower province; income taxpayers were exempted from capitation tax. In the year 1892-93 the number of objections preferred against 12,905 assessments under Part IV. was 3,862, of which 62 per cent. were more or less successful; and the final demand was 9 per cent. below the total of the original assessments. In 729 cases warrants were issued against defaulters, as compared with 2,161 in 1891-92. Of the whole income

INCOME TAX.

tax revenue in Burma in 1892-93, 55 per cent. was paid on salaries, pensions, and profits of companies. The total receipts of the year 1892-93 were Rx. 4,000, or 6 per cent. larger than in the previous year.

In Assam the yield of the tax was 1 per cent. less than in the previous year. The number of objections was 1,372, against 5,543 assessments under Part IV. ; 572 objections were successful in whole or in part ; and the final demand under Part IV. was 10 per cent. below the original assessment. Processes for the realisation of arrears increased 14 per cent. ; but in only 10 cases was the property of defaulters sold for arrears, against 16 in the previous year. The proportion of collections on salaries and pensions under Part I. paid by Government was 18 per cent. ; on salaries paid by companies under Part II. it was 37 per cent. ; and on trades and professions under Part IV. it was 42 per cent.

Against 54,334 assessments in Madras 21,379 objections were preferred, of which 32 per cent. were more or less successful, and the final demand was $8\frac{1}{2}$ per cent. below the original assessments, as against $7\frac{1}{2}$ per cent. in the two previous years. Of the total number of assessments 91 per cent., and out of the total demand $51\frac{3}{4}$ per cent., were on account of incomes below Rx. 200 a year. In 29,765 cases notices had to be issued against defaulters, but in only 160 cases was any property sold or further action taken on account of arrears. Only 5 per cent. of the revenue due remained unrealised when the report for the year was submitted. The demand for the year showed an increase of $7\frac{1}{2}$ per cent. over that for 1891-92 ; nearly the whole of the increase accrued under Part IV. (Commerce and Trade) of the Act ; and 69 per cent. of the total demand came under that part. The assessments fell at the rate of one in 529 on the whole population.

In Bombay the number of persons originally assessed to income tax was 8,192 ; from 13 to 31 per cent. of the persons assessed in different parts of the presidency objected to the assessments ; from 3.4 of the objections in Sindh to 5.4 of the objections in Bombay city were successful ; and the final assessments were Rx. 319,000, against original assessments of Rx. 335,000.

Of the total increase Rx. 10,270 accrued in Bombay city, and Rx. 5,199 of this was due to the large profits made by the railways on the great wheat traffic of 1892. In Bombay city, notwithstanding a serious depression in trade and great fluctuations of exchange, there was a decrease of only Rx. 800 in the collections under Part IV. (Commerce and Trade) of the Act. In all divisions of the interior of the presidency the collections showed some increase over the previous year. Almost the whole of the tax was collected without difficulty.

CHAPTER VI.

SURVEYS AND SETTLEMENTS.

THE work of "The Survey of India" is divided under five heads, SURVEYS AND SETTLEMENTS. namely:—

- | | |
|---------------------------------|--------------------------------------|
| 1. Trigonometrical Survey. | 3. Cadastral Survey. |
| 2. Topographical Forest Survey. | 4. Special Surveys and Explorations. |
| 5. Map Productions. | |

The account given below of progress under heads one, two, four and five relates to the work of the season 1891-92.

Out of 21 survey parties, and six small survey detachments, employed during the year, only one party was engaged on trigonometrical work. Trigonometrical. Triangulation was effected in Upper Burma for a distance of 195 miles and over an area of 4,300 square miles; nine principal triangles were completed, and seven principal stations were newly fixed, besides six stations in the secondary series that were begun. It was found that the latitude and longitude of Mandalay, which had been previously determined by Major Hobdoy's astronomical observations, were wrong by 3.5" in latitude, and 1.2" in longitude, an extremely small error.

Three parties, and two detachments, were engaged on topographical work, Topographical. and accomplished in all 9,909 square miles of topographical survey, as against 10,193 in the preceding year. Party No. 10 completed 1,692 square miles of survey in the southern Mahratta country, and 841 square miles in Guzerat, of which province the survey was completed; in both tracts parts of the area were mountainous and clad with forest. Party No. 15 effected a detailed reconnaissance for a line of railway communication between Kurrachee and Kharan; another carried the triangulation of the Mekran series to the borders of Persia, following the 26th parallel of north latitude; while the third and fourth section effected topographical surveys of small special areas, and brought up arrears of map work. The total out-turn by the party was 12,418 square miles of triangulation, 19,084 square miles of geographical survey, and 629 square miles of topographical work. A detachment effected 765 square miles of topographical survey in the tin-bearing lands of Mergui to the south of Burma, besides making surveys of 81 separate tin mines. A second detachment effected the triangulation of 7,000 square miles, and a topographical survey of 4,426 square miles of country behind Aden; the area is roughly a semi-circle, with a radius of about 70 miles, described with Aden as a centre, and extends from the coast to the borders of Turkish Arabia. Party No. 18 surveyed 245 square miles of State forests in the district of Kangra, and 284 square miles in the Native States attached to the Simla district.

Four parties were, as in the previous year, employed in mapping the forest reserves. Party No. 14 carried on surveys in the Hoshungabad and Nimar forests of the Central Provinces; they completed 483 square miles of detail survey, including classification of soils and forest growth. Party No. 17 was engaged in the reserved forests of the Poona, Thanā, Sholapar, Kolaba, and North Kanara districts of Bombay; 437 square miles of detail survey were accomplished, the short out-turn compared with the preceding year being partly due to a severe outbreak of fever among the staff. Party No. 19 was engaged in the forest reserves of Coimbatore, Madura, and Tinnevely; 659 miles of detailed survey were accomplished, a larger out-turn than in any previous year; the cost per square mile came down to 97 rupees, against 112 rupees, and 162 rupees in previous years. Party No. 20 effected the survey of 294 square miles of reserved forests in the Toungoo district of Burma. Detachments surveyed 327 square miles of forest in Jalpigoree, and 45 square miles in the Simla Hill States. The whole area of forest surveys accomplished by all these parties during the year was 2,245 square miles, against 1841 square miles in the previous year.

Cadastral Survey. The work of the cadastral and traverse survey parties is noticed below under each of the provinces where they were employed.

SURVEYS AND SETTLEMENTS.
Geodetic. The geodetic work of the year consisted of the measurement by electro-telegraphic observations of six longitudinal arcs in northern, central, and southern India. The Surveyor General reports that this work has now been completed for continental India. Similar work for Burma and Baluchistan can be undertaken at some future date.

Map printing. The demand for and the production of maps by the Survey of India continues steadily to increase. The number of new maps published during the year was 7,532, of which 4,956 were cadastral maps. In all 853,947 copies of maps and plates of different kinds were printed off during the year, besides 1,318,597 impressions from type. Among notable new maps of the year were an elaborately coloured geological map of India; a coal map of India; and various new railway maps.

Tidal and levelling operations. The recording of tidal curves by self-registering tide gauges, their reduction, and the publication of tide tables were continued during the year at 14 stations, of which six are permanent and eight are temporary for five years. Two old stations were closed, the five years' observations having been completed; and no new ones were opened during the year. At five tidal stations personal observations were taken daily, to compare actual heights and times of high and low water with those predicted in the published tide tables. The total number of ports treated since 1877, for which tide tables are issued, is 31. The Port Blair self-registering station was destroyed by a cyclone, but was re-established within three months. So far as predictions of high water were concerned, 94 per cent. of the entries in the tables were correct within eight inches of actual heights at open coast stations, and 66 per cent. at riverain stations; while as to time of high water, 76 and 68 per cent. respectively of the entries were correct within 15 minutes. All the observatories except Kurrachee were inspected during the year; and steps were taken to introduce improvements at nine stations.

Levelling operations were prosecuted from Malkhed on the Great Indian Peninsula Railway to Nagpore, thence to Bilaspur on the Bengal-Nagpur Railway, and on to Sakti. There were 452 miles of double levelling accomplished; while the heights of 529 permanent bench marks and 12 stations of the Grand Trigonometrical Survey were determined. This work was considerably more than the previous season's out-turn. The heights previously determined by the Public Works Department were found to be $4\frac{1}{2}$ feet below the true level of 1,025 at Nagpore, one foot below the true level of 999 at Raipur, and 2 feet below the true level of 872 at Bilaspur.

Explorations. Parties Nos. 11 and 21 continued their geographical surveys in Upper Burma; and sent detachments with various expeditions or political missions that traversed parts of Burma or the adjacent regions. They surveyed on the $\frac{1}{4}$ inch to the mile scale 42,077 square miles in the Upper Chindwin, Yeu, Ruby Mines, Bhamo, and Katha districts, and in the Shan States, Karenni, and the Hukong Valley. Another season will probably see the close of the first survey in Upper Burma, as few gaps are now left in its topography; work with boundary commissions and with expeditions on the frontier or among hill tribes will however remain to be done.

Marine Survey. The survey vessel "Investigator" with one boat party was employed on marine surveys throughout the open season of 1892-93, the staff being employed in the Chart Office during the rainy months. The principal coast survey work was off the Laccadive and Minikoy Islands, in the Bombay harbour, and on the east coast from the neighbourhood of the Kistna to Pennair. The 20-fathom line was in places at a distance of 22 miles from the shore, and a very large amount of sounding and buoy-shifting was needed. Several new shoals were found and marked; the beacon off Pennair had disappeared with the island on which it stood; and the river mouth had shifted northward greatly, since the date of the previous survey in 1848. The naturalist's report mentions some interesting results of several hauls of the deep-sea trawl off the Malabar and Coromandel coasts; the deepest was at 753 fathoms; but the more remarkable specimens were from hauls of 475 and 559 fathoms at longitude 72 degrees and 81 degrees respectively, and at latitude 150 degrees in either case.

During

During the year 1892-93 meteorological observations were recorded at 174 stations, stretching from Bagdad and Aden on the west to Dibrogar, Bhamo, on the east, and from the Peshawur border on the north to Galle in Ceylon, the Nicobar and Minicoy Islands, and Mergui on the south. The principal new observatories of the year were in the Native State of Mysore, in Burma, on the Thibet border at a point 11,500 feet above the sea, in the Shan States, and at Teheran and Ispahan on the Indo-Persian telegraph line. Arrangement was also made for reports of snowfall from Kabul and places in the Himalayas. Of the 174 observing stations,—

SURVEYS AND SETTLEMENTS. Meteorology.

Four were observatories of the first class, where autographically registering instruments are kept to record rainfall, barometric, and thermometric readings, humidity, wind force and solar-actinometric observations.

Sixty-three were second-class stations, where less frequent observations are recorded.

One hundred and seven were third-class stations which record twice a day the rainfall, the thermometric maxima and minima and the range of the barometer.

These observations are communicated in some cases by telegraph to the headquarters of the Meteorological Department, the chief officers of which are responsible for inspecting observatories and stations, so that instruments may be kept in good order and observations may be faithfully recorded; the Department also undertakes the publication of storm warnings, seasonal forecasts, and periodical compilations of meteorological results. Besides the data furnished by the observatories described above, returns are kept of the rainfall at 2,049 stations; and the Meteorological Department examined and tabulated during 1892-93 the observations in 954 logs of vessels entering Calcutta and Bombay.

The forecast of the probable rainfall for 1892 was founded mainly on information regarding the snowfall on the mountain region to the north and north-west of India, on the distribution of barometric pressure in India and over the Arabian Sea during the month of May, as compared with the meteorology of previous years. The forecast predicted a rainfall below the average in parts of Southern India, in Rajputana, and in Eastern Bengal, and on the Kathiawar coast, but a nearly normal rainfall elsewhere. It is claimed that the actual rainfall showed a fair, and on the whole a satisfactory, agreement with the forecast, excepting that the rainfall was unusually heavy in West Bengal, Western Rajputana and Sind. The average and actual rainfall from June to October in the 12 regions into which India has been divided were as follows:—

Name of Province or Tract.	Actual Rainfall of June to October 1892.	Average Rainfall for the Five Months.
	<i>Inches.</i>	<i>Inches.</i>
Burma - - - - -	118	118
Assam and Bengal - - - - -	57	57
North-Western Provinces and Oudh - - - - -	36	34
Punjab (plains) - - - - -	22	15
Rajputana and Central India - - - - -	32	27
Central Provinces and Berar - - - - -	52	44
Madras - - - - -	35	27
Bombay (North) - - - - -	31	25
Bombay and Malabar Coast Districts - - - - -	62	55

SURVEYS AND
SETTLEMENTS.

The year was not a stormy one, only two severe storms were observed in the Bay of Bengal, one early in June, and one in the middle of October. The latter cyclone did great harm at Port Blair and then crossed rapidly over to Coconada on the Madras coast. Warning is said to have been given of all considerable storms that visited India or Burma during the year, and this part of the work gave satisfaction to the public; no warning to Port Blair of the October cyclone was possible. The system of flood warnings to canal officers was found to be useful; 162 such warnings were issued by the Meteorological Department during the year. The usual daily weather reports and charts, weekly weather reports published in the official gazettes, and the monthly weather report giving a summary of the weather and the variations from normal conditions, were published regularly.

The proportion of stations inspected and instruments verified by officers of the Meteorological Department was larger than in the preceding year. Forty-four observatories were found to be "satisfactory in every respect;" 18 were said to be "in good order"; and 11 were in an unsatisfactory condition.

Geological Survey.

The operations of the Geological Survey during the year 1892-93 were mainly confined to extra-peninsular India, more especially to the Panjab, Beluchistan and Burma. The examination of the rocks, the identification of fossils and strata, and the completion of the geological map were prosecuted and large gaps were filled in the provinces mentioned above.

The economic work performed by the survey during the year began with the examination of the various coal outcrops near Quetta, in the Harnai valley, and on the Khost side of Beluchistan. Further inquiry showed grounds for a more sanguine opinion than had previously been held of the future of coal in Beluchistan; a good deal of fair coal has been found at a workable level, near to the railway line; and probably much more exists in the neighbourhood, though the coal basin is much broken up by faults and folds, and the coal has in places been carried away by denudation. Parts of the salt range in the Punjab near the Dandot colliery were tested by borings and detailed survey, with the result that further coal was proved, with an available output of probably over a million tons, provided working can be carried to a sufficient depth along the dip. In the Tenasserim valley of Lower Burma further available supplies of coal were found; but the coal can be carried to the sea only by specially constructed barges in a shallow and difficult river, while a railway to these coal sources does not appear practicable. In Upper Burma, coal indications, gold sources and lead mines were investigated in parts of the Katha district. In Wuntho seven different places were shown where the natives used to dig for gold; but so far no workable reefs were found, though the geological surveyor reported that gold had in past times been cleverly worked by the people from the débris of quartz infiltrations into the schistose rocks. No trace was discovered of any quartz having been pounded up for gold washing. In the Pinlebu subdivision a considerable quantity of coal was available; but it was situated 32 miles from the nearest railway station, and for the present cannot be successfully exploited. In the same locality large deposits of lead ore were found, yielding on assay 69 per cent. of lead; it had been worked to a considerable extent by the Shans in former years.

SETTLEMENTS AND CADASTRAL SURVEYS.

SETTLEMENTS
AND CADASTRAL
SURVEYS.
General

The term "Settlement" is applied in Indian revenue affairs to the process of assessing the land revenue demand. Occasionally in newly acquired or specially backward tracts, the land revenue is assessed for a short term of years on a general review of the circumstances and capabilities of the land and people concerned; such a process is called a summary settlement. But a regular settlement is a more complicated affair, and consists of many stages. In the first place every separate estate or holding is demarcated by permanent marks on the ground; and disputes between neighbouring right-holders are investigated and decided. Every estate or holding is then surveyed and mapped, all boundary marks, wells, and buildings being shown on the field or cadastral maps. Sometimes these field surveys and maps are made by trained professional

professional surveyors belonging to the Survey department. When the field surveys are made by local or village surveyors, such agents are trained by, and their work is independently tested by, professional surveyors. The work of the professional survey, whether cadastral maps or traversing, rests on, and is checked by, the independent scientific work of the Grand Trigonometrical and Topographical Surveys. After the field maps are prepared, the next process is to classify each field according to its productive value, as evidenced by its soil, by the amount of its produce, or by the rent it pays. A record is at the same time drawn up of all rents paid, and of all rights, whether landlord rights, or tenant rights, or rights of user, over all the ground, buildings, wells, and trees shown in the map. Then the assessing officer (or settlement officer, as he is often called) compiles the information obtained for all the lands in a circle of villages; and on a review of all these data, of the past fiscal history of the tract, of the range of prices, of the accessibility of markets, and of other general considerations, he proposes rent rates or revenue rates for the several classes of lands in the circle. In the determination of rent rates or revenue rates for any tract, the rainfall, the sub-soil water level, and irrigation facilities are important factors; but improvements made by the owners or occupiers themselves, are not held to enhance the assessable value of the land. The rent rates or revenue rates proposed by the settlement officer, and the grounds on which they were based, are then investigated by a superior officer, and are not adopted until they have been accepted or modified by him.

In provinces where the zemindari tenure prevails, that is, where single proprietors or proprietary brotherhoods possess large estates of several hundreds or thousands of acres, the State revenue is assessed at an aliquot part (usually about one-half) of the ascertained or assumed rental. The revenue, though it is fixed with reference to acreage rates on the land actually cultivated, is assessed on, and is payable by, each estate as a whole; the assessment remains unchanged for the 30 years or other period of the settlement; the proprietor can bring as much as he likes of his waste or fallow land under the plough; and it is only on re-assessment at the end of the term of the settlement that the State obtains any increase of revenue on account of the extensions of cultivation during the settlement period. In provinces where the ryotwari tenure prevails, that is where each petty proprietor holds directly from the State, generally cultivates his own land, and has no landlord between himself and the Government, the revenue is separately assessed at an acreage rate on each petty holding, and land revenue becomes payable at once, or after a short term of grace in the case of uncleared lands, on all extensions of cultivation. The ryotwari proprietor is at liberty to throw up his holding or any portion of it at the beginning of any year after reasonable notice; the zemindar or large proprietor engages to pay the revenue assessed upon him for the term of the settlement.

After the revenue is assessed and the assessment is sanctioned, copies of the field map, of the schedule of fields, and of the record of rights are made; one copy is given to the proprietor; one copy is lodged in the district court-house; and usually a third copy is placed in the sub-divisional or tahseel office. Through the agency of the local officials of each village or circle the field maps and record of rights are corrected or written up year by year, so as to make them at all times faithful accounts of current rural facts and circumstances. When revisions of assessment are undertaken, at the end of the settlement, the village maps and records serve, after adequate testings and corrections, as the basis for re-assessment; and in this way a re-settlement is a shorter and less costly affair, and causes much less harassment to the people than is involved in an original settlement. At the present time re-settlements have been practically completed in Bombay, and are being made in many districts of the Punjab, the North-Western Provinces, and the Central Provinces; also in parts of Bengal and Assam. Original settlements are still being prosecuted in Madras and Lower Burma, but are now finished in Sind. Re-settlement is beginning in Berar, and has begun in Oudh; while in Upper Burma the settlement of the land revenue has been begun.

In Bengal cadastral surveys and settlements were in progress in the three districts of Orissa, in Chittagong, in the Dooars, and on some hundreds of petty estates and plots in different parts of the province. In the temporarily settled

Bengal.

districts cadastral surveys were effected over 2,775 square miles, at a cost of Rx. 16 per square mile. Field maps and records were completed for the Puri district, and are making progress in Cuttack and Balasore; the total area as yet cadastrally surveyed in Orissa was 4,105 square miles, and the attestation of holdings had been completed over 1,512 square miles; no revised assessments had been framed by the end of the year. The total cost of the Orissa survey and settlement had reached Rx. 102,000 by the 31st March 1893. The settlement of Angul, which had formerly been a tributary State, was completed at a total cost of Rx. 19,100 for an area of 881 square miles; the increase of revenue (Rx. 2,685) due in 1892-93, the first year of the new settlement, was realised in full, and in only one case had any process to be issued for arrears. In Chittagong the work of attesting the records of holdings was in progress; altogether 2,605,827 holdings have to be recorded, of which three-fifths have been completed. On only one estate was the rental fixed before the end of the year. The cost of the Chittagong re-settlement and survey up to March 1893 had been Rx. 78,000. In the Dooars the settlement is approaching completion; the cadastral survey has cost Rx. 48 per square mile, and the operations had cost Rx. 49,500 up to the end of the year. So far as the latest reports show, the revenue of the tracts assessed has been increased by Rx. 8,300, or 61 per cent. The other settlements were mostly of a petty character; their cost was Rx. 7,196 during the year. The Board of Revenue report that the increase of the year 1892-93 on the Bengal land revenue demand, due to revision of settlement in tracts excluded from the permanent settlements, had been Rx. 21,000, instead of Rx. 19,700, as estimated at the end of the previous year.

In the North-West Provinces and Oudh the re-settlement of the Mozuffarnagar district was finally closed, the cost being Rx. 26,500; the assessments sanctioned during the year yielded an increase of Rx. 6,600, or 19 per cent. on the previous demand. The re-settlement of Jhansi was finally completed after the close of the year, in January 1893; it had cost Rx. 20,300; the revised revenue of the whole district yields an increase of Rx. 6,400, or 13 per cent. on the old demand. In Gurhwal good progress has been made, and it was decided not to extend the costly cadastral survey to the wilder parts of this hilly region. The Kumaon re-settlement is nearly complete; the increase secured in the revenue demand will be Rx. 3,800, and the total cost of the work up to date was returned at Rx. 1,327. In the Unao district settlement work is making fair progress; revised assessments of six tracts had been framed, of which three were sanctioned during the year, yielding an increase of Rx. 6,577, or 18 per cent. on the previous demand; the total outlay to the end of the year was Rx. 14,900. In the Partabgarh and Rae Bareilly districts the work of correcting the village papers and maps was pushed on during the year, and assessments for one tract were framed. In the districts of Budaon, Barabanki, and Sultanpore settlement work was begun in October 1892, after the close of the year noticed in this paragraph.

The rent-rolls for all districts of the North-West Provinces and Oudh show that the rental demand of the year 1890-91 was Rx. 12,016,000, out of which the landlords realised Rx. 9,751,000 during the year, besides Rx. 1,097,000 on account of arrears of previous years. The rent-rolls include only the reduced rents paid by privileged tenants, and include no computed rents on account of lands cultivated by proprietors. The cultivated area is approximately held thus:—

	N.W.P.	Oudh.
	Acres.	Acres.
By cultivating proprietors - - - -	6,100,005	962,122
„ privileged tenants - - - -	893,863	392,284
„ ryots with occupancy rights - - -	10,805,858	257,457
„ tenants at will - - - -	8,857,239	7,366,276
„ rent free - - - -	434,105	283,715

If the rent rates paid by tenants at will were applied to the total area of the cultivated land the gross rental would amount to Rx. 15,337, or more than 2½ times the Government demand.

No part of the imperial Survey Department was employed on revenue or cadastral survey in the Punjab during the year. In three districts, Hissar, Gurdaspur, and Ferozpur, settlement work was completed during the year; and settlements were in progress in parts of ten districts at the close of the year: As was mentioned in a previous Statement, the work is being done as expeditiously and economically as possible; and no general re-survey is attempted, though on some estates and on occasional tracts the existing field maps are so incorrect as to necessitate a fresh survey.

In Lahore assessments have been completed and have been introduced into half the district; the work has lasted 4½ years, and has cost Rx. 30,200. In Amritsar the new assessments have been completed and have taken effect in two-thirds of the district; the enhancement was 32 per cent. on the old demand; and the new revenue was paid "without much difficulty, even though the harvests were poor;" the work had cost Rx. 25,000, and was nearly finished. In Sealkot assessments had been framed for two-fifths of the district; much work remained to be done, and the settlement had cost Rx. 25,000. New assessments have been completed in Gujrat and collected in part of the district; the work has cost Rx. 20,000, and has yielded an increase of Rx. 15,000, in the yearly revenue. In Gujeranwala the work is nearly completed; it has cost Rx. 25,000, and will yield Rx. 15,000 of enhanced revenue. In Kangra the settlement is nearly complete; it has cost Rx. 28,000, and has yielded an additional revenue of Rx. 9,700. In Shalipur the settlement is nearly complete and will have yielded Rx. 20,000 of enhanced revenue. In Montgomery, Peshawur, Dera Ghazi Khan, and Kohat the re-settlement was begun during the year.

In Lower Burma one party of the Imperial Survey was employed on the cadastral survey of the Amherst and other Tenasserim districts; this party effected 896 square miles of cadastral work, or 176 square miles more than in the preceding year. A second party was engaged on the topographical survey of Mergui. A detachment of this party effected also 610 square miles of topographical survey in the northern and 679 square miles in the southern districts of Tenasserim. The forest survey party completed 326 square miles of work in the reserved forests of Toungoo. The land revenue of part of the Amherst district, comprising 366 square miles, was settled during the year, with the result that Rx. 6,487 were added to the land revenue demand. The area under supplementary survey,—that is the area for which the field maps and records are tested and corrected yearly, increased from 14,002 to 16,830 square miles; the area included 4,226,615 acres of rice, and 301,207 acres of garden land, and the cost of the work was Rx. 12,300 during the year. The area sold during the year was 280,000 acres against 263,000 in the previous year; the area mortgaged was 113,000 acres against 63,000; and the area redeemed from mortgage was 49,000 acres against 35,000 in the previous year. The average price paid for land increased in every district. The area sub-let to tenants was 722,000, or 16 per cent. of the whole land under survey. The area of waste granted with temporary exemption from revenue was 141,000 acres against 113,000 and 67,000 acres in the two previous years.

Two cadastral survey parties in Upper Burma effected the survey of 1,766 square miles in the Shwebo and Yen districts, and 1,143 square miles in Minba and Magwe districts. The topographical and geographical work done by the survey department in Upper Burma during the year amounted to over 28,000 square miles. After the close of the year orders were passed on the settlement reports of State lands in the Kyankse and Mandalay districts. Settlement operations were begun during the year in the Sagaing, Minbu, and Meiktila districts.

In the Central Provinces cadastral survey has now been nearly completed everywhere except in the zemindarees, or chiefships, and in a part of Mandla. During the past five years 38,900 square miles have been cadastrally surveyed, and 17,300 square miles have been assessed at a total cost of Rx. 229,000, or 9 per cent. less than the amount estimated at the beginning of the period. The number of fields in the surveyed area has been 14½ millions,

SETTLEMENTS
AND CADASTRAL
SURVEYS.

of an average size of $1\frac{3}{4}$ acres. The increase in revenue gained by the assessment has been greater than was expected. It was specially large in Chutteesgurh and the Nerbudda districts, where rentals had increased greatly during the previous 30 years; the increase was smaller in the Nagpore territory, where the ryots had held their own and rents had not greatly advanced. An adjustment of all rents had been a necessary part of every settlement; in the tracts where rents were high rents have not risen more than 5 per cent. at the adjustment now made; in Nagpore on the other hand they have been raised 14 per cent. In parts of Jubbulpore rents have been lowered at the settlement, and the Government demand has been assessed on the reduced rental. The local Government remarks that "the ease and completeness with which the demand has been collected in the three districts of Chutteesgurh and Mandla furnish satisfactory testimony of the moderation of the Revenue Settlement recently effected in these districts, and of the success with which very substantial increments have been equally distributed, so that the burden sits lightly on the people, even in years of partial failure of the crops."

ASSAM.

Cadastral surveys were completed in the Assam Valley in August 1892, and the survey party was transferred to the Surma Valley. During the year the cadastral survey was effected of 825 square miles, of which 492 belonged to the Sylhet district. The final preparation and closing of cadastral work in the Assam Valley was to take place in September 1893. The survey results for the year gave an increase of $11\frac{1}{2}$ per cent. in the previous revenue. Revision surveys were completed over 874 square miles in four districts of the Assam Valley and in Sylhet. The cadastral survey of the Assam Valley has yielded on the whole an increase of Rx. 17,400 in the land revenue, or 8 per cent. on the cost of the operations; the cost per square mile has been gradually reduced from Rx. 49½ in 1883-84, the first year to Rx. 16 in the last year of the work. This increase of revenue is altogether apart from the enhancement of the land revenue rates, the results of which measure will be shown in next year's Statement.

Madras.

In Madras four parties were employed on original cadastral surveys, and two parties on re-surveys during the year 1892-93. The area of original survey effected during the year was 2,356 square miles, or 16 per cent. more than in the previous year; the cost was Rs. 179 per square mile against Rs. 260 per square mile in 1891-92. The area of re-survey in three districts, namely, Trichinopoly, Kistna, and Godavari was 2,335 square miles, and the cost was Rs. 45 per square mile; the out-turn of re-survey work was 60 per cent. above the previous year, but was below the estimate because sufficient village accountants (*karnams*) had not been made available for the duty. In only three districts, and for an area of 3,736 square miles, is any original survey left to be done, and it is expected the original survey of the Madras Presidency will be completed by 1895. The number of copies of survey and other maps struck off during the year was 294,149, or nearly 50 per cent. above the out-turn of the preceding year. The cost of the survey during the year was Rx. 58,128; and the total outlay on survey and settlement, since operations began in 1858, has been Rx. 3,110,000; while the increase of revenue secured has been Rx. 405,000, or 13 per cent. on the outlay. This does not include the increase yielded by the re-settlement, which is now in progress in three districts; the re-settlement in the Tanjore district alone is resulting in an addition of Rx. 110,000, or 30 per cent. to the land revenue. The settlement officer reported that a much larger increase would have been fairly demandable, but the Government decide to limit the enhancement to 11 lakhs. Compared to the value of the land and to the rents realised by landholders (*mirasidars*), the new revenue of Tanjore is believed to be moderate.

Bombay.

In Bombay three parties effected cadastral surveys of 1,196 square miles, at a cost of 157 rupees per square mile, and classified 5,729 square miles at an average cost of 35 rupees. The cost was higher than in the previous year, because less work was done in the Deccan, where operations are cheaper. The Sind Survey Department surveyed 490 square miles of arable land, and the forest survey was completed over 446 square miles. In Bombay much of the work consisted of revision survey, for which testing and correction of old surveys, rather than complete re-measurement of all lands, are mainly required.

Settlement operations resulted in the sanctioning of revised assessments, by which the old demand of Rx. 194,600 was raised to Rx. 253,100, an increase of

30 per cent. The increase was justified by the rise in prices, the improvement in communications, and the increase of agricultural well-being that had taken place since the former settlement of 30 years back. The total increase of revenue secured by the settlement revision operations in Bombay up to October 1892 came to Rx. 313,000 a year, or 33 per cent. on the former demand; this increase is outside the yearly increment of revenue due to the extension of cultivation. The cost of the revision operations, exclusive of work in Sind, has been Rx. 523,700. In Sind the settlement has been completed; only a small establishment is retained to measure new land taken up for cultivation, and to keep the village maps and registers up to date.

VII.

LAND REVENUE, INCLUDING FISHERY RECEIPTS AND
CAPITATION TAX, AND WARDS' ESTATES.

LAND REVENUE.

THE subjoined table shows the receipts and disbursements on account of land revenue for each province, as entered in the public accounts for the year 1890-91; also the net land revenue for the past two years.

DETAILS of LAND REVENUE and EXPENDITURE.

	Bengal.	North West Provinces and Oudh.	Punjab.	Burma.	Central Provinces.	Assam.	India, General.	Madras.	Bombay.	TOTAL.
REVENUE.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Ordinary Land Revenue -	3,759,400	8,999,415	2,223,834	1,037,792	89,483	433,191	125,327	5,041,190	3,841,066	23,045,474
Sale of Proprietary Right of Government in Land.	302	165	48	—	—	—	84	633	—	1,332
Assessment or quit-rent of alienated lands.	7,409	—	20,606	—	—	—	—	—	874,683	1,002,698
Sale of Waste Lands and Redemption of Land Revenue.	2,934	65	3,008	9	—	841	2,260	1,456	—	10,737
Capitation Tax or House Tax levied in lieu thereof.	1,850	—	—	377,441	—	—	1,471	—	—	380,762
Receipts for the Improvement of Government Estates.	47,370	—	—	—	—	—	—	—	—	47,360
Fisheries and other Receipts classed as Miscellaneous.	30,354	45,267	108,940	200,337	5,556	38,918	9,923	114,628	28,283	582,209
Upper Burma Receipts, apart from Land Revenue proper.	—	—	—	557,331	—	—	—	—	—	557,331
Total Gross Revenue Rx.	3,849,609	9,044,912	2,356,434	2,267,657	695,038	472,950	139,065	5,167,847	4,644,122	25,627,634
Deduct portion credited to Public Works.	—	117,496	13,725	—	—	—	—	806,773	84,309	722,306
Total in Revenue Accounts } - Rx.	3,849,609	8,927,416	2,342,709	2,267,657	695,038	472,950	139,397	4,661,073	4,559,813	24,905,328
Corresponding Total for previous Year } Rx.	3,867,967	8,930,886	2,321,461	2,142,036	701,507	466,900	138,673	5,350,758	4,445,596	23,965,774

In India the State, or the monarch, has always enjoyed a share in the rent or profits from the land. This revenue is levied according to an assessment fixed on estates or holdings. The assessment was fixed permanently 100 years ago on certain tracts paying about Rx. 4,311,000 a year; and it is fixed periodically, for terms of 12 to 30 years, over the rest of India. On large estates, ranging from a few hundred to many thousand acres each, the assessment, periodically fixed, is a share, generally about one-half, of the rental enjoyed by the proprietors; on small estates cultivated by peasant proprietors the assessment is levied on the cultivated area at a rate per acre fixed with reference to the productiveness of the land, and representing about one-half of the estimated letting value. The permanently settled tracts comprise the greater part of Bengal, about one-fourth of Madras, and certain southern districts of the North West Provinces. Of the temporarily settled tracts, the North West Provinces, the Punjab, Oudh, the Central Provinces, and Orissa mainly contain estates held by proprietary brotherhoods or large proprietors; while in Bombay, Burma, Assam, and Berar, and in the greater part of Madras, the land is held and tilled by petty proprietors. In the permanently settled tracts of Bengal the land revenue falls at about two-thirds of a rupee per acre of cultivated land, and represents on an average about one-fifth of the rental,

or perhaps one twenty-fourth of the gross value of the produce; in similar tracts of the North West Provinces the incidence of the land revenue is somewhat higher. The average advantages of soil and climate are on the whole greater, and the prevailing rates of rent are on the whole higher, in the permanently settled than in the temporarily settled tracts. In the latter tracts the land revenue represents something less than one-half of the actual or estimated rental, and is probably about one-tenth to one-twelfth of the gross value of the produce. Rates of rent and revenue vary greatly according to the productive power of the land, according to the advantages of climate and rainfall, and according to the facilities for carrying produce to markets or to the sea-board. Payment for water, supplied by State canals or reservoirs for purposes of irrigation, is made either according to the area irrigated or according to the quantity of water used; but the State demand on any land is not enhanced on account of increased productiveness due to improvements made by the proprietors or occupiers themselves.

The gross land revenue of the year 1892-93 shows an increase of Rx. 940,000, as compared with the previous year; but the receipts for 1891-92 were adversely affected by the drought in Southern India, where Rx. 500,000 of land revenue had to be remitted or suspended. On the whole the tendency of the land revenue is to increase gradually and slowly, partly from periodical revisions of the assessment rates after a period of advancing prices, and partly from extensions of cultivation. The increase during the last six quinquennial terms may be thus shown:—

Period of Five Years from	Average Yearly Land Revenue Receipts of the Period.
	Rx.
1861-65	19,931,000
1866-70	19,990,000
1871-75	20,965,000
1876-80	21,114,000
1881-85	22,122,000
1886-90	23,432,000
Three years, 1890-93	25,007,000

A part of the increase during the last period was due to the acquisition of Upper Burma, which yielded Rx. 167,000 of land revenue in the year 1886-87, and Rx. 662,000 in the year 1892-93.

The progress of the land revenue, the condition of the landed classes, and the relations of these classes to each other are now noticed province by province.

The seasons of 1892-93 were on the whole favourable in Bengal; the autumn crops gave a full average yield, and were estimated to cover 15½ million acres; the great winter rice crop was returned at over 30 million acres, with an average yield of seven-eighths of a full crop; the spring crops covered a larger area than in the previous year, and gave seven-eighths to a full yield. There was a good jute crop; but the indigo yield was poor. Prices of food grains continued high.

The land revenue demand showed an increase of Rx. 21,015, owing to the conclusion of settlements; and the collections on account of the current year's demand showed an increase of Rx. 3,408; the proportion of collections to the total demand was 95½ per cent., and 99½ per cent. to the current demand; the collections were not so punctual as in the previous year. Remissions to the extent of Rx. 8,655 were granted, chiefly on Government estates occupied by ryots in Midnapore. The uncollected arrears at the end of the year were

LAND REVENUE.

Rx. 161,250, or Rx. 13,098 larger than in the previous year. Sales of land for arrears occurred in 1,355 cases, out of 16,913 cases in which land became liable to sale under the law. The estates sold were mostly small and of little value; the total arrears due thereon were Rx. 4,764, and 41 estates were bought in by Government for a total price of Rx. 4½. In 146,572 cases, against 159,700 in the previous year, arrears of public demand other than land revenue were taken into court under the certificate procedure, with the result that in 75,976 cases property was attached, in 6,380 cases attached property was sold, in 1,785 cases warrants for arrest were issued, and in 63 cases defaulters were actually sent to jail. The Government have directed, that hereafter no defaulter shall be sent to prison unless there is good ground for believing that he has concealed his property. About half of the certificates were filed on account of arrears of the road cess; and the arrears of this class of business at the end of the year were smaller by 13,777 cases than at the end of 1891-92.

Revaluations of the rental for the purposes of the Road Cess Act were completed during the year in 17 districts. The total demand of the year for the road and public works cesses was Rx. 809,101, showing an increase of 2 per cent. over the previous year; and the collections were considerably more punctual than in the preceding year. The registration of landowners has now been completed for the whole of Bengal except the district of Cuttack; and the percentage of transfers by succession or otherwise that were registered was 5.5 on the total number of interests registered under the initial registration; the corresponding percentages in each of the two previous years was 5.7.

The relations between landlords and tenants were reported to be on the whole satisfactory during the year. From some districts instances of strained relations and of discontent on the part of the ryots are reported; from Midnapore difficulties are reported among the tenants of a European firm which is pressing to the utmost its legal rights against anyone who refuses to grow indigo; in Faridpore and Backergunj there is much ill-feeling, and in two cases murders resulted; from Monghyr rioting and serious trouble are reported on four estates; but in other districts previous disputes have been amicably settled or are quieting down. The making of a survey and a record of rights under the Tenancy Act has settled obstinate and protracted disputes in several districts. The Bengal Tenancy Act, which has now been more than seven years in force, is said to be working smoothly. The Act came into force at the end of 1885; and the returns of suits under the rent and tenancy laws of Bengal for recent years show:—

1884	-	-	-	-	179,776	total suits under the Rent and Tenancy Law.
1887	-	-	-	-	189,387	" " "
1889	-	-	-	-	201,651	" " "
1891	-	-	-	-	204,250	" " "
1892	-	-	-	-	223,305	" " "

During the year 54 landholders applied to have their estates surveyed and settled under Chapter X. of the Tenancy Act. Of these, 44 were private estates, the remainder being Government and wards' estates.

North West
Provinces and
Oudh.

The latest reports on land revenue affairs in the North West Provinces and Oudh pertain to the year ending 30th September 1892. The autumn rainfall began late but continued till the end of September, the winter rains were light, and the total fall of the year was from 13 per cent. below the average. The autumn harvests were better than in the previous year; the yield of all spring crops was only fair, though better than in 1891. The total area under cultivation showed a decrease of 214,000 acres; the shrinkage occurred entirely in the spring crop area, and was due to abnormally large spring sowings of 1890-91. The area twice cropped during the year was 7,785,000 acres, whereby the total crop area was brought up to nearly 41½ million acres. The irrigated area was 9,917,000 acres, or 24 per cent. of the total crop area, 8,277,000 acres being irrigated from wells. Prices of food were, on the whole, easier than in the previous year, but they were still high, and pressed e rely on the population of towns. Prices reached famine level in some of the

the hill districts, and the Government had to import grain for the people. The general health of the people was indifferent; cholera was more or less prevalent, especially after the dispersion of the great crowds of pilgrims from Hurdwar and Benares. Cattle disease was not specially rife during the year.

The gross collections of land revenue in the North West Provinces and Oudh under all heads rose to Rx. 7,510,000, as compared with Rx. 7,444,000 in the previous year. Of the increase, Rx. 27,000 were due to the enhancements effected at the resettlement of the Mozaffarnagar district; and Rx. 20,000 were due to the greater demands and payments for canal water. Ninety-nine and a-half per cent. of the demand was collected, and the real as distinguished from the nominal and irrecoverable arrears uncollected at the end of the year were Rx. 29,500. There was less difficulty in realising the revenue, and the total number of coercive processes of all kinds fell to 77,000, against a total of 86,000 during the preceding year. In 11 cases (eight of them concerning the properties of a single defaulter in a single village) land, and in 356 cases, moveables, had to be sold for arrears aggregating Rx. 10,200 in all. The longest period for which any defaulter remained in detention under arrest was 14 days. The total number of defaulters arrested was 7,318. It was noted with satisfaction that the collection for the first time of the enhanced revenue in the district of Mozaffarnagar caused no difficulty, and there were no arrears whatever outstanding in that district at the end of the year. The payment of Rx. 296,000 of land revenue was effected by means of postal money orders.

The number of suits and applications under the rent law in the North West Provinces was 255,765, or 4 per cent. above the total of 1890-91, and was larger than in any previous year. Of the suits, over 90 per cent. were, as in previous years, for arrears of rent. The prominent feature of the year was the large increase in the number of cases for ejectment and enhancement of rent. The number of notices of ejectment brought against privileged tenants was 19,142, or 9 per cent. more than in the previous year, and in 7,197 cases ejectment was effected, but the areas affected by the notices and the ejectments were in both cases smaller than in the previous year. Against tenants at will 64,353 notices of ejectment were filed, affecting 312,341 acres; 27.6 of these notices were contested, and in 9,047 cases, or 52 per cent. of the contests, the tenants were successful. Of the total area occupied by tenants, 10,302,673 acres, or 49 per cent. of the whole, was held by persons possessing tenant rights. The number of notices of relinquishment filed by tenants fell from 18,734 to 17,289; and the number of applications by distraining landlords for sale rose from 21,477 to 25,656. In Oudh the number of suits under the rent law was 34,112, and of applications 14,489; in both cases the total was a little above the corresponding figure of the previous year. Of the suits, 71 per cent. were for arrears of rent; and 42 per cent. of all suits were contested. Notices or applications for ejectment of tenants rose from 8,432, affecting 89,153 acres, to 12,841 cases, affecting 80,613 acres; tenants were actually ejected from 7,167 holdings, with an aggregate area of 44,245 acres. It is reported that forcible evictions of tenants by other than legal process are becoming fewer in Oudh year by year. In 3,194, or 19 per cent. of the appealable suits in the North West Provinces, appeals were preferred to collectors, with a result that in 41 per cent. of the appeals the original decision was reversed or modified; in Oudh 719 appeals were preferred in 11 per cent. of the appealable cases, with the result that the original decision was reversed or modified in 36 per cent. of the appeals. In the combined provinces appeals in 21 per cent. of the cases appealable to judges, who reversed or modified the decisions in 38 per cent. of the appeals coming before them. The percentages in regard to all appeals did not differ materially from the corresponding proportions in the preceding year. The number of applications for partitions was 2,682, or 11 per cent. more than in the previous year, and the arrear business of this kind had increased at the end of the year. The number of loans granted under the Land Improvement Loans Act of 1883 increased to 733, of which 457, for Rx. 9,384, were to landlords, and 276, for Rx. 2,964, were to tenants; under the Agriculturists Loans Act, Rx. 33,477 were advanced during the year. The outstanding amounts for principal and interest under both Acts, at the end of the year was Rx. 93,750; and overdue instalments for principal and interest amounted to Rx. 9,809.

LAND REVENUE.
Punjab.

The latest Punjab land revenue report and statistics are for the year ending on the 30th September 1892. The average rainfall of the province for the year was only two-thirds of the normal average; the autumn rains began late, and were intermittent; and there was hardly any winter rainfall. The autumn crops were poor all round; while the spring harvests were much below the average, save on irrigated lands. The total area of crops harvested decreased by 2,127,000 acres, or 9 per cent.; the irrigated area decreased by 113,000 acres, or $1\frac{1}{2}$ per cent.; the irrigated crops covered 7,487,000 acres, or 34 per cent. of the whole area of harvested crops; of the total, 2,852,000 acres were irrigated from canals, the rest from wells; the decrease was entirely under well irrigation, and was due to scarcity of fodder for cattle working the wells; the canal irrigated area increased by 144,000 acres. Notwithstanding the unfavourable season the prices of autumn food grains were not higher than in 1891; but there was a considerable rise in the price of wheat, cotton, of several staple spring crops, and of butter. The fixed land revenue demand was Rx. 29,000, or $1\frac{1}{4}$ per cent. larger, and the collections were Rx. 8,000, or $\frac{1}{3}$ per cent. larger, than in the previous year. Owing to the character of the season, Rx. 32,000 of the demand were suspended; but the processes issued for the recovery of arrears were 3,903 fewer than in the previous year.

The number of suits for enhancement of rent rose from 1391 to 1746, and landlords were successful in 82 per cent. of these suits. The number of decrees passed for ejectment of occupancy tenants was 28, and 6,633 decrees of ejectment were issued against tenants-at-will, compared with 5,715 in the previous years; of these notices nearly one-half pertained to the Hissar district. Fifty-five per cent. of the total cultivated area of the province is tilled by proprietors and 45 per cent. by tenants. Of the land held by tenants 77 per cent. is in the hands of tenants-at-will and 23 per cent. is tilled by tenants with occupancy-right. Tenancies at-will increased, and tenancies with occupancy-right decreased during the year. Cash rents range from one-sixth of a rupee in the rainless tracts of the Derajat, up to 50 rupees per acre on the very best irrigated land. On 52 per cent. of the area held by tenants the rent is still paid in kind. There was a decrease of 11 per cent. on the area passing into the hands of mortgagees, as compared with the previous year. The area under mortgage at the end of the year was 4,169,000 acres out of a total of 55,143,000 acres of proprietary lands. Out of the 602,000 acres of waste land in the Central Punjab, which have been made culturable by the New Chenab canal, 236,000 acres had been allotted to colonists who had come from over-peopled districts; 6,453 peasant families were in possession of 206,000 acres; 27,000 acre were cultivated and 20,000 acres more were broken up during the year. Unfortunately the whole population, old residents as well as new comers, were prostrated for some months by fever of a very malignant type.

Burma.

The rainfall of 1892 in Burma, except in five districts of the Upper Province, was heavier than in the two preceding years, and the harvests were better. The rice crop, which covers nearly 90 per cent. of all the cultivated land in Lower Burma, was heavy. The price of rice fell heavily, but relief operations, begun in consequence of the scarcity in 1891, had to be continued in part of the Upper Province up till the middle of 1892. In Lower Burma the cultivated and assessed area increased by 341,000 acres, or nearly 7 per cent. during the year; and the land revenue advanced in even greater ratio. Part of the increase was due to the revised assessment made at the recent regular settlement of the Thongwa district, and to the imposition of maximum rates in parts of Pegu which had enjoyed reduced rates since the regular settlement of 1883-84. The fishery and capitation revenue in the Lower Province also showed a further advance. In Upper Burma there was also an important increase in the capitation tax, which still takes the place of land revenue over the greater part of the country, and in the revenue from State lands. These increases were due mostly to the good harvests. The revenue was realised, for the most part, punctually and without pressure. The balances overdue were Rx. 10,086 under land revenue, and Rx. 735 under fishery revenue in Lower Burma: Rx. 1,842 under capitation tax, and Rx. 17,802 under revenue from State lands in the Upper Province. A new item was added to the fishery revenues of Lower Burma during the year by the lease of the Mergui pearl banks in five blocks for a period of three years at a rental of Rx. 2,681, rising to Rx. 3,325 a year.

The

The large advance made during the year by Burma under all heads of LAND REVENUE. revenue accruing from the land may be seen from the following figures :—

	Revenue Collections of		Increase in latter Year.
	1891-92.	1892-93.	
	Rx.	Rx.	Rx.
Land revenue, Lower Burma - - -	922,600	1,021,500	98,900
Capitation tax - ditto - - - -	371,500	383,000	11,500
Fishery revenue - ditto - - - -	162,100	169,100	7,000
Capitation tax, Upper Burma - - -	430,700	468,900	38,200
State lands revenue - ditto - - -	99,200	121,200	22,000
Forest revenue in the combined provinces -	418,500	586,000	147,500
TOTAL - - -	2,404,600	2,729,700	325,100

The latest land revenue report from the Central Provinces is for the year ending in September 1892. The rainfall was considerably above the average, but it was badly distributed; no rain fell in June, but there were torrents during the next three months. All autumn crops, except rice, suffered from excessive rain; the wheat crop was scanty, but the linseed harvests was good. Prices of all field produce ranged higher than in the previous year; the dearthness of the coarser food grains caused some hardship. The land revenue demand was the same as in the previous year, namely, Rx. 676,000. All but Rx. 2,927 (or 0.4 per cent.) of the demand was collected during the year; in eleven districts of the province the demand was collected in full. There was an increase in the number of coercive processes for realisation of arrears, and the total number was 4,706, against 3,990 in the previous year. One defaulter was sent to jail during the year, no land was sold for arrears, and there were only 15 sales of moveable property for default. There was a small increase in the area of land transferred by sale or mortgage; the total area of such transfers was 363,000 acres, as compared with 350,000 acres and 471,000 acres in the two previous years. In most districts the large majority of the transfers of the year were from one landholder to another. Litigation under the tenancy and rent law continues to be as yet small. Suits for arrears of rent rose from 7,371 in the preceding year to 8,709, of which 22 per cent. went in favour of the defendant; the number of notices for ejectment of ordinary tenants fell from 3,123 to 1,636. Out of a total occupied area of 19½ millions of acres, less than 4½ millions or about 25 per cent. are held by tenants-at-will, the remaining 75 per cent. being cultivated by proprietors and privileged tenants; while the average rent paid by ryots of all classes, holding 14½ million acres, was 12½ annas per acre, or less than one-third of the average rack-rent paid by sub-tenants.

In the Assam, the rainfall of 1892-93 was above the average; the season was favourable to most crops except tea. The price of rice was above even the high price of the preceding year. The land revenue demand increased by 1½ per cent. above that of the preceding year; in the year 1891-92 the increase had been 2 per cent. The increase of Rx. 6,500 was mainly due to the operations of the cadastral survey in the Kamrup, Sibsagar, and Nowgong districts. Out of the whole demand, including arrears, 98.04 per cent. was realised, .04 was remitted, and 1.93 remained at the end of the year still to be collected, as compared with 1.44 per cent. uncollected at the end of the previous year. The remissions made during the year came to Rx. 162, as compared with Rx. 38 remitted in the year 1891-92, and Rx. 124 in 1890-91. The proportion of the settled area to the total area of the province is 17.22 per cent. Six years ago it was 15.92 per cent. There was an increase from 24,408 to 25,851 in the number of notices issued for arrears in the districts of the Assam Valley;

LAND REVENUE

Valley ; but the number of estates sold for arrears was only 54 as against 73 in the previous year. There was a decrease of 28 in the number of estates sold for arrears in the permanently settled district of Sylhet. In the Assam Valley, the area held under decennial leases continues to decrease; there are now 270,779 such holdings as compared with 273,312 in the previous year. The miscellaneous receipts showed an increase of Rx. 298 over the total of last year, coming chiefly from fisheries and coal royalties.

The number of tea-grants in the province for the year 1892 was 807, and the area held under them was 1,044,984 acres. During the year the number decreased by 21, but the total area of land held under the grants rose by more than 218,000 acres.

The average incidence of the land revenue is 1r. 11a. 9p. per acre for land held on annual leases, and 1r. 14a. 9p. for land held on decennial leases; while special tenures and waste land grants pay much lower rates.

Madras.

In the northern half of the Madras Presidency the season was generally favourable during the year 1892-93; but in the latter part of the agricultural year the southern half suffered from severe drought. Throughout the Presidency the north-east monsoon gave a rainfall of 16 per cent. below the average. Relief works were opened in eight districts, and in May 1893, 80,000 persons were employed on them. The district most seriously affected was Kurnool. During June and July the condition of things improved, and the favourable character of the south-west monsoon, in the districts most affected, made it possible to close all relief works by September. The area under crop exceeded by more than 2,000,000 acres that of the preceding year, and by nearly 1,000,000 acres the average area of the 5 preceding years, the figures being for 1892-93, 26,404,477 acres; for 1891-92, 24,309,168 acres; average for five years ending 1890-91, 25,473,586 acres.

The latest report on land revenue affairs in Madras pertains to the year ending on the 30th June 1892, that is to the season preceding the year to which the foregoing paragraph relates. The total area under occupation by raiyats in the districts for which statistics are available, was 21,157,000 acres, or 0.8 per cent. over the area of 1890-91, which was previously the highest on record. The increase in the occupied area was largest in Bellary, Malabar, and Nellore. The occupied area for the whole of the Madras Presidency exceeded the area occupied in the year 1875-76, before the great famine, by 5.67 per cent. Of the occupied area 79.6 per cent. bore crops. During the 10 years previous the proportion of cultivated to occupied area had averaged 85 per cent., and the falling off in this year was due to the badness of the season. Owing to the same cause the remissions of revenue rose from 15½ lakhs in 1890-91 to 37 lakhs, and the total land revenue demand for the year showed a decrease of 22½ lakhs as compared with the preceding year.

Bombay.

The season of 1892-93 was on the whole favourable in the Bombay Presidency, except that Sind suffered at the beginning of the year from drought, and later from floods. The staple crops yielded, as a rule, good returns; and prices were somewhat below their normal level, except in Sind, during the earlier part of the year. The gross cropped area of the Presidency, so far as figures were available, was 25,815,000 acres, the increase on the area of the previous year being about 960,000 acres, or 3.9 per cent. The collections on account of land revenue were Rx. 3,703,363, being Rx. 133,961, or 3½ per cent. larger than in the preceding year. The revenue was collected with exceptional and most satisfactory facility; in Bombay proper and Sind the number of occupancies was returned at 1,467,281; and the number of warrants of distraint issued was 816, as compared with 1,445,259 and 2,453 respectively in the previous year.

Berar.

The rainfall of 1892 in Berar was nearly 40 per cent. above the average, and the crops of both the autumn and spring harvests were injured by excessive and untimely rains. The price of millet (jowari), the food of the people, was considerably dearer than in the two previous years; in some parts it was twice as dear as in the year 1890-91. The public health generally was good throughout the year. The total area under crop was 6,805,000 acres, or 140,000 acres more than in 1891-92; the largest increase was in the millet area, which occupied

33·3 per cent. of the cultivated land of Berar; the area under cotton decreased, and was 31·8 per cent. of the whole cultivated land. LAND REVENUE.

The land revenue demand of the year, including cesses, showed an increase of only Rx. 264, raising the total demand to Rx. 697,000. Of the demand actually due for the year less than one per cent. were uncollected. The number of coercive processes issued against defaulters showed an increase, there having issued 8,336 writs of demand against 6,509 in the previous year; in 21 cases personal property was sold for arrears; 84 fields were also sold; but no defaulters were sent to prison. The area of land transferred by private sale was 110,000 acres, or less than half the total of the previous year; this area is small, as compared with a total of 7,659,000 acres under occupation; the average price fetched was 18 times the revenue assessment. Preparation is being made for the re-settlement of the land revenue of the Province, which has to be accomplished between the years 1892 and 1908, by training local agency to effect a revision survey. The inspection of village records, and of the ryots' receipt books were fewer than in the preceding year; but the proportion of mistakes and irregularities detected was smaller. The number of boundary marks found out of repair on cultivated land was 367,000, of which all on occupied lands, except 13,000, were repaired by the close of the year.

GOVERNMENT AND WARDS' ESTATES.

In Bengal, 74 wards' estates and 66 attached estates, or four less than in the preceding year, were under the management of the Court of Wards, with a total rental of Rx. 492,118; the collections on account of arrears and current demand came to 97·8 per cent. on the latter, as compared with 99·8 per cent. in the preceding year. The cost of management was 7·8 per cent. on the current rental and cess demand, as it had been in the preceding year. There was spent on schools, dispensaries, and improvement and maintenance of estates a sum of Rx. 57,233. Of the items that made up this total those under the headings of permanent improvements and maintenance show a considerable increase on the preceding year. Debts to the amount of Rx. 107,000 were paid off during the year, and the outstanding debts due from all wards' estates were Rx. 370,000 at the close of the year. The cash balances at credit of wards' estates were Rx. 194,000 on the 31st March 1892, and the investments in Government securities were Rx. 484,000. Fourteen estates were taken over, and 12 released by the Court of Wards during the year. One of the newly-received estates showed a rent-roll of Rx. 2,300, and debts of Rx. 48,200. The 12 estates released during the year were burdened with debt to the amount of Rx. 170,000 when first taken over by the Court; Rx. 135,000 of debt had been paid off, Rx. 20,000 had been spent on improvements, and Rx. 30,000 had been saved or invested in respect of these 12 estates at the time they were returned to their owners. On the Srinagar estate a survey and record of rights was prepared at a cost of Rx. 30,000, with the result that the rent-roll rose from Rx. 26,000 to Rx. 30,300. The tenants of the estate are reported to be well off; and the survey is said to have resulted in the comparative cessation of disputes that used to be very rife. On the great Burdwan estate, which is managed by a Bengali gentleman on behalf of the Court, 99·8 per cent. of the current year's rent was collected during the year; and the old outstanding claims of the estate have been reduced to Rx. 130,000, a sum of Rx. 110,000 having been collected during the year. GOVERNMENT AND
WARDS' ESTATES.
Bengal.

The education of the young wards is everywhere receiving attention.

The number of estates under the Court of Wards in the North-Western Provinces and Oudh at the end of the year 1891-92 was 153, with a total annual income of Rx. 562,000. Thirteen estates were restored to their proprietors during the year, entirely free of debt, excepting one small property; many of the released estates had been increased in value during the minority of the owners. Against the estates under the Court there had been debts amounting to Rx. 1,435,000, which were reduced by March 1892 to Rx. 353,000. The cost of management averaged 6 per cent. on the total receipts; and Rx. 13,600 were spent on works of improvement. Of the year's rental, 85 per cent. was North-West
Provinces and
Oudh.

GOVERNMENT AND
WARDS' ESTATES.

collected; Rx. 68,900 were expended in paying off debt; while Rx. 68,500 were invested in public securities, or on mortgage, or in the purchase of lands and houses; and Rx. 3,400 on giving help to tenants. The number of notices of ejectment of ryots fell from 421 to 355, of which 94 per cent. were decided against the tenants; and there were 9 suits for enhancement of rent, the average rent being raised on the average of these cases, from 1½ to 2 rupees per acre.

Punjab.

At the end of the year 1892-93, 64 estates were under the management of the Punjab Court of Wards; and five estates were surrendered to their owners during the year. The excess of income over expenditure was Rx. 31,918, as compared with Rx. 18,527 in the previous year. Special attention was paid during the year to the due investment of surplus funds, in order to prevent the ward, when he attains his majority, from finding ready to hand a large accumulation of cash, or of investments easily convertible into cash.

Central Provinces.

In the Central Provinces the Court of Wards relinquished the management of 19 estates, with a rental of Rx. 7,600, and received charge of four estates. At the end of the year 131 estates, with a gross income of nearly 17 lakhs of rupees, were under management. In all the four estates newly undertaken, management was assumed at the request of indebted proprietors who have been declared, at their own wish, incapable of managing their own property. The Court of Wards collected 93¼ per cent. of the rental of the year. The cost of management was less than 8 per cent. of the gross actual income. The amount of tenancy litigation on lands under the Court of Wards continues to decrease. Of the debts due by embarrassed estates nearly Rx. 20,000 were paid off during the year, and Rx. 120,491 were still due at the end of the year. About Rx. 120,000 were spent on the permanent improvement of, and in advances to ryots in, solvent estates; and Rx. 4,685 were invested in Government securities or landed property.

Madras.

The Court of Wards in Madras during the year 1891-92, the latest for which information is available, handed four estates back to their proprietors, and took charge of seven estates; there were thus 55 estates under the Court at the end of the year, as compared with 52 at the beginning. In two of the estates surrendered the rental had, in consequence of bad seasons, decreased during the time they were under the Court; in the other two, both the rentals and the cash balances showed a considerable increase. There was, in consequence of the unfavourable season, a decrease of 6 per cent. in the cultivated area as compared with the previous year. The total current collections of the year were Rx. 234,096, and they amounted to 79 per cent. on the current demand, or 3 per cent. worse than in the previous year. The cost of management and of State assistance came to 11.1 per cent. on the total receipts of the year. The balance at the credit of all estates, invested and uninvested, at the end of the year was Rx. 606,792 more than at the beginning of the year. The debts due by the estates at the end of the year were Rx. 175,661, debts amounting to Rx. 13,998 having been paid off during the year. The expenditure on works of irrigation and other improvements was Rx. 18,642. The progress in education of the 61 wards, 52 males and 9 females, and their relations, was said to have been in most cases good. The older minors on certain estates were instructed in Revenue Law and Accounts, in order that they may be able to manage their estates when they attain their majority.

Bombay.

In Bombay the estates under the Court of Wards or under Government management were of several kinds, namely:—

	No.
(1.) Estates under the Court of Wards, outside Guzerat - - - - -	83
(2.) Encumbered estates in Guzerat, &c., managed under Acts of 1862, 1881, and 1884, and under the Civil Procedure Code; and talukdari villages - - - - -	600
(3.) Encumbered estates in Sind - - - - -	30

The aggregate area of the 83 wards' estates outside Guzerat was 151,892 acres, and most of the estates are of small area.

The

The estates of the second category are all in Guzerat, and are under the care of a special revenue officer, in addition to his duties as assistant collector. GOVERNMENT AND
WARDS' ESTATES.
The total rental of these Guzerat estates was Rx. 76,000, out of which Rx. 68,000 were collected. Payments to creditors were Rx. 10,700, besides Rx. 7,500 repaid on account of Government loans; Rx. 19,800 were paid as Government land revenue; maintenance of the owners and their families cost Rx. 15,200; and Rx. 14,000 were invested in Government securities and land on account of minors. The revenue of the talukdari (or proprietary) villages under the special officer's charge was Rx. 36,800, of which 89 per cent. was collected. The minor proprietors are receiving instruction. The revision survey of the Talukdari villages by a party of the Bombay Survey was completed during the year. On 30 encumbered estates in Sind, the cost of management ranged from 3 to 4 per cent. in the different districts. Out of a total income of Rx. 7,219, debts were paid off to the amount of Rx. 1,771; while nine estates were freed from debt and restored to their owners during the year; and debts amounting to Rx. 3,410 were still due at the end of the year.

There were no wards' estates under the management of public officers in— Burma, &c.

Burma,
Assam,

Berar,
Ajmere,

during the year.

VIII.

FORESTS.

THE subjoined tables give the forest revenue, expenditure, and surplus for each province during the year 1892-93.

	Bangal.	North-Western Provinces and Oudh.	Punjab.	Burma.	Central Provinces.	Assam.	India General.	Madras.	Bombay.	TOTAL.
REVENUE:	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Receipts - - - -	74,488	165,254	81,263	566,000	123,085	38,383	58,383	157,721	326,955	1,591,332
EXPENDITURE:										
General direction - - -	—	—	—	—	—	—	7,742	—	—	7,742
Conservancy and Works - - -	13,303	57,641	35,763	112,891	39,478	11,664	99,671	67,080	101,011	469,502
Establishments - - - -	24,826	34,599	29,749	66,391	45,618	14,726	15,203	65,208	88,818	385,124
Charges in England - - -	—	—	—	—	—	—	2,846	—	—	2,846
TOTAL Expenditure - - -	38,129	92,240	65,512	180,282	85,094	26,390	55,462	132,288	189,827	865,326
Net Revenue or Forest Surplus - - - - }	36,359	73,014	15,751	385,718	37,991	11,893	2,820	25,433	137,128	726,107
Net Surplus of the previous Year, 1891-92 - }	36,808	77,927	38,071	251,720	55,677	8,900	5,612	38,090	135,751	646,656

Some beginning was made in the forest administration and conservancy of Southern India in 1844; 10 or 12 years later similar work was begun in Western and Northern India; the subject was taken up systematically all over India when the mutiny troubles were over; and within the last 20 years forest laws have been enacted for, and forest administration has been placed upon a permanent basis in, every province of India. The superior officers of the forest service have been, for the most part, selected by competition, and have been trained in forestry, either in Germany, or in France, or at Cooper's Hill College; during the past year it has been decided that 20 per cent. of the superior posts in the forest department shall eventually be filled by selected officers from the subordinate or provincial branch of the department. Some of the subordinate officials are trained at a forest school near Dehra in the sub-Himalayan country of the North-Western Provinces, and this system of professional training at local centres will be gradually extended. The first object of the forest administration is to select, acquire, and mark off as reserves an area of State forest in every province sufficient to supply the wants of the neighbourhood and the province in respect of timber, firewood, bamboos, canes, and other forest produce, and sufficient also for supplying the foreign demand for such articles as teak-timber, sandal-wood, and rubber. The reserves are, or will be, surveyed, conserved, and worked on sanctioned plans, designed so as to obtain the largest possible permanent yield in the most economical way. Private rights in the reserves are bought out or compromised. Among the most important measures of conservancy are the exclusion of the yearly fires which used to devastate forests, the maintenance of adequate seed-bearing trees, and the regular re-production of timber of the more valuable kinds. At the present time the reserves cover an area of nearly 70,000 square miles; and they may hereafter be further extended in Madras and Burma, where the work of reservation is as yet incomplete. Outside the reserves are considerable areas of State forest, some part of which will be eventually brought within the reserve area, and all of which is managed and worked for the benefit of the people, of their cattle, and of the public revenue. The limited areas of private forest are, except where they have been leased to the Government, being gradually exhausted; and as yet few private and

and no communal, forests have been successfully brought under conservancy. In every province a very few of the most valuable timber trees are declared to be reserved trees, and can only be felled under special license; outside the reserves the country folk are generally allowed to obtain from the State forests timber, bamboos, firewood, and grass for their own use, free of charge; inside the reserves, only persons specially licensed are allowed to extract timber or other produce on payment of fees. Forest revenue is raised by royalties on, or by the sale of, timber or other produce, and by the issue at specified fees of permits to graze cattle, or to extract for sale, timber, firewood, charcoal, bamboos, canes, and other minor forest produce. In the year 1892-93 the gross forest revenue of British India was Rx. 1,591,332, and the net forest revenue was Rx. 865,225. Some of the better-managed Native States, such as Mysore, Travancore, and Baroda have followed the example of the British Government, have organised systematic forest administration, and enjoy a considerable forest revenue. Mysore has more than doubled its forest revenue since the country was restored to native rule in the year 1881.

FORESTS.

The following paragraphs treat of forest administration in each province. By a recent arrangement the forest reports are now compiled for the 12 months ending on the 30th June; for some provinces the report for the year 1892-93 did not reach the India Office in time for this Statement, and in such cases the facts and figures for the year 1891-92 are given. The figures of revenue and expenditure in the following paragraphs, being compiled from administrative returns, do not agree precisely with the figures given in the table on the preceding page, which are taken from the finally corrected financial accounts.

In Bengal the reckoning of large areas of water surface, and the addition of 500 square miles of protected forest in Singbhum brought the areas of reserved and protected forests up to 5,703 and 3,071 square miles respectively. Forest surveys and working plans were being made for 2,130 square miles of reserved forests; and of the remaining reserves, 1,822 square miles can be managed without surveys for the next ten years. The working plans of the Sunderban forests were sanctioned in July 1893. The report for 1892-93 extends over 15 months, so the out-turns of timber and fuel are not comparable with those for the preceding year. The yield of timber and firewood, most of it from the Sunderban forests, continued at about the same scale as in the previous year.

Bengal.

The principal feature of the year's administration was that the Government withdrew from direct departmental working, and left private persons to bring out timber and fuel, after obtaining licenses and subject to paying the prescribed forest dues. There was a decrease in the number of prosecutions for forest offences; 175 prosecutions were instituted, against 120 in the previous year; and the number of offences compounded fell from 1,865 to 1,179. Fire was excluded from 99 per cent., as compared with 96 per cent. in the preceding year, of the 1,890 square miles over which protection against fire was attempted. Of the remaining reserved forests 3,203 square miles are self-protecting. The season was specially favourable for fire protection. Natural reproduction of timber is said to be progressing favourably, especially in the sâl forests and the evergreen forests. The extent of plantations and of cultural operations was increased by 62 acres; and the total area of plantations in Bengal now amounts to 4,497 acres of oak, toon, sâl, and teak.

The forest receipts of the financial year were Rx. 74,488, and the expenditure Rx. 38,160; the receipts and the outlay were both lower than in the previous year, and the forest surplus was Rx. 36,319, or Rx. 3,434 below the surplus of the previous year. Fifty-five per cent. of the revenue, and 25 per cent. of the expenditure pertained to the Sunderban forests.

The forests of the North-West Provinces and Oudh are divided into three "circles," and comprise an area of 3,886 square miles. The figure given for the previous year was 3,916 square miles, but the decrease is merely nominal, being due to the correction of inaccurate earlier measurements. The Central Circle includes the forests of the districts of Naini Tal, Almora, Garwhal, Bijnor, Jhansi and Bauda; and its area is 1,830 square miles; the School Circle includes Dehra Dun, Saharanpur, Tehri, Garwhal and the Punjab Hill States, with an area of 812 square miles; the Oudh Circle includes the districts of Pilibhit, Kheri, Bahraich, Gonda and Gorakhpur, and its area is 1,244 square miles. In each circle general working plans for the maintenance and improvement of the forests are in course of execution or preparation; and in

North-West Provinces and Oudh.

FORESTS

addition there is drawn up every year for each division a plan of the forest operations that it is proposed to complete in the course of the year. It is reported from all three circles that in 1892-93 the annual plans were well worked up to. In the Central Circle, which is the most advanced, the work of demarcation and survey is very nearly completed; in the Oudh Circle, which is comparatively backward, work of this kind was pushed forward vigorously, and in order to make clear the position of the Government with regard to land in this circle to which Forest Law is applicable, the records bearing on the subject were examined and republished. During the year it was decided to extend the Forest area of the Central Circle by making the Forest Acts applicable to the waste land in Garwhal, Almora and the Hill Districts of Naini Tal; it is reported from the School Circle that there is in Dehra Dun an area of 8,638 acres of waste land still at the disposal of the Government for forest purposes. The measures for the protection of the forests from fire were remarkably successful in all the circles. The financial results of the year show a surplus of Rx. 73,014 as compared with Rx. 77,887 in 1891-92.

Punjab.

The area of reserved forests in the Punjab increased by 31 square miles; that of protected forests decreased by 272 square miles owing to the transfer of a large tract to the charge of the officer who superintends the colonisation operations in connection with the Chenab canal. The other State forests of the province increased by 186 square miles. In the work of demarcating reserves, 73 miles of new boundary line were made and 1,500 miles of previously existing lines were repaired, but of 14,000 miles of boundary, 8,300 have now been artificially demarcated, and in 1,100 the natural features make artificial demarcation unnecessary. Surveys were continued in the Himalayan forests of Kangra Kulu and Bashahr by the Survey Department; while in three districts the settlement staff carried on the survey of forest areas; working plans were under consideration for four forests, and were sanctioned for one and were being prepared for three. The attempts to prevent forest fires were more effective than in the previous year. In 1892-93 there were burnt 4 square miles as against 79 in 1891-92. The prosecutions for forest offences fell to 1,256, or 4 per cent. below the number for 1891-92. There was a slight decrease in the quantity of timber and firewood removed from the forests, which aggregated 29,974,000 cubic feet against 31,349,000 cubic feet in the previous year, and the total was very far below the out-turn of 1888-89, when the yield was 43,038,000 cubic feet.

The total forest revenue of the year was Rx. 92,057, against an outlay of Rx. 78,262, yielding a surplus of Rx. 13,794 which compares unfavourably with the surplus of two previous years, which were Rx. 37,980 and Rx. 17,086. The fall in revenue was attributed to the dulness of the timber market, which prevented the sale of any large stocks of timber.

Burma.

An area of 12 square miles was added to the reserved forests of Lower Burma, bringing the total area of reserves up to 5,615 square miles. In 430 square miles of the reserves the privilege of cultivating hill gardens has been secured for the forest tribes. Permanent boundary marks are maintained round all reserves. In Upper Burma proposals have been made for reserves, aggregating 5,311 square miles out of a total of 16,461 square miles of protected forests; private rights in 1,024 square miles were settled during the year; and the area of actual reserve was 1,059 square miles on the 31st March 1892. Nearly all the best teak forests are in the hands of people holding leases from the ex-king, and some of these leases run until the year 1906.

Detailed valuation surveys were completed over 287 square miles of forest, regular working plans were completed for areas aggregating 407 square miles. For other forests an annual plan of operations is prepared under the Forest Code, and, after sanction by the Conservator, is carried out, until such time as a regular survey and working plan can be made. In Upper Burma regular surveys and working plans cannot yet be undertaken; but linear valuation surveys are being made; rough surveys and working plans are being gradually prepared. In Lower Burma fire protection was very successful, by reason partly of the occurrence of frequent showers during the hot season; from 496 square miles of deciduous forest, or 99 per cent. of the protected area, fire was excluded, as compared with 368 square miles, and 83 per cent. in the preceding year. In the Upper Burma teak forests, where the rainfall is often less than in Lower Burma, no systematic efforts are yet made for the exclusion of fires save in two

or three small areas where comparatively little success was achieved. In Lower Burma the area of new plantations was 3,240 acres, 28 per cent. more than had been planted in the preceding year, but 600 acres of the new plantations in the Tenasserun failed; exclusive of this latter area the plantations, chiefly teak, now cover about 45 square miles. The teak worked out of the forests decreased by 3,153 tons in Lower Burma, and by 43,180 tons in Upper Burma as compared with the previous year; the decrease in Upper Burma was due to the early fall of the river. There was a decrease in the forest revenue and forest surplus, which for the past five years have stood thus :—

	Gross Forest Revenue.	Forest Surplus of Revenue over Expenditure.
	Rx.	Rx.
TOTAL for Upper and Lower Burma	1887-88	186,191
	1889-90	338,840
	1890-91	298,353
	1891-92	254,181
	1892-93	391,265

The arrivals of teak by the Salween river at Moulmein were 74,165 tons or 28,198 less than in the previous year; the arrivals at Rangoon by the Irrawaddy and Sittang rivers were 80,793 tons or 36,959 tons less. The export of teak from Burma by sea was 161,967 tons, as compared with 175,115 and 184,431 tons in the two preceding years. The fall in exportation does not appear to have been due to competition from Siam, as the exports of teak from Bangkok also fell off. Of the teak shipments from Burma about a quarter went to Europe. The average value of the teak exports was Rx. 7½ per ton or a small fraction dearer than in the previous year.

The area of reserved forest in the Central Provinces remained unchanged at 20,373 square miles, of which 9,189 square miles were at the end of the year 1891-92 classed as A. or permanent reserves, and 10,884 square miles were classed as B. reserves. The B. reserves are available either for eventual transfer to the A. class, or for possible extensions of cultivation in future years; 158 square miles were so transferred from the B. to the A. category during the year. The demarcation of reserves made progress and was practically completed in all but two districts; the boundaries of all A. reserves were in good order. Surveys preparatory to the formation of working plans were being prosecuted in seven districts, but no progress was made with regular detailed working plans during the year. Out of the reported offences against forest laws 7,859 were compounded under sanction of competent officers, and in 239 cases prosecutions were undertaken, in nearly three-fourths of which convictions were secured; in some districts orders were issued that less stringency should be exercised in enforcing the forest laws against villagers, who are the chief customers for and consumers of forest produce. Fire was excluded from 94 per cent. of the 3,870 square miles over which fire protection was attempted, at a cost of 13½ rupees per square mile. The area under protection was 635 square miles larger than in the previous year. The area of failure was 6 per cent. against 5 per cent. in the preceding year; and there was a decrease of 1½ rupees in the cost of protection per square mile. No regular plantation work is attempted in the Central Provinces; natural reproduction of timber is said to be good in all forests so long as grazing and fires are excluded; even where cattle have not been excluded, the regrowth over a considerable part of the forests is said to be satisfactory; in some cases a few years of closer protection have produced a marked change in the character of the forest. The animals sent into the forests to graze were 2,939,856 against 2,820,556 in the previous year. The forest revenue of the year was Rx. 135,900, against an expenditure of Rx. 71,400, leaving a surplus of Rx. 64,500, or Rx. 8,100 more than in the preceding year. Increase of expenditure

Central Provinces, 1891-92.

FORESTS.

expenditure was due to the enlargement of the forest staff. The increase of revenue was caused by a general advance in the quantity of charcoal, bamboos, and minor produce removed from the forests by consumers. Important changes were introduced during the year, with the view of suiting the forest system to the capacities and convenience of the people.

Assam, 1891-92.

The reserved forests in Assam were increased by 10 square miles, bringing up the total area to 3,612 square miles. Forest surveys were continued in the sal forests of Goalpara; topographical survey and valuation were completed for 180 square miles; but no permanent working plans were framed. Fire protection was not very successful; fires raged over 13 square miles, or 12 per cent. of the whole area over which attempt was made to exclude fire; most of the reserves consist of evergreen forest wherein fire protection is not needed. The boundaries of reserves are mostly streams, rivers, and roads; out of 1,164 miles of boundary line, 1,103 were cleared and properly maintained during the year. The plantations, principally planted with rubber, now cover 2,306 acres, of which 50 acres were stocked during the year. The oldest trees of the rubber plantations were put in 20 years ago; and many of these have attained a height of 50 to 67 feet and a girth of 6 to 10 feet. Natural reproduction and growth of forest trees is said to be satisfactory everywhere except in the sal forests of the Garo Hills. The attempt to induce the tribes, who cultivate with the axe, to sow their clearings with timber trees are not meeting with success. The yield of the Assam forests shows an increase, the total out-turn of timber and firewood being 4,855,000 cubic feet as compared with 4,554,000 in the preceding year; the total yield is still considerably below that of 1888-90. The yield of tea boxes, however, nearly doubled during the year. The export of rubber from Assam increased from 4,844 maunds in 1890-91 to 5,903 maunds; but it is still considerably below the totals of 1887-89. The quantity of bamboos taken from the forests during the year showed an increase of 8 per cent. under the head of free grants. The forest revenue was Rx. 33,600, and the forest surplus was Rx. 6,860, or Rx. 2,566 more than in 1890-91.

Ajmere and Coorg.

The area of the Forests of Ajmere-Merwara was about 140 square miles, as in 1891-92. The year was favourable for both natural and artificial reproduction. Progress was made with the preparation of the Record of Forest-Rights, and a report preliminary to the construction of working plans was drawn up during the year. The financial results showed a deficit of about Rx. 120 as against a profit of Rx. 581 in the preceding year. This change was due to the decrease in grazing fees and the increase in the expenses of the Forest Establishment.

Coorg, 1892-93.

The area of reserved forests in Coorg was 114 square miles, being slightly less than in 1892-93, besides 779 square miles of protected forests. During the year 371 miles of old boundary lines were cleared, 71 miles of new lines were cut, and old roads were repaired; old buildings were repaired and the construction of new was begun. Additions were made to the plantations of sandal, teak, and firewood. Owing to the recent extension of fire-lines there was a great decrease in the area burned during the year; the figures being, for 1890, 28,484 acres, for 1891, 16,274 acres, for 1892, 9865, acres. The number of cattle grazed in the forests was 17,245 as against 15,802 in the previous year; but the increase was prejudicial to the natural reproduction of the forests. There were cut and removed 342,311 cubic feet of timber, 220,900 cubic feet of fuel, 367,772 bamboos, 1,641 rupees worth of minor produce. The financial results of the year show a surplus of Rx. 10,758 as against Rx. 9,603 in the previous year. The teak and sandal-wood plantations have been attacked by the borer insect, on the extermination of which the future success of the plantations depends.

Madras.

An area of 2,441 square miles was added to the reserved forests of Madras during the year 1892-93, bringing the total area of reserves up to 9,436 square miles. There are about 7,700 square miles of other Government forests from which reserves have still to be selected. Permanent marks were placed along 2,837 miles of reserves boundary, as compared with 2,443 in the preceding year; and 2,627 miles of preliminary demarcation work were also done. Surveys of the reserves were continued by the Survey of India in the Madura, Salem, and Arcot forests, and 718 square miles were completed. Permanent working plans were prepared for two forests and two plantations, while statistics and information were being collected for working plans in several other reserves: meanwhile, for the plantations on the coast temporary working plans

plans are being carried out. Fire protection was attempted over 5,100 square miles of which 95 per cent. were successfully protected, against 94 per cent. in the previous year. The cost of fire protection averaged 13 rupees per square mile for the 15 months ending 30th June 1893. Natural reproduction was satisfactory in all three circles, except in the casuarina plantations of Nellore and in certain reserves of the central and southern circles where fire protection had not been attempted. The additions to the plantations were confined to the southern districts; the total area of plantations was returned at 20,988 acres, besides 28,392 square miles of groves. The valuable timber plantations consist of teak in Malabar, eucalyptus on the Nilgiri hills, and casuarina on the eastern coast. The yield of the forests, according to the returns, was 2,966,566 cubic feet of timber, and 12,138,565 cubic feet of fuel, besides bamboos and other minor produce: the timber bamboos and fuel all gave smaller out-turns than in 1891-92; under the head of minor produce only was there some increase of yield. The forest revenue was Rx. 196,581 against an expenditure of Rx. 163,892, leaving a surplus of Rx. 32,689, or Rx. 10,200 less than in the previous year, and Rx. 22,000 less than in 1890-91.

FORESTS.

The area of reserved forests in Bombay was 10,321 square miles, or 151 more than in the preceding year, 1891-92. The protected State forests outside the reserves were returned at 4,197 square miles. There remained still 1,176 square miles of reserves and 2,987 square miles of protected forests, in which private rights have not yet been settled and recorded. This business was effected over only 56 square miles during the year. Forest surveys were carried out over 434 square miles of reserves at a cost ranging from Rx. 12 to Rx. 20 per square mile; working plans are as yet ready and sanctioned for a part of the Thana forests only. There was an increase of 22 per cent. in the number of forest offences; the number of prosecutions was 1,549, against 1,689 in the previous year, and in 78 per cent. of the cases convictions were obtained; and 15,581 offences were compounded by competent officers under the law. Fires traversed 1,914 square miles, or 21 per cent. of the total forest area of the northern circle against 22 per cent. in the previous year; in the southern circle 25 square miles suffered from fire out of 1,046 square miles over which protection was attempted, while fires traversed 26 per cent of the area of the forests not specially protected; eight square miles out of the Sind forest reserves were burnt. Natural reproduction is said to have been satisfactory in all areas from which fire was excluded. In the northern circle the regular plantations increased from 6,096 acres to 6,683 acres, while cultural operations extended over 318,420 acres of hill-side against 291,817 acres in the previous year; on some of these formerly bare hill-sides very satisfactory forest estates are being formed. There was a large increase in the yield of petty timber and firewood from the *coupes* in the northern circle; but the badness of the season greatly reduced the demand for forest produce of most kinds in the southern and Sind circles. The total receipts of the three forest circles of Bombay were Rx. 328,000, against an expenditure of Rx. 192,000, leaving a surplus of Rx. 136,009, or Rx. 7,500 less than in the previous year. The receipts from grazing dues showed an increase of 20 per cent., and amounted to Rx. 58,600.

Bombay, 1892-93.

The forest area of Berar is 4,233 square miles, of which 1,322 are reserved for timber and fuel, 63 for fodder and thatching grass, and 1,598 for pasture, while over 1,250 square miles settlement is still pending. The area decreased by 203 square miles during the year, 3,183 square miles having been added and 2,980 having been excluded. The revenue showed a general falling off. The expenditure rose considerably, the chief increase being in outlay on buildings and communications. 32 miles of new cart-roads were made and 326 miles were repaired. Fires were excluded from 763,545 acres out of 792,626 acres attempted, at a cost 7-2-0 rupees per acre. During the year the Berar Forest Law of 1886 came into operation. Natural reproduction shows a marked advance in the Ellichpur Division, where the soil is good and where there is adequate protection against fire and grazing.

Berar.

IX.

AGRICULTURE AND MINERAL RESOURCES.

AGRICULTURE

IN every large province of India an Agricultural Department has been organised, which is charged with the duty of supervising the maintenance of the village records of land tenures, rent, produce, and land transfers, and with the work of organising and directing State undertakings for the furtherance of agriculture, and for the improvement of stock. The Agricultural Departments also assist the local officers to keep the public and the Government informed concerning the condition and the out-turn of the crops, the range of prices, and the approach of dearth or famine in any particular tract. It is chiefly from information contained in the annual reports of the Agricultural Departments that this chapter has been compiled.

Bengal.

The rainfall of 1892-93 in Bengal was below the average in six out of the seven groups of districts of the Province. The deficiency was greatest in south-west Bengal, when the monsoon rainfall was 17 per cent. below the normal supply. The early autumn crops covered 16 million acres, the winter rice harvests over 30 million acres, and the spring crops larger areas than in the preceding year; the out-turn for each crop was estimated at seven-eighths of a full average yield, or considerably better than in the year 1891-92. The prices of staple food grains were higher than in the previous year; labourers, whose wages are still very low in Behar and Western Bengal, and respectable folk of the lower middle classes felt the pinch of high prices. But in Northern and Eastern Bengal, where the wages of labour range at two to three times the Behar rate, and where crops were good, the people were prosperous. In the greater part of Chota Nagpore, too, the year was marked by prosperity, especially in Singhbhum, where the newly-opened railway and mining industries had caused a rise of wages. But in Behar the distress due to previous failures of harvests continued, and relief operations did not entirely cease until the favourable rains of September 1892 set anxieties at rest.

Silk.

The silk experiments, undertaken with the view of mitigating or eradicating the disease of pebrine among silkworms were continued by Mr. Mukerji, who had been trained at Cirencester and Lyons, at the Pasteur Institute in Paris, and also in Italy. He worked under a committee consisting chiefly of persons interested in the Bengal silk industry. Out-stations for raising healthy industrial seed from microscopically selected seed were kept up at five places away from the silk districts, where the disease would not be in the air. The eggs reared at experimental stations were bought by about one thousand cocoon-rearers and gave healthy silkworms in almost every case. The distribution of large quantities of healthy seeds is expected to appreciably affect the produce of silk in Bengal.

Agricultural experiments

On the Doomraon Maharajah's experimental farms in the Shahabad district of Behar, the use of saltpetre on previously unmanured land increased the out-turn of sugar-cane per acre by 125 per cent., and converted the average loss of Rs. 6 a. 2 p. 4 per acre on unmanured lands into a profit of Rs. 84 a. 9 p. 7½ per acre. The value of ashes and burnt bones as alternative forms of manures was also demonstrated. As regards methods of planting, the experiments again showed the superiority of the Mauritius trench system over the local method of planting behind the plough. For wheat the use of the soil-inverting plough gave a profit four times as great as the country plough, and on irrigated land crude saltpetre was again found to be one of the most profitable manures. For maize and potatoes experiments showed the value of green manure and bone meal. The model farm of 30 acres, which the Maharajah has made over to a trained Bengali agriculturalist with a view of ascertaining whether the lessons drawn from the experiments of the last few years will make it possible for a farm of small size to become remunerative, showed in spite of very great disadvantages of season a net profit of 7 per cent. after allowing for rent, interest on outlay, and depreciation of stock.

On the Seebpore experimental farm sorghum was grown for fodder with encouraging results, green manure was used for wheat, and the crop that resulted

was hardy and abundant; the method of drilling and dibbling the seed was shown to be a great improvement on the native method of sowing behind the plough. The cultivation of oats, a crop otherwise unknown in Bengal, was introduced on the farm; the out-turn was large, but the quality was defective; an attempt is to be made to improve the quality, by the importation of foreign seed and by careful selection and cultivation. Tobacco from Kentucky, Virginia, and Havana was sown, and three native varieties. The American seed failed to germinate, but the other four kinds gave good results.

At the experimental farm on the Maharajah of Burdwan's estate, sugar-cane experiments resulted in a profit of Rs. 105 per acre, from land manured with a mixture of bone meal and castor cake. The Mauritius system of planting gave an increase in profit over the local system equal to three times the additional outlay: Several kinds of green fodder were grown; the increase of yield from sorghum fodder manured with bone meal, led to an increase in out-turn of the estimated value of Rs. 18-12 per acre, the cost of the manure being Rs. 5-10 per acre. Hitherto the general absence of any fodder crops has been a serious obstacle to stock-raising and a drawback to Indian agriculture generally. A manure of cow-dung and castor cake gave a hitherto unequalled out-turn of potatoes per acre.

Crushing bones for manure, which was two years ago made a staple industry for Moslem convicts at the Jalpigoree jail, has now been introduced into the jails at Darjeeling and Saran. Careful trials at the Seebpore farm showed that crushing bones with a pounder worked by human labour was 15 per cent. cheaper than crushing bones in a mill worked by steam. But the neighbouring cultivators have not shown any interest in the manure, in spite of the success of the experiments which have been tried with it.

Efforts to introduce improved ploughs have not been generally successful. Experiments on a smaller scale were conducted on Ward's estates, and on Government estates, under the supervision of the officers of the Agricultural Department. The new crop in which the most general success was obtained was potatoes.

A new method of preparing date-sugar by boiling date juice in deep earthen pans instead of shallow iron pans was tried in Jessore, with results so promising that the method of manufacture is to be applied on a large scale in the coming season.

Eight agricultural exhibitions were held in the Province during the year.

The 106th annual report of the Calcutta Botanical Gardens shows that more than 15,000 specimens were added to the herbarium, among which the principal contributions were from the Kew Herbarium, and from other herbaria in Europe, Asia, Africa, and Australia, as well as from General Sir Henry Collett and other collectors. Collections and botanical explorations continue to be made by persons trained at the gardens, in Assam, Burma, the Andamans, Sikkim, and on the Tibetan frontier.

The efforts made during the year in the North-West Provinces to reclaim *usar* land, or soil impregnated with salt, continue to show, on the four plots under treatment for several years, that mere inclosure, with the hope of securing a good growth of grass or brushwood, does not answer. But embanking, ploughing and manuring have answered fairly well; one plot was sold during the year to a farmer at a price that more than covered the net outlay on reclamation. On another, 43 acres of reclaimed land were let to a tenant at a rent of eight rupees per acre. As grass lands for hay or grazing, or as fuel plantations, the reclaimed plots have not succeeded.

Five private experimental farms and one Agricultural Association were at work during the year; they were all visited by the Director of Agriculture or his assistant. Experiments of value were made with different kinds and varying quantities of manure, also with many kinds of seeds and implements. Mr. L. Persad's farms used means such as an ordinary cultivator could easily adopt; he got yields of potatoes as high as four tons two cwt. to the acre. He showed that by embankment, careful tillage, and good management the condition of poor soil could be improved. And on all these farms useful object lessons were given to ryots of the neighbourhood.

The Seharunpore and Mussoorie Botanical Gardens suffered from the unusually long hot season, from the early cessation of the monsoon rains,

AGRICULTURE.

rains, and from unwonted cold and damp during the winter. The yield of mango fruit was very large, but the harvest of other fruits was poor and strawberries failed. The price of fruit is said to be considerably lower than it was some years ago, in consequence of the large number of gardeners who have taken part in the industry. The demand for trained gardeners continues to be large; 12 were sent out from the gardens during the year, but more were wanted. The number of trees, plants, and seed packets sold or distributed was 96,315, considerably above the previous year's supply for every kind except strawberry plants. So far as the year's experience went, the date-palms, the foreign apples, and peaches failed; not one of the sugar-cane seeds that were sown germinated, but further experiments will be made in reproduction from seed instead of from layers. The successes of the year were with imported maize, with specially large brinjals, with sissal, hemp, and with flower bulbs. The two gardens cost Rx. 2,058, and their receipts, including credits for supplies to medical depôts and to soldiers' gardens, were Rx. 2,161. The gardens are abstaining from experiments with ordinary cereals, cotton, and agricultural crops, which can be better done at the Cawnpore experimental farm, and are being devoted more and more to acclimatising foreign staples and to producing trees, plants, and acclimatised seed for distribution.

Though the season was not favourable, the Lucknow Horticultural Gardens covered 93 per cent. of their cost, by realisations from the sale of trees, plants, seeds, and produce. The number of fruit trees, ornamental trees, and packets of seed, distributed in the Province from these gardens was 28,161, or 63 per cent. more than in the preceding year.

On the Cawnpore experimental farm managed by a Mahomedan officer, trained at Cirencester, the results of the year were not satisfactory. The rains set in late and were abnormally heavy during August and September. Experiments were, as in past years, confined to maize, cotton, and wheat, and were intended to determine the effect of (1) different manures; (2) deep ploughing; (3) early and late sowing; (4) different methods of sowing; (5) the use of sulphate of copper as a preventive of rust in wheat. The maize experiments were inconclusive. With wheat the plan financially most successful was to plant indigo, sell the crop for dye, and to plough in the roots as manure. Nine years' experiments have demonstrated the economy of using an improved plough for wheat, without particularly deep furrows. Early sowings of maize and cotton were found to pay; on canal-watered lands; sowings a whole month before the rains yielded good results. The experiments with sulphate of copper were inconclusive and will be renewed. The average yield of maize on the farm was only 15½ bushels per acre, and of wheat 19 bushels, against 19½ bushels and 21½ bushels respectively per acre in the previous year.

Punjab.

The rainfall in the Punjab was plentiful and the season was favourable for wheat. Both the autumn and the spring crops showed a great advance on the previous year. The area under autumn crops increased by three-and-a-quarter millions of acres, or 37 per cent.; while the area under spring crops increased by more than two millions of acres, or 16·3 per cent. The total area under wheat was returned at 7,400,060 acres. The price of the superior autumn grains rose as compared with the previous year, owing to the fact that the autumn harvest was better in quantity than in quality; but the coarser autumn grains, and the spring produce generally, showed a fall in price. The price of wheat was low, but in consequence of the bad prices prevalent in England there was little export. There left the Province during the first three-quarters of the year only one-sixth of the amount that was exported in the same portion of the preceding year.

Cattle diseases of various kinds broke out in several districts during the year. Rinderpest caused a loss of 6,000 head of cattle.

The Civil Veterinary Scheme, under which the Province obtains the services of two veterinary superintendents and half the services of a third, in place of a single veterinary surgeon to Government, came into force during the year. The arrangements for providing professional superintendence over the subordinate veterinary establishment throughout the Province are now in working order. At the Lahore veterinary school the number of students at the close of the winter session was 89. The results of the examination held in April 1893 were very creditable; out of 56 candidates, 36 obtained first-class and 13 second-class certificates.

certificates. The number of indoor and outdoor patients under treatment continues to increase. AGRICULTURE.

The rainfall of 1892-93 was above the average in all districts but one of the Central Provinces. The early crops of cotton and millet, and the late crop of wheat in the southern part of the Provinces suffered from excessive rain; but, taking the year as a whole, rice, cotton, linseed, and wheat were all satisfactory, the wheat crop being 10 per cent. above the average. The four chief food-grains—wheat, rice, jowari (greater millet), and gram (horse-pea) were, during the greater part of the year, dearer than in the corresponding months of the preceding year. Returns of crops cultivated are available for an area of about 66,000 square miles out of the total of 116,000 square miles; out of that area 36 per cent. was under crop, and 5 per cent. was returned as "current fallows." Of the cropped area, 25 per cent. was under wheat, the same proportion under rice, slightly more under other food-grains, 8 per cent. under linseed, and 4 per cent. under cotton. The progress of survey, which is continually extending the area for which detailed statistics are available, make it impossible to compare together the figures for a series of years.

On the Nagpur Experimental Farm, experiments are being carried on continuously over a series of years, separate plots of ground being appropriated for each. One fact that has thus been demonstrated by lengthy trials is that manure without irrigation scarcely pays in increased out-turn for its own cost; and this explains the small use that is made of manure in the wheat-growing tracts of the Nerbudda Valley. In combination with irrigation, however, salt-petre, cattle-dung, and other kinds of manure are profitable. Interesting experiments were made to test the advantages of deep ploughing, of heavy sowing, and of the use of green soiling. Cotton, also, both long-stapled and short-stapled, was grown on the farm; and the results were such as to render doubtful the truth of the common opinion, that the short-stapled variety is less profitable to the ryot. Observations were made with reference to the damage caused to wheat crops by trees growing near them; and the conclusion suggested was that the damage is caused, not, as is generally supposed, by the shade, but by the presence of the roots in the soil. Some crops were protected by the digging of trenches round the bamboos and mango trees near them, so as to cut off the surface roots; and the measure was effective.

The condition of agricultural class attached to the farm is generally satisfactory; but students join simply as a means of obtaining Government employment.

The season of 1892-93 was favourable in Lower Burma, and the rice crop in that Province was good. The total area under rice was 5,086,853 acres, while the total area under all other crops was 520,279 acres. The increase in the area under rice was nearly 10 per cent., and there was a considerable extension in the cultivation of sesamum and tobacco. The exports of rice by sea to places outside Burma reached 1,285,000 tons in the year 1893, and exceeded the amount reached in any previous year. Burma.

In Upper Burma the rainfall was heavier than it had been in the two preceding years, and the harvest was, on the whole, better. The imports of rice from Lower Burma reached 112,189 tons, or 40,000 tons less than in the preceding year.

In Lower Burma there was a remarkable fall in the price of rice in 1892-93. At the end of the previous year it had gone as high as Rs. 138 for 100 baskets in Rangoon; in 1892-93 it was from Rs. 76 to Rs. 79 for the same amount. In Upper Burma there was a general fall, not so sudden as that in Lower Burma, but yet as great as 30 per cent. in some cases.

There were 41,943 acres of new grazing ground marked off during the year in Lower Burma. Cattle disease was less severe than in the previous year, and in Lower Burma the number of deaths was 2,000 less.

The rainfall of Assam was about 3 per cent. above the average of the preceding five years, but its unequal distribution injuriously affected several districts. The rice crop was generally fair, but the season was unfavourable for tea. Prices of food ruled high in consequence, partly, of the bad harvests of the previous year, and partly of the rise in the neighbouring province of Bengal. The potato crop in the Khasi Hills was found to have been attacked by the common potato rot of Europe. In some districts cattle disease was rife, the number

AGRICULTURE.

number of deaths reported being 154,290, an increase of 43,300 on the previous year; the resulting loss was estimated at Rx. 126,303, an increase of Rx. 51,667 on that of the previous year.

Crop experiments have been carried on as in preceding years. The chief results with rice have been that the average yield per acre of rice in husk was, in the Brahmaputra Valley, from 1,049 to 1,374 lbs. according to the variety planted; in Sylhet 1,141 lbs. for early rice, and 1,517 lbs. for later varieties; in Cachar, 1,223 lbs. for early rice, and 1,592 lbs. for later; in the Khasi Hills 755 lbs. for upland rice and 946 lbs. for lowland; in the Garo Hills 1,625 lbs. for one of the varieties, and 869 for the other. The net result of sugar cane experiments up to date has been to show that cane yields 47·4 per cent. of its weight of juice, and 8·25 per cent. of its weight of "gur" or molasses, and that the yield of "gur" per acre is 1,470 lbs.

Madras.

The season in Madras during 1892-93 was unfavourable. At the beginning of the year, before the setting-in of the south-west monsoon, and again at the end of the year when the north-east monsoon failed, there were long periods of severe drought. In consequence large advances, amounting to Rx. 227,500, as against Rx. 168,566 in the preceding year, were made under the Lands Improvement Loans Acts and the Agriculturists' Loans Act, and were in very many cases used for well-sinking. Minor irrigation works were carried out at a cost of Rx. 36,404, in addition to the larger schemes under the charge of the Public Works Department.

The season caused severe suffering among cattle in the early part of the year. But the figures concerning disease and death, though they showed an increase over the preceding year, were yet well below the average. Among the bulletins issued by the Madras Agricultural Department were memoranda on the names of the field-crops growing in the Presidency, on the Palmyra palm and its uses, on sugar mills, and on grass-farming in Coimbatore. The more noteworthy results of agricultural experiments during the year are that a small quantity of seed potatoes planted on the Palni Hills gave a fair crop, that palmyra fibre prepared in South Arcot has been found to be valuable for brush-making, and that a considerable export trade in the fibre has sprung up in various parts of the Presidency. In Trichinopoly, attention has been drawn to an extensive deposit of phosphatic nodules, which may eventually be of value for use as manure.

Bombay.

The rainfall in Bombay was generally heavy, and in some parts excessive. The harvests were on the whole good, and prices fell through a large portion of the Presidency. The gross cropped area showed an increase at 3·8 per cent. compared with 1891-92. The new staff for maintaining and correcting year by year the village records of the cadastral survey was further extended during 1892-93, and classes for the education of the officers in survey work were held in nearly all the district head-quarters. The inspection of villages and of crops was carried on satisfactorily through the year.

The Bhadgaon experimental farm, the success of which was prejudiced by the inaccessibility of the site and the dearth of labour in the district, was sold during the year to a private purchaser at a satisfactory price.

The chief results attained during the year by the experiments conducted on Government farms or by private cultivators, were that arrowroot was raised and sold at Ratnagiri, strawberries at Mahábaleshvar, and indigo at Junāgadh. It was found that copper sulphate solution protected sound potato plants from disease, but that the only general remedy was the distribution of robust seed. For this purpose some help has been granted by the Government. At the Poona farm experiments were made to test the feeding value of various fodder-crops. Guinea grass and various kinds of jowāri gave the best results. The dairy herd kept on the farm yielded a good profit.

Government loans to cultivators for permanent improvements and the purchase of seed and cattle, amounted to 6½ lakhs, and though rather less in amount than those of 1891-92, a year of widespread distress, were double those of 1890-91, and four times those of 1889-90. The local Government reports that cases of misapplication of the loans have been very few. Horse shows were held during the year at Ahmednagar, and at Jacobabad in Sind. The number of exhibits in the former place showed an increase of more than 100 per cent. over the last show held there, and in the latter an increase of 50 per cent. over the last show held in Sind.

Both

Both the early and the late crops in Berar suffered from excessive rainfall. The total area under cultivation was about 3 per cent. larger than in the previous year, being 7,659,046 acres. The area assessed and available for cultivation was 8,073,883 acres; the area of the Province is 10,296,347 acres. A third of the cultivated area was under millet, about the same proportion under cotton, and a seventh under wheat. There was, as compared with the preceding year, a decrease of 2 per cent. in the proportion of cultivated area under cotton, and a corresponding increase in the area under food-crops. Wheat fell slightly in price, jowari, the staple food of the people, rose 25 per cent., and rice and gram, which is cultivated over 250,000 acres, both rose slightly.

AGRICULTURE.
Berar.

HORSE BREEDING.

In 1891-92 the Civil Veterinary Department took over the management of horse-breeding operations which were formerly under the direction of military officers. The staff of veterinary surgeons concerned with this business is distributed over the several provinces where horses and mules are bred. These officers in conjunction with the district authorities and local Boards organise and control operations for combating cattle disease, and help in instructing Natives at veterinary colleges. In some parts of India as, for example, through the greater part of the Presidency of Bombay, a staff of inspectors is employed by the department to revise the muster of mares branded as fit for use with Government stallions. The returns of agricultural stock are not complete for all provinces; but the total number of horses and ponies in British India is approximately about 1,300,000, while the number of mules and donkeys is about the same. The North-West Provinces and Oudh return 489,000 horses and ponies and 336,000 mules and donkeys; while the Punjab returns 493,000 mules and donkeys and 226,000 horses. The number of stallions kept by Government for horse-breeding in the year 1892 was 344. The most numerous class of stallions is that of the Norfolk trotters, of which there were 128, and the next is that of the Arab sires which number 106; the Norfolk trotters are popular with Native horse breeders, and their stock win more prizes in proportion than the stock of any other class of stallion.

The number of mares branded for use with Government stallions was 25,537 at the end of March 1892, of which 7,426 in the Bombay Presidency were registered for pony breeding only. Each stallion covered an average of 39 mares during the year; the average number of foals dropped to each stallion employed during the year was 12½; thus about one-third of the coverings resulted in foals. The number of donkey stallions remaining at the end of the year was 312, of which 130 were Italian animals. The number of pony mares covered by Government donkeys during the year was 17,583, and 4,758 mules were reported to have been foaled during the year, or ten per cent. more than in the previous year. From most of the horse and mule breeding districts it is reported that a strong demand exists for more stallions; and it is said that the district boards as well as civil officers are giving much attention to the improvement of horse breeding.

In the Punjab the number of Government horse stallions at work during the year was 108, and of donkey stallions 188, against 121 and 186 in the previous year; the number of mares branded for horse breeding rose from 9,452 to 9,683. The number of mares covered by horse stallions was 5,352; and the average number of foals dropped per stallion rose from 12½ to 15½. The number of mule foals dropped during the year was 3,171 or 17 to each donkey stallion. The number of horses, mules and donkeys brought to 18 fairs during the year fell from 26,231 to 25,750. It is reported that "the horse stock now seen at the fairs, and especially those that are put forward as competitors for prizes are of decidedly superior quality to those of former years." The number of horses bought at the Punjab fairs for army remounts was 691. District boards and other bodies keep 30 stallions in addition to the Government stock.

In Bombay and Sind, there were 94 horse, and 23 donkey stallions at work; the number of mares branded for horse breeding was 3,109. The average proportion of foals dropped to mares covered was 40 per cent. At the chief horse show in Sind 1,365 horses, or 50 per cent. more than in the preceding year, attended, and 80 remounts were bought at an average price of Rx. 23; the number of mules shown at this fair fell to 98 as compared with the previous year. The horse shows of the Deccan were also successful, with 237 and 325

AGRICULTURE.

horses each. The cost of keeping a horse stallion averaged Rx. 38 in Bombay and Rx. 29 in the rest of India; while the keep of a donkey stallion came to Rx. 25 in Bombay and Rx. 14 in the rest of India. The total charge of the horse-breeding department, including prizes, the cost of new stallions, &c., was Rx. 29,000 during the year.

Officers of the horse breeding and remount departments attended at all the more important horse fairs, and the reports of the judges show that almost everywhere the number and character of the young stock continue to advance. The total number of horses and mules brought to 28 of the chief horse fairs of northern India was 56,466, as compared with 54,648 in the previous year. The number of horses bought at these fairs for mounted branches of the public service was 1,167, at prices ranging from Rs. 625 to Rs. 120, and averaging about Rs. 280. A sum of Rx. 3,280 was expended in prizes at horse-fairs, two-fifths of which were contributed by local boards.

AGRICULTURAL PRODUCE.

WHEAT.

The ascertained and estimated area under wheat is given thus :—

	Normal Wheat Area for recent Years.	Areas cultivated with Wheat in	
		1891-92.	1892-93.
	Acres.	Acres.	Acres.
Punjab - - - - -	6,505,000	6,224,000	7,123,000
North Western Provinces and Oudh -	4,901,000	4,692,000	4,641,000
Central Provinces - - - - -	4,077,000	3,904,000	4,337,000
Bombay - - - - -	2,516,000	2,176,000	2,413,000
Sind - - - - -	475,000	483,000	597,000
Berar - - - - -	906,000	888,000	985,000
Bengal (estimated) - - - - -	1,728,000	1,300,000	1,421,000
Rajputana - - - - -	1,562,000	1,471,000	1,604,000
Rest of India (estimated) - - - - -	3,891,000	3,344,000	3,117,000
TOTAL - - - - -	26,561,000	24,452,000	26,238,000

The seasons of 1892-93 were favourable to wheat cultivation. The sowing season was propitious everywhere. In the North-West Provinces, Oudh, Sind, and the Punjab, the abnormal rain of February and March benefited the standing crop. But in the Central Provinces and Berar, where the harvest is earlier, the exceptional wetness of the season injured the wheat, and the crop was poor. On the whole, the wheat yield was computed to have averaged about one bushel above the normal out-turn of nine bushels per acre. Prices of wheat, which had been very high during the year 1892 and at the beginning of 1893, fell considerably in Northern India in consequence of the good harvest. The wheat exports of the past few years have been :—

1,047,000 tons in - - - 1883-84	689,000 tons in - - - 1889-90
1,053,000 " - - - 1885-86	1,515,000 " - - - 1891-92
677,000 " - - - 1887-88	742,000 " - - - 1892-93

During 1891-92 the wheat exports rose greatly in response to a demand caused by dearth in Eastern Europe. In 1892-93 the American crop was abundant, and there was less demand for Indian wheat. It was computed that the total wheat exports represented about 14 per cent. of the out-turn of the year in India.

OILSEEDS.

The area under, and the yield of, the main oilseeds crops—namely, linseed, rapeseed, and mustard, for all India is given thus :—

	Normal Year.	1891-92.	1892-93.
Area in acres - - - - -	17,179,000	17,513,000	17,096,000
Yield in tons - - - - -	968,000	1,022,000	1,102,000

AGRICULTURE

The yield was best in the rapeseed area of the Punjab and Bombay, but on the whole the year was favourable for these crops. The heavy rain of February and March injured the linseed plants in the Central Provinces and Berar. The exportations of linseed were only 390,000 tons, against 543,000 tons of rape and mustard. The value of the oilseed and exports during the year 1892-93 was Rx. 7,415,000, or about the same as the value of the year's wheat exports, which came to Rx. 7,440,000.

RICE.

The rice harvest in 1892-93 was up to the average in Burma, which yields the greater part of the exportable rice-surplus, but was below the average in Bengal and Madras; in some parts of these Provinces it did not exceed half an average crop. The total normal area under rice in British Provinces is said to be about 59,000,000 acres, of which 32,000,000 belong to Bengal, 5,750,000 to Burma, and the same area to Madras; the Bengal rice area is said to have shrunk to 30,000,000 acres in 1892-93. The total quantity of rice exported from India and Burma beyond the sea was 1,396,000 acres, or 10 per cent. below the total of the preceding year. Three-fourths of the exports came from Burma; nearly half the exports were sent to Europe, and most of the remainder to further Asia. The quantities of cleaned rice, as distinguished from cargo rice, despatched from Burma continue to increase, and constitute now nearly two-thirds of the Burma exportations. The price of rice ruled somewhat lower at the rice ports, but the great fall in price which has marked the rice market during 1893 did not set in until April 1893.

The Indian export duty of three annas per maund on rice yielded to the Indian Treasury Rx. 727,000 against Rx. 900,000 during the year 1890-91, the highest figure ever reached. Siam and Saigon, which with Japan constitute the only other considerable rice-exporting countries of the world, levy about the same rate of duty. The exports from these countries in 1892 and in 1893 to Europe were 249,000 and 286,000 respectively, against Burma's exports to Europe of 778,000 and 738,000 tons in the two years, and Bengal's export to Europe of 64,000 and 44,000.

The area under cotton is returned at:—

COTTON.

	Normal Area.	1892-93.
	Acres.	Acres.
Madras - - - - -	1,700,000	2,008,000
Bombay and Sindh - - - - -	2,727,000	3,001,000
Bombay Native States (estimated) - - - - -	2,666,000	2,566,000
North West Provinces and Oudh - - - - -	1,499,000	1,311,000
Punjab - - - - -	762,000	939,000
Central Provinces - - - - -	631,000	692,000
Berar - - - - -	2,231,000	2,202,000
Nizam's Dominions (estimated) - - - - -	900,000	900,000
Central India (estimated) - - - - -	290,000	290,000
Rajputana (estimated) - - - - -	548,000	688,000
Other Provinces (including Bengal) and Native States (estimated) - - - - -	1,335,000	1,335,000
TOTAL - - -	15,189,000	15,832,000

The season was unfavourable for cotton, and the yield was below the average everywhere. The short harvests were due mainly to heavy or unseasonable rain. The total yield of cotton in British and Native India in an ordinary season, at an average rate of three-quarters of a cwt. per acre, would be about 11,874,000 cwts. The area under cotton in India, despite low prices and three successive bad seasons, continues to be very large. Cotton is still the most important

98 STATEMENT EXHIBITING THE MORAL AND MATERIAL

AGRICULTURE.

non-food crop of India, and it will be remembered, as evidence of the value of this crop to the Indian peasant-farmer, that the cotton crop of Berar in 1889-90, most of which was exported, fetched more than thrice the whole land revenue of the entire province.

The exports of raw cotton from India were:—

1884-85	- -	5,066,000 cwts.,	valued at Rx. 13,286,000
1886-87	- -	5,432,000 "	" " " 13,468,000
1888-89	- -	5,331,000 "	" " " 15,046,000
1889-90	- -	6,325,000 "	" " " 18,669,000
1891-92	- -	4,424,000 "	" " " 10,754,000
1892-93	- -	4,789,000 "	" " " 12,743,000

TEA.

The cultivation and the production of tea in India for the last three years show:—

	Area growing Tea, in Acres.		
	1890.	1891.	1892.
Bengal - - - - -	85,573	90,815	92,852
Assam - - - - -	231,038	241,823	247,192
Madras - - - - -	5,738	5,481	5,694
North Western Provinces - - -	8,766	9,374	9,374
Punjab - - - - -	9,229	9,011	9,091
TOTAL - - - - -	340,344	354,504	364,203

The yield per acre was returned at 394 lbs. in Assam, somewhat higher than in the previous year, and at 399 lbs. per acre in Bengal, or 5 per cent. less than in the previous year. The tea yield per acre fell 10 per cent. as compared with the preceding year in Assam, by reason of the unfavourable weather which prevailed all over the province. In the Bengal tea gardens the season was prosperous. The total exports of India tea are returned at, —

78½ million lbs. in 1886-87 | 120 million lbs. in 1891-92
 107 " " 1890-91 | 114½ " " 1892-93

Owing to a rise in price, the value of India's tea exports in 1892-93 was Rx. 6,292,000, or Rx. 324,000 more than in 1891-92, when the quantity exported was 5 per cent. larger. Australia took 3 per cent. of India's tea exports, against 5 per cent. in 1890-91; 1 per cent. was sent to Persia, and the rest went to the United Kingdom.

According to the British returns the importations of tea into the United Kingdom have come from China, India, and Ceylon in the following proportions:—

In the Year	From China.	From India.	From Ceylon.
1865 - - - - -	93 per cent.	2 per cent.	0 per cent.
1870 - - - - -	89 "	9 "	0 "
1875 - - - - -	86 "	13 "	0 "
1880 - - - - -	76 "	22 "	0 "
1885 - - - - -	66 "	30 "	2 "
1890 - - - - -	33 "	46 "	19 "
1892 - - - - -	24 "	47 "	28 "

In 1892 the tea from China was imported at an average price of 8½d. per lb., while Indian tea averaged 10½d. per lb.

The

The area under coffee shows a small decrease, as compared with the previous year's figures, thus :—

	1888.	1891.	1892.
	Acres.	Acres.	Acres.
Coorg - - - - -	82,335	62,230	59,985
Madras - - - - -	56,094	68,911	68,209
Mysore - - - - -	113,116	125,747	125,747
Travancore, Cochin, &c. - - -	8,751	5,988	8,527
TOTAL - - - - -	260,296	262,876	261,468

The yield of coffee per acre may be taken at from 3 cwts. for the best European plantations in full bearing to ¼ cwt. for inferior Native plantations. The coffee crop of 1892 was good in Coorg and Southern India. The total coffee exports from India were 296,617 cwts. in 1892-93, as compared with 311,864 cwts. in the previous year, and 233,451 cwts. in the year 1890-91.

CINCHONA.
Bengal,

On the Government plantations of the Darjeeling district in Bengal there were, at the end of the year, 4,331,000 cinchona trees, or 100,000 less than in the preceding year. Of the existing trees nearly four-fifths are of the pure quinine-yielding variety, and less than one-quarter belonging to the cinchonine-yielding variety. During the year 466,000 trees were uprooted for their bark or died, while 184,000 were planted out; all the new plantations have for some years past consisted of quinine-yielding varieties. The harvest of dry bark was 304,000 lbs. The factory produced during the year 3,481 lbs. of cinchona febrifuge and 5,242 lbs. of sulphate of quinine. Quinine is now sold to public institutions and Government offices at one rupee per ounce, while the febrifuge is sold at 10 annas per ounce. The issues from the factory were 3,647 pounds of febrifuge and 5,518 pounds of quinine. The sales and issues of medicine during the year yielded a profit of Rx. 317, after meeting all charges for maintaining the plantations, renewing plant, and working the factory. As soon as the remaining million of red bark trees are used up, it is intended to manufacture only quinine, and to cease making cinchona febrifuge at the Darjeeling factory. The capital cost of the plantation had been repaid by the sale of cinchona drugs in previous years. During the year 1892, 475 lbs. of quinine were put up in 5-grain doses; each dose is carefully packed, and bears simple instructions in one of the vernacular languages of Bengal. The packets are made up by the jail department; and they are issued to local post-masters who, for a small commission, retail them to the public at one pice (one farthing) per packet or dose. As yet the arrangement has been made for Bengal only; when it is extended to other provinces, the demand for quinine, thus brought in convenient shape, and in an absolutely pure state, to the doors of the people is expected to increase indefinitely. Ample ground has been reserved for extending the Darjeeling plantations.

Madras.

In the Government plantations on the Nilgiri Hills in Madras the cinchona trees are almost all of the quinine-yielding varieties. Drought and the absence of sunshine made the year 1892-93 unfavourable for cinchona cultivation on the Nilgiri Hills. The plantations and nurseries were kept in good order; but there was no demand from outside for seed or for plants. The stock of dry bark in hand at the beginning of the year was 416,000 lbs.; the harvest of the year was 119,000 lbs.; the consumption of the factory was 172,000 lbs., and 2,000 lbs. were issued in the shape of bark. The produce of the factory during the year was 4,933 lbs. of quinine, and 3,139 lbs. of cinchona febrifuge; 3,204 lbs. of the former, and 2,600 lbs. of the latter were sold or issued to Government and municipal or local departments. The number of quinine powders issued to the public by collectors of districts rose to 170,000, from 37,000 in the previous. The expenditure on the plantations during the year was Rx. 7,900, and the receipts, exclusive of the packets sold by collectors, on account of quinine and febrifuge, were Rx. 7,300.

The area under cinchona on private plantations outside Bengal is returned at 10,862 acres, nearly all of which are in Madras. The exportation of cinchona bark from India by sea, which was 3,074,000 lbs. in 1888-89, and 2,693,000 lbs. in 1891-92, rose to 2,814,000 lbs. in 1892-93.

100 STATEMENT EXHIBITING THE MORAL AND MATERIAL

AGRICULTURE.
JUTE.

Bengal continues to be, as heretofore, the only province that produces jute to any considerable extent. The seasons of 1892 and of 1893 have not been favourable to the jute crop. The normal jute area of Bengal is returned at 2,226,000 acres; and the areas under jute in 1892 and 1893 respectively are given at 2,135,000 and 2,144,000 acres. The crop of 1892 was nearly up to the average; the yield of 1893 is put at 15 per cent. short of an average crop. Prices of jute ruled higher. The fluctuations of the jute trade during recent years have been as follows:—

YEAR	Exports of				TOTAL Value, Rx.
	Raw Jute.		Gunny Bags and Gunny Cloth.		
	Cwts.	Value, Rx.	Number of Bags, and Yards of Cloth.	Value, Rx.	
1883-84	7,018,000	4,592,000	70,695,099	1,334,000	5,926,000
1887-88	9,643,000	6,040,000	88,050,000	1,746,000	7,786,000
1889-90	10,256,000	8,639,000	134,660,000	2,791,000	11,430,000
1891-92	8,532,000	6,848,000	143,540,000	2,513,000	10,084,000
1892-93	10,537,000	7,944,000	164,034,000	3,238,000	11,182,000

INDIGO.

The normal area under indigo in India is about 1,100,000 acres, of which one-half belongs to Lower Bengal, about one quarter to the North West Provinces, and nearly one quarter to Madras. The high prices of the previous year led to a considerable extension of indigo in the North West Provinces, the area sown having risen from 200,000 acres in 1891 to 350,000 acres in 1892. In Bengal the season was unfavourable, and the crop poor; in Madras and Northern India the crop was good. Prices ruled high. The average value per cwt. exported rose from Rx. 25 in 1891-92 to Rx. 32 in 1892-93. The total exports of the past five years have been:—

	Cwts.	Rx.	
1888-89	142,000	valued at 3,949,000	Exports by sea, besides about 4,500 cwts. annually exported across the land fron- tiers of India.
1889-90	157,000	3,863,000	
1890-91	118,000	3,073,000	
1891-92	125,000	3,214,000	
1892-93	127,000	4,141,000	

MINES AND MINERAL RESOURCES.

MINERAL
RESOURCES.
Coal.

There was again an important increase in the production of coal in India. The output for the last three years from the principal coalfields has been—

	Coal produced in		
	1890.	1891.	1892.
	Tons.	Tons.	Tons.
Bengal.—Burdwan field	1,626,000	1,747,000	1,920,000
Karharbari field			
Sonthal Pergunnabs field			
Maunbhoom field			
Central Provinces.—Warora field	137,000	192,000	132,000
Mohpani field			
Assam.—Makum field	146,000	154,000	164,000
Punjab.—Dandot field	41,000	61,000	66,000
Baluchistan.—Khost field	16,000	10,000	13,000
Rewah State.—Umeria field	78,000	70,000	89,000
Nizam's Dominions.—Singareni field	125,000	145,000	150,000
TOTAL	2,169,000	2,329,000	2,538,000

The total yield of Indian coal seven years ago, in 1886, was 1,389,000 tons; during the same period the importations of coal by sea decreased from 849,000 tons in 1886 to 634,000 tons in the year 1892; of this 97 per cent. came from the United Kingdom, while 18,000 tons came from Australia, and 1,900 tons from Japan. During the year work began at the Lingadaw coal mine in Upper Burma, and coal therefrom is already used to some extent on the Burma State Railway and in Government river steamers.

MINERAL RESOURCES.

Iron is smelted on a small scale as a village industry in many parts of India; and iron ore of surpassing richness is found in the Central Provinces, in Madras, and in other parts. The Barrakur iron works, which possess coal, iron, and lime close to the works and on the main line of railway about 150 miles from Calcutta, have been mentioned in previous statements. These works were begun in 1875; after two successive companies and then the agents of the Government had failed to make them pay, the "Bengal Iron and Steel Company" took them over in 1890-91. New furnaces have been built, new pits have been sunk to the coal seams, plant for casting pipes and for making railway sleepers has been erected. The company turned out during the year 10,047 tons of pig iron and 3,970 tons of castings; they sold during the year 12,917 tons of pig and 4,253 tons of casting. The cost of production has been reduced, and the price has gone up compared with last year. This is the first year in which the company found a market for all the output of the year; their stocks of manufactured iron have been reduced; and their products have given satisfaction to customers. The capital expenditure of the company up to September 1892 was Rx. 185,000, and during the year then ending they had realised a profit of Rx. 14,800 on their sales of pig, and Rx. 4,600 on their sales of castings; the total profit on the working of the year in India came to 10½ per cent. on the total capital, against 5 per cent. in the preceding year.

Iron.

The production of petroleum from the principal oil fields has been returned thus:—

Earth Oil.

	Produced in			
	1888.	1890.	1891.	1892.
	Gallons.	Gallons.	Gallons.	Gallons.
Burma.—Akyab field, Kyaukpyu field, and Upper Burma field.	2,794,000	4,641,000	5,793,000	8,698,000
Baluchistan.—Thal Chotali field - - -	34,000	272,000	138,000	3,000
Punjab.—Rawalpindie field - - - -	2,000	4,000	2,000	2,000
Assam.—Debroghur field - - - -	—	14,000	23,000	22,000
TOTAL - - -	2,830,000	4,931,000	6,136,000	8,725,000

In Lower Burma the oil output of Arakan showed an increase of 45 per cent.; but the increased total was only 308,000 gallons. In Upper Burma a greatly increased yield was obtained from the Yenangyaung field by the Burma Oil Company, which has been at work in the Yenangyaung field for about 18 years, and which possesses a refinery in Rangoon, and has considerably increased its machinery and its staff of skilled American oil-workers. Up to the end of the year the field had not been effectively worked by the other concessionaires. There has been a large decrease in the production of Baluchistan oil, which was formerly used as fuel for engines on the State railway. The Assam oil sources are as yet but little worked; the field is, however, believed to be valuable, and the yield may increase largely when the railway reaches the tract.

102 STATEMENT EXHIBITING THE MORAL AND MATERIAL

MINERAL RESOURCES.

Though the output of Indian and Burmese oil has more than trebled in the past five years, still the importations of earth-oil into India by sea continue to increase, thus :—

IMPORTATIONS of Mineral Oils into India.

	1883 84.	1889-90.	1891 92.	1892-93.
	Gallons.	Gallons.	Gallons.	Gallons.
From United States - - - -	12,714,697	35,882,120	27,294,000	26,265,000
„ Russia - - - -	—	15,961,875	28,334,000	38,087,000
„ elsewhere - - - -	1,169,141	1,546,163	2,734,000	2,481,000
TOTAL - - -	13,883,838	53,390,158	58,109,000	67,086,000

The value of the imported petroleum was returned at Rx. 2,690,000 in 1892 93, and at Rx. 2,367,000 in the preceding year. The employment of tank steamers began in 1893, and is expected to make imported oil cheaper, so that there may be a further increase in the use of this illuminant; in 1888-89 forty millions of gallons were valued at Rx. 1,860,000, whereas in the past year 67 millions were valued at Rx. 2,690,000, showing a fall of 14 per cent. in price during the five years.

Gold.

The gold industry in Mysore continues to advance, but down to the end of 1893 only four companies had produced any considerable quantity of gold. The results of eight companies working in Mysore during the last three years have been :—

	1888.	1892.	1893.
	Ounces.	Ounces.	Ounces.
Quantity of gold extracted - - - -	35,034	163,188	185,795
	Rx.	Rx.	Rx.
Net value of gold extracted - - - -	193,059	980,000	1,184,000
Royalty due to the Mysore State, approxi- mately.	9,652	49,000	55,000

So far as is known, the yield of gold during the year 1893 has been from the Mysore Company 65,409 oz., from the Urigan Company 75,063 oz., and from the Nandidrug Company 31,223 oz.

Rubies.

No reports of successful results have been received from the Burma ruby mines by the end of the year. There was some delay in payment of their rental by the lessees.

X.

PUBLIC WORKS.

The Public Works Department was represented in the Governor General's Council during the greater part of the year by Sir Charles H. T. Crosthwaite, K.C.S.I., who was succeeded by Sir Charles B. Pritchard, K.C.I.E., in November 1892. Mr. F. L. O'Callaghan took up the post of Public Works Secretary, in succession to Colonel J. G. Forbes, on the 8th August of the same year.

PUBLIC WORKS.
General.

The engineer establishment of the Department, including Bombay and Madras, but excluding the now separate Military Works Department, was maintained at an average strength of 887.

The following statement shows the composition of the engineer establishment, as it stood at the commencement of the year 1892 :—

	Government of India List.	Government of Madras List.	Government of Bombay List.	TOTAL.
Royal Engineer officers - - -	67	15	8	90
Other military officers - - -	13	—	—	13
<i>Civil Engineers :</i>				
Appointed from Europe - - -	364	57	52	473
Europeans appointed in India - -	205	4	6	215
Natives appointed in India - - -	65	7	24	96
TOTAL - - -	714	83	90	887

In accordance with the recommendations of the Public Service Commission, important changes were effected during the year in the constitution of the Engineer and Accounts Establishments of the Public Works Department. The Engineering branch of the Department has been divided into two services, Imperial and Provincial, the former of which will be recruited in England and the latter in India. The pay, and leave and pension rules, of the two services will be different, but in other respects there will be no distinction between the members of the two divisions, and the highest posts in the Department will be open to both. The recruiting of the Imperial Service will be, as formerly, from the Royal Indian Engineering College at Cooper's Hill; the Provincial Service will draw its recruits from Students of the Indian Colleges who are natives of India, and from upper subordinates of the Public Works Department.

The recruitment of the Accounts branch of the Department will, in future, be wholly in India. In respect of entrance examination and scale of salaries this branch of the Public Works Department has been assimilated to the enrolled list of the Finance Department.

The operations of the Department deal with three kinds of works, viz., Railways, Irrigation, and Buildings and Roads. The Railway Department is an Imperial service under the direct control of the Government of India; the establishment employed on Irrigation and on Buildings and Roads, is subdivided into different Provincial services, controlled by the local administrations subordinate to the Supreme Government. Under the head of Buildings and Roads are included many miscellaneous works, such as improvements in towns, paving, water-supply and drainage, harbours, lighthouses, &c.

The annual expenditure on public works is met partly from money raised by loan, and partly from the ordinary revenues of the year. For the railways and the more important irrigation systems, distinct capital and revenue accounts are kept, but for the smaller works of irrigation, and

104 STATEMENT EXHIBITING THE MORAL AND MATERIAL

PUBLIC WORKS.

most of the works included in the class of buildings and roads, such accounts are not kept, though a distinction is made in the accounts between expenditure on new works and expenditure on repairs to existing works.

The following statement of the total receipts and expenditure under the head of Public Works for 1892-93 is compiled from the Finance and Revenue Accounts of the year :—

RECEIPTS.		Rx.
Railways	- - - - -	19,077,103
Irrigation	- - - - -	2,418,902
Buildings and Roads	- - - - -	653,183
		22,149,193

EXPENDITURE (exclusive of Rx. 458,060 charged under Special Defence Works).

	Charged to Revenue.	Not Charged to Revenue.
<i>Railways:</i>	Rx.	Rx.
Construction	1,323,956	3,455,199
On Revenue Account	20,924,155	—
<i>Irrigation:</i>		
Construction	106,103	531,091
Ditto - from Famine Relief Grant	60,793	—
On Revenue Account	2,834,076	—
<i>Buildings and Roads:</i>		
Military Works	1,196,799	—
Civil Work	4,649,681	—
TOTAL	31,095,863	3,986,290

The expenditure charged against revenue includes the following items of "Interest on Debt :"—

	Rx.
Railways	4,779,107
Irrigation	1,138,386

On the 31st of March 1893 Rx. 110,603,826 of permanent public debt had been incurred on account of railways, and Rx. 28,923,097 on account of irrigation.

RAILWAYS.

RAILWAYS.
Classification.

A full account of the results of railway operations in India is given in the Railway Administration Report annually presented to Parliament, and the aim of the following section is merely to give a short summary of them. As the accounts of the several railways had not been finally closed when the following statistics for the year 1893 were prepared, the figures must be accepted as only approximately correct.

The railways of India are classified primarily with reference to their ownership, and may be broadly divided into the Guaranteed, the State, and the Assisted. In the early days of railway enterprise the agency of private companies guaranteed by the State was exclusively employed, and nearly all the great trunk lines were made under this system. The chief terms of the contract between the old guaranteed companies and the State were as follows: the Government gave the land required free of charge; it also guaranteed interest, generally at the rate of 5 per cent., on the share capital raised with its consent, and a lower rate upon debenture capital. A general control and supervision over the proceedings of the company was also retained, and Government stores and troops were to be carried on favourable terms.

If the net profits in any half-year fall below the amount of guaranteed interest the Government makes up the deficiency. If they exceed this amount the surplus is equally divided between the Government and the company. Moreover, the Government has the right of buying the undertaking at specified dates, on payment of the value of the stock calculated at its market price on the average of the three preceding years. In this way the East Indian Railway was acquired in 1880, the Eastern Bengal Railway in 1884, the Scinde, Punjab, and Delhi Company's lines in 1885-86, the Oude and Rohilkhand Railway at the end of 1888, and the South Indian Railway in 1890. In 1870 a new policy of railway development by the direct agency of the State was inaugurated; and in 1880-81 the system of encouraging private enterprise by State assistance was again resorted to. Both agencies are now employed side by side. The experience gained of the working of the old guarantee system has, however, suggested various modifications in the relations between the State and the companies which have more recently been formed for the construction and working of railways, and the nature of the assistance granted now varies considerably. In some instances, of which the Bengal and North-Western Railway is the most important, lines have been constructed without any direct pecuniary assistance; in others a subsidy or limited guarantee has been granted. The agency of private companies has also been employed by the Government both in the construction and working of State lines. In all cases the Government has the power of taking over the railway at specified periods on stated terms.

The following figures, taken from the Finance and Revenue Accounts of 1892-93, show the financial result of the working of the railways in India for the year ending 31st March 1893.

	Imperial.	Provincial.	England, including exchange.	Total.
REVENUE.				
Railways:—	<i>Rx.</i>	<i>Rx.</i>	<i>Rx.</i>	<i>Rx.</i>
State railways (gross traffic receipts)	14,810,148	1,004,291	368	15,814,807
Guaranteed companies (net traffic receipts) - - - -	3,244,413	- - -	-	3,244,413
Subsidized companies (repayment of advances of interest) - -	17,883	- - -	-	17,883
TOTAL - - -	18,072,444	1,004,291	368	19,077,103
EXPENDITURE.				
Railways Revenue Account:—				
State Railways:—				
Working expenses - - - -	7,579,288	365,580	-	7,944,868
Interest on debt - - - -	2,939,735	210,372	1,629,000	4,779,107
Annuities in purchase of railways	-	-	2,717,399	2,717,399
Interest on capital deposited by companies - - - -	30,108	-	1,056,033	1,086,141
Interest chargeable against companies on advances - - - -	-	-	328,492	328,492
Guaranteed Companies:—				
Surplus profits, land and supervision - - - -	611,347	-	-	611,347
Interest - - - -	2,673	-	3,435,962	3,438,635
Subsidized Companies:—				
Land, &c. - - - -	12,383	16,643	-	29,026
Miscellaneous railway expenditure -	—10,860	-	-	—10,860
TOTAL - - -	11,164,674	592,595	9,166,886	20,924,155

In the figures for expenditure are included all charges falling on the Government for management and working expenses of railways, for interest

106 STATEMENT EXHIBITING THE MORAL AND MATERIAL

RAILWAYS.

on their capital outlay, as well as for the gradual redemption (by charge to the revenue account) of the commuted capital of the East Indian, Eastern Bengal, and Sind, Punjab and Delhi railways, through the agency of sinking funds and annuities, and of that portion of the Oudh and Rohilkhand railway debt incurred in excess of the money raised through the agency of the "Discount" sinking fund; the figures also include charges for land and control required by the companies, and for miscellaneous items, such as head-quarters establishment and surveys. After meeting all these expenses, the total charge to the State in 1892-93 was Rx. 1,847,052.

The general results of the working of the various classes of railways during 1893 are given in the following table. The aggregate net earnings by all Indian railways* amounted to 5.44 per cent. on the total capital outlay on open lines, including steam-boat service and suspense items, but excluding other indirect charges. The net earnings of the previous year were 5.47† per cent.

Railway Statistics, 1893.

CLASS.	Length of Line open on the 31st December 1893.	Total Capital outlay on open Lines to the 31st December 1893, including Steam-boat and Suspense.	Total number of Passengers carried.	Total weight of Goods carried.	Gross Earnings, including Steam-boat service.	Working expenses, including Steam-boat service.	Net Earnings, including Steam-boat service.	Percentage of Net Earnings on Capital outlay on open Line.
	Miles.	Rx.	No.	Tons.	Rx.	Rx.	Rx.	
STANDARD GAUGE.								
State lines worked by companies - - - -	3,494.58	69,054,941	18,966,829	7,109,676	6,114,770	1,965,633	4,149,137	—
State lines worked by the State - - - -	3,781.30	62,614,455	25,794,634	7,394,968	4,610,927	2,668,556	1,942,371	—
Lines worked by guaranteed companies - -	2,596.90	49,500,694	37,648,279	5,426,093	6,390,161	3,098,152	3,292,008	—
Assisted companies - - - - -	183.75	1,665,488	2,074,268	158,674	147,731	66,592	81,238	—
Lines owned by native states and worked by companies	400.58	4,659,235	1,802,689	455,790	343,266	178,310	164,956	—
Lines owned by native states and worked by State railway agency.	123.86	769,260	801,885	130,179	65,490	35,200	30,300	—
TOTAL - - - - -	10,570.97	178,267,013	86,068,664	20,672,760	17,672,355	8,012,353	9,658,900	5.43
TOTAL for 1892† - - -	10,196.59	173,226,413	83,577,378	19,018,611	17,229,827	7,961,419	9,426,607	5.47
METRE GAUGE.								
State lines worked by companies - - - -	6,237.50	38,728,357	32,619,990	6,258,065	4,420,960	2,176,370	2,244,610	—
State lines worked by the State - - - -	1,574.75	10,879,695	9,346,900	1,391,100	1,162,600	669,350	492,450	—
Assisted companies; - - - - -	136.21	853,785	563,807	276,066	98,074	61,349	26,725	—
Lines owned by native states and worked by companies.	131.70	642,961	628,796	147,060	43,097	19,947	23,150	—
Lines owned and worked by native states - -	739.48	2,625,196	2,395,116	342,610	304,379	156,357	145,923	—
TOTAL - - - - -	7,529.64	53,629,914	46,360,229	7,414,831	6,078,630	3,065,973	2,942,857	5.47
TOTAL for 1892† - - -	7,368.26	52,434,217	42,557,331	7,117,544	5,730,261	2,804,109	2,844,158	5.43
SPECIAL GAUGES.								
State lines worked by the State - - - -	28.00	79,878	51,000	9,900	7,017	5,519	1,498	—
Assisted companies - - - - -	51.00	317,000	61,537	28,063	63,125	35,451	27,673	—
Lines owned by native states and worked by companies.	71.66	185,540	447,900	51,800	24,549	12,190	12,440	—
Lines owned by native states and worked by State railway agency.‡	—	—	—	—	—	—	—	—
Lines owned and worked by native states - -	94.00	216,150	265,002	22,620	32,006	17,350	14,650	—
TOTAL - - - - -	244.66	796,568	825,439	112,383	136,697	70,410	56,271	7.66
TOTAL of 1892† - - -	244.66	781,579	796,306	123,665	127,455	73,291	54,064	6.92
TOTAL of all railways - - -	18,345.27‡	232,895,496	126,269,330	28,200,694	23,927,777	11,362,746	12,626,029	5.44
TOTAL of all railways for 1892† - - -	17,709.71‡	225,442,200	127,230,914	26,390,040	23,127,643	10,590,913	12,326,630	5.47

* Excepting the Bengal Doon, Cooh Behar, West of India, Portuguese, and Pondicherry railways.
 † As corrected from later information.
 ‡ Excludes the Bengal Doon railway, the figures for which have not been reported.
 § Information for the Cooh Behar railway, which belongs to this class, has not been furnished.
 ¶ Excludes the mileage of railways constructed but not worked.

It will be observed that, with an increase of 635½* miles or 3·59 per cent. in the open mileage as compared with 1892, the gross earnings and working expenses show increases of Rx. 640,237, or 2·76 per cent., and of Rx. 307,836, or 2·83 per cent. respectively, resulting in an increase of Rx. 332,401, or 2·70 per cent. in the net earnings. RAILWAYS.

The total number of passengers carried and the tonnage of goods moved were more by 8,058,416 and 1,940,654 tons respectively than in 1892.

The total railway mileage, under each gauge, opened during the year, and the sections opened were as follows :—

	Miles.	Miles.
STANDARD GAUGE.		
East Indian—Mile 1 from Barákar to Chanch	3	
Bengal-Nagpur—Jhársuguda to Sambalpur	30½	
Godhra-Rutlam—Godhra to Limkhera	25	
Oudh and Rohilkhand (State)—Lucknow to Rae Bareli	48½	
East Coast (State)—Bezwada to Godávari, south, opposite Rajahmundry	91	
Rajahmundry, Godávari north, to Viziunagram	163	
Sámalkôt to Cocanada	9½	
Waltair to Vizagapatam	1½	
	265½	
METRE GAUGE.		
Rohilkhand and Kumaon (Lucknow-Bareilly section) Mailáni to Sohela river	23½	
Guntakal-Mysore frontier—Dharmavaram to Mysore frontier	56½	
Southern Mahratta (Mysore section)—Dodballapur to Mysore frontier	31½	
Pálanpur-Deesa—Pálanpur to Deesa	17½	
Burma (State)—Meiktila-road to Meiktila cantonment	13	
Bengal Dooars—Teesta Ghát, opposite Jalpaiguri, to Mal bazar	27	
Jatiguri to Ramshai Hat	7½	
	34½	
Jodhpore-Bickaneer (Jodhpore section)—Merta-road to Kuchuman-road	73	
Jetalsar Rájkot—Jetalsar to Rájkot	46½	
		296
SPECIAL GAUGE.		
Cooch Behar—Gitalda to Torsa river		24
	TOTAL	692½

The additional lengths sanctioned for construction were :—

STANDARD GAUGE.		
East Indian—Sultangunge to Sultangunge Ghát		1
METRE GAUGE.		
Rohilkhand and Kumaon (Lucknow-Bareilly section)—Dudwa to Sonaripur	4½	
Rájkot-Jamnagar—Rájkot to Jamnagar with branch to Port Jodia	70†	
Oodeypore Chitor—Oodeypore to Chitor	60½	
		135
	TOTAL	136

* Excludes the mileage of the Bengal Dooars and Cooch Behar railways. The difference between this figure plus the mileage of the Bengal Dooars and Cooch Behar railways, and the total length shown, in the statement following, as having been opened during 1893, is due to minor corrections in the mileage of existing railways.

† Construction provisionally sanctioned pending result of preliminary survey.

108 STATEMENT EXHIBITING THE MORAL AND MATERIAL

RAILWAYS

The total mileage under construction or sanctioned for commencement at the close of the year, *i.e.*, on the 31st December 1893, was as follows :—

	Miles.	Miles.
STANDARD GAUGE.		
State lines worked by companies - - - - -	157	
State lines worked by the State. - - - - -	584½	
Lines owned by native states and worked by companies - - - - -	10	
Lines owned and worked by native states - - - - -	186½	938
METRE GAUGE.		
State lines worked by companies - - - - -	803	
State lines worked by the State - - - - -	156½	
Assisted companies - - - - -	20½	
Lines owned and worked by native states - - - - -	130½	1,110½
TOTAL - - -		2,048½

The extension of the Barákar branch of the East Indian railway to the Jherriah coal-fields, which includes a bridge over the Barákar river, is approaching completion and will probably be opened to traffic in March 1894; work is also well advanced on the Toposi Colliery branch.

A flotilla for service on the Bhagirathi river between Azínganj and Jeaganj in connection with the Azínganj branch, was under construction during the year.

Automatic vacuum brakes were brought into use on the mail trains of the East Indian railway, and an accelerated mailservice was introduced. Pintsch's system of lighting carriages with gas was also adopted on the mail trains.

On the Bengal-Nágpur railway, arrangements were in progress for the construction of a bridge of boats across the Mahanuddee river at Sambalpur.

Work was started on the Silchar-Assam section of the Assam-Bengal railway and on the Mohujin-Mogaung section of the Mu Valley (State) railway.

Work was actively prosecuted on the Mushkaf-Bolán railway, on the Chittagong-Silchar and Lumding-Gauhati sections of the Assam-Bengal railway, and on the Nilgiri railway.

At the close of 1893, work was approaching completion on the Limkhera-Dohad section of the Godhra-Rutlam railway, on the Bareilly-Rampur-Moradabad section of the Oudh and Rohilkhand (State) railway, and on the Mysore gold-fields and Májavaram-Mutupet railways.

The work of strengthening the weak bridges on the North-Western (State) railway was also pushed forward. The work in connection with the strengthening of the Ravi bridge was completed, and the bridge was re-opened for traffic in July 1893. The erection of the new girders of the Jhelum bridge was proceeded with.

A colliery was opened in the neighbourhood of Sharigh on the Sind-Pishin section, and work in connection with the opening of another colliery at Bhaganwala was nearly completed during the year.

Heavy re-construction works, necessitated by flood damages on the Dinagepore branch of the Eastern Bengal (State) railway, were carried out during the year.

The doubling of the line between Tolly's Nullah and Dock junction on the southern section was completed, and the second line was opened on the 20th November 1893.

Owing to financial reasons, all works on the Langar division of the Mári-Attock railway had to be stopped in June 1893, but work is still in progress on the Kamalpur division.

From

From the 1st April 1893 the gradient improvement works on the North-Western (State) railway between Jhelum and Ráwalpindi were amalgamated with the Mári-Attock railway as a separate charge. About eight miles of line with improved grades were completed and brought into use during the year. Work was also well advanced on those portions which are still under construction.

On the Great Indian Peninsula railway, the new junction station at Poona was completed during the year at a cost of Rx. 63,800.

The wagon ferry of the Bengal and North-Western Railway was transferred from Dígha Ghát to Mokameh Ghát and commenced working on the 7th February 1893.

On the 1st January 1893, the Guntakal-Dharmavaram section, and on the 23rd April 1893, the Dharmavaram-Mysore frontier section of the South Indian Railway were transferred to the Southern Mahratta Railway Company for working.

The Mysore Railway from Bangalore was linked in with the Guntakal-Mysore Frontier Railway on the 15th April 1893, and trains have been working through since the 17th September 1893.

The first section of the East Coast (State) Railway from Bezwada to the south bank of the Godávári River opposite Rajahmundry, 91 miles, was completed and opened for traffic on the 20th February 1893, and made over to the Nizam's Guaranteed State Railways Company, for working as a temporary measure. From the 1st January 1894, however, the section has been worked by State agency along with the Rajahmundry-Vizianagram section of the main line, and the Cocanada and Vizagapatam branches, which were completed and opened for public traffic on the 21st August 1893.

The bridge over the Kistna river at Bezwada, which has been constructed to carry a mixed standard and metre gauge line, was completed and formally opened on the 17th March 1893. This bridge connects the Southern Mahratta metre gauge railway system with the Nizam's Guaranteed State Railway and the East Coast (State) Railways, which are on the standard gauge. Metre-gauge traffic from the Southern Mahratta Railway has been worked over the bridge from the 1st January 1894.

The project for bridging the Godávári River near Rajahmundry has been deferred, but a ferry has been established across the river, which will be capable of carrying loaded wagons.

The maintenance of the Myohaung-Wuntho section of the Mu Valley (State) Railway, together with all capital works in progress, was taken over by the Burma (State) Railway on the 1st July 1893.

A conference of railway delegates was held at Simla in September and October 1893, at which all the principal railways were represented. There were a large number of subjects under discussion bearing more or less on technical questions affecting the traffic and working of lines.

Guaranteed Railways.

The transactions of the guaranteed lines are illustrated by the following table. In this table the rupee is converted into sterling at contract rates :—

RAILWAY COMPANY.	Capital expended to 31st December 1893.	Net Revenue for Year ended 31st December 1893.	Guaranteed Interest for Year ended 31st December 1893.	Interest in Excess of Revenue.	Net Revenue in Excess of Interest.	Surplus Profits earned by Company during Half-year.		REMARKS.
						Ended 30th June 1893.	Ended 31st December 1893.	
	£.	£.	£.	£.	£.	£.	£.	
Great Indian Peninsula	25,450,053	1,677,508	1,206,554	—	471,954	538,134	—	
Bombay Baroda, and Central India.	8,882,500*	854,333	417,766	—	436,567	366,448	70,119	* Includes the State outlay on the Patri branch, 74,104.
Madras - - - -	11,045,833	485,833	533,737	47,904	—	—	—	
TOTAL - -	45,378,386	3,017,674	2,157,057	—	860,617	904,582	70,119	
						974,701		
TOTAL FOR 1893† -	45,238,164	2,943,137	2,147,280	—	795,857	1,021,422		† As corrected from latter information.

IRRIGATION.

IRRIGATION.

Unlike the branch of public works dealt with in the preceding section, the history of irrigation in India stretches back into remote antiquity, and many of the irrigation systems now administered by the officers of the Public Works Department are founded on the lines of old native works which have been restored and extended or re-modelled.

The class of works dealt with by the Public Works Department under the head of irrigation may be roughly divided into canals and tanks, though these two kinds of works are frequently used in combination.

The storage of water in tanks for the purpose of irrigation is very common in Southern India. The works are for the most part of native origin; but much has been done under the British Government in repairing and improving old tanks, and in constructing new works, in Madras, the Bombay Deccan, and in Ajmere-Merwara.

Canal irrigation, in which the water is drawn directly from a river, has been practised on the largest scale and with the most successful results in the North-Western Provinces, the Punjab, and the deltas of the large rivers in the Madras Presidency. Irrigation canals are of two descriptions—viz., “perennial” and “inundation.” The former are furnished with permanent headworks and weirs, and are capable of irrigating large tracts of country throughout the year, independently of the local rainfall. The magnitude of some of the works of this class, which are almost entirely due to British enterprise and skill, may be judged by a few instances. The Ganges Canal, which has been in operation since 1854, and has cost Rs. 2,881,816, comprises 438 miles of main canal, and 3,721 miles of distributaries, and in the year under review supplied water to 722,478 acres. The Sirhind Canal in the Punjab, which has not long been opened, has cost upwards of Rs. 3,755,000, and consists of 542 miles of main channels, and 4,659 miles of distributaries. In Madras the great deltaic irrigation systems of the Godavari, Kistna, and Cauvery have respective lengths of main channel of 503, 329, and 844 miles, and together irrigate upwards of 2,000,000 acres. The inundation canals, which are peculiar to the Punjab and Sind, are of a much simpler and less costly description than the perennial canals. They are for the most part simply earthen channels, made without the expensive machinery of masonry dams and sluices, and are supplied with water by the annual rise in May of the Indus and its affluents. They constitute a very useful class of irrigation works, and in some cases have produced most successful financial results.

The works to which the preceding paragraph applies, in most cases take off from the larger rivers, which, even in times of drought can be depended upon for an unfailing supply of water. There is, however, a large class of works, chiefly tanks, in which the supply of water is more or less dependent on the local rainfall, either directly or through the medium of the smaller rivers which dry up in hot seasons. There remains the method of irrigation more extensively used in India than any other—viz., that by wells, which however, does not come directly within the scope of operations of the Public Works Department.

Financially considered, the irrigation works are classed as “Major” or “Minor.” The former class includes all the works which have been undertaken from loan funds in the expectation that they would be sufficiently productive to cover the interest charges on the sums spent on their construction. It also includes the works classed as famine protective, which are constructed out of the annual grant for famine relief and insurance. The cost of constructing the “Minor” works, as well as the sums annually required for their working and maintenance, are met from the ordinary revenues, and for the greater part of this class of works distinct capital and revenue accounts are not kept.

The distinction implied in the words “Major” and “Minor” is not in complete correspondence with the facts, as there are some Minor Works which are of more importance than some Major Works. But, speaking generally, the “Major” class includes the works of the greatest engineering importance, which have been constructed, or, as in a few cases of old native works, almost entirely reconstructed by British officers.

The following statement gives a general view of the results obtained from working the canals for which full accounts are kept, for 1892-93 and the two previous years :—

IRRIGATION.

	Capital Outlay (Direct and Indirect) to End of Year.	Gross Receipts.	Working Expenses.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area II Irrigated.
	Rx.	Rx.	Rx.	Rx.		Acres.
Major Works - - -	30,250,617	2,268,054	880,694	1,387,360	4.59	7,065,598
Minor Works - - -	4,736,104	619,686	291,122	328,564	6.94	2,575,467
TOTAL for 1892-93 - -	34,986,721	2,887,740	1,171,816	1,715,924	4.9	9,641,065
TOTAL for 1891-92 -	34,272,979	2,622,967	1,187,836	1,435,131	4.1	9,444,363
TOTAL for 1890-91 -	33,289,469	2,578,554	1,092,535	1,486,019	4.4	9,488,784

There are great differences in the financial success of the irrigation works in the various provinces. These are due to the various physical conditions of the country in regard to surface, soil, climate, and the absence or presence of large rivers with a permanent supply of water, as well as to the differences in the character and habits of the people in different districts. There are also considerable differences in the manner in which the irrigation revenue is assessed and collected, which have an important bearing on the financial success of the works. In Madras the bulk of the irrigation revenue is collected with, and on most of the works is consolidated with, the land revenue. In Bengal and Bombay the receipts of the Irrigation Department consist to a great extent of "occupiers'" rates, and are not supplemented by "owners" rates, as in the North West provinces, nor, with a few exceptions, by a share of the land revenue. In Sind the revenue of the canals consists almost entirely of the share of the land revenue allotted to irrigation. Cultivation is dependent on the artificial supply of water, and the consolidated revenue from the irrigated lands is divided in the proportion of 90 per cent. to irrigation and 10 per cent. to land. In the North Western Provinces and Oudh, and in the Punjab, the direct water rates are assessed partly on the occupier and partly on the owner of the land, the bulk of the rates falling on the former, and the irrigation receipts are further increased by a not unimportant contribution from the land revenue.

The following table gives the mileage of the canals in operation in each province, with the area irrigated during the year, and the estimated values of the crops raised by means of irrigation from the works :—

	Bengal.	North-West Provinces and Oudh.	Punjab.	Madras.	Bombay, including Sind.	Baluohistan.	Rajputana.	TOTAL.
<i>Major Works :</i>	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.		Miles.
Main Canals - - -	748	1,426	1,336	2,005	1,134	Nil.	Tank Irrigation.	6,648
Distributaries - - -	2,489	8,658	5,599	6,430	321	Nil.	ditto	23,440
Area irrigated - - -	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
	662,930	1,663,393	1,720,872	2,896,520	621,883	—	—	7,065,698
<i>Minor Works :</i>	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.		Miles.
Main Canals - - -	834	20	2,699	1,476	1,025	4	Tank Irrigation.	6,957
Distributaries - - -	—	664	650	1,172	340	38	ditto	2,770
Area irrigated - - -	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
	3,550	138,891	1,128,459	449,461	809,263	10,483	36,330	2,575,467
Estimated value of crops raised by Major and Minor Works.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
	2,230,000	6,717,757	8,262,989	7,768,270	304,777*	—	—	—

* Exclusive of Sind.

112 STATEMENT EXHIBITING THE MORAL AND MATERIAL

IRRIGATION.

The following more detailed account of the irrigation operations of the year is given under the heads of the different provinces in which the works are situated.

Bengal.

Compared with the average of recent years, the report on irrigation operations in Bengal for 1892-93 shows improved results. Owing to the nature of the rainfall, the area irrigated, though above the average, fell short of the area recorded for 1891-92. On the other hand, the net revenue derived from the Major Works was the highest yet earned. On the Orissa Canals great improvement was shown in the collection of the revenue, and though the working expenses still exceed the receipts, the deficit was comparatively small. On the Sone Canal the area irrigated under long leases still shows a steady increase, and it is remarked, in connection with this fact, that the demand for water for rice cultivation is rapidly becoming independent of the rainfall.

The general results for 1892-93 of working all the irrigation and navigation systems for which full accounts are kept, are compared with the results of the five previous years in the following statement:—

YEAR.	Capital Outlay to End of Year.	Receipts.	Expenditure.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area Irrigated.
	Rx.	Rx.	Rx.	Rx.		Acres.
1887-88	7,061,459	174,151	190,973	—16,822	—	494,968
1888-89	7,078,339	204,329	179,631	24,698	0·3	564,012
1889-90	7,134,353	208,847	171,205	37,642	0·5	553,934
1890-91	7,277,301	216,727	198,166	18,561	0·2	545,541
1891-92	7,362,773	220,171	187,294	32,877	0·4	742,346
1892-93	7,417,261	259,544	196,152	63,392	0·8	666,490

There are in Bengal four canal systems which are classed as Major Works. Three of these combine irrigation with navigation, and the fourth (Hidgellee Tidal Canal) is purely a navigation work.

The financial results obtained from the working of the Major and Minor Works from the year under review are shown in the following statement:—

CANAL.	Capital Outlay to End of Year.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area Irrigated.
	Rx.	Rx.		Acres.
<i>Major Works:</i>				
Orissa Canals	2,553,271	— 813	—	160,952
Midnapore	844,284	8,445	1·0	91,217
Tidal Canal	232,788	2,030	·8	—
Sone Canals	2,670,147	30,133	1·13	410,761
Total Major Works	6,300,490	39,795	·63	662,930
<i>Minor Works:</i>				
Calcutta and Eastern Canal	535,784	22,793	4·2	—
Orissa Coast Canal	434,443	— 1,471	—	—
Sarun Project	69,675	— 1,250	—	3,560
Total Minor Works	1,039,902	20,072	1·9	3,560

The Calcutta and Eastern Canals, which are the most profitable of the canal works in Bengal, are navigation works designed to maintain communication between Calcutta and Eastern Bengal, through the Sunderbunds. The Orissa Coast Canal, also a navigation work, forms with the Hidgellee Tidal Canal, a complete line of communication between Calcutta and Orissa; and in the event of famine in the latter district would be very useful as a means of importing food.

Besides the Minor Works mentioned in the foregoing statement, there are three works of this class for which capital accounts are not kept—viz., the Nuddea rivers system, and the Eden and Madhuban Canals. The first-named, which comprises about 477 miles of channel, is used for navigation purposes only.

In the following statement the traffic on the canals in Bengal in 1892-93 is shown in comparison with the traffic results of the previous year. The Nuddea rivers are included in this statement:—

YEAR.	Length of Canal open for Navigation.	Receipts.	Maintenance Charges.	Net Receipts.	Ton Mileage.	Estimated Value of Cargoes.	Number of Passengers.
	Miles.	Rx.	Rx.	Rx.	Tons.	Rx.	No.
1891-92 . . .	1,150	114,258	68,853	45,405	52,460,556	14,350,985	506,408
1892-93 . . .	1,150	103,412	57,275	46,137	49,575,060	13,631,279	612,668

* Excludes Nuddea Rivers.

The total capital expenditure of the year on all the irrigation and navigation works amounted to Rx. 54,488, against Rx. 85,471 in the preceding year. The decrease is principally owing to the small expenditure on the Sone Canals and the Hidgellee Tidal Canal during the year under review.

The capital estimate of the former canals was closed in 1891, and on the Hidgellee Tidal Canal the works in connection with the remodelling scheme have been practically completed.

The greater part of the year's capital expenditure was as usual on the Orissa Canals. The extension of the distributary system of these canals, with the drainage and protective works in connection with them, is still in progress. It is expected that the new distributaries will be practically finished by the close of the present year.

In the North West Provinces and Oudh the area under irrigation during the year was below the average, a result which must be ascribed chiefly to the abundant winter rainfall. The low supply of water in the Jumna in the early part of the Kharif season also affected the canals fed by that river.

North West Provinces and Oudh.

The general results of the year's working are compared with those of the five previous years in the following statement:—

YEAR.	Capital Outlay to End of Year.	Net Assessed Revenue.	Percentage of Net Revenue to Capital.	Area Irrigated.
	Rx.	Rx.		Acres.
1887-88	7,876,732	302,001	3.84	1,517,288
1888-89	7,998,365	310,435	3.88	1,604,753
1889-90	8,087,397	370,563	4.58	1,879,403
1890-91	8,135,747	413,703	5.08	2,014,114
1891-92	8,189,278	446,626	5.45	2,045,030
1892-93	8,230,083	380,495	4.62	1,799,846

114 STATEMENT EXHIBITING THE MORAL AND MATERIAL

IRRIGATION.

Excluding the Betwa Canal, which is a protective work, the Major Works earned a profit of 4·97 per cent. on their capital outlay. The individual returns from, and the areas irrigated by, the four works were as under:—

CANAL.	Percentage of Net Assessed Revenue on Capital.	Area Irrigated.
		Acres.
Upper Ganges - - - -	6·55	722,478
Lower Ganges - - - -	2·86	584,009
Agra - - - - -	1·49	107,054
Eastern Jumna - - - -	21·62	227,430

The Betwa Canal, the only “protective” work, was worked at a loss of Rx. 4,135.

The net revenue from the Minor Works amounted to Rx. 10,238, which yielded a percentage of 3·5 on the capital outlay of Rx. 284,430.

The capital expenditure of the year, which amounted to Rx. 40,828, was incurred chiefly on the drainage of water-logged tracts, on the remodelling of distributaries, and on the permanent river training works at Narora. The expenditure was almost entirely confined to the major class of works.

Of the 1,402 miles of main and branch canals of the North West Provinces and Oude, 512 miles on the Ganges, Lower Ganges, and Agra Canals, are navigable.

The navigation operations on the irrigation canals are not profitable, though the deficit in the year under review is smaller than usual. The figures for the last three years are given in the following statement:—

YEAR.	Excess of Working Expenses over Receipts.
	Rx.
1890-91 - - - - -	1,078
1891-92 - - - - -	785
1892-93 - - - - -	421

Of the principal crops raised on irrigated land, the chief place is as usual held by wheat, of which there were 655,116 acres—a considerable decrease from the previous year’s crop, owing to the heavy winter rains, which enabled many crops to be raised without the aid of canal water.

Of the Kharif crops, the area under rice was exceptionally large, and that of indigo abnormally small.

The total value of the crops raised with canal water is estimated at Rx. 6,717,757.

In addition to the area irrigated by the Canals under the direct control of the Irrigation Department, there were 106,506 acres irrigated during the year by the Taráí and Bhábar Canals under the Commissioner of Kumaon.

Punjab.

On taking a general view of the irrigation operations in the Punjab for 1892-93, the results appear satisfactory, although the abundant rainfall of the winter months, which enabled large crops to be raised without the aid of irrigation, has unfavourably affected the assessed returns from particular works, and notably in the cases of the Western Jumna and Sirhind Canals.

The

The general results of the year's operations for all works are shown in the following table in comparison with the records of the four previous years:—

YEAR.	Capital Outlay to end of Year.	Area Irrigated.*	Assessed Revenue.*
	Rx.	Acres.	Rx.
1888-89	6,080,938	2,614,130	650,424
1889-90	6,196,927	2,797,172	689,260
1890-91	6,435,818	2,842,658	751,491
1891-92	6,904,558	3,067,336	800,652
1892-93	7,182,298	2,849,331	728,373

* Includes Muzaffargarh Canals.

The above figures are exclusive of the Native States portion of the Sirhind Canal.

As might be expected from the nature of the winter season, the revenue assessed is below the average of the last four years. On the other hand the revenue actually collected during the year, which includes collections of rates assessed in the previous year, shows a considerable increase when compared with 1891-92 and 1890-91.

Taking the actual revenue collected, the following table compares the individual results obtained from all the works for which full accounts are kept.

CANALS.	Length of		Capital Outlay to end of Year.	Net Revenue collected in Year.	Percentage of Net Revenue on Capital Outlay.
	Main and Branch Channels.	Distri- butaries.			
Major Works :	Miles.	Miles.	Rx.	Rx.	
Perennial Canals :					
Swat River	22	140	361,278	18,793	5.20
Western Jumna	278	928	1,134,415	65,081	5.74
Bari Doab	362	1,051	1,669,945	171,380	10.26
Sirhind (British portion)	319	2,719	2,379,223	173,068	7.27
Chenab	140	572	1,081,850	— 6,127	—
Inundation Canals :					
Lower Sohag and Para	98	41	69,992	— 905	—
Sidhnai	68	112	96,711	14,460	14.95
Minor Works :					
Upper Sutlej	219	127	64,124	10,373	16.18
Lower Sutlej and Chenab	797	19	11,010	19,725	179.16
Indus	734	—	70,763	2,610	3.69
Shahpur	120	57	13,686	3,863	28.23
TOTAL	3,157	5,766	6,953,001	47,23,24	6.79

IRRIGATION:

The area irrigated by the Native States Branches of the Sirhind Canal was only 134,273 acres as against 224,446 acres in 1891-92. In the Patiala State there was a profit of 2.84 per cent. on the capital expenditure, in Nabha State the profit amounted to only 0.87 per cent., and in Jhind there was a loss on the year's working.

The revenue from the Chenab Canal failed to cover the working expenses, but the prospects of this canal are nevertheless very encouraging. As this is the first year of working as a perennial canal no very useful comparison can be made with the working of previous years when it was an inundation canal. The irrigation showed an increase over any previous year of 100,000 acres, and 347,314 acres of Crown waste land were allotted to settlers, who, towards the end of the year, began to settle down in considerable numbers. The Secretary of State gave his sanction in 1892 to a large extension of this canal system, and the work has now been taken in hand.

The total capital expenditure on all works during the year was Rx. 277,739, in addition to Rx. 22,790 contributed by Native States. About 15½ lakhs was expended on the Chenab Canal, and nearly nine lakhs on the Sirsa Branch of the Western Jumna Canal, the construction of which was pushed on with vigour.

The returns of navigation receipts and charges on the Western Jumna and Sirhind Canals show a small profit, which is much below the average of previous years. This was due to a serious falling off in the raft traffic on the Western Jumna Canal. On the Sirhind Canal navigation was carried on at a loss.

Burma.

There is not much to record under the head of irrigation in Burma.

In Lower Burma the expenditure on irrigation and navigation amounted to Rx. 73,293, but the greater part of the outlay was incurred on river embankments and drainage cuts.

In Upper Burma the expenditure amounted to Rx. 114,416. Very little actual construction was done during the year. Some of the smaller irrigation works commenced during 1891-92 as famine relief works were completed, and work was done on the Nyaungyan-Minhla tank and the Meiktila lake.

For the main part, however, attention was devoted to survey work, and the maintenance of existing irrigation works. Surveys were commenced for a canal to be known as the Mandalay Canal, taking off from the Madaya river, and for two canals in the Shwebo and Ye-u districts taking off from the Mu river.

Ajmere-Merwara.

In Ajmere-Merwara the season was marked by very heavy rainfall, which was the cause of an abundant rabi crop. The irrigation works in these districts consist entirely of tanks, dependent on the rainfall for their supply of water, and the revenue is derived partly from water-rates directly paid, and partly from a share in the land revenue, including a well assessment, credit being given to the tanks for their effect in raising the level of the water in the neighbouring wells.

The general results of the year's working are compared with those of the preceding year in the following table:—

YEAR.	Capital Expenditure to end of Year.	Net Revenue.	Percentage of Net Revenue on Capital Outlay.	Area Irrigated or Protected.
	Rx.	Rx.		Acres.
1891-92 - - - -	189,667	—21,835	—	11,967
1892-93 - - - -	226,846	—6,860	—	36,330

The irrigation tanks in Ajmere-Merwara are all included in the class of Minor Works.

From

From an irrigation point of view the Madras Presidency is distinguished by the variety and extent of its works, ranging from the great deltaic systems of the Godaveri, Kistna, and Cauvery, to the small tanks and channels maintained by the Revenue Department.

There are at present 10 "Major" Works, and 23 "Minor" Works, for which Capital and Revenue Accounts are kept, and numerous other irrigation and agricultural works, individually small, for which such accounts are not kept. Of the 23 minor works for which full accounts are kept, 19 are irrigation systems, and 4 are tidal canals intended for purely navigation purposes.

Excluding the Periyar project, still under construction, there are now in actual operation 3,444 miles of canals, of which 980 miles are for irrigation and navigation, 2,160 miles for irrigation only, and 304 miles for navigation only. From the irrigation canals 6,759 miles of distributary channels are taken off. The area irrigated during the year was 2,847,201 acres, the crops grown being valued at Rx. 7,768,270, or Rx. 581,898 more than in the previous year. It is noticeable that the estimated value of all the crops irrigated by the major and the principal minor works exceeded the total capital cost of these systems. Of the irrigated crops, rice constituted 95 per cent.

Taking all the works for which full accounts are kept, the general results of the year's working will be seen from the following statement:—

YEAR.	Capital Outlay.	Area Irrigated.	Net Revenue.	Percentage of Net Revenue on Capital.
	Rx.	Acres.	Rx.	
1890-91 - - - -	7,240,187	2,767,775	401,342	5.5
1891-92 - - - -	7,562,781	2,792,589	342,980	4.5
1892-93 - - - -	7,815,967	2,847,201	504,925	6.4

The net revenue recorded in the foregoing statement is that which has resulted from the outlay of Government capital. If the net revenue due to old irrigation be added, the total amount will be Rx. 863,690.

The results of the year's working for the Major Works in operation are shown by the following figures:—

Work.	Area Irrigated	Capital Outlay.	Net Revenue.	Percentage of Net Revenue on Capital.
	Acres.	Rx.	Rx.	
Godaveri Delta - - - -	697,388	1,280,427	175,795	13.73
Kistna Delta - - - -	471,401	1,079,510	135,278	12.53
Pennér Anicut - - - -	73,051	188,168	13,923	7.40
Sangam Anicut - - - -	74,987	369,235	11,594	3.14
Kurnool-Cuddapah Canal - -	30,766	2,166,584	-2,100	—
Barur Tank - - - -	3,584	41,859	240	.57
Cauvery Delta - - - -	1,012,649	177,945	69,999	39.00
Srivaikuntham Anicut - -	29,111	145,154	3,757	2.59
Rushikulya (Protective Work) -	4,183	324,525	-995	—
TOTAL - - - -	2,396,520	5,773,407	406,891	7.05

118 STATEMENT EXHIBITING THE MORAL AND MATERIAL

IRRIGATION

The Minor Works irrigated an area of 450,681 acres, and earned a net revenue of Rx. 100,292, equivalent to a percentage of about 14.71 on the capital expended on them. The purely navigation works, of which the Buckingham Canal is the most important, were worked at a small loss. The total capital outlay on the last-named work amounts to Rx. 814,485. The financial results from this canal continue to show improvement.

Besides the works referred to in the foregoing paragraphs there is a large class of small works in Madras, partly maintained by the Public Works Department and partly by the Revenue Department, for which distinct capital and revenue accounts are not kept. The revenue derived from these works in 1892-93 was Rx. 782,892, and the area irrigated by them was 3,220,877 acres. A plan for the systematic repair of some of these works has now been in progress for some years, under the title of the "Tank Restoration Scheme." Up to the end of the year an expenditure of 43 lakhs had been incurred under this scheme, 26,874 square miles had been investigated, and estimates for 3,545 works had been prepared.

The only large works under construction in the Madras Presidency are the Periyar and Rushikulya Projects. The Periyar project is designed to conduct the waters of the Periyar river from the western to the eastern side of the Ghâts by a cutting and tunnel through the watershed. The capital expenditure on this work during the year was Rx. 134,837. It is estimated that the work will still take more than four years to complete. On the Rushikulya Project the capital expenditure was Rx. 50,806. This project is now well advanced, and a portion of the works has been opened for irrigation.

The total capital expenditure of the year on all works amounted to Rx. 253,186.

There is a considerable amount of navigation on the Godavari, Kistna, and Kurnool Irrigation Canals, in addition to that on the tidal canals, which are designed solely for traffic; and on the Godavari and Kistna the working was remunerative. Including the Buckingham Canal, the total value of goods carried during the year was Rx. 7,021,531, and the ton mileage was 45,505,422.

Bombay (excluding Sind).

The area under irrigation in Bombay in 1892-93 was very much smaller than in the preceding year, which, however, was an exceptionally good year. Owing to copious and seasonable rainfall the area irrigated sank from 96,025 acres in 1891-92 to 65,487 acres in the year under review, and there was a large decrease in the assessed revenue. The falling off in the area of irrigation was most perceptible in the class of protective works.

A comparative statement of the results from those works for which full accounts are kept for 1892-93, and the preceding four years, is given in the following table:—

YEAR.	Capital Expenditure to End of Year.	Area Irrigated.	Revenue Realised.	Working Expenses.	Net Revenue.
	Rx.	Acres.	Rx.	Rx.	Rx.
1888-89 - - -	2,360,723	79,195	37,154	23,431	13,723
1889-90 - - -	2,428,146	85,550	42,280	24,712	17,574
1890-91 - - -	2,491,533	74,852	46,081	23,961	22,120
1891-92 - - -	2,511,284	96,025	61,207	28,589	22,618
1892-93 - - -	2,531,673	65,487	64,554	30,777	23,777

The net revenue realized for the year represents a return of 0.94 on the capital expenditure. The Major Works produced a net revenue equivalent to 1.22 per cent. on the capital of Rx. 1,799,258 expended on them. The class of Major Works contains no single work that can be compared in magnitude with the

the enormous canal systems of other provinces in which it has been possible to utilize the great perennial rivers for the purposes of irrigation. In Bombay, owing to the uncertainty of the supply in the rivers, irrigation is largely dependent on the storage of water, and the majority of the works which have been undertaken in the province are tank projects.

The most important work, judged by the amount of capital expenditure, is the Mutha Canal system with the Lake Fife Reservoir, which in 1892-93 irrigated an area of 6,797 acres, besides supplying the cantonment and civil station of Poona with water. The total expenditure on this work is Rx. 635,082, and in the year under review the net assessed revenue was equivalent to a return of 1·88 on the capital outlay. The most remunerative work in the "major" class was the Krishna Canal which yielded a return of net revenue equal to 2·84 per cent. on the capital cost of Rx. 85,799. For irrigating capacity, the works known as the Nira Canal and Bhatghar Reservoir are the most important in the province. These works, which are classed as protective, are estimated to cost Rx. 610,443 when complete, and they will command an irrigable area of 227,670 acres.

The capital outlay during the year on all works amounted to Rx. 20,389, which was incurred principally on the Nira and Mutha Canals.

In the minor class of works for which distinct Capital and Revenue accounts are not kept, the expenditure for the year amounted to Rx. 19,797, and the revenue realized was Rx. 54,491, giving a net revenue of Rx. 34,694. The area irrigated during the year by this class of works was 146,187 acres.

In Sind the regular rise of the River Indus, on which the success of the Irrigation operations depends, was so long delayed, that at one time fears of scarcity were entertained. Water was not available for full supply in the canals until nearly six weeks later than usual, but after this the river fortunately rose to a good height which was maintained until the first week in September, and of which full advantage was taken. Numerous breaches occurred in the bunds, but only in the Western Nara district did much damage occur, the Pritchard canal and the railway suffering severely, and great damage being caused to cultivators and also to the railway by rainfloods from the hills to the west, which appeared for the first time for many years.

Taking the works for which full accounts are kept, the general results for 1892-93 and the three preceding years are shown in the following statement:—

YEAR.	Capital Outlay to End of Year.	Net Revenue.	Percentage of Net Revenue on Capital Outlay.	Area Irrigated.
	Rx.	Rx.		Acres.
1899-90 - - - -	1,183,638	147,413	12·4	1,381,679
1890-91 - - - -	1,193,929	142,458	11·9	1,290,817
1891-92 - - - -	1,207,503	120,058	9·9	1,225,150
1892-93 - - - -	1,237,108	146,533	11·8	1,363,660

In Sind the existence of cultivation depends upon irrigation, and there is a constant demand for the canal water. This fact, and the comparatively inexpensive nature of inundation canals, will account for the favourable financial results obtained from the works.

There are four "major" works in Sind, viz, the Desert, Unharwah and Begari Canals, and the Eastern Nara Works. These works earned profits at the respective rates of 1·6, 8·8, 17·7, and 5·9, on the sums expended on their construction.

IRRIGATION.

The capital expended during the year on the major works, which amounted to Rx. 20,844, was almost entirely upon the Eastern Nára Works. On the minor works the capital expenditure was Rx. 8,760, and was incurred chiefly on the Fuleli Canal.

The principal works in hand on the Eastern Nára, were the Játri Ketí clearance, and the construction of an escape sluice from the Nára into the Játri Dhands. The construction of the Dhámrao Canal, and a new feeder to the Western Nára were in progress, and improvements to the Unharwah were commenced. A new regulator for the Fuleli Canals was furnished, and another was in progress. In the Karachi district, work was started on the Bárábgaza Khadí bund.

Baluchistan.

There are no "major" works in Baluchistan. The class of "minor" works is represented by two schemes now in operation, viz., the Shebo Canal and the Khushdil Khan Reservoir, the former of which has cost Rx. 65,632, and the latter Rx. 89,678.

In the year under review the Shebo Canal earned a net revenue of Rx. 918, equivalent to a percentage of 1.40 on the capital outlay; the net revenue from the Khushdil Khan Reservoir was Rx. 1,299, equal to a return of 1.45 per cent. on the capital expended.

The area irrigated by these two works was 10,483 acres.

BUILDINGS AND ROADS.

BUILDINGS AND
ROADS.

The buildings and roads branch of the Public Works Department embraces all the operations of the Department which are not classed under the special heads of Railways and Irrigation. It includes the extension and maintenance of the road system, the construction and repair of all the buildings required for the proper discharge of the functions of government in all its branches, and a large miscellaneous class of works of public improvement, including light-houses, harbours, embankments, boat bridges, and ferries, and the water supply and sanitation of towns.

The operations of this branch of the Department are classed primarily under two divisions, viz., military and civil works. The military works are executed entirely from Imperial funds.

The expenditure on civil works is chiefly met from provincial and local resources. The classification of the expenditure for 1892-93 under the heads referred to is shown in the following table:—

	Imperial.	Provincial.	Local.	Total in India.	Expenditure in England.	Exchange.	GRAND TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Military Works - - -	1,131,728	- - -	- - -	1,131,728	40,628	24,443	1,196,799
Civil Works - - - -	635,087	2,162,357	1,714,593	4,512,037	85,840	51,704	4,649,681
TOTAL, 1892-93 - -	1,766,815	2,162,357	1,714,593	5,643,765	126,568	76,147	5,846,480
TOTAL, 1891-92 - -	1,938,845	2,461,115	1,651,761	6,051,721	109,485	47,546	6,208,752
TOTAL, 1890-91 - -	1,786,868	2,188,276	1,600,095	5,575,239	117,330	38,333	5,790,907

This statement does not include the outlay from Imperial revenues recorded under the head of Special Defence Works, which amounted to Rx. 491,837 in 1890-91, Rx. 604,848 in 1891-92, and Rx. 458,060 in 1892-93.

The greater part of the expenditure from local funds is absorbed by the maintenance and extension of roads. A portion of this expenditure is under the direct control of the Public Works Department, but the larger part of the local funds outlay under the head of Buildings and Roads, as well as a small portion of the provincial outlay, is under the management of the Civil Department, and is not controlled by the Public Works officers.

The

The extension of local government in India has thrown a large portion of the smaller class of public works into the hands of the local boards. Speaking generally, the boards maintain their own establishments, but in the case of any works of unusual difficulty have recourse to the professional skill of the Public Works officers.

MILITARY WORKS.

The total expenditure on Military Works, ordinary and special, amounted to Rx. 1,654,086 in 1892-93, against Rx. 1,829,418 in 1891-92. The decrease of Rx. 175,332 was almost entirely under the head of Special Defence Works, the cost of which amounted to Rx. 457,287, against Rx. 614,900 in the previous year.

MILITARY WORKS.

The expenditure of Rx. 1,196,799 on ordinary military works included an outlay of Rx. 506,733 on new works, of Rx. 315,087 on repairs, and of Rx. 255,748 on establishment. Under the head of New Works, additions to the barrack and hospital accommodation for British and native troops cost about Rx. 240,000, while General Cantonment Works figured at Rx. 114,261, the greater part of this sum being applied to the improvement of the water supply of the large military stations, a work of the highest importance to the health of the troops.

The expenditure of Rx. 457,287 on Special Defence Works was made up as follows:—

	Rx.
Coast Defences - - - - -	148,985
Frontier „ - - - - -	105,248
Armaments - - - - -	156,583
Establishment - - - - -	45,174
Tools and Plant - - - - -	3,101
Suspense - - - - -	1,804
Total - - -	457,287

Of the expenditure under Armaments, no less than Rx. 149,167 was appropriated to Coast Defences, while only Rx. 7,416 was devoted to frontier works.

Inclusive of "Armaments," frontier defences cost Rx. 112,664, and coast defences Rx. 298,152. The largest outlay on the latter was at Bombay and Rangoon, smaller sums being expended on the works in progress on the Hooghly, at Aden, and Karachi.

The expenditure on land frontier defences was distributed over various points in the Punjab and Baluchistan, far the greater part of the work, however, being done at Rawalpindi and Attock.

Of the total expenditure on Special Defence Works, Rx. 255,723 was spent in India, and the balance of Rx. 201,564 was applied to the purchase of heavy guns, ammunition, and stores in England. The latter amount includes a sum of Rx. 3,984 contributed by the Imperial Government towards the defences of Aden.

The total amount expended on Special Defence Works up to the close of 1892-93 (exclusive of contributions from Imperial revenues) was Rx. 3,815,464.

CIVIL WORKS.

The following statement shows the distribution of the total outlay in India on Civil Works among the different provinces.

CIVIL WORKS.

EXPENDITURE in India on CIVIL WORKS in 1892-93.

	India, General and Political.	Bengal.	North West Provinces and Oudh.	Punjab.	Burma.		Central Provinces.	Assam.	Madras.	Bombay.	TOTAL.
					Upper.	Lower.					
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
<i>Expenditure by Public Works Department:</i>											
Civil Buildings -	69,616	139,929	131,580	144,377	105,128	119,361	64,200	24,154	122,344	163,393	1,084,082
Communications -	65,820	84,109	235,546	173,242	93,700	105,077	64,613	182,972	49,331	203,972	1,278,582
Miscellaneous Public Improve- ments.	4,272	5,286	42,120	35,200	6,590	11,255	1,616	8,325	1,992	13,191	120,853
TOTAL Works and Repairs -	139,708	229,324	409,252	352,819	205,418	235,693	150,629	215,451	173,667	380,556	2,492,517
Establishment -	42,223	76,508	116,822	88,104	57,417	52,701	33,922	51,167	54,637	111,440	684,941
Tools and Plant -	3,871	2,960	6,377	5,113	4,444	5,651	5,018	2,796	15,850	6,892	57,972
* Profit and Loss, Suspense, &c. -	- 7,015	- 9,009	- 9,460	- 6,107	- 1,353	21,374	87	- 515	- 5,879	2,780	- 15,157
TOTAL Expenditure by Public Works Department -	178,787	299,783	521,991	439,869	265,026	315,419	189,656	268,809	238,275	501,668	3,220,273
<i>Expenditure by Civil Department</i> -	15,326	472,066	66,366	15,359	14,453	34,203	19,323	2,130	482,479	149,159	1,291,764
TOTAL Expenditure in India -	194,113	772,749	608,357	455,228	280,379	349,622	208,979	271,029	720,754	650,827	4,512,037

* Under this head has been deducted a sum of Rx. 3,857 for outlay in England from Imperial funds and exchange thereon, and Rx. 778 for charges incurred on account of the Indo-European Telegraph Department by the Bombay Public Works Department.

The greater part of the outlay by the Civil Department, shown in the foregoing statement, was expended upon communications. The following abstract shows the total sums expended in India, by both the Public Works Department and the Civil Department, under the three heads of Buildings, Roads, and Miscellaneous Public Improvements. As in the previous statement, Military Works are not included.

	By Public Works Department.	By Civil Department.	TOTAL.
	Rx.	Rx.	Rx.
Civil Buildings - - - - -	1,084,082	103,008	1,187,090
Communications - - - - -	1,278,582	813,596	2,092,178
Miscellaneous Works - - - - -	129,853	144,197	274,050
TOTAL Works and Repairs - - -	2,492,517	1,060,801	3,553,318
Establishment - - - - -	684,941	177,354	862,295
Tools and Plant - - - - -	57,972	9,140	67,112
Profit and Loss, Suspense, &c. - - -	— 15,157	44,469	29,312
TOTAL - - -	3,220,273	1,291,764	4,512,037

The expenditure in England consists to a great extent of furlough and absentee pay and allowances of military and civil officers of the Public Works Department. It also includes the expenses of the Royal Indian Engineering College at Cooper's Hill, which amounted in 1892-93 to 28,184*l.* (inclusive of 560*l.*, the cost of alterations to the College buildings). The revenue of this institution for the year was 27,704*l.*

The total expenditure in Bengal amounted to Rx. 777,555, distributed as Bengal follows :—

	Rx.
Imperial Military - - - - -	4,806
Imperial Civil Works - - - - -	27,390
Provincial Civil Works - - - - -	290,513
Local Civil Works - - - - -	454,846
	Rx. 777,555

There were no Imperial works of importance carried out during the year.

In the class of provincial buildings the principal work was the new Public Offices in Dalhousie square, Calcutta, which were completed in November 1892. The building will accommodate the offices of the Commissioner of the Presidency Division, the Collector of Income Tax, and the Collector of Calcutta. A new School of Art was commenced in January 1892 and completed in January 1893, and the extension of the east wing of the Presidency College, with the view of establishing a chemical laboratory, was taken in hand. Improvements were carried out in the Medical College Hospital, and measures were taken for remedying the settlement that has taken place in the High Court building.

The total outlay on buildings amounted to Rx. 154,025, the largest individual item being the expenditure under the head of Land Revenue in the provision of courthouses, treasuries, &c. Progress was made during the year in the work of providing improved accommodation for Munsifs' Courts, and residences were erected for Government officials at various places where there was want of house accommodation.

The old Kanarak Temple was visited during the year, and will in future be maintained like other historical buildings, at the public expense.

Under the head of Communications, the most noticeable work was the Tulin Bridge over the Subarnarekha-river on the Ranchi-Purulia-road, which was finished and opened for traffic on the 4th September 1892; a completely bridged

124 STATEMENT EXHIBITING THE MORAL AND MATERIAL

BUILDINGS AND
ROADS: CIVIL
WORKS.

bridged and metalled road now connects Ranchi with the Purulia railway station. The Pancharai Bridge on the Darjeeling Hill Cart-road was opened for traffic, and the Ranchi-Chaibassa-road which forms an important railway feeder road to the Bengal Nagpur Railway was partly completed. Particular attention was given to the development of means of communication in the Duars, with the two-fold object of providing feeders to the Duars Railway and of opening up the eastern part of the district.

The following statement shows the length of road communication maintained by public authorities in Bengal during the year 1892-93.

	Metalled Roads.	Unmetalled Roads.	TOTAL.
	Miles.	Miles.	Miles.
Maintained by Public Works Department -	1,095½	479½	1,574½
Maintained by Local Authorities - - -	3,169	30,695½	33,864½
TOTAL - - -	4,264½	31,174½	35,439

The total expenditure on road extension and maintenance during the year was Rx. 84,109 by the Public Works Department, and Rx. 339,270 by local officers.

The construction of the Tarkeshwar-Magra Steam Tramway was commenced during the year. This scheme has been promoted entirely under native auspices, and its construction is under native management. Projects for tramways from Howrah to Ampta, and from Howrah to Sheakhalla, were under consideration.

Mishaps arising from floods appear to have been confined to the Darjeeling district during the rainy season of 1892; several bridges were carried away, and there was considerable interruption of traffic.

The Kidderpore Docks were opened in September 1892. This work was originally estimated to cost two crores of rupees, but modifications of the design, and extra expenditure caused by a serious accident to the dock walls, and other causes, have raised the total outlay to Rx. 2,809,806.

North West
Provinces
and Oudh.

The expenditure for the year in the Building and Roads Branch in the North West Provinces and Oudh, was as follows:—

Military Works - - - - -	Rx. 1,492
Civil Works, Imperial - - - - -	13,743
" Provincial - - - - -	352,303
" Local - - - - -	242,311

TOTAL - - - Rx. 609,849

There were no buildings of importance under construction from Imperial Funds.

The most important works executed during the year from provincial and local funds were as follows: the additions to the Thomason Hospital at Agra were completed, the grounds laid out, and a water supply in connection with the city waterworks arranged for. The new buildings have cost Rx. 16,286, and were formally opened in October 1892. An expenditure of Rx. 8,002 was incurred upon the Bar Library and Barristers' and Pleaders' Chambers at Allahabad. This building is attached to the High Court, and supplies a long-felt want. The Ishwari Hospital at Benares was completed and opened during the year.

Two bridges over the Hindan river at Ghaziabad and Tikavi were completed in June 1892 at a total cost of Rx. 11,211, and Rx. 8,585, respectively.

The wire fence along the western border of the Agra district was extended southwards as far as the Ban or Utangan river, a distance of 23½ miles. The whole length now protected against the incursions of wild cattle from Bhartpur territory is 41½ miles. It has proved effective, and has conferred a great boon on the cultivators.

The

The total expenditure on communications, excluding establishment, amounted Rx. 112,385 from provincial and Rx. 160,275 from local funds. Progress was made with the important road from Hawalbagh to Baijnath, and the lower part is approaching completion.

An extension of the Fyzabad-Gorakhpur-road from Betwa to Kutra and Lakarmundi railway station was in hand, and improvements and repairs were carried out on the new cart road from the brewery to Naini Tal.

The establishment of the Thomason Engineering College cost Rx. 14,734, and the net profits from the Government workshops at Roorkee amounted to Rx. 9,633 against Rx. 8,320 in the previous year. The minor public works such as the less important roads, the local educational and medical buildings, dák bungalows, inspection and rest houses, and miscellaneous public improvements of a local nature, are carried out and maintained by the district boards, who, for these purposes, have a small trained establishment under their control. Among the public works of the Province, a prominent place must be given to the large schemes of water supply and sanitation which are being carried out by the municipalities of the larger towns. Works of this kind were in progress in Lucknow, Naini Tal, Mussóorie, Cawnpore, and Benares.

The Ganges navigation works which consist in keeping open a channel in the Ganges between the points where the Jumna and Gogra flow into it, were carried on as usual. The funds connected with the Ganges river works and tolls, showed an unexpended balance on 31st March 1892 of Rx. 4,062, and the ferry funds showed a surplus of Rx. 41,743.

The number of works of public utility constructed and repaired by private individuals at their own expense during the year was 244, at a cost of Rx. 11,243. They consisted chiefly of masonry wells, with a few tanks, bridges, and other works.

The total expenditure incurred in the Public Works Department of the Punjab amounted to Rx. 476,343. Of this amount, Rx. 21,115 was spent on Imperial military, Rx. 32,059 on Imperial civil works, Rx. 310,498 on provincial works, and Rx. 112,671 on local works. About 12½ lakhs were expended by Municipal Committees, while works costing over 1½ lakhs, paid for from private and other funds, were carried out by the Provincial Public Works Department.

The most important Imperial works in hand were a combined water supply and sewage scheme at Kohát (the sewage part of which has been completed), and the metalling, repairing, and providing water supply for the North West Frontier-road and the Dera Gházi Khan-Loralai-road. Among civil works it may be mentioned that the new additional Court-house at Delhi, the new Jail at Abbottabad, and a new Anatomical Laboratory for the Mayo Hospital at Lahore, were completed during the year, and good progress was made with the Montgomery Central Jail. The most important contribution works were the Dufferin Hospital at Delhi, which was completed, and the Jubilee Museum at Lahore, which was practically finished, with the exception of some ornamentation work.

The Delhi Waterworks were formally opened in October 1892, and progress was made with the Simla water supply and sewage extension works, and with the Ludhiána City Drainage and the Murree and Dalhousie water supply scheme.

The following statement gives the number of miles of road in the province at the close of the year, excluding station roads:—

	Metalled.	Unmetalled.	TOTAL.
	Miles.	Miles.	Miles
Imperial	232½	510	742½
Provincial	1,530½	2,813½	4,344½
District	745½	20,430½	21,176
TOTAL	2,508½	23,753½	26,262½

126 STATEMENT EXHIBITING THE MORAL AND MATERIAL

BUILDINGS AND
ROADS: CIVIL
WORKS.

Of the total road mileage, 3,169½ miles were maintained under the direct management of the Public Works officers; the remainder were almost entirely maintained by the District Fund Establishment.

Boat bridges are maintained at various points on the large rivers by which the province is traversed. The capital outlay on boat bridges and major ferries, amounted at the close of the year to Rx. 54,786. The gross income derived from them during the year was Rx. 13,689, and the cost of maintenance was Rx. 12,042, leaving a net income of Rx. 1,647.

The total cost of the Imperial and Provincial Public Works establishment employed in the Punjab in 1892-93 amounted to Rx. 82,225. The percentage of cost of establishment to expenditure on works and repairs was 22.9. Besides the works carried out by the Public Works Department, of which the cost is met from Imperial and provincial funds, much professional assistance is rendered by the Department to the district boards and municipalities in checking and examining estimates and plans, in preparing projects, in inspection, and in some cases in carrying out works.

Burma.

The expenditure in the two divisions of Burma for the year 1892-93 is shown in the following statement:—

	Upper Burma.	Lower Burma.
	Rx.	Rx.
Imperial Military - - - - -	135,308	14,397
Imperial Civil - - - - -	260,876	2,864
Provincial - - - - -	—	296,458
Local - - - - -	19,503	50,300
TOTAL - - - Rx.	415,687	364,019

In Lower Burma the principal buildings under construction were the New Public Offices, Rangoon, which were nearly completed; the Jail at Insein for 2,000 prisoners, which was partly occupied, and the New Government House, Rangoon. The expenditure during the year on the last-named work was Rx. 14,984. The building is estimated to cost Rx. 58,582.

The total mileage of open roads in Lower Burma is now 2,697½. Twelve miles of metalled, and 18 miles of unmetalled raised and bridged roads were opened during the year.

In Upper Burma the outlay on Imperial military works forms a much larger proportion of the total expenditure than in the lower province. This outlay was incurred chiefly in the construction of barracks.

The chief civil buildings in progress were residencies for the superintendents of the Northern and Southern Shan States; houses for commissioners, &c.; police lines and jails at Minbu and Kindat.

No important roads were commenced during the year. The chief works in progress under this head, were the improvement of the Ruby Mines-road; the extension of the Mandalay-Lashio-road; bridges over the Chaungzôn Nullah and Namsein River; extension and improvement of the Myingyan-Fort Stedman-road. Roads in the Chin Hills were considerably improved, and a mule-track opened out from Waingmaw on the east bank of the Irrawaddy to Sadôn in the Kachin Hills.

Central Provinces.

The expenditure in the Central Provinces was as follows:—

	Rx.
Imperial Military - - - - -	387
" Civil - - - - -	2,110
Provincial - - - - -	174,881
Local - - - - -	31,988
TOTAL - - - Rx.	209,366

The outlay under the heads of Imperial Military and Imperial Civil Buildings included no works of any importance. The expenditure from Provincial Funds was less than in the previous year. Under the head of Civil

Civil Buildings the greater portion of the available funds was absorbed by the requirements of the Departments of Law and Justice, and Jails. The new Law Courts at Nagpur were commenced in May 1892, and by the end of the year were well advanced towards completion. Considerable outlay was incurred on the Nagpur Central Jail, and progress was made in the construction of a hospital for the Jubulpore Central Jail.

Compared with the previous year, the expenditure on new works of communication was much contracted. Only 3.1 lakhs were spent as against 5.7 lakhs in 1891-92.

The high level bridge over the Suktawa River was completed, and work was started on a bridge over the Machna at Shahpur. Preliminary steps were being taken in a scheme for improving the system of roads connecting the stations of Betul, Chhindwara, Seoni, Balaghat, and Mandla.

The Balramdass Water Works were practically completed and were opened in December 1892, and sanction was given to the scheme for the Rajnandgaon Waterworks, which are estimated to cost Rx. 12,936.

The output of coal at the Warora Colliery, which amounted to 107,272 tons, was smaller than in the previous year. At the Umaria Colliery the supply exceeded the demand. The total output amounted to 97,001 tons.

The outlay for the year in Assam amounted to Rx. 280,683, and showed a considerable increase over the expenditure of the previous year. The total outlay was divided between Imperial, Provincial, and Local, as follows :—

	Rx.
Imperial Military - - - - -	9,654
Imperial Civil - - - - -	77,474
Provincial - - - - -	132,177
Local - - - - -	61,378
TOTAL - - -	Rx. 280,683

The most important work in progress under the head of Imperial Civil Works is the construction of the road between Nichuguard and Manipur. This road will be 132 miles long, and is estimated to cost Rx. 178,394. About 40 miles were opened for traffic during the year.

The most important items of the Provincial expenditure were also the construction and maintenance of roads. The chief works under the head of Buildings were the military police lines and jail at Kohima, a Munsif's Court at Sylhet, and a sub-divisional officer's residence at Habiganj. The outlay on roads included expenditure incurred in the construction of bridges on the Companyganj-Salutikar and Fenchuganj roads, and in improving and bridging the North Trunk-road from North Lakhimpur to Dikrang. The Silchar-Aijal, road was aligned, and the Kohima-Cheswejuma - road completed during the year.

Among miscellaneous works the construction of the canal along the left bank of the Desang River may be mentioned. The public works of local boards were of the usual character, and do not call for special notice.

The expenditure by the Buildings and Roads Branch in Madras for 1892-93 amounted to Rx. 730,323, of which Rx. 13,274 was Imperial, and included Rx. 9,569 on military works. Of the remainder Rx. 253,794 was Provincial, and Rx. 463,255 was Local Expenditure.

The famine relief operations, conducted by the Public Works Department, formed a special feature in the year's work. The districts in which the operations were carried on were Bellary, Anantapur, Kurnool, and Cuddapah.

The maximum number of persons employed in any one week, under all agencies in relief works throughout the Presidency, was 91,065, but the number of persons exclusively employed in "professional agency" works, under the supervision of the Public Works Department, did not exceed 27,521.

The total expenditure incurred during the year on famine relief works under all heads, by the agency of the Public Works Department, was as follows :—

	Rx.
Irrigation Works - - - - -	20,154
Roads - - - - -	7,985
Miscellaneous - - - - -	399
Establishment - - - - -	6,727
	<u>35,265</u>

128 STATEMENT EXHIBITING THE MORAL AND MATERIAL

**BUILDINGS AND
ROADS: CIVIL
WORKS.**

Among the buildings in the Presidency town completed or in progress during the year, the most important was the new Law Courts, which was formally opened on the 12 July 1892. Large workshops for the College of Engineering were commenced, and extensions to the Presidency College were carried out. The establishment of a Law College at Madras has been sanctioned, and the detailed plans and estimates were in course of preparation. At Calicut the Collector's office was nearly completed, and progress was made with the Government House at Ootacamund.

Among the more important works of communication mention may be made of the road from Potinghi to Koraput, which was completed, and the improvements to the Vayitri-Gudalur-road. At the Coonoor Ghât and Kullar Bridge much damage was done by floods. Progress was made with the Mahasinghi and Suruliyar Bridges.

The following statement shows the length of road communication maintained by public authorities in Madras during the year 1892-93:—

	Metalled Roads.	Unmetalled Roads.	TOTAL.
	Miles.	Miles.	Miles.
Maintained by Public Works Department -	222	240	462
Maintained by Local Authorities - - -	11,293	10,195	21,488
TOTAL - - -	11,515	10,435	21,950

The Madras Harbour Works are approaching completion, and the progress made during the year was confined to the construction of the massive pier-heads, which entailed heavy and difficult work. Progress was also made in depositing the wave-breaker blocks on the outside of the two piers and in protecting the shore north of the harbour. The outlay for the year amounted to Rx. 25,602.

The projected improvements to the Harbour of Vizagapatam were deferred for want of funds. The proposal to construct an iron screw pile pier at Negapatam was also in abeyance.

**Bombay (including
Sind).**

The expenditure in the Bombay Presidency for 1892-93 amounted to Rx. 669,607, of which Rx. 18,780 was for Military works and Rx. 650,827 for Civil works. The Imperial portion of the expenditure on Civil works amounted to Rx. 25,449. The most important outlay under this head was incurred in the provision of accommodation for the Customs and Salt Departments. The grant for the Somali Coast works amounted to Rx. 8,150; Provincial outlay amounted to Rx. 351,733, and Local outlay to Rx. 273,645. Under the head of Civil Buildings, in addition to the ordinary works carried out for the accommodation of the various branches of government, were included some works of special importance, such as the New European General Hospital at Bombay known as St. George's Hospital, which was completed in December 1892 at a cost of Rx. 57,642. Some additions were made to the Sir Dinshaw Maneckji Petit and Bai Moltibai Hospitals, and Dvârkâdâs Lallubhoj Dispensary. The expenditure on these buildings, which are now completed, has amounted to Rx. 46,248.

Among the more important works completed within the year may be also mentioned the new Revenue Offices at Broach, the new Distillery buildings at Surat, the Aujuman-i-Islam School, Bombay, and the Hospital for Women and Children at Poona.

Progress was made with the large Central Jails under construction at Ahmedabad and Hyderabad in Sind, and also with the scheme for the provision of suitable quarters for the police.

The total outlay on communications during the year amounted to Rx. 265,005. The length of road extension under operation amounted to 6½ miles from Imperial funds, 169¼ miles from Provincial funds, and 437¼ miles from Local funds. The most important of the bridges under construction was the Ellis bridge over the Sâbarmatî river at Ahmedabad, which replaces the bridge destroyed

BUILDINGS AND
ROADS, CIVIL
WORKS.

destroyed by the extraordinary flood of 1875. This bridge, which was opened in September 1892, consists of 14 spans of 101½ feet, and has cost about 4½ lakhs of rupees. Of the works which were completed or in progress during the year under the head of Miscellaneous Public Improvements the most important were various schemes of water supply undertaken on behalf of municipalities. The chief of these works were the Dhulia Water Supply works from the Dedargaon Tank in the Khandesh Collectorate, and the Hubli Water Supply scheme in the Dhárwár Collectorate, both of which made good progress during the year. It is anticipated that the Dhulia Works will be completed by the end of the rains of 1894. Schemes of water supply for Ahmednagar, Násik, and Dhárwár were under consideration.

The protective works to exclude the flood water of the Tapti river from the city of Surat were in progress during the year.

The total expenditure from all sources on Public Works in the Hyderabad Assigned Districts during the year under review, excluding railways, amounted to Rx. 172,520.

Berar.

Beyond the alterations to the Hyderabad Residency there were no Imperial Works in progress deserving notice.

The expenditure on provincial public works amounted to Rx. 121,177. These works included the usual class of buildings required by Government for administration and other purposes, as well as the construction and repair of roads. The length of bridged and metalled roads kept in repair by the Provincial Public Works Department, amounted to 861 miles.

Among miscellaneous public improvements was included a scheme for the water supply of the town of Akola, which is estimated to cost Rx. 57,470. The water supply at Buldana was completed during the year. A project for supplying the town of Secunderabad with water, estimated to cost Rx. 70,859, was in progress.

In Coorg there were no works in progress of sufficient importance or interest to deserve individual notice. The total outlay amounted to Rx. 17,950, which was chiefly under the head of Communications. About 88 miles of metalled road, and 90 miles of unmetalled roads were maintained from Imperial Funds, and about 131 miles from Local Funds.

Coorg.

A full account of the Public Works operations in the districts under Native administration in India cannot be given owing to the want of information in the case of some of the larger and more independent States. They include, however, many works of great public utility, and some of large size, in many cases carried out by European engineers lent by the British Government.

NATIVE STATES.

The Imperial outlay for the year in the Public Works Department in the Central India Agency amounted to Rx. 23,490, in addition to which an expenditure of Rx. 4,253 was incurred from local and cantonment funds, and contributions from Native States. The expenditure was chiefly on communications. The operations of the Public Works Department in the Agency have been much reduced by the transfer to the chief Native States of the care of the metalled roads in their territories, which have been noticed in previous years' reports. The duties of the Public Works Department lie not only in maintaining important lines of communication, such as the Agra and Bombay, Nimach and Mhow, and Nowgong and Sutna roads, and in designing and executing projects within territories which are too intermixed or too impoverished to be treated on the footing of the larger States, but also in advising the States that are capable of executing their own projects as to the direction in which their efforts may be most usefully exerted, and in inspecting the work done by the larger States on behalf of the Imperial Government. The policy of handing over the care of the roads to the more important States has hitherto been justified by the results.

Central India.

The expenditure in Gwalior amounted to about 9 lakhs of rupees. The most important buildings in progress were the Victoria College and Memorial Hospital. In the Indore State there was an outlay of Rx. 33,450. Among the buildings under construction may be mentioned the Native General Library, the Darbar Office buildings, and the Holkar College.

BUILDINGS AND
ROADS : CIVIL
WORKS.

Rajputana.

The expenditure on Public Works in Rajputana, exclusive of the outlay on Irrigation Works in Ajmere-Merwara, amounted, so far as is known, to Rx. 471,942, of which Rx. 426,373 was incurred in the Native States. A sum of Rx. 21,780 was expended in Meywar; the most important items being the construction of the Lansdowne Hospital, and Connaught Bund. In Marwar or Jodhpur, the outlay was Rx. 179,910, chiefly on railways. The most extensive irrigation work in progress was the Bilara Tank. In Jeypore there was an outlay of Rx. 109,071, the largest item of which was the expenditure on irrigation works. The only new buildings of any importance were the Raj buildings at Mount Abu, the Rahdari buildings in Eastern lines, and Nazim's house at Neemka Thana. Ulwar expended 5 lakhs, Kotah 2 lakhs, and Jhallawur 1 lakh of rupees on Public Works, but there was no individual work in progress of sufficient importance to call for notice.

Madras.

In the Native States under the control of the Madras Government there is little of any importance to note in connection with the construction of Public Works.

In Travancore the total sum expended was Rx. 140,851, of which about 4½ lakhs was allotted to communications. Fifty miles of new road were opened for traffic, and Rx. 26,587 was expended on buildings.

In Cochin 23·9 per cent. of the total revenue was allotted to Public Works. The actual expenditure was Rx. 40,704, the largest item being the outlay on buildings.

In the Pudukkottai State there was an expenditure of Rx. 28,040 on Irrigation Works, roads and buildings. New public offices and a hospital were under construction.

Bombay.

Leaving out of account the railways which are dealt with in a separate section, the amounts expended by the Native States in Bombay on public works during the year were generally small, and there were no individual works of unusual importance to be recorded. The most important group of Native States lies in North Gujarát, and covers an area of about 44,000 square miles. Of the Chief States included in this area, Cutch expended Rx. 14,575, Palanpur, Rx. 7,181, Idar Rx. 944. In the Káthiáwár States the outlay in public works amounted to Rx. 227,700, Bhávnagar heading the list with an expenditure of Rx. 107,540. Rs. 21,522 was expended by the Agency Engineer, the principal work in course of construction being the Memorial Institute at Rájkot. It is stated that in Káthiáwár great progress has been made in the matter of roads and communications. Where there was not a single mile of road in 1865, there are now more than 600 miles, for the most part bridged and metalled. Various small sums were devoted to public works in Cambay, Rewa Kántha, and Nárukot.

In the groups of Native States comprised in South Gujarat and North and South Konkan, there is nothing in the public works expenditure to call for detailed notice. The largest amount expended was in Sávantvádi where there was an outlay of Rx. 11,738. The same remark applies to the States in the Deccan and South Mahrátha country. The largest items were an expenditure of Rx. 54,846 in Kolhapur, and of Rx. 12,124 in the Sangli State.

XI.

POST OFFICE AND TELEGRAPHS.

POST OFFICE.

The receipts and charges of the Post Office for the last two years, as shown in the Finance and Revenue Accounts, are given in the following statement:—

YEAR.	Receipts.	Expenditure.	Net Revenue.	Net Charge.
	Rx.	Rx.	Rx.	Rx.
1891-92 - - - -	1,445,925	1,496,417	—	50,492
1892-93 - - - -	1,488,863	1,518,556	—	29,693

The deficit of Rx. 29,693 is entirely on postal business. If indirect expenditure in connection with the Post Office were added, on the one hand, and a deduction made, on the other hand, of the charges for the district post (the receipts under which head are not credited to the Post Office), the net financial result would be a surplus of Rx. 25,094.

The extent of the sphere of operations of the Post Office, and its develop-

YEAR.	Post Offices.	Letter Boxes.	Village Postmen.	Length of Postal Lines.
	No.	No.	No.	Miles.
1890-91 - - - -	8,394	11,961	3,708	74,342
1891-92 - - - -	8,617	12,848	3,762	77,728
1892-93 - - - -	8,832	13,292	3,837	80,472
Increase in 1892-93 over 1891-92	216	444	75	2,744

ment during the last three years, are shown in the table in the margin. These figures are exclusive of the District Post, of which the Post Offices increased from 1,146 in 1891-92 to 1,307 in 1892-93, the letter-boxes from 2,443 to 2,595, and the staff of village postmen from 2,590 to 2,924.

YEAR.	Letters (including Postcards).	Newspapers.	Parcels.	Book and Pattern Packets.	TOTAL.
	No.	No.	No.	No.	No.
1891-92 - - - -	300,619,812	25,910,356	2,108,086	10,711,061	339,340,934
1892-93 - - - -	311,014,049	26,637,963	2,169,715	12,149,494	351,971,221
Increase - - - -	10,394,237	727,607	61,629	1,438,433	12,631,267

Of the increase of 2,744 miles in postal lines, 344 miles were under the head of railways, and were almost entirely due to the opening of new sections of railway in various parts of the country, while the total mileage of

runners' lines increased by 1,713 miles, mainly owing to the conversion of District Post lines into Imperial Post lines in the Punjab. In addition to the 80,472 miles of Imperial Postal lines shown in the statement, there were 33,283 miles of District Post lines, so that the total length of the lines over which mails were conveyed was 113,755 miles at the close of 1892-93, as compared with 111,133 miles at the close of the previous year.

The general correspondence returns, of which a summary is given above show an increase of over 12½ millions of articles carried by post in 1892-93, as compared with 1891-92. Of this increase, nearly 4½ millions were due to letters and 7 millions to postcards, which represent nearly one half of the entire number of communications passing through the post.

POST OFFICE.

In the Bombay Presidency, including Sind, each person received on an average rather more than two letters, while in Bengal, the Punjab, and Burma, each person received on an average, rather more than one letter. For the whole of India the vernacular correspondence was 55·37 per cent. of the entire correspondence. In the Bombay Presidency where postcards are largely used by natives, the vernacular correspondence was 65·41 per cent. of the whole.

The letters and postcards despatched from India to the United Kingdom in 1892-93 are estimated at 2,855,220 against 2,585,884 in 1891-92, or an increase of 10·42 per cent. Those received in India from the United Kingdom are estimated at 3,081,754 against 2,836,843 in the previous year, or an increase of 8·63 per cent. The effect of the reduction of letter postage to the United Kingdom from 1st January 1891 is now fully apparent. In each of the two years during which the reduced rates have been in force there has been an increase of more than half a million over the figures of the previous year in the aggregate number of letters and postcards exchanged with the United Kingdom. The number of postcards exchanged with the United Kingdom is, however, wholly insignificant compared with the number of letters, and a noticeable feature of the year's exchange was a falling off of about 28 per cent. in the number of postcards received from home.

The number of parcels exchanged with the United Kingdom formed more than 80 per cent. of the whole foreign parcel traffic. There was an increase of 6,646 in the parcels exchanged through the British Post Office; but those transmitted to India through the agency of the Peninsular and Oriental Company fell from 45,374 to 6,580. This decrease was due to the reduction, from 1st January 1892, of the packet postage rates, and the consequent almost total extinction of the business in Peninsular and Oriental book parcels below 5 lbs. in weight, and the reduction by about 50 per cent. in the number of book parcels above that weight. The number of parcels exchanged between India and foreign countries in 1892-93 was 35,847 as compared with 29,379 in the previous year.

The receipts from the insurance of letters and parcels fell to Rx. 19,325, as compared with Rx. 20,274 in the preceding year. The number of insured articles was less by ·67 per cent., the decrease being entirely in the number of parcels insured, and being due to the introduction, from the 1st May 1890, of a limit of Rs. 1,000 to the value for which a postal article can be insured. The amount paid as compensation was Rx. 215, being 1·11 per cent. of the insurance fees, as compared with Rx. 471 and 2·32 per cent. in 1891-92. There were three cases of highway robbery of the mail in Native States during the year, in which insured articles were carried off to the aggregate value of Rx. 467, Rs. 374 of which was recovered from the Native States concerned. The number of articles sent by the value-payable post was over 1,400,000, and the amount recovered by the Post Office from the addressees and repaid to the senders was Rx. 1,516,484. Nearly half of the entire business of the year of this description was transacted in the Bengal circle, which practically means Calcutta. An arrangement with Ceylon for the transaction of value-payable business has been in force for two complete years, and the business is steadily increasing, the effect being that India supplies Ceylon with a considerable quantity of goods. The number and value of inland money orders issued in India, excluding transactions with Native States, increased respectively from 7½ millions and Rx. 16,441,000 in 1891-92 to nearly 8½ millions and Rx. 17,192,000 in 1892-93; and the commission realised, from nearly Rx. 206,000 to Rx. 216,000. The plan of remittance in use in India is the payment of money orders at the homes of the persons to whom they are sent, a system which only a few European countries have yet adopted, and one which necessarily imposes much responsibility on postmasters as well as on postmen; but experience has shown that the organisation of the Post Office is not unequal to the task which it has undertaken. The average value of an inland money order was Rs. 20. 13a. 10p., against Rs. 21. 1a. 11p. in the previous year. The application of the money order system to the remittance of land revenue and miscellaneous

miscellaneous Government dues continues to make steady progress in the North-West Provinces and Oudh, and in the Lower Provinces of Bengal. The revenue money order system was introduced as an experiment into six districts of the Madras Presidency and is still under trial; but, owing to the character of the land revenue system in that Presidency, where the ryots are able to pay all Government demands in their own villages, it is not expected that money orders will ever be largely used for revenue remittances. It has been recently decided to apply the same system to the Punjab and the Central Provinces, trial experiments having been made in selected districts in both Provinces. The rent money order system has proved a success in the Lower Provinces of Bengal as well as in the North-West Provinces and Oudh.

POST OFFICE.

The system of telegraphic money orders continues to grow in popularity, and the amount thus remitted in 1892-93 was Rx. 1,160,112 against Rx. 1,066,999 in the previous year.

The remittances from India to the United Kingdom by money orders fell from 142,322*l.* in 1891-92 to 129,285*l.* in 1892-93. Those from the United Kingdom to India increased from 72,618*l.* to 78,033*l.*

The deposits in the Post Office Savings Banks rose from Rx. 4,036,708 in 1891-92 to Rx. 4,145,243 in the year under report; the withdrawals from Rx. 3,565,023 to Rx. 3,655,195; and the interest from Rx. 240,891 to Rx. 269,409. The balance at the credit of depositors at the close of 1892-93 stood at Rx. 7,818,773, against Rx. 7,059,316 at the close of 1891-92. The average balance at the credit of each depositor was Rs. 150.08 as compared with Rs. 152.32 in the previous year. Of the total number of accounts nearly 90 per cent. were held by natives.

During 1892-93 the total amount invested in Government securities by Savings Bank depositors through the agency of the Post Office was Rx. 26,210 against Rx. 10,890 in the preceding year; and the balance of securities in the hands of the Comptroller General at the close of the year was Rx. 39,740, compared with Rx. 36,820 on the 31st March 1892. The sales numbered 26 against 34 in 1891-92. In the Bombay circle, there was an unusual increase in purchases and a decrease in sales, which were probably due to a temporary feeling of insecurity caused at the time by the failure of the Oriental Bank.

An arrangement for the sale of Government quinine to the poorer classes through the agency of the Post Office has been introduced, as an experimental measure, in Bengal, Assam, and Burma, and is being gradually extended to other provinces.

TELEGRAPH DEPARTMENT.

The following statement refers to the whole of the Telegraph System under the control of the Government of India, including the portion of the Kashmir Telegraph System, which was brought under its control during the year, but excluding the Indo-European section, extending from Karachi to Teheran, for which, as usual, a separate account is given. The system now consists of 41,030 miles of line, 126,251 miles of wire, and 274 miles of cable.

TELEGRAPH DEPARTMENT.

During the year Rx. 216,281 were added to the capital expenditure, of which the greater portion was for new lines, the net additions to the system during the year comprising 2,405 miles of line, 6,092 miles of wire, and 21 miles of cable. The total capital outlay at the close of the year stood at Rx. 5,434,661.

The number of telegraph offices open to the public at the end of the year was 3,424, of which 1,100 were departmental or combined offices, and 2,324 were on railways and canals; the net addition to the number of offices during the year was 178.

134 STATEMENT EXHIBITING THE MORAL AND MATERIAL

TELEGRAPH
DEPARTMENT.

The following statement shows for a period of five years the progress that has been made in extending public telegraphic communication :—

	Capital Expenditure.	Miles of Line.	Miles of Wire.	Miles of Cable.	Offices Opened.		
					Departmental, Ordinary and Postal combined.	Railway and Canal.	TOTAL.
Up to beginning of 1888-89 -	Rs. 4,49,58,470	31,894	93,517	226	745	1,243	1,988
During 1888-89 - - -	16,38,755	1,568	6,137	4	52	91	143
" 1889-90 - - -	16,75,871	1,817	6,485	—	83	77	160
" 1890-91 - - -	19,68,580	1,791	7,373	21	69	17	86
" 1891-92 - - -	19,42,128	1,555	6,647	2	52	—33	19
" 1892-93 - - -	21,62,811	2,405	6,092	21	99	58	157
To end of 1892-93 - -	5,43,46,615	41,080	1,26,251	274	1,100	* 1,453	2,553

* Excludes 871 offices, which, though open to the public, were entirely in the hands of railway companies.

A general view of the operations of the Department in 1892-93, in comparison with the results of the five previous years' working, will be gained from the following statement :—

Year.	Number of Messages during Year.	Revenue for Year.	Expenditure on Revenue Account.	Surplus on Revenue Account.	Total Outlay on Capital Account to end of Year.	Per-centage of Net Revenue on Capital Outlay.	Capital Outlay during Year.
1887-88 -	2,802,299	Rx. 662,866	Rx. 429,224	Rx. 233,642	Rx. 4,277,758	Rx. 5.46	Rx. 234,955
1888-89 -	2,978,998	632,247	434,223	198,024	4,659,722	4.45	377,654
1889-90 -	3,132,571	663,098	453,645	209,453	4,827,309	4.34	171,896
1890-91 -	3,407,100	682,835	468,880	214,005	5,024,168	4.26	196,858
1891-92 -	3,808,998	743,009	483,430	259,579	5,218,380	4.97	194,212
1892-93 -	3,981,411	758,317	515,700	242,617	5,434,661	4.46	216,281

The whole of the annual expenses connected with the telegraphs in India, whether incurred on capital account for the construction of new lines, or on revenue account for the maintenance and working of the system, are defrayed from the revenues of the Government of India. In 1892-93 the receipts of the Department were sufficient to cover both the working expenses and the amount expended on capital account, and there was therefore no net charge on Government revenues.

The operations of the Department during the year may be considered satisfactory, although owing to increased revenue outlay the net receipts were less than in 1891-92. The increased expenditure is partly due to the facts that extensive renewals of material are now required on the older lines, and that the outlay on this account was exceptionally low in the year 1891-92. A larger signalling establishment has also been found necessary to cope with the growth of the message traffic.

The

The following table shows the total number of telegrams, State and private, inland and foreign, despatched during the last two years, and the revenue derived from them :—

TELEGRAPH DEPARTMENT.

	1891-92.		1892-93.	
	Number.	Value.	Number.	Value.
State Inland - - - - -	661,904	Rx. 145,477	604,124	Rx. 119,942
„ Foreign - - - - -	6,404	4,847	6,164	5,238
Total, State - - -	668,308	150,324	610,288	125,180
Private Inland - - - - -	2,627,408	269,543	2,837,513	288,856
„ Foreign - - - - -	513,282	148,405	533,610	162,758
Total, Private - - -	3,140,690	417,948	3,371,123	451,614
GRAND TOTAL - - -	3,808,998	568,272	3,981,411	576,795

The messages sent in the service of the State constituted rather more than 15 per cent. of the whole number, and the payments made by the Government on account of them, made up 21 per cent. of the total revenue of the Department, 21 per cent. in value of the total traffic of the department. The greatly increasing use of telegraphy by the Indian public is gauged by the growth of the inland private traffic, and it is satisfactory to find that in the year under review this class of traffic, when compared with the figures of the preceding year, increased by 8.0 per cent. in number and 7.16 per cent. in value. The following statement shows the development of the revenue from the inland private traffic for the past 10 years :—

	Rx.
1883-84 - - - - -	141,575
1884-85 - - - - -	150,463
1885-86 - - - - -	163,816
1886-87 - - - - -	181,779
1887-88 - - - - -	198,181
1888-89 - - - - -	223,151
1889-90 - - - - -	227,830
1890-91 - - - - -	245,328
1891-92 - - - - -	269,542
1892-93 - - - - -	288,856

The following figures show the division of the Inland traffic into the three classes of Urgent, Ordinary, and Deferred, during the last two years :—

	PERCENTAGES.					
	Urgent.		Ordinary.		Deferred.	
	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.
State - - - - -	11.66	13.55	19.00	19.03	69.34	67.42
Private - - - - -	6.04	5.48	42.36	43.08	51.60	51.44
Press - - - - -	5.41	5.76	22.70	24.93	71.89	69.31

TELEGRAPH
DEPARTMENT.

A comparison of the figures for 1892-93, with the average figures for the five previous years, shows that the deferred class of message is steadily gaining in popularity.

The strength of the signalling establishment amounted at the close of the year to 3,070, of whom 1,635 were departmental officers, 351 British military signallers, and 1,064 postal clerks. The net increase during the year in the number of postal telegraph offices amounted to 91, and the number of such offices stood at 845 at the close of the year.

Taking into consideration the increase in traffic, the speed of transmission has been satisfactorily maintained over the main lines of communication. Between Calcutta and Karachi the average time of transmission was reduced from 36 to 25 minutes owing to the fact that messages no longer have to be retransmitted at Agra.

The number of complaints received relating to the Indian Telegraph Department was 1,218, or 0.027 of the total number of messages; and 629 were admitted, of which 209 applied to non-delivery, 134 to delay, and 194 to mistakes. The number of messages that for various causes could not be delivered amounted to 14,156, or 0.302 of the total number received for transmission.

The number of interruptions to communications amounted to 2,017, which is rather less than during the previous year, but the total duration of the interruptions was more. The principal causes of interruptions were cyclones, exceptional storms, and floods. It is satisfactory to notice that, compared with the previous year, preventible defects in lines and cables decreased in number from 313 to 184, and in duration from 5,045 hours to 2,952 hours.

The value of the remittances made by telegraphic money orders rose to Rx. 10,725.

The Inland press telegrams sent numbered 25,834, of the value of Rx. 9,508, against Rx. 9,659 in the previous year. The decrease is due to the fact that during 1891-92 there was a slight increase on account of the Manipur Expedition.

The Foreign press messages numbered 3,261, and the Indian share of the charges thereon amounted to Rx. 1,785.

As regards electrical improvements, the experiments made for the extension of the system of the duplex telegraphy over long distances have been most successful. The introduction of the system on the long circuits between Calcutta and Rangoon has resulted in the reduction of establishment employed on this one circuit alone of one Telegraph Master and twelve signallers.

The electrician of the Department was successful in transmitting messages of 1,000 words with Wheatstone's automatic apparatus between Calcutta and Nagpur, 770 miles, in four minutes, and between Calcutta and Bombay, 1,295 miles, in 5 minutes 10 seconds.

The experiments made with "dry" batteries show that no form has yet been brought forward which is suitable for work in India.

The employment of the telephone increased. At the end of the year 1892 there were 1,231 subscribers and 1,237 exchange connections to the Telephone Companies at Bombay, Calcutta, Karachi, Madras, Moulmein, and Rangoon. There were also 23 exchanges and 188 exchange connections under the control of the Telegraph Department.

The control of the Kashmir State Telegraph system was taken over by the Indian Telegraph Department during the year, and the construction of a line of telegraph from Srinagar towards Gilgit *via* the Burzil and Tragbal Passes was vigorously pushed forward, and the reconstruction of the line from Srinagar to the Kashmir Frontier (138 miles) was commenced.

The services of the officers of the Telegraph Department were utilised in the various military expeditions that took place during the year under review, and received the approval of the military authorities. Excellent work was also done by the Department in the instruction of the army in telegraphy and in connection with harbour defences.

INDO-EUROPEAN TELEGRAPH DEPARTMENT.

Indo-European
Section.

The system of Telegraph lines and cables connecting the terminus of the Indo-European Company's telegraphs at Teheran with the Indian Government system at Karachi, is known as the Indo-European Government Telegraph Department, and consists of two parts, one, designated the Persian Gulf Section, extending from Karachi to Bushire, with a branch to Fão, where a connection is made with the Ottoman Government line; and the other, called the Persian Section, extending from Bushire to Teheran. It comprises 1,717 knots of cable, 1,377 miles of line, and 3,424 miles of wire, exclusive of the Persian Government line from Teheran to Mashed, 562 miles, which is maintained by the Department.

The administration of the Indo-European Department, which in 1888 was amalgamated with the general Telegraph system of India, has been re-transferred to London, with effect from 1st April 1893. It has been found convenient to maintain separate accounts for this section, partly for the sake of comparison with previous years, and partly because the conditions under which the Indo-European lines are worked, and the influences affecting the traffic are completely different from those prevailing on the Indian Telegraph system generally.

The capital account of the Department, which stood at Rx. 1,151,509 at the beginning of the year under review, amounted at its close to Rx. 1,145,969, a decrease of Rx. 5,540, which was due to a reduction of the stores balance.

The earnings on Indian, Trans-Indian, and Local Traffic, including the profit on mean rates *via* Turkey, amounted to Rx. 150,825, but adjustments on account of the Joint Purse of the Eastern and Indo-European Companies, and other items, reduced this sum to Rx. 127,651, which amount represents the message revenue of the year. To this an addition has to be made of Rx. 2,600 on account of Miscellaneous Receipts, making the total Revenue Receipts Rx. 130,251.

The traffic earnings were higher by Rs. 23,544 than in the previous year, although the actual number of messages carried was less than in the previous year by 9,589. The increase in value is due to the lower rates of exchange ruling during the year. The balance against the Department on the Joint Purse Account, which was Rs. 2,77,323 in 1891-92, was reduced to Rs. 1,61,321, a reduction of Rs. 1,16,002. The excess actually paid in to the Joint Purse amounted to 10,315*l.*, against 19,289*l.* in the previous year, the decrease being due to a larger proportion of the traffic having been sent by the Suez route.

The gross revenue charges amounted to Rs. 8,64,848 against Rs. 9,98,448 for 1891-92. The decrease is principally due to the smaller expenditure incurred on cable maintenance owing to the approaching completion of the renewals of the Persian Gulf cables; and also to the smaller outlay on line maintenance in the Persian Section owing to the re-insulation being nearly finished. The year's transactions resulted in a net profit of Rs. 4,37,668, compared with a profit of Rs. 1,62,034 in the previous year. The net profit is equivalent to a return of 3.8 per cent. on the Capital Outlay.

The financial results of working for the last five years are compared in the following statement:—

YEAR.	Number of Messages during Year.	Receipts.	Working Expenses.	Net Receipts.	Dividend on Capital.	REMARKS.
		Rx.	Rx.	Rx.		
1888-89 -	115,444	114,460	95,322	19,138	1.72	
1889-90 -	107,315	109,733	104,757	4,976	0.44	Renewal of Cables.
1890-91 -	122,648	106,347	107,220	—873	—	
1891-92 -	127,089	116,048	99,844	16,204	1.40	Re-insulation of Persian line.
1892-93 -	117,500	130,251	86,484	43,767	3.82	

138 STATEMENT EXHIBITING THE MORAL AND MATERIAL

TELEGRAPH
DEPARTMENT.

The percentages of gross traffic carried by the Suez and Indo-European routes during the last three years are respectively as follows :—

	INDIAN TRAFFIC.		TRANS-INDIAN TRAFFIC.	
	Via Suez.	Via Indo-European.	Via Suez.	Via Indo-European.
1890-91 - - - -	46.67	53.33	83.21	16.79
1891-92 - - - -	43.52	56.48	80.75	19.25
1892-93 - - - -	48.09	51.91	82.49	17.51

The following statement shows the division of the messages tendered for transmission during the last two years :—

		1891-92.	1892-93.
State - - - -	Messages - - - -	3,318	2,866
	Words - - - -	105,353	91,235
	Average words per message - -	31.7	31.8
Commercial and private	Messages - - - -	122,037	113,157
	Words - - - -	1,577,445	1,459,295
	Average - - - -	12.9	12.9
Press - - - -	Messages - - - -	1,323	1,091
	Words - - - -	45,979	44,451
	Average - - - -	34.7	40.7
"The Times" - - -	Messages - - - -	411	386
	Words - - - -	82,178	65,310
	Average - - - -	200	169.2

The percentage of errors in the Persian Section was 0.245 and in the Gulf Section 0.121. The accuracy of transmission between Karachi and Teheran thus amounted to 99.6 per cent. There were 120 complaints of error, delay and non-delivery against 98 in the previous year.

There was a satisfactory improvement in the average rate of transmission of messages between Karachi and Teheran. The rate in 1891-92 was 8 minutes 42 seconds, while during the year under review it was only 5 minutes 51 seconds. In the reverse direction, i.e., between Teheran and Karachi, the rate was also reduced from 6 minutes 25 seconds in 1891-92 to 4 minutes 26 seconds during the year under review.

On the Jask-Bushire cable duplex working has been very successful, and instruments have been received for extending similar working between Jask and Karachi.

Communication was not once interrupted between Karachi and Teheran throughout the year, while *via* Turkey an interruption occurred on the Fao-Bushire cable, which lasted over 10 days. Beyond Teheran the interruptions which stopped traffic amounted to nearly six days in all. The Turkish route beyond Fao was interrupted for 108 days.

The

The average monthly mean rate of transmission between the United Kingdom and Karachi compares as follows with that in previous years:—

TELEGRAPH
DEPARTMENT

	<i>Via</i> Teheran.	<i>Via</i> Turkey.
	H. M.	H. M.
1888-89	1 4	19 28
1889-90	0 59	12 14
1890-91	0 59	10 25
1891-92	0 59	16 12
1892-93	0 45	27 47

The percentages of traffic sent by the two routes were respectively, 92·9 and 7·0.

CHAPTER XII.

EDUCATION AND LITERATURE.

EDUCATIONAL institutions in India are divided into—

(1.) Those in which the course of study conforms to the standard prescribed by the Department of Public Instruction or by the University, and which are either inspected by the Department, or regularly present pupils at the public examinations held by the Department, or by the University. These institutions are called "public."

(2.) Those which do not fulfil the above conditions, which are called private.

The system of education operates, generally speaking, through three grades of institutions, viz. :—

(1.) Primary schools, which aim at teaching reading and writing, and such elementary knowledge as will enable a peasant to look after his own interests ;

(2.) Secondary schools ; and

(3.) Colleges.

Bengal.

The statistics of 1892-93 show an increase in the number of students in colleges in Bengal, as compared with 1891, from 5,225 to 5,443. The number of students who appeared at the first Art Examination in 1892 was 2,310, of whom 1,011 were successful ; of 967 candidates for the degree of B.A. in 1892, 280 passed, whilst in 1893, 301 passed out of 987 candidates. For the degree of M.A., 77 candidates presented themselves for examination, and of these 54 were successful. The total expenditure on these institutions was about Rx. 70,710, of which about Rx. 27,992 was contributed from public funds.

The number of secondary schools rose from 2,285 to 2,326, and the number of pupils from 194,178 to 198,270. The increase occurred in middle English, and middle Vernacular schools, high English schools having decreased by one. The total expenditure on secondary schools was Rx. 268,313, of which Rx. 59,049 was public money. Institutions under public management continued to hold the first place with an average of 81 per cent. of successful candidates at the University Entrance Examination, aided schools following with a percentage of 66, and unaided schools with 59. —

It is satisfactory to notice that a perceptible improvement is said to be taking place in the *morale* of the pupils, and a taste for physical exercise is slowly growing up amongst the rising generation throughout the Province.

In primary schools the returns show a loss of 1,054 schools as compared with 1891-92, but the decrease in the number of pupils was only 317. The decrease in the number of schools occurs entirely in the lower class, and is accounted for by the poverty caused by the agricultural distress in Orissa and Patna. The number of upper primary schools has increased during the year, and the returns show a steady growth in the last five years. The expenditure from public funds on primary schools was Rx. 78,742 in 1892, of which Rx. 16,966 was contributed from provincial revenues, and Rx. 61,776 from district funds.

District Boards are now beginning to recognise the value of technical education, and the Government of Bengal was considering in what manner local efforts could best be turned to practical advantage.

The only point calling for special notice in regard to European education is the large and increasing proportion of scholars in the Roman Catholic schools, which is now more than 53 per cent., though Roman Catholics form only about 30 per cent of the European and Eurasian population of Bengal. The total number of scholars of this class has increased in the last 10 years by more than 33 per cent.

During

During the last five years the number of schools and colleges in the North West Provinces and Oudh has declined from 11,762 to 10,868, and the number of scholars from 311,893 to 289,416. This result is caused by the abolition of a large number of inefficient schools, the funds thus set free being applied towards improving the quality of the instruction given elsewhere. The expansion of University and high education during this period has accordingly been considerable, the number of scholars attending colleges and high schools respectively having increased from 1,521 and 1,880 in 1887-88 to 2,641 and 2,458 in 1892-93. All other stages show a decrease.

EDUCATION.
North West
Provinces and
Oudh.

Since the previous year, three new colleges have been added to the list, and one ceased to give instruction beyond the matriculation stage. The intermediate examination was for the first time divided into a literary and scientific course, corresponding to the course for the B.A. examination. The literary course attracted 259 candidates, of whom 116 passed; for the scientific course 78 candidates presented themselves, of whom 51 passed. For the B.A. degree there were 227 candidates, of whom 107 out of 184 passed in the literary, and 26 out of 43 in the scientific course. For the M.A. degree there were only 20 candidates, of whom 14 passed. The number of Anglo-vernacular or English-teaching schools was 113, of which 37, with 7,036 pupils, were State schools, and 76, with 12,009 scholars, were aided. The average expenditure per pupil in State schools is considerably higher than in aided schools, but the higher expenditure has resulted in a higher average standard of instruction.

The teaching of science and drawing was experimentally introduced in certain selected high schools during the year. About 50 per cent. of candidates from Anglo-vernacular schools passed the matriculation examination for the University. There was considerable progress in the matter of out-door games and gymnastics.

Of vernacular schools, the higher class (which are really primary schools in respect of two-thirds of their attendance) numbered 315, all maintained by the State, and the average monthly number of pupils was 26,915. The lower class or primary schools numbered 3,878 with 140,395 scholars, the corresponding figures for 1891-92 having been 3,928 and 135,757. Thus a reduction in the number of schools has been followed by an increase in the number of scholars, but it appears that education had not yet penetrated to the actual tillers of the soil, as the great majority of the pupils are of the higher castes.

The education of native girls was still in a very backward condition, and the results of such attempts as have been made (mainly by missionaries) was not encouraging.

There were in the Punjab in 1892-93, 164 fewer schools and colleges, and about 9,000, or 4 per cent., fewer scholars than in the previous year. This is attributed chiefly to the unhealthiness of the year, and the loss fell mainly upon private primary schools. In round numbers, about 200,000 persons out of a total population of 20,000,000 are being educated to a greater or less extent, and of these about three-fourths obtain instruction in "public" institutions. The proportion of boys who attend school to those of school-going age is about one in eight, and of girls less than one in 100. The expenditure on schools from public funds increased during the year by nearly Rs. 14,000; but contributions by municipalities declined. The number of students who presented themselves at the University Arts Examinations was somewhat larger than in the previous year, and about 41 per cent. of the candidates succeeded in passing for the B.A. degree, whilst seven out of 12 were successful in the M.A. test. The experiment of providing an advanced education through the medium of the Oriental languages, which has been tried by means of the Oriental College, has proved very costly and cannot be considered to be a success; in the present year nearly two-thirds of the candidates failed. The number of pupils in secondary schools increased slightly during the year, and over 10 per cent. of the scholars now pass beyond the primary stage. The Anglo-Vernacular Schools are increasing in popularity, because the training which they afford is the likeliest road by which to reach the Government Service. Primary schools showed a diminished attendance, and the special Zemindari schools, which

Punjab.

EDUCATION.

were designed to meet the wants of the agricultural population, were not successful. Improvement was noticed in the moral tone and discipline of the schools of all classes, and greater attention was devoted to physical training. In female education there were some slight signs of progress, but the prospect was not encouraging.

Burma.

In Lower Burma, owing to the removal from the list of public institutions of certain inefficient schools in the Thayetmyo District, the number of public schools fell from 2,781 to 2,577; but the list of "private" institutions was swelled by the addition not only of the above, but also of certain hitherto unknown schools, from 3,366 to 3,942. In public schools there was a decrease of more than 2,000 pupils; but the total number of pupils in all schools increased by over 5,000. The average daily attendance at Rangoon College rose to 48, as compared with 42 in the previous year. The results of the examinations were also good. In secondary schools there was a marked increase in attendance, and the result of examinations was good. In primary schools, though the number decreased, the quality of instruction improved. In the Arakan Division school fees were unpopular, and no general desire for education appeared to exist. Female education was progressing satisfactorily, for, though the higher schools decreased by eight, they had 30 more pupils, and the number of girls attending indigenous schools increased largely.

In Upper Burma the unfortunate attitude of hostility to secular instruction assumed by some leading Buddhist ecclesiastics at Mandalay, caused a decrease of 1,316 in "public" primary schools, which involved a loss of 10,087 pupils. The higher grades of secondary schools appeared for the first time in the returns, and private schools rose in number from 2,458 with 10,277 pupils to 5,757 with 45,927 pupils. This was partly accounted for by the withdrawal of inspection from monastic schools. The number of Buddhists receiving secondary education more than doubled during the year. Considerable improvement was observed in the primary schools, and away from Mandalay the opposition to secular education was dying out. The education of girls showed very satisfactory progress.

Central Provinces.

In these Provinces special attention was paid to the development of primary education, and as many as 300 new schools were opened by the end of the year under review. The difficulty of securing an adequate teaching staff was being met by the formation of training classes for village schoolmasters in connection with the principal secondary schools. The provision of boarding-houses for the reception of pupils in middle and high schools was undertaken in order to meet the increased demand. The desire of the administration to encourage a practical as distinguished from a purely literary training was manifested by the introduction during this year of the "School Final Examination" of the Allahabad University. The number of high schools and colleges remain unchanged; all other classes showing a large increase except English middle schools which decreased by one. The number of girls receiving education increased from 5,990 to 6,374.

Assam.

The number of schools in Assam during the year increased by 184, and that of scholars by 4,734, the chief increase being in the primary stage. A noteworthy feature in the year's report is the establishment of an Arts College, founded by a Sylhet Zamindar. The total number of high schools increased by one, an unaided middle English school being raised to the status of a high school. The results of examinations in this class of schools were satisfactory and compared very favourably with those of the previous year. The same may be said of the middle English and vernacular schools; but in the former class there was a slight falling off in the attendance. In primary schools there was a satisfactory increase both of numbers and attendance, especially in the lower class of aided schools. In female education a considerable advance in the number of pupils was recorded, but the difficulty of persuading parents to allow their daughters to appear at a public examination has not yet been overcome.

Coorg.

The report on education in Coorg shows a satisfactory increase in attendance, and the Province compares favourably with any other Province in respect both of male and female education, nearly every Coorg boy and quite 25 per cent. of Coorg girls being at school. The education of the

the lower or Pariah classes in North Coorg continues in a very backward condition. EDUCATION.

In Berar the number both of schools and scholars, males and females, increased during the year, the increase in aided schools being especially satisfactory. The hope of inducing the wild tribes of Kurkus and Gonds to send their children to school is still far from realisation. The points to which special attention had to be directed were female and industrial education. Berar.

In Madras 15 candidates presented themselves for the M.A. examination of the University, as against 16 in the previous year. Of these 10 were successful in passing, as against 6 in 1891-92. The numbers of candidates who under the revised bye-laws appeared for the three divisions of the B.A. examinations, namely the English Language, Second Language and Science Divisions, were respectively, 658, 649, and 594, of whom 510, 569 and 312 proved successful. The number of first grade colleges rose during the year from 11 to 12, and the strength of the B.A. classes from 1,056 to 1,355, while the students attending the F.A. classes declined from 1,652 to 1,203. This decrease is to be referred wholly to the Junior F.A. class, which did not receive the usual supply of students in consequence of the very poor results of the preceding Matriculation examination. The number of second grade colleges decreased by one during the year, and the attendance of the F.A. classes fell from 1,099 to 966. The number of candidates who appeared at the Matriculation examination under the revised bye-laws was 3,369 as compared with 7,907 in the previous year. The decrease was more serious than had been anticipated, but was in part accounted for by the rule restricting admissions, except in special cases, to pupils who had studied in recognised high schools for a certain period. Of the 3,369 candidates, only 520 passed, being a percentage of 15·4, as against 30·1 in the previous year. The number of public upper secondary schools for boys fell from 136 to 134, but the strength of the upper secondary classes increased from 8,594 to 10,071 and that of the lower secondary classes from 10,853 to 11,432. Omitting lower secondary departments of high schools, the number of lower secondary English schools fell from 355 to 226. This decrease was, however, apparent only, being due to a different mode of classification of English and vernacular schools. The latter were returned for the year as 234, against 89 in 1891-92. The total number of boys receiving lower secondary education rose from 22,328 to 23,506 during the year under review. The number of public primary schools for boys rose from 18,059 to 19,097, and that of the pupils in them from 517,638 to 550,446. The number of pupils in the upper primary stage was 35,825 as against 32,228 in 1891-92. Public primary schools for girls advanced in number from 796 to 808, and the attendance in them from 31,074 to 32,457. The number of private schools furnishing returns to the Department increased from 3,403 with 64,473 pupils to 3,455 with 65,894 pupils. The expenditure from all sources on education in Madras, omitting figures relating to private schools, advanced from Rx. 574,434 to Rx. 596,036. Of this sum Rx. 184,390 came from provincial funds, Rx. 76,977 from local funds, Rx. 21,874 from municipal funds, and the balance from fees, subscriptions, and other sources. Madras.

The total number of persons receiving instruction at institutions of all sorts in the Bombay Presidency, during the year under review, rose to 646,382 from 634,438 in the previous year. Of this total 575,369 pupils received instruction at 9,794 public institutions as compared with 566,606 at 9,501 public institutions in 1891-92; and 71,013 pupils were taught at 2,813 private institutions, as compared with 67,832 at 2,771 private institutions in the previous year. On the assumption that the population of school-going age is accurately represented by 15 per cent. of the whole population, the percentage of male scholars to male population of school-going age was 27·50, while that of female scholars was 3·87. The grand total of persons, both male and female, receiving education at whatever class of institution, represented 16·06 per cent. of the population of school-going age, against a percentage of 15·76 in the previous year. The increase of 293 public institutions and 8,763 persons attending them was fairly distributed over each department of education. The number of boys under instruction Bombay.

EDUCATION.

instruction in public institutions rose from 499,174 to 507,028 in the year under review, and that of girls from 67,432 to 68,341. The number of Hindus receiving instruction in public schools was 439,604, and of Mahomedans 98,691, the increase of pupils since the end of the previous year being 1·1 per cent in the case of the former and 1·55 per cent. in the case of the latter. The number of colleges increased by one during the year; the number of secondary schools by 14; and the number of primary schools by 276. There was an increase during the year in the expenditure upon public institutions from every source; and the total sum expended upon education was approximately 66½ lakhs of rupees against 62½ lakhs in the previous year. To this sum provincial funds contributed Rx. 196,563 or 29·7 per cent of the whole cost. The other sources contributing to the expenditure were, local cess 14·3 per cent., municipal rates 6·2 per cent., fees 20·9 per cent., revenues of Native States (including cess and rates) 12·4 per cent., and all other sources 16·5 per cent.

The number of students who succeeded in passing the first B.A. examination was 82, while 68 passed the intermediate examination. For the entrance examination 1,571 candidates were sent up by the schools, of whom 917 passed, while only 137 passed out of 1,348 who went up without school certificates. The number of girls receiving a primary education increased from 41,253 in 1891-92 to 41,693 during the year.

LITERATURE AND THE PRESS.

LITERATURE.

The Act XXV. of 1867, passed by the Governor General of India in Council, for the regulation of printing presses and newspapers, provided, amongst other things, that every book or paper printed within British India shall have printed legibly on it the name of the printer and the place of printing, and (if the book or paper be published) of the publisher, and the place of publication. It also provided for the registration of every book, pamphlet, map, &c., printed or lithographed in British India.

This Act was modified by Act X. of 1890.

Bengal.

The total number of English newspapers published in Bengal during the year 1892-93 was 40, and the total number of periodicals was 17. Sixty-four vernacular newspapers were published. The number of publications received in the Bengal Library was 1,675, against 2,177 in the preceding year; of these 289 were in English, 423 were periodicals, 275 bi-lingual and 977 uni-lingual; of the last class 548 were in Bengali, 202 in English, 71 in Hindi, 60 in Sanskrit, 45 in Uriya, and 14 in Urdu. Of the original works of the year, 205 dealt with "Language," 106 treated of "Religion," 92 of "Poetry," 65 of "Science," 58 of "History," 44 of "Fiction," and 33 "Drama."

During the year, 1,763 publications were registered under the Act, against 1,550 in 1891-92.

North West
Provinces and
Oude.

In the North West Provinces and Oude, 23 new papers were started during the year, and 27 ceased to be published, leaving 83 on the register. The majority of the papers are weekly publications. 22 are published in Lucknow, 16 in Maradabad, 14 in Agra, 11 in Cawnpore, eight in Benares, six in Fategarh, and five in Allahabad. Very many of the papers are devoted to religion or to the interests of a particular community; others concern themselves with local events, while not a few persistently attack the conduct and character of Government officials.

Of works in the English language there were 61 publications, one more than in the previous year.

There were 902 publications during the year, as against 959 in 1891-92. The decline in the number was mainly in publications in Arabic, Persian, and Polyglot.

Punjab.

In the Punjab 65 newspapers were published during the year; thirteen had a circulation of 500 copies or upwards. "The Tribune," the only one published in English, had a circulation of 1,400 copies. The total number of publications registered under Act XXV. of 1867 was 1,483, of which 1,098 were original works, and 385 re-publications and translations; 345 were of an educational and 1,138 of a non-educational character. Of the 1,483 works, 745 were in Urdu, 308 in Punjabi, 86 in English, 79 in Hindi, 54 in Persian, 48 in Arabic, and seven in Sanskrit.

Forty-seven publications were registered during the year, against 176 in 1891-92; of these 11 were of an educational and 36 of a non-educational character. Religion was the subject of 23, language of 11, one treated of law and one of mathematics, and seven were dramatical or poetical compositions. 39 were original works, and eight re-publications or translations. Five of the publications were in English, 18 in Burmese, seven in English-Burmese, one in English-Karen, one in Pali, 11 in Pali-Burmese, one in Karen, one in Sgau Karen, one in Shan, and one in French. LITERATURE.
Burma.

The total number of periodicals published in Burma, irrespective of the daily advertising sheets, was 30, of which five were printed in the Arakan division, 15 in the Pegu division, five in the Tenasserim division, two in the Irrawaddy division, and three in the Northern division.

Ten vernacular and English newspapers are published in the Central Provinces. Eight publications were registered during the year, of which three were in Hindi, three in Marathi, one in Hindi and English, and one in English. Central Provinces.

There was nothing under the head of Literature and the Press calling for special notice, as regards Ajmere, Coorg, and Bangalore. Ajmere, Coorg,
and Bangalore.

There was a great increase in the number of publications registered in Madras during the year, the total number being 982, as against 784 registered in 1891-92. The number of books and pamphlets was 799, and that of periodicals 183. Out of the total number 695 were original works, 206 re-publications, and 81 translations. Reprints (without alterations) are no longer brought for registration; and works which are republished or translated are generally of some value. 242 were published in English; 740 in the vernacular languages spoken in the Province. Of the latter publications those in Tamil (283) take the foremost place, while those in Telugu (199) and Sanskrit (66) rank next. There were 163 poetical works, as against only 59 the previous year. Religious publications numbered 362. A few works of music appeared during the year, their appearance being probably, to some extent, due to the foundation of the Madras School of Music. 272 works were copyrighted, against 240 in the previous year. Madras.

The total number of publications registered in Bombay during the year was 1,368—viz., 860 books and 508 periodicals. Of these 1,003 were original works, 221 re-publications not previously registered, and 144 translations. The total was below that for 1891, which was 1,408. The number of books published in English rose from 71 to 82 and that of periodicals from 66 to 95. Bombay.

Gujarati works numbered 430, Mahrati 405, as against 527 and 387 respectively in the previous year. Publications in Urdu rose from 25 to 41, while those in Hindi fell from 22 to 21. In the classical languages there were 43 Sanskrit publications, four in Persian, six in Arabic, and four in Hebrew.

The number of works registered for copyright during 1892 were 322, against 409 in the preceding year. Of these 274 were private and 48 were Government publications. The literary productions of 1892 were below those of the two previous years, both in point of quality and quantity. Indeed it would seem that, notwithstanding the spread of education, the amount of original vernacular literature that is yearly published is slowly but surely decreasing.

At the end of the year under review there were in all 148 newspapers and 28 periodicals treating of current matters, against 137 newspapers and 23 periodicals of the previous year. There was no appreciable improvement in the circulation of newspapers over that of 1891-92.

The number of books registered in Berar was 21, against 13 in the previous year. Berar.

CHAPTER XIII.

EMIGRATION.

EMIGRATION AND MIGRATION.

Calcutta.

In the year 1892 requisitions for adult labourers were received at Calcutta from only five colonies, with the following results :—

	Required.	Supplies.
Demerara - - - - -	4,555	4,438
Trinidad - - - - -	2,500	2,435
Natal - - - - -	900	942
Fiji - - - - -	1,370	1,450
Surinam - - - - -	1,233	1,150
TOTAL - - - - -	10,558	10,416

The demands were in all cases less than in 1891, and there were no demands from St. Lucia, Jamaica, or Mauritius. The terms on which emigrants were engaged continued to be the same as in the previous year, except with regard to Fiji and Natal. In the case of Fiji the age entitling an emigrant to rations and return passage was raised from 10 to 12 years; and in the case of Natal, the right to a license to leave the colony save with the written permission of the Protector was restricted to Immigrants who had resided in the colony for 10 years.

The number of recruiting licenses fell from 1,003 to 857, two of which only were cancelled on account of misconduct, as compared with fourteen in the previous years. The number of emigrants registered during the year was 17,225, the percentage recruited in Bengal and Behar being 30 as compared with 21 in 1891. The transfer of the recruiting ground from these provinces to the N. W. P. and Oudh, which was noticed in recent years, appears to have been checked. Only in the Shahabad District was there much competition between recruiters for the colonies and those for the Indian labour-districts; it is generally found that Hindustanis prefer, or are preferred for, the colonies, while Bengalis largely resort to Assam.

Of the total number of labourers registered, about 14 per cent. were either rejected for various reasons, or died or deserted, the remainder being forwarded to the Agencies' depôts. There was some improvement in the proportion of emigrants received at the depôts who were finally accepted as fit for labour in the colonies. This matter deserves and receives close attention, since the position of expectant emigrants who have broken up their homes and have to be dismissed with a small gratuity, is a very miserable one.

The health of coolies at the depôts and the sanitary arrangements are reported to have been satisfactory, and there was a marked absence of cholera and small-pox. The principal cause of sickness and mortality was chest affections. In the Natal depôt, in January and February, diseases of this class were especially rife and in a large number of cases proved fatal.

The detention of emigrants in the depôt for periods exceeding one month was less frequent than in the previous year; the cause in all cases was delay in the arrival and equipment of chartered vessels. The proportion of female to male emigrants was unusually high, in some cases considerably exceeding the prescribed 40 per cent.

The aggregate savings of the emigrants who returned to India during the year (5,225 in number) amounted to 8,15,247 rupees, or an average of 156 rupees per head. The best result was found amongst those who came back

back from Jamaica, 13 in number, who brought back an average of over 1,000 rupees each. By far the lowest average, viz., 23 rupees, was saved in Mauritius.

Natal was the only colony which drew supplies from Madras during the year. Seven shipments were made numbering 3,030 men, women, and children, the percentage of women to men being 42. The treatment of the coolies was very satisfactory, and, except for a mild outbreak of measles, their health was good throughout. Madras.

Two ships returned from Natal conveying 214 coolies whose savings amounted to 35,000 rupees; and three from Mauritius conveying 679 coolies whose savings amounted to 13,744 rupees only.

MIGRATION.

The total number of immigrants of all classes into Assam during 1892 showed an increase over the previous year of about 12 per cent., and the large number of men who were accompanied by their families is regarded as a proof of the growing popularity of the Assam tea-gardens. The main supply of coolies was, as usual, derived from Chota Nagpur, but recruitment also improved in Bengal proper. Madras appears for the first time as a recognised source from which labourers can be legally drawn, the provision of the Inland Emigration Act having been brought into operation in the Ganjam district. Assam.

The most striking feature in the years' report is the continued development of free emigration. The mortality on the Dhabri route leading to the tea-gardens of the Assam Valley was heavy owing to an outbreak of cholera, which prevailed during the recruiting season. On the Gorumtola route which leads both to the Assam Valley and to the Surma Valley, the mortality was normal, while in Cachar there were fewer deaths than usual. Complaints of kidnapping and fraudulent recruitment were in all cases carefully investigated, and the proportion of charges found to be true was again insignificant. The contracts executed at the Dhubri depôt were, as usual, for the most part for the full term of 5 years; those entered into at the gardens, which, so far as the Assam Valley is concerned, are mainly renewals, were generally for terms not exceeding 3 years.

The labour force rose during the year from 437,303 to 461,647. The conduct of the labourers was neither better nor worse than usual, but the number of desertions was unusually large amongst both Act and non-Act labourers. It is found that the unhealthiness of particular gardens is the most frequent cause of desertion. The death-rate for the year was abnormally high, owing partly to cholera and influenza, but also, and perhaps mainly, to the influx of a larger number of new coolies, many of whom were of poor physique. 143 gardens were classed as unhealthy, as against 89 in the previous year, and a special agency for the inspection of gardens and enforcement of sanitary rules was created.

Neither emigration from, nor immigration into, Burma presented any special features. There was a slight increase in the figures of 1892 as compared with the previous year. Burma.

XIV.

TRADE AND MANUFACTURES.

(Detailed information regarding the Trade of British India being annually furnished in a separate Parliamentary Paper, a brief Review only is given in the present Chapter.)

TRADE.

TRADE

THE total trade of British India with other countries by sea and land during the five years ending on the 31st March, 1893, was valued as follows:—

	Tens of Rupees.				
	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.
BY SEA.					
Private Imports :					
Merchandise - -	66,570,318	66,560,121	69,034,900	66,587,457	62,605,030
Treasure - - -	13,844,960	17,459,301	21,919,486	14,722,662	17,009,810
	80,415,278	84,019,422	90,954,386	81,310,119	79,614,840
Private Exports :					
Merchandise - -	96,978,171	103,396,862	100,135,722	108,036,010	106,535,907
Treasure - - -	1,703,497	1,841,920	2,071,906	3,143,186	6,928,994
	98,681,668	105,238,782	102,207,628	181,179,196	113,464,901
Government Transactions :					
Imports { Stores	2,870,149	2,637,368	2,940,470	2,844,926	3,660,247
{ Treasure	0	200	15,000	0	0
Exports { Stores	71,361	63,536	91,626	187,582	59,479
{ Treasure	80,850	64,402	51,272	143,500	29,929
	3,022,360	2,765,506	3,098,368	3,126,008	3,749,655
TOTAL Trade by Sea	182,119,306	192,023,710	196,280,382	195,615,323	196,829,486
BY LAND :					
Imports - - -	4,226,145	3,793,701	4,025,305	4,249,592	3,895,889
Exports - - -	4,696,702	9,210,625	4,642,478	4,067,644	3,594,690
GRAND TOTAL -	191,042,153	201,028,036	204,928,165	203,932,559	204,319,566
Excess imports of treasure - -	12,060,612	15,553,179	19,811,308	11,435,976	10,050,187
Net excess of exports over imports of merchandise, Government transactions, and treasure - - -	16,019,009	20,126,654	9,057,843	27,123,285	29,978,613
India Council Bills paid in India - -	22,011,453	22,609,765	19,090,630	23,248,600	26,977,500

India's trade has thus made practically no advance during the last three years. During the past five years the total increase in value has been under 8 per cent., as against 19½, 22, and 25½ per cent. in the three preceding quinquennial periods. The stationary character of India's trade is ascribed partly to the depression of trade in Europe, and partly to the further sharp fall in the gold value of the rupee, from an average of 1s. 6d. in 1890-91 to an average of 1s. 4¼d. in 1891-92, and of less than 1s. 3d. in 1892-93. During the last year there was a decline in either quantity or value, or in both, under all the more important staples of the import trade, and in wheat, rice, tea, opium, hides, and linseed among the chief export staples; there was some increase in exports under the heads of jute, indigo, rape seed, til seed, and teak.

Salt importations decreased by 14,000 tons, or more than 3 per cent.; owing to increased cheapness of inland transport, local salts undersold the imported article, and the total consumption of salt in India continued to increase. The imports of sugar were 12,000 tons less than in 1891-92, and 50,000 tons less than in 1890-91. The importations of metals and hardware decreased under almost every head; imports of iron are now no larger (175,000 tons) than they were ten years ago; imports of steel, though below the total of 1891-92, are more than double the figure for 1883-84. The proportion of iron that India takes from Germany and Belgium is increasing considerably in comparison with the imports from the United Kingdom. Imports of cotton twist and yarn fell by 24 per cent. during the year; and imports of cotton fabrics fell by 4 per cent.; but stocks were low at the end of March 1893, and a greatly increased quantity of cotton goods was imported in the latter half of 1893. Petroleum was the only important item of the imports that showed a large increase—namely, 16 per cent. (or nine million gallons) over the previous year; of Russian petroleum, which came to India for the first time in 1884, there were imported 38 million gallons, against 26 million gallons from America. The output of Burma and Assam petroleum is also increasing; while the importations of foreign petroleum have doubled since an import duty was imposed on the commodity in the year 1888.

The export trade showed a considerable fall in the quantity and value of the rice trade, but the largest decrease was under the head of wheat, of which the exports were 749,000 tons, against 1,501,000 tons in 1890-91, when the failure of food crops in Eastern Europe caused an unusually strong demand for Indian wheat. Tea exports declined by nearly 2 per cent. in quantity, but increased by more than 5 per cent. in value. England now imports from India and Ceylon together more than three times as much tea as she takes from China. Opium exports declined 8 per cent. in quantity and 3 per cent. in value. Indigo exports advanced one per cent. in quantity and 29 per cent. in value. Exports of raw cotton increased 8 per cent. in quantity and 20 per cent. in value over the very low figures of 1891-92, the smallest for ten years; but the total value, 12¼ millions, was still far below 16 millions, the average value of India's cotton exports during the four years, 1887-91. Exports of raw jute advanced 23 per cent. in quantity and 16 per cent. in value. The trade in seeds fell off 17 per cent. in quantity, in consequence of a partial failure of the crop in both Eastern and Western India; but the value decreased by only 5 per cent. There was an increase of 17 per cent. in the quantity and in the value of Indian yarn exported; more than 92 per cent. of this trade goes to China; the despatches of Indian yarn to Japan have decreased, while the export of raw cotton has greatly increased during the last two years, in consequence of the establishment of cotton factories in that country. Exports of jute bags and jute cloth increased 28 per cent.

The values of the chief staples of import and export during the year 1892-93 were:—

TRADE.

VALUE OF IMPORTS.		VALUE OF EXPORTS.	
	Tens of rupees.		Tens of rupees.
Cotton woven goods - - -	22,942,000	Raw cotton - - -	12,743,000
Metals and hardware - - -	6,599,000	Rice - - -	12,259,000
Oils, chiefly petroleum - - -	2,919,000	Oilseeds - - -	11,631,000
Silk, raw and manufactured - - -	2,817,000	Jute, raw and woven - - -	11,182,000
Cotton yarns - - -	2,683,000	Opium - - -	9,255,000
Sugar - - -	2,625,000	Wheat - - -	7,440,000
Machinery and mill work - - -	2,359,000	*Cotton yarns - - -	6,773,000
Provisions - - -	1,862,000	Tea - - -	6,292,000
Chemicals, medicines, dyes - - -	1,615,000	Hides and skins - - -	6,591,000
Woollen goods - - -	1,523,000	Indigo - - -	4,141,000
Liquors (alcoholic, including beer)	1,447,000	Coffee - - -	2,066,000
Apparel - - -	1,383,000	*Cotton woven goods - - -	1,327,000
Total, including minor items	62,605,030	Total, including minor items	106,535,000

* Note.—The figures given here are exclusive of re-exports of foreign goods.

Among the maritime Provinces of India the Bombay Presidency had 38·86 per cent. of the foreign trade in merchandise, Bengal had 38·34 per cent., Madras had 9·68 per cent., Burma had 8·66 per cent., and Sindh had 4·46 per cent. The proportion pertaining to Sindh and Bombay is smaller than in the preceding year by reason of the great decrease in wheat exports. Among the chief seaports Bombay had 44·68 per cent., Calcutta 34·43 per cent., Rangoon 6·51 per cent., Madras 4·77 per cent., and Karachi 4·01 per cent. of India's total foreign trade in merchandise and treasure. The greater part of the trade in treasure belongs to Bombay; in merchandise, Bombay and Calcutta are more nearly equal, the former showing 65½ millions and the latter 63½ millions as the total value of their export and import trade.

One feature in India's trade during 1892-93 remains to be noticed. For the past 33 years India has absorbed yearly vast quantities of gold and silver bullion; during the whole period gold to the value of Rx. 126,000,000 and silver to the value of Rx. 260,500,000 have been imported into, and retained in, India. In every year since 1859, except 1878-79, the gold imports exceeded the gold exports by a large sum; and the average net imports of gold during the past 13 years were Rx. 3,750,000. But in the year 1892-93 the flow of gold was the other way; and India's net exports of that metal were valued at Rx. 2,812,682, against a net import of Rx. 4,594,472 in 1891-92, and large net imports in every other year, reaching in 1864-65 as high as Rx. 9,839,964. This unusual export of gold from India was due mainly to the high silver price of gold in the markets of the world. The net importations of silver during the year were Rx. 12,894,498, against Rx. 9,175,684 in the year 1891-92 and Rx. 14,211,407 in the year 1890-91.

MANUFACTURES.

MANUFACTURES.
General.

The domestic industries of India, such as weaving and spinning, pottery, brass-work, iron-work, and art work of many kinds, continue to be practised after ancient methods all over the continent of India. But Indian fabrics and products, made on a small scale by workers at their homes, have for years past been giving way before the cheaper cotton yarn and fabrics, and the iron or steel products, of British factories. Meanwhile, without any protection, favour, or advantage, other than is afforded by cheap Indian labour, and by the production

production of raw materials in India, an important manufacturing industry has been growing up, and steam-power factories are at work, among which those for spinning and weaving cotton, for spinning and weaving jute, for making paper, for husking and cleaning rice, for sawing timber, and for brewing beer, are the most important. Steam power is also largely employed in factories on tea gardens and indigo estates. There were at the end of the year 1892-93, 130 cotton mills worked by steam, of which five were opened during the year; of these, 88 were in the Bombay Presidency; and the whole represented a nominal capital of more than Rx. 12,000,000. These cotton mills employ over 121,000 hands. They contained 26,317 looms and 3,378,303 spindles.

The number of jute mills increased during the year from 26 to 27; all but two are in Bengal. The nominal capital of these mills is about Rx. 3,500,000. They employ 62,000 hands, on 8,101 looms and 161,845 spindles.

Fifty-eight rice mills, for husking and cleaning rice, and 69 saw mills, most of which were in Burma, employed about 38,000 hands; the amount of white, or fully cleaned rice, produced by the rice mills continues to increase, while the proportion of cargo or half-cleaned rice exported decreases. The produce of the paper mills, of which there were four in the Bombay Presidency, and four in other parts of India, had increased in value to Rx. 328,000, against Rx. 289,000 in 1889. There were 21 breweries at work, which produced during the year 4,831,000 gallons of beer and porter, or 300,000 gallons less than they yielded three years before. The Commissariat Department, which bought, during 1888, 4,628,000 gallons of this malt liquor, purchased in 1892 only 2,748,000 gallons for the use of European soldiers.

Among other "large industries," which are shown in the Indian Returns for 1892, may be mentioned:—

Woollen mills - - - -	5	Cutch and lac factories - - -	84
Silk mills - - - -	8	Oil mills and factories - - -	89
Soap factories - - - -	2	Flour mills - - - -	146
Tanneries - - - -	46	Ice factories - - - -	32
Iron and brass foundries - -	78	Pottery and tile factories - -	21
Sugar factories (large) - - -	12	Bone-crushing factories - - -	15
Coffee works - - - -	31	Tobacco and cigar factories - -	46
Cotton and jute presses - - -	401	Silk filatures - - - -	75
Cotton and woollen factories not classd as mills - - - -	14		

Bengal contains jute mills, cotton mills, paper mills, collieries, the only large iron works, and the largest pottery factory in India, besides factories for lac, sugar, rope, indigo, and saltpetre, tanneries, and foundries. The reproduction of cotton stuffs by domestic looms in Western Bengal is said to have increased in consequence of the rise in the exchange value of the rupee. The year was favourable for the jute mills, for the silk industry in Central and Northern Bengal, for saltpetre works in Behar, and for tobacco. But the season was unfavourable for sugar and for indigo. The output of the mica mines in Chota Nagpore and Gaya showed a considerable increase over the previous year, as did also the yield of the collieries.

Bengal

Among native industries in the North West Provinces, brass-work, stone-quarrying and stone-carving, and weaving, are the most important; but these provinces, which contain more large cities than any part of India, possess a great number of flourishing arts and crafts. Of large industries besides indigo, there are five cotton mills, one woollen mill, and one paper mill.

North West Provinces.

In the Punjab there are few large industries. As has been mentioned in previous Statements, the Punjab Government publishes every year a monograph on some one of the principal industries of the province. The monographs of the three preceding years were upon the brass and copper industries, upon work in gold and silver, and upon the fibrous plants of the Punjab other than cotton. In 1891-92 the subject was leather industry.

Punjab.

There are in the Punjab two great castes of leather workers, the Chamárs who number nearly 900,000, and are mostly Hindus; and the Mochis, who number more than 375,000, and are mostly Mohamadans. A large but decreasing section of these castes is made up of village servants who, for fixed payments in grain,

MANUFACTURES.

sugar cane-juice, or cotton, and fees on the occasion of marriages, make and repair the shoes, whips, thongs, plough-gear and head-stalls for cattle that are required by the members of the village community, and eke out their allowance by doing general agricultural and household work. The system of customary allowances, however, is fast giving way in villages to that of cash payments, which is universal in towns.

The village workers are thus losing their hereditary incomes, and it is unlikely that their rough products will be able to compete even locally with the finished work of large tanneries and factories such as those of Cawnpore. Besides the ordinary leather workers there are separate classes of makers of leather jars from camel skins, shagreen manufacturers, general tanners, tanners of goat and sheep skins, tanners of bulls' and buffalo hides, who also prepare gut for the strings of musical instruments, and wholesale hide and skin merchants. The import of hides and skins and the export of leather make up a foreign trade, chiefly with Kashmir and Kabul, of the total value in 1891-92 of nearly $7\frac{1}{2}$ lakhs. The trade of the Punjab with the rest of India in hides, skins, and manufactured leather was of the total value in 1891-92 of $66\frac{1}{2}$ lakhs. But, as each village has its own leather workers who procure their raw materials and manufacture on the spot, these figures give an inadequate idea of the activity of the industry.

The skins chiefly used are those of the buffalo, bull, sheep, goat, camel, and donkey. From the first two kinds is prepared leather for boots, saddles, harness, and less important manufactured articles, such as hookahs. From goatskin and sheepskin are made uppers for boots, box-covers, bellows, gaiters, bindings for books. Camel skin is used for jars, drums, and ropes, shagreen for the uppers of shoes and for bookbinding. Leather of a finer quality is made at Nurpur, and in very small quantities for upholstery at Gujrat. The ornamental leather-work of Bilaspur is used for waistbelts, inkstands, glove-boxes, cigar-cases, and horse trappings. Trunks and portmanteaus are the only other articles of European use produced.

Burma.

The large industries of Burma are 51 rice mills, 49 saw mills, and six catch factories. Among the more important local and indigenous industries are boat-building, weaving, pottery, gold and silver work, wood-carving, cigar-making, *ngapi* or fish-curing, pottery, lacquer-work, brass-work, and marble-work. The boats plying on the Irrawaddy and other rivers sometimes are as large as 100 to 150 tons burden, while many thousands of smaller craft carry paddy and other goods on the creeks and rivers, pursue fishing along the coasts, and engage in coasting trade from Chittagong down to Penang. Weaving of cotton, silk, and embroidered goods is carried on by Burmese women in every town and village, and this domestic industry has, as yet, not succumbed to the competition of machine-made goods. The pottery of Burma, though not specially artistic, is yet strong and durable; and the great Pegu jars are much valued up and down the coast, as well as inland. The gold and silver work of Burma are much appreciated, not only by the people, who are much given to ornaments of this kind, but by European customers. Wood-carving is an art much cultivated, and is largely employed in the ornamentation of monasteries and private houses, most of which are built of wood, as well as in the adornment of the river craft. Cigar-making is carried on largely by women for home consumption and for export; most of the tobacco used in the Burmese cigars comes from continental India. The curing of salt fish and the making of fish paste meets a very large local demand, for nearly every Burman family that can afford it eats *ngapi* (fish-paste) with one or more meals daily; *ngapi* is given with the daily meal to prisoners in Burma jails; and the total production of salt fish, dried fish, and *ngapi* in Burma is believed to exceed half a million sterling in value. Lacquer-work is an important industry in Prome and Pagan; gums or oils from certain of the Burma forest trees are used in the manufacture, the basis of the lacquered articles being usually fine bamboo basket-work.

Central Provinces.

The large industries of the Central Provinces are five cotton mills, of which one was established in January 1892 and one in August 1892. They contain 876 looms and 87,944 spindles, and employ 5,348 persons, of whom 3,756 are adult males; the amount of cotton consumed in these mills during the year was 116,951 cwts. The usual domestic industries are practised in the

Central

Central Provinces; but there has been of late years much decay of the embroidered and stout cotton cloth home industry for which the Nagpur country used to be celebrated. MANUFACTURES.

The production of tea continues to be first industry of Assam; the area Assam. under tea plants increased to 247,192 acres, or 5,369 more than in the preceding year; the average out-turn of the year fell from 434 to 394 lbs. per acre by reason of the unfavourable season; but an advance of price more than made up for the short crop. The number of persons working on tea-gardens in Assam is returned at 830,735 permanently employed, and 115,760 temporarily, against 766,821 and 103,603 in the preceding year; the number of immigrant labourers under inspection according to the Assam Labour Act was, at the end of 1892, 461,647, of whom 56,050 immigrated during the year; the death-rate among immigrant labourers rose from 37 to 42 per mille during the year; the increase is attributed to epidemics of cholera and influenza and to the poor physique of the new immigrants who were unusually numerous. The relations between employers and labourers are said to have been "on the whole satisfactory." The land held direct from the State by time-expired immigrant labourers rose from 36,467 to 40,510 acres; the coolies also cultivate considerable areas with rice and vegetables within the limits of nearly all tea-gardens.

The only other important manufactures of Assam are fabrics of *muga* and *eri* silk; the spinning and weaving of these silks are cottage industries; the fabrics are largely worn and used by wealthy natives and by Europeans in Assam; the total production is said to be as large as in the best days of the native dynasties, while the price is fourfold what it was 50 years ago. From Sylhet shell bracelets and a perfume distilled from the sap of the agar-tree (*aquillaria agallocha*) are exported and are highly valued outside the province. The pottery, brass-work, silver-work, and cotton stuffs made in Assam are of no merit, and cannot compete with similar articles from other parts of India.

Weaving continues to be the most important domestic industry in Madras, Madras. though it is declining under the competition of machine-made goods. Eleven cotton mills in the Presidency worked up 263,000 cwts. of raw cotton; these mills, and one mill for weaving hempen bags, employed 9,600 hands. Eight minor weaving establishments were maintained on the east coast; and there were 42 cotton presses in the Presidency. Thirty coffee-curing works turned out Rx. 969,000 worth of cured coffee. The tanneries of Madras, Madura, Bellary and Vizagapatam continued to turn out large quantities of excellent leather, inferior to none in India except the best Cawnpore products. Factories at Madras and in Malabar sold Rx. 40,000 worth of tiles and cement. The cigar factories of the Godavari and the southern districts are reported to have made 55 millions of cigars, valued at Rx. 55,000. Indigo is made on a small scale and of inferior quality at some hundreds of vats, and was exported to the value of Rx. 1,144,000 against Rx. 445,169 in the previous year. Sugar was made on a large scale at one factory on the east coast, at which also considerable quantities of rum were distilled.

In the Bombay Presidency there were 253 steam factories at work at the end Bombay. of 1892, of which 116 belonged to the city of Bombay; at these factories 118,000 hands were employed. The spinning and weaving mills were 96 in number, and turned out 320 million pounds of yarn and woven goods in the year. Besides the workshops belonging to the railways and the great steamship companies, 20 factories in Bombay turn out ironwork of all kinds, from railway girders to nails and nuts. Among other large factories using steam are four dye-works, which sold during the year Rx. 300,000 worth of coloured goods; two woollen-weaving mills and six wool-cleaning mills; cotton ginning and cleaning mills; four saw mills; five paper mills, one of which is large and successful; seven bone-crushing mills; three rice-cleaning mills; 27 flour mills, producing 220 million pounds of flour in the year; and 11 mills for pressing oil.

Of the domestic industries and manufactures conducted after native methods, the chief are hand loom weaving and cotton spinning, which supply the hand-woven goods still worn by the majority of the lower classes; calico dyeing and printing, gold and silver lacemaking, the making of silk, and of garment pieces partly of silk for women's wear, the weaving of cotton and woollen carpets; brocade work, and embroidery of gold and silver, for which Guzerat, Nasik, and Siind workmen are specially renowned; woodcarving, the art speciality of

154 STATEMENT EXHIBITING THE MORAL AND MATERIAL

MANUFACTURES.

Guzerat; and sculpture, which is practised in Cutch and Kathiawar; in these three provinces also silver work is done of a special kind and of much excellence. In all parts oil for domestic use, for soapmaking, for lubricating machinery, and for lamps is expressed by labour of cattle and men from castor-beans, sesame, rape-seed, poppy-seed; mbaura (or mhowa) nuts, linseed, ground-nuts, and cocoa-nuts. The local demand for vegetable oil is said in some places to have decreased in consequence of the extending use of petroleum, but the price of oil-seeds does not appear to have fallen.

Berar

The only large manufactory in Berar is the steam mill at Badnera, where yarn and cotton cloth are manufactured. It produced 995,862 lbs. of twist and yarn, against 999,683 lbs., and 912,217 lbs. of cloth, against 918,734 lbs., in the preceding year. The number of persons employed in this factory was 770, or 155 less than in the previous year. The steam cotton presses and the ginning factories are the most important industries in the province; and of these there were 86 at work during the year; the number of ginning factories increased from 48 to 58. The oil press, attached to one of the cotton presses at Amraoti, turned out 13,205 tons of oil and 1,143 tons of oil-cake, and that at Shegaon 77,059 gallons of oil and 706 tons of oil-cake. The domestic industries of Berar are the weaving of silk, cotton pieces with embroidered borders, cotton carpets, coarse cotton cloth and garment pieces, turbans and blankets; there was no marked change in the working of these crafts.

FACTORY ACT.

FACTORY ACT.

The new Indian Factory Act came into force on the 1st January 1892. The changes introduced into the law were, briefly:—

the law could be applied to establishments employing 20 hands or over, instead of only to those with 50 hands or over;

the minimum age for child labourers was raised from seven to nine years, and the maximum age from 12 to 14 years;

the maximum hours for child labour in any one day were reduced from nine hours to seven hours;

the hours of labour for women workers, which were unrestricted under the Indian Factory Act of 1881, were limited by the Act of 1891 to 11 hours a day;

hours of rest during labour were prescribed for all labourers, namely, half an hour in the middle of the day for all hands; and one hour interval for women workers.

The reports of factory inspectors show the number of factories inspected, and the results of the inspections to have been as follows:—

STATISTICS OF FACTORIES IN INDIA, INSPECTED UNDER THE FACTORY ACT DURING THE YEAR 1892.

PROVINCE.	Number of Factories liable to be inspected.	Number of Inspections in the year.	Average Number of Hands employed daily.				Factories where Weekly Holiday on		Number of Factories Working		Number of Persons convicted of breach of Act.	Number of Accidents Reported.			
			Men.	Women.	Children.	Total.	Sunday.	Other Days.	With Shifts.	Mid-day Stoppage.		Fatal.	Serious.	Minor.	Total.
Bengal - - -	160	373	94,985	15,774	9,248	120,007	95	4	73	73	4	7	171	180	338
N. W. Province and Oudh.	47	88	16,531	815	1,125	18,371	52	32	15	32	-	4	24	50	78
Punjab - - -	35	30	5,290	289	159	6,738	25	7	24	17	-	2	6	12	20
Burma - - -	108	338	20,335	588	213	21,136	10	4	46	60	-	1	10	4	15
Central Province -	16	24	6,217	1,232	772	8,221	7	7	6	9	1	1	11	44	56
Madras - - -	46	264	20,198	2,250	1,424	23,872	41	1	1	39	-	3	17	111	131
Bombay - - -	253	798	89,680	22,844	5,948	118,470	251		57	195	1	13	79	639	731
TOTAL - - -	653	1,913	254,236	43,592	18,587	316,815	536		221	424	1	31	318	1,020	1,369

The largest number of factories is in the Bombay Presidency, and 119 are in Bombay city alone. It is said that the new Factory Act has been generally carried out with readiness everywhere; the restrictions on the employment of women and children, and the enforcement of the weekly holiday and midday stoppage, do not appear to have affected the factory industry adversely. Only one factory, the Bombay Gasworks, was exempted from the rule as to Sunday work. The usual holiday is Sunday, except in Khandesh, where the local market day is generally the holiday. Ventilation and fencing of machinery are said to be satisfactory everywhere. The sanitary conditions and surroundings of factories are improving. Most of the hands belong to the agricultural classes; and they pass to and fro between mill work and field work. Cotton presses usually work for a part of the year only. The intermittent character of factory work, as it now exists, contributes to keep the hands in good health.

FACTORY ACT.

In Bengal, factories work by shifts more commonly than in Bombay. Generally speaking, the factories are lofty buildings, well lighted and well ventilated; the water supply and sanitary arrangements are generally good; the general health of the hands was found by the medical inspectors to be good, and from one district it was reported that factory operatives suffered less from small-pox and cholera than their neighbours. The large factories are more careful to obey the law and to act upon the Inspector's warnings than the small ones. Fencing of machinery is generally satisfactory. The ice factories, the jute presses, and other factories, to the number of 51 in all, were exempted from those provisions of the law which require a Sunday (or other) holiday in the week.

In Madras the new Act is said to have worked without friction, and not to have resulted in any general dismissal of women and children from employment. The sanitary arrangements and conditions of the factories were found to be generally satisfactory, and any sanitary improvements suggested by Inspectors were usually carried out at once by the managers. No exemption from the law requiring the Sunday (or other weekly) holiday was granted. In every case except one the Inspectors reported most favourably upon the physical condition of the operatives.

Thirteen of the factories in the North West Provinces were not inspected during the year. Two Government factories at Cawnpore and one sugar factory were exempted from the Sunday holiday law. The fencing of machinery is reported to be satisfactory, and serious accidents are due usually to gross carelessness on the part of the hands. The health of the children operatives is reported to be not so good as in Bengal, and the medical officers have been directed to direct special attention to this matter.

In Burma the defects brought to light by the Inspectors concerned mostly the fencing of machinery and sanitary improvements; such defects were promptly remedied on being pointed out by the Inspectors. The general health of the operatives was good, and no epidemic occurred among them during the year. Three factories were exempted from the Sunday holiday law, and orders were issued bringing under the Act some 40 more rice mills and saw mills that employed fewer than 50 hands apiece.

The factories in the Central Provinces were visited by the Bombay Inspector. The chief shortcoming found was lack of ventilation in factory buildings. In two Nimar factories the law regarding weekly holidays was transgressed. The general health of the operatives was good, and the child workers were found to be in good health and not suffering from the nature of their work. Defects in fencing machinery and mill gearing were promptly remedied when pointed out. Two factories were exempted from the Sunday holiday rule.

CHAPTER XV.

THE FRONTIERS AND PROTECTED STATES OF INDIA.

THE FRONTIERS
AND PROTECTED
STATES OF INDIA.

THE following notices for the year 1892-93 should be read in continuation of the corresponding paragraphs in the Decennial Report for 1891-92.

Excluding Afghanistan and Nipal, and also Kiangton and one or two other States subordinate to the Chief Commissioner of Burma, of which the area, population, and revenue are not estimated, the total area, population, and approximate revenue of the States dealt with in this section, may be stated at 793,000 square miles, 67,275,000, and Rx. 20,500,000 respectively.

Imperial Service
Troops.

During the year the strength of the Imperial Service Troops was increased by the addition of two cavalry regiments, in the organisation of which considerable progress was made. The total strength of 18,500 is distributed over 60½ squadrons of cavalry, 13½ regiments of infantry, a camel corps, two companies of sappers' transport corps consisting of 600 carts and 1,500 ponies, and two mountain batteries. Their efficiency was thus described by Lord Roberts shortly before his departure from India: "During the past cold weather," he said publicly in Jodhpur, "I have inspected the majority of the Imperial Service Corps in the North of India. . . . I may say that their present efficient condition exceeds my most sanguine expectations. The troops are well dressed, well turned out, and, as regards the cavalry, as well mounted as could be expected. The officers take a keen interest in their work, and spare no pains to perfect themselves in their duty. The drill has reached a higher standard than I believed to have been possible in the time. The regiments have constantly been brigaded with our own troops during this cold weather, and the officers under whom they have worked are unanimous in their praises of the manner in which duty has been performed. The discipline too has been admirable; I have not heard of a single case of crime; the camps have been well pitched; sanitation has been invariably attended to, while the men have throughout been animated by an excellent spirit. The remarkable success which has attended the scheme under which either troops or transport have been provided by the native States for the defence of India must, in my opinion, be attributed to the loyalty and enthusiasm of the rulers of the States in question. In no other way could such results have been attained."

Afghanistan.

A mission under Lord Roberts to Afghanistan was in contemplation in the year under review, but His Highness the Amir was unable to make arrangements for the meeting. The matters which it was intended to discuss and which have since been satisfactorily settled by Sir Henry Durand's Mission in the autumn of 1893, mainly concerned the frontiers and intervening tracts between the territories of the Governments of India and Afghanistan. A general uncertainty prevailed as to the limits of influence of the two governments, and the tribesmen constantly took advantage of this uncertainty, playing off the one against the other. In Chitral, apprehension of aggression under cover of Afghan protection stood in the way of any settled government. The people of Bajaur and Swat were in uncertainty whether they might not any day be exposed to an Afghan invasion. There was anarchy in Kurram, where the Turis were kept in fear by local disturbances fomented by Afghan officials and by raids carried on by Afghan subjects. And, south of Kurram, the whole Waziri tribe was in a state of ferment, and outrages were frequent in the Zhob and Gomal valleys. Altogether the situation was strained and disquieting during the year under review. By the recent arrangement with His Highness the Amir, the causes of this unrest on the frontier have disappeared. The actual terms of the settlement may be left to next year's report.

Baluchistan.

In Baluchistan the most important event in its consequences was the murder by His Highness Mir Khudadad Khan, then Khan of Kalat, of his Mustaufi, or Minister, Fakir-Muhammad. This murder, which the political agent, on hearing of the Mustaufi's arrest, had tried in vain to prevent, was the culminating act of a long course of oppression. An investigation into the conduct of the Khan left no doubt of his guilt and of his frequent abuse of power from motives of cruelty and avarice. The chief Sardars of the Baluch confederacy, of which the Khan is head, joined in expressing their disgust at his conduct, and petitioned the British Government to replace him by his son, Mir

Mir Mahmud Khan. The Khan himself tendered the resignation of the chiefship, and, in consideration of his loyalty in the past, the Government of India decided to be content with accepting his abdication, and investing Mir Mahmud Khan with the vacant chiefship. This decision was carried out in 1893-94.

Another event of importance in the year's administration was the withdrawal from Mekran. In 1890-91, Sir Robert Sandeman, then Governor General's Agent, visited Southern Baluchistan, including Mekran and the Kej and Panjgur districts, and found the country in a state of almost complete anarchy; an officer and some troops were left on the spot, and efforts were made to secure a durable settlement among the rival parties and clans. These efforts met with only partial success, and the Government of India, being unwilling at the time to take upon itself the responsibility of the administration of this distant and poor country, decided to withdraw its troops and civil establishments. Fresh proposals for the administration of Mekran are now under consideration in consultation with the new Khan of Kalat.

Affairs in Mekran so engrossed the political agent of Southern Baluchistan that he could not properly attend to the duties of his charge in the direction of Sind, where the tribes were giving trouble. The political charge of the Las Beyla State was for this reason temporarily transferred to the political agent at Kalat. A severe epidemic of cholera occurred during the year, in which from 2,000 to 2,500 persons are estimated to have died in the Kej and Panjgur districts.

In the Zhob valley the action of the Afghan officials on the frontier caused some excitement, and serious offences by the Waziris were consequently numerous. Progress was made in the organisation of the Zhob levies.

An important financial reform was effected at the close of the year by the substitution of a single provincial contract between the Government of India and the Governor General's Agent in Baluchistan, for the four separate contracts previously in force; viz.:—(1) the special allotment of police and levies; (2) the Zhob revenues; (3) the Quetta revenues; and (4) the grant for the Zhob Levy Corps. There was a satisfactory increase of provincial revenues, which were approximately, in 1892-93, Rx. 59,077, as compared with Rx. 43,163 in 1890-91 and Rx. 54,220 in 1891-92.

Improvements have been effected in various departments; education is said to be making rapid strides; the annual horse-show at Sibi has proved a great success; the rapidity with which unreserved forests have disappeared has necessitated the extension of reserved areas for the maintenance of a supply of fuel and fodder in the province; a larger quantity of coal was obtained, and proposals were under consideration for the further exploitation of the coal fields of Baluchistan. The attempts to obtain a permanent and remunerative supply of petroleum have failed. Trade declined during the year.

On the Punjab border the principal event was the occupation of Kurram, which was undertaken with the assent, or rather at the suggestion, of the Amir. The Turis were replaced in possession of their lands from which they had been ejected by the freebooter Chikkai and his followers. Peace and order were established, a military cantonment laid out, and a local militia force, 850 strong, enlisted. In the Khaibar, trouble was caused by the rebellion of Amin Khan, the representative headman of the Kuki Khel Afridis. As a punishment his allowance was forfeited and fines were imposed on his tribe. On the Hazara border a small expedition was necessary to obtain the expulsion of Hashim Ali, the proscribed chief of the Khan Khel Hassanzai. There was no opposition, Hashim Ali fled, and the small hamlet of Baio, in which he had for the time established himself, was destroyed. Further north the Gilgit field force came into collision with the Chilasis; but on the Panjab frontier itself no actual fighting took place. On the whole, on both the Derajat and the Peshawar sections of the Punjab frontier, there were many signs of improvement in the behaviour of the tribes. This improvement is likely to continue and to extend, now that the settlement with the Amir has done away with the main causes of uncertainty and unrest.

Punjab Frontier
Tribes.

Reference has already been made to the collision at Chilas between the Gilgit field force and the insurgent Shinaki tribes. The opening of the Khagan route from the Hazara district, *via* the Babusar pass, to Chilas was decided upon and carried out after the close of 1892-93.

Kashmir, and its

Beside the occupation of Chilas, the principal events of the year in Kashmir were the severe outbreak of cholera, of which nearly 12,000 persons died in the

THE FRONTIERS
AND PROTECTED
STATES OF INDIA.

valley between May and August, and the destruction by fire of one of the most thickly populated portions of the city of Soinagar. Considerable efforts were made by the State Council to remedy the consequent distress; the work of the medical department was particularly satisfactory. A scheme for providing the capital with a pure water supply was taken in hand during the year. The chief difficulty of Kashmir administration is financial. The expenditure of the year, Rx. 610,201, exceeded the revenue by Rx. 98,900, and the surplus treasury balances of the State were nearly exhausted. A very large proportion of the revenues is absorbed by the Military and Public Works Departments, in both of which more outlay is urgently required, i.e., for completing the equipment of the troops, and for constructing necessary roads and buildings. The revenue administration was conducted with ability. Progress was made in the new settlement of land revenue, which is being carried out under the superintendence of a British officer. Arrears, mostly irrecoverable, amounting to Rx. 237,000, were remitted. The Government of India undertook the working of the telegraph lines, with the exception of one section; and bore three-fourths of the cost of provisioning the Gilgit Field Force. Some progress is reported in the matter of education; and the administration of the jails, and of the judicial and police department is described as having been fairly satisfactory.

Nipal, Sikkim, and
Bhutan.

The affairs of Sikkim and the political relations with Nipal and Bhutan call for no special remark.

Manipur and Assam
Border.

In Manipur, the minor, Chura Chand, who had been chosen to fill the chieftainship was installed in April 1892, on which occasion the *sanad* of the Governor General was presented to him, declaring expressly that he derived his right from the Government of India, and that his retention of it depended on the loyal fulfilment of his duties as a tributary prince. The opportunity was used for abolishing slavery, and the *lalup* system, as it is called, under which the State exacted unpaid labour from its subjects. The place of this form of State-dues was taken by a house-tax at the annual rate of Rs. 2 per house; and a uniform rate of land revenue equal to Rs. 2 per acre was established. The revenue collections during the year amounted to Rx. 21,490, and the expenditure to Rx. 30,204, including Rx. 10,783 on account of arrears and current instalment of indemnity and tribute. There was considerable expenditure on public works, particularly on communications. The Assam—Burma cart-road was pushed on; the section as far as Kohima is expected to be open to traffic by May 1894. Trade is greatly expanding.

Along the external frontier of Assam the relations with the tribes were on the whole satisfactory, and undisturbed by any event requiring special notice. In the North Lushai Hills, however, some of the tribes rose and attacked a British force, but were repulsed. The chief villages of the assailants were occupied and destroyed by expeditions operating from Fort Aijal.

In January 1892 the question of transferring the South Lushai Hills from Bengal and portions of the Arakan Hill Tracts from Burma to the administration of Assam was under consideration, but it was decided to postpone the transfer for the present. Among the South Lushais, military expeditions were necessary in conjunction with the forces operating from Fort Aijal in North Lushailand. No serious resistance was encountered. Fines were inflicted, the taxes imposed were collected, and the policy of disarmament was more or less effectually carried out.

Chin Hills.

The Chin Hill tracts, which had been previously administered from Fort White and Haka, were in July 1892 brought under a single charge administered from Falam. In these tracts the work of the year was the suppression of the rebellion of the Nwengals and Siyins. Military operations on a considerable scale were required, during which the casualties in the British forces exceeded 70. They were, however, successful; most of the ringleaders of the rebellion were captured, and over 1,600 guns were surrendered. The Chin Hill tribes, excepting the Siyins, the Nwengals, and the Tlantlangs behaved well. A regular cash tribute was collected for the first time at the rate of one rupee per house, and amounted during the year to Rx. 1,200. The general policy of Government in the Chin Hills is thus described:—

- (1.) To protect the plains of Burma from raids;
- (2.) To interfere as little as possible with the customs of the people and their system of tribal government;
- (3.) To prevent bloodshed and internal feuds;

(4.) To

- (4.) To advise the chiefs and tribesmen, and to build up a sound primitive form of government;
- (5.) To punish severely all crime committed against Government servants and property;
- (6.) To demand tribute from all the tribes as a token of their fealty to the British Government.

THE FRONTIERS AND PROTECTED STATES OF INDIA.

Among the Kachins of the North Eastern frontier military operations on a considerable scale were necessary. The work of previous seasons was extended. Police escorts were despatched in different directions, and posts were permanently established at Sima and Namkham. The opposition was of a serious nature, nor had it been finally crushed by the end of the year under review. West of the Irrawaddy and south of Kamaing the country may be considered as having been permanently pacified. East of the Irrawaddy, posts had before the end of the year been established at Namkham, Nampaung, Sima and Sadon, and the location of another post at Kwitu was in contemplation. With the help of these posts it was expected that order would be preserved. The question of the system of administration required for these Kachin tracts was still under consideration at the close of the year. It is proposed to administer them under a Regulation somewhat similar to the Punjab Frontier Crimes Regulation. The line of frontier between the British and Chinese spheres of influence in the Kachin country was under discussion during the whole year.

Kachin Tribes, North East Frontier.

Other Kachin disturbances occurred during the year in 1892-93 in the Shan State of North Hsinwi (Thien-ni), where there was a conflict between the races of Kachins and Shans. The former are settling in the State in increased numbers, and have proved less submissive than the Shans to the oppressive rule of the chief. A widespread feeling of exasperation among the Kachin settlers culminated in a successful attack on Hsinwi town in December 1892. The revolt was directed solely against the Shan rulers of the country, and on the arrival of the Superintendent the malcontents laid down their arms when they had received an assurance that their grievances would be inquired into. In the rest of the Shan States peace prevailed, and there was a very satisfactory absence of dacoity and of serious crime. In Hsipaw and South Hsinwi among the Northern States considerable progress was made in the policy of disarmament and in the introduction of more civilised methods of government. The abolition of tolls in the Hsipaw State was also a satisfactory feature of the year's administration. In all the States much information was collected regarding their revenue-paying capacities. Their tributes were generally lightened with a view to leaving the chiefs in a better position to develop the resources of their States. There was a great expansion of trade during the year. Much of the time and attention of the Superintendent and Assistant Superintendent of the Southern Shan States during 1892-93 was occupied in the work of demarcating the frontier with Siam. This work was very satisfactorily completed. The Siamese occupation of the trans-Salween portion of Eastern Karenni was brought to an end in 1892, and an inquiry was held to estimate the losses sustained by Sawlawi, the chief of Eastern Karenni, owing to the Siamese occupation. The trans-Salween State of Kiangton was visited by the Superintendent of the Northern Shan States who helped the Sawbwa and his ministers with advice in various matters; he was also able to obtain information as to the resources of the State.

Burma Shan States.

INTERNAL STATES.

The suppression of dacoity in the Native States is often a matter of Imperial concern, and necessitates interference on the part of the paramount power, particularly in those tracts of Native States territory where the jurisdiction of the chiefs is much intermingled, and where the dacoits have, therefore, great advantages in organising their crimes with comparative impunity. For the State of Hyderabad, and the large Agencies of Central India and Rajputana, there has long existed a special department under the Government of India charged with the duty of suppressing thuggee and dacoity. The former crime has been almost stamped out; dacoity, however, prevails, and in the last few years has shown a tendency to increase both in the States referred to and in Kathiawar. The Thuggee and Dacoity Department records 564 cases of dacoity in 1892, as compared with 539 in the previous year, the increase occurring wholly in Central India, where also the value of property stolen per case was

INTERNAL STATES Dacoity.

INTERNAL STATES. very much larger. The increase of lawlessness was so serious that special measures had to be taken to deal with it. A special police force and a detachment of the Bhopal battalion were deputed to Bundelkhand, and the whole operations were placed under a selected police officer from the Central Provinces. The operations were entirely successful, and Bundelkhand was freed from dacoits. This result was, however, achieved after the close of the period to which the present Statement relates. One fact which was made evident by these operations was that several important Jaghirdars, and, in some instances, ruling powers in Central India had been in the habit of countenancing and harbouring dacoits. Two other measures may be mentioned in connection with this subject, though neither was completed in 1892-93. One was an amendment of the law of British India, to make it a criminal offence to harbour dacoits whose operations were carried on in Native States territory; the other was the re-organisation of the Thuggee and Dacoity Department, with the object of removing the friction that too frequently arose between the officials of the department and political officers in the Native States. In the new scheme, which in regard to Central India and Rajputana has been brought into force since the close of 1892-93, care has been taken not to impair the authority of the Durbars in respect to the suppression of ordinary crime within their respective States, and to uphold the position and powers of the political officers.

Hyderabad.

It was not only in the States within the scope of the Thuggee and Dacoity Department that dacoity was seriously prevalent in 1892-93. The Province of Kathiawar was disturbed by the numerous outrages of a gang of outlaws from the Malia State. The police of the Native States proved incompetent to cope with these men without European direction and superintendence. Strong measures had to be taken. The Malia State, the headquarters of the gang, was attached and placed under a European officer; the Agency police was strengthened, and the police of several Native States placed under European superintendents. The gang was finally attacked and killed to a man, but at the cost of the lives of Lieutenant Gordon and two of his men. It is anticipated that this success will greatly reduce the number of dacoities in Kathiawar.

There is little precise information regarding the administration of Hyderabad in 1892-93. There were changes in the *personnel* of the higher officers both in 1892-93 and in the succeeding year, of which the most important was the succession of Nawab Vikar-ul-Umra as Prime Minister in place of Sir Asman Jah. An abstract report of the latter's administration between the Fasli years 1297 and 1300, *i.e.* 1887-88 to 1890-91, has recently been issued. The total revenue is stated therein to have amounted during the four years to Rx. 14,033,926 and the expenditure to Rx. 13,578,020. The yearly surplus would thus be nearly seven lakhs. The figures show a considerable improvement as compared with those of the four preceding years. It is noticed that land revenue is collected with extreme punctuality and ease, and that the peasantry are contented and prosperous. Survey and Revenue settlement are progressing, 66 out of 117 talukas having been assessed and settled; the system adopted in the State is, with some modifications, the same as that which prevails in the Bombay Presidency. Reforms of considerable importance in various departments are alluded to in the report. To improve the judicial administration, the pay of the judges of the Chief Court and of the District Courts was raised. A draft of a Penal Code for the Nizam's dominions was prepared, and several useful enactments were passed. The jail administration was much improved. The police were brought under better discipline, their duties were more clearly defined, and the pay of the officers was increased. The village police were also brought under the supervision and control of the Inspector General of Police. A new mint was almost completed at the end of the period dealt with in the report. It is much needed for the improvement of the Hyderabad coinage. An enormous increase in the number of schools and children under instruction shows the advance in education that was made during Sir Asman Jah's administration.

The total revenue of the Hyderabad Assigned Districts (Berar) in 1892-93 amounted to Rx. 985,548, compared with Rx. 1,027,632 in the previous year. Part of the decrease, representing land revenue collections postponed till the following year, was nominal, the remainder was due to diminution in the excise and forest receipts. In provincial disbursements there was a slight decrease from Rx. 909,202 to Rx. 907,992, the decrease in military expenditure alone amounting to Rx. 16,827. The surplus of revenue over expenditure was only

only Rx. 77,456, which is less than the surplus of any year since 1871-72, INTERNAL STATES. excepting 1878-79 only. There was actually paid to the Nizam in 1892-93 on account of accrued surplus a sum of Rx. 83,104, making a total of Rx. 3,058,822 paid over on this account since the cession of Berar in 1852-53.

In Mysore, the year 1892-93 was one of exceptional prosperity. Mysore. From a statement published on the authority of the Dewan or minister it appears that the revenue was Rx. 1,700,000, or Rx. 265,000 more than in 1891-92. The chief items of increase were Rx. 166,000 from land, and Rx. 105,000 from excise. The increase of excise receipts, 50 per cent. as compared with 1891-92, is attributed to the abolition of intermediary agents in the administration. In seven years the excise revenue has increased 260 per cent. The expenditure of the year is shown at Rx. 1,623,000, but of this Rx. 230,000 represent repayment of loans, investments in Government securities, and capital outlay on railways, and the remainder includes Rx. 290,000 expended on public works. The extension of roads and railways, together with post and telegraph facilities, has led to a great development of trade and an expansion of agriculture. Gold mining is also yielding larger profits. The output of the gold mines in 1892 exceeded 163,000 ounces, valued at nearly a crore of rupees; the royalty paid to the State in the financial year was more than 5 lakhs. An extension of the railway system to the Kolar Goldfields, almost completed by the close of 1893, is likely to add to the prosperity of the mines. Progress is recorded in municipal affairs; the work of the Municipalities and Local Fund Boards is said to have been generally well done, and increased attention is said to have been paid to improving the condition and sanitation of towns and villages. The Representative Assembly of the State, which is the only institution of the kind in India, held its twelfth annual meeting in 1892, and is said to have discussed over 600 subjects during the five days of its session. The representatives present at the Assembly numbered 303, of whom five were Europeans, 16 were Mussalmans, and 282 Hindus.

No Administration Report of the Baroda State has been issued since that Baroda. for the year ending July 1888. The Gaekwar was absent from his State during the greater part of 1892-93; his absence, which has been frequent in recent years, is the cause of some difficulties and delays in the administration. Considerable agitation has been caused in the State by the operations of the Alienation Department, which was intended to secure for the State its proper revenue from lands which had been fraudulently or irregularly appropriated by individuals. Much has been done by the State for education; the number of schools is given at 1,105, with 73,900 scholars. A system of compulsory education is under contemplation. No information can be given in regard to the financial or other departments of the Administration.

The following is a Table of the Rajputana States, with their revenues, viz.:— Rajputana.

STATE.	Area in Square Miles.	Population in 1891.	Estimated Revenue.	
			1891-92.	1892-93.
			Rx.	Rx.
Udaipur (Mewar) - - -	12,861	1,862,478	259,630	375,000
Dungarpur - - -	1,440	165,400	17,640	14,567
Banswara, &c. - - -	1,937	212,269	20,400	25,988
Pratapgarh - - -	959	87,975	19,240	26,764
Jaipur - - -	15,349	2,832,276	619,180	619,007
Kishangarh - - -	874	125,518	34,590	35,748
Lawa - - -	19	3,360	1,280	450
Jodhpur (Marwar) - - -	37,445	2,521,727	430,000	415,700
Jaisalmer - - -	16,039	115,701	15,600	15,870
Sirohi - - -	1,966	188,977	25,800	17,500
Bikaner - - -	23,090	881,855	199,770	180,000
Bundi - - -	2,225	295,675	68,190	80,000
Tonk - - -	1,415*	198,934*	153,900	120,000
Shahpura - - -	406	63,646	23,600	28,900
Bharatpur - - -	1,961	640,303	271,790	271,850
Dholpur - - -	1,156	279,890	95,900	92,534
Kerauli - - -	1,229	156,587	52,650	47,773
Alwar, &c. - - -	3,051	767,786	282,020	265,879
Kotah - - -	3,803	525,267	235,280	240,000
Jhalawar - - -	3,043	343,601	151,460	150,000
TOTAL - - -	130,268	12,220,343	2,982,870	3,023,030

* Excluding the Tonk pergunnas in Central India.

INTERNAL STATES.

In Alwar the year was particularly eventful. A special court was instituted for the trial of the murderers of Kunj Behari Lal, a member of the State Council. This was followed by the death of the Maharaja, under whose authority the accused tried to shield themselves from the crime. The plea was, however, disallowed, and sentence was executed on the murderers. Jey Singh, the son of the late Maharaja, succeeded to the throne. During his minority the administration is being conducted by the Alwar Council under the general guidance of the political agent. The finances of the State are in good order, there being a balance of 59 lakhs in the treasury and a yearly surplus of two lakhs.

In December 1892 Maharao Oomeid Singh, of Kotah, was installed, though, owing to his inexperience, certain departments of the administration were retained temporarily under the Political Agent's superintendence. The State had been under British management since February 1874. At that date the treasury contained only Rx. 152 in cash, while the claims against the Durbar amounted to Rx. 895,194. Inquiry reduced these debts to Rx. 464,312, all of which have been paid; and the cash balance in the State Treasury on 31 March 1893 was Rx. 153,911. During the period of management nearly 46 lakhs had been spent on the public works department.

The Maharaj Rana of Jhallawar, who had been deprived of his ruling powers a few years ago, was, towards the end of 1892, re-invested with governing powers in all departments except in matters of revenue, which are under the control of the State Council. Rules have been framed, under which, it is hoped, that this dual control will work successfully.

The affairs of Banswara continue to give anxiety. In Udaipur (Meywar) irregularities in the collection of revenue and the administration of justice were discovered which proved the need for the appointment of responsible ministers of capacity and integrity.

Revenue settlement, mostly under the superintendence of British officers, is being carried out in several states. In Tonk and in Dholpur the settlement operations were completed in the year under review. In Udaipur these were expected to be finished in the succeeding year. They have been started in Bikaner, and are expected to begin shortly in Jodhpur (Marwar).

The scarcity which marked the years 1890-91 and 1891-92 in Rajputana passed away in the year under review. But prices remained high, although the harvests generally were favourable.

The amount spent on public works by the States of Rajputana in 1892-93 was Rx. 426,000, of which Rx. 180,000 were expended in Jodhpur, Rx. 109,000 in Jaipur, Rx. 53,000 in Alwar, Rx. 44,000 in Kotah, and Rx. 22,000 in Udaipur. The expenditure in Jodhpur is chiefly on railways.

The Walter-krit Sabha, which is an association with the object of restraining excessive expenditure on marriages and funerals, continued to work beneficially. The number of breaches of the regulations in 1892 was considerably less than in the previous year. It is reported that castes other than Rajputs are beginning to realise the importance of rules of this kind.

Of the so-called criminal tribes, the Meenas and Bhils were more than usually troublesome, but the Moghias are said to have behaved well on the whole. Arrangements are being made for the better supervision of the Moghias in times of scarcity, when they are disposed to desert their settlements *en masse*.

Praiseworthy efforts are being made in many of the Rajputana states for the encouragement of education. The proportion (one out of 11) of boys under instruction in Jaipur is particularly creditable. Female education is also making way in Jaipur and in Alwar, but of the other states this cannot be said. A satisfactory report is given of the Mayo College.

Increased attention is being paid to sanitation. Suitable drainage or sewage schemes have been adopted in several of the chief towns. In Alwar rules have also been made for village sanitation. The number of dispensaries and the work performed by them increase satisfactorily year by year.

Central India.

The subject of dacoity, which is the topic of chief interest in the Central India Agency Report for 1892-93, has already been dealt with, but it may here be said that some of the chiefs in this agency, particularly in Bundelkhand, have not been without blame in the matter. The Rao of Alipura has been allowing dacoits to shelter in his territory, and has given grounds for suspicion even as to his loyalty. The territories of Datia and Ajaigarh have also been used as shelter by the dacoits, and in Bijawar the Durbar has hardly been

strong

strong enough to control the Thakors who abetted dacoity. But in all these States a considerable change for the better has been effected. INTERNAL STATES.

The administration of Gwalior has been conducted satisfactorily and without friction. Its financial position is very strong. Besides investments, including 3½ crores lent to the Government of India, there was in June 1892 a State balance of Rx. 4,885,000. The receipts of the year were Rx. 1,419,000. The expenditure, Rx. 1,347,000, was larger than that of the previous year by nearly 24 lakhs in consequence of the marriage of the Maharaja and his sister. Much useful work has been done in the Public Works Department. Considerable progress has been made with the Goona-Bina railway, and the Bhopal-Ujjain line has been commenced. A number of feeder roads have been, or are being, constructed. The memorial hospital and college at Laskar are nearly completed, and four other new hospitals are under construction. Settlement operations were conducted in certain districts; but the procedure was found to be not wholly suitable and the Council of Regency decided to postpone the work of settlement. Meanwhile steps were taken to push on the survey, and to train and organise the patwaris (village accountants), and through them to obtain the papers and statistics necessary for making an assessment. The whole of the work was placed under the superintendence of a European officer. The judicial courts are said to have worked well, except for a tendency to deal too leniently with grave offences, such as dacoity.

In Indore the administration is considered to have been generally satisfactory. The Maharaja has continued to pay close attention to the Revenue Department. In the northern districts of his State, which he inspected during the year, he found the assessments to be too high and ordered them to be reduced. The total revenue of the year is given at Rx. 637,000, and the expenditure at Rx. 617,000. The State was comparatively free from violent crimes, and the administration of justice was satisfactory. There was no change in the office of Dewan.

The State of Bhopal, in which the office of minister continues to be held by Munshi Imtyaz Ali, was well administered. The prevalence of dacoity much disturbed the State, but the measures adopted since the close of the year may be expected to restore order. The educational and medical institutions are doing good work.

In the other States the more important events were the following. The Rajas of Rutlam and Dewas State, Junior Branch, died during the year. The former was a wise and able ruler, considerate, and popular with all classes of his subjects, and much respected by neighbouring princes. His son who succeeds is a minor. The administration, in which no changes of importance were required, unless the introduction of the budget system be considered an important change, was continued under the late Raja's Minister, Khan Bahadur Shahmut Ali, c.s.i., subject to the Political Agent's supervision. The Dewas State, Junior Branch, on the Raja's death, was taken under superintendence during the new Raja's minority. The annual income of the State is a little over 3½ lakhs, and exceeds the expenditure. The State, moreover, holds a considerable sum invested in Government securities. The Maharaja of Dhar, who had only partially recovered from a stroke of paralysis, was absent from the State during the year. The administration consequently suffered. The Governor General's Agent reports very unfavourably on the rule of the Chiefs of Sailana, Sitamau, and Nagode on account of their incompetence and unwillingness to accept good advice. The financial condition of Jhabua continues to cause anxiety, but the management of the State is not wanting in ability. The affairs of Jaora are improving, as its debt is being cleared off. The Thakur of Jakhnaoda's management of the Ali Rajpur State, of which the Rana is a minor, is satisfactory, and the financial position of the State is improving. The Maharaja of Rowah is nearly old enough to begin to undertake the administration of the State. With a view to the coming change, extended powers were conferred on the State Council. The finances of the State are in a good condition. The year closed with a surplus of 3 lakhs, and a total balance in hand of 15½ lakhs.

Detailed information is wanting in regard to the principal States subordinate to the Punjab Government. The largest State, Patiala, of which the Maharaja has been in power for three years, is beginning to give cause for anxiety. His Highness has been much absent from his State, his recent marriage has been regarded with disfavour by neighbouring chiefs, and the financial position has been

INTERNAL STATES. been made critical owing to reckless expenditure. The establishment of a High Court in the State is a reform deserving of notice.

The only fact reported of Bahawalpur is that the Nawab imposed temporary export duties on grain in order to check the large exports from the State. In Jind considerable excitement was caused by a case arising out of the slaughter of kine. The killing of kine being illegal in the State, severe penalties were inflicted on certain persons who had been found guilty of a breach of the law. The conduct of the Raja of Suket continues to be unsatisfactory. A European officer has been appointed to act as Councillor in the State, and an officer of the Punjab Revenue Establishment has been appointed as the Raja's Wazir or Minister. Improvement in the administration is hoped for. The Mandi State was troubled during the year by an agitation against the Wazir. At one time also there were apprehensions of famine, to meet which advances were freely made to agriculturists, and relief works started. Of the other States, Chamba and Nahan (Sirmur) are praised for the energy and efficiency of their administration. One other feature of the year's administration which may be mentioned is, that the more important States on the Sutlej have been invited to co-operate systematically with the British authorities for the purpose of checking crime on their borders, and considerable improvement is hoped for from the measures which have been adopted with this object.

**North-West
Provinces.**

The Government of the North-West Provinces has expressed itself satisfied with the Raja of Tehri's aims, and with his administration during 1892-93, the first year of his rule. The finances of the State, with an income of Rx. 22,665, expenditure of Rx. 16,613, and a closing balance of Rx. 64,377, are in good condition. The Raja has been advised to increase the expenditure on roads, schools, and hospitals, but his object for the time seems to be to reduce his expenditure and increase the surplus which he can lay by.

In Rampur also the financial position is sound. About 25 lakhs were spent out of an income of 30 lakhs in the year. The affairs of the State are, during the Nawab's minority, under a Council, of which the president is a British officer. Considerable advances have been made in most departments; the army has been reformed; the judicial administration has been improved in character and efficiency, and a general sense of security established. The department now most in need of reform is that of the police, who wholly failed to deal with serious and organised crime. Measures were being taken at the close of the year for the improvement of the pay and discipline, and therefore of the efficiency, of the force. There was a dangerous outbreak in the jail during the year, for which severe punishments were passed on the ringleaders. The education of the Nawab progresses satisfactorily. A large portion of the State balance is to be devoted to the construction of the section of the Bareilly-Rampur-Moradabad Railway, which is in Rampur territory. The line was approaching completion at the end of 1893.

Bengal.

The Maharaja of Hill Tipperah in 1892-93 abolished the post of Minister, and formed an administration consisting of two of his sons and six of his Thakors, or principal subjects. The management of his estates in British territory was placed in the hands of a retired Indian civilian. The chief sources of revenue are taxes on forest produce and on cotton and oil seeds; the former showed a satisfactory increase. The total income of the State exceeded Rx. 61,000. During the two years of the late Minister's administration the State debts were reduced from 10 to 5 lakhs. In the year under review, Rx. 13,000 were paid off.

With the approval of Government, the Maharaja of Kuch Bihar appointed a retired Indian civilian to be the Vice-President of the State Council and Superintendent of the State, in place of the British officer who had previously held these offices. The revenue of the State in 1892-93 was Rx. 207,000, and the expenditure Rx. 198,000, including a lakh of rupees as the first instalment on the repayment to Government of the loan of eight lakhs granted for the construction of the State Railway. This line was opened for traffic in September 1893.

The Chota Nagpur and Orissa Tributary Mahals continue to be in a very backward condition. There were not many marked signs of progress during the year under review, except in the matter of communications. The harvest in the Orissa Mahals was favourable, but that in the Chota Nagpur States was below the average. The year was generally uneventful. But in Keonjhar disturbances prevailed. The Bhuyans continued in their refusal to submit themselves to the Rajah, notwithstanding the punitive operations of a detachment

ment

ment of Government police. The conduct of the Chief of Athgarh was not satisfactory. The Government estate of Porahat, which used to be included in the Chota Nagpur group of Native States, was by an Act of February 1893 annexed to the Singhbhum district of the Chota Nagpur division. INTERNAL STATES.

The people of the Feudatory States in the Central Provinces are reported to be, in general, contented. Their standard of comfort has risen with the rise of agricultural prices, which the railway and the development of trade have brought. There remain large tracts of fertile land still uncultivated, and there is much room for improvement in the system of agriculture. Of the 15 Feudatory States, eight are temporarily managed by Government. The management of Kanker was taken over by Government during the year, but that of Sakti was restored, subject to certain restrictions, to its Chief. The State which gave most trouble was Chhuikhadan, where an empty treasury, unpaid public servants, and general financial disorder brought matters to a crisis. The Chief was compelled to abandon his obstructive attitude, and to give his Dewan fuller powers, with permission to carry out the reforms recommended by the Political Agent. The most progressive of the States managed by their own rulers are said to be the Bamra and Nandgaon. In the former, however, there are complaints of excessive assessments, harsh forest rules, and the oppressive exaction of forced labour, and of benevolences on the occasion of marriages in the Chief's family, which, it may be added, includes 16 sons and daughters. Revenue settlement operations were in progress in almost all the States; much was done to increase the efficiency of the police; education made some progress; and the popularity of dispensaries increased steadily. The year, however, was not a healthy one. The crops were generally good. Central Provinces.

The principal State subordinate to the Madras Government is Travancore. It continues to show steady progress. Its revenue for the Malayalam year, August 1891 to August 1892, exceeded 84 lakhs, an increase of 4½ lakhs over the income of the previous year. The Durbar is, with the approval of Government, setting itself to apply a portion of its accumulated balance of over 70 lakhs to reproductive and useful schemes of public works. The State enjoys a considerable trade; in 1891-92 its imports and exports together were valued at 195½ lakhs. The Legislative Council of Travancore was reconstituted during the year on a more representative basis. In the course of the year it enacted five Regulations, of which the chief revised the laws relating to the High Court, and dealt with the acquisition of lands for public purposes, and with criminal procedure. The administration has a tendency to follow in the lines laid down in British India. The figures illustrating education showed a decline in the year under report, as compared with the previous year, in which there had been an abnormal increase. But in matters of education it must be remembered that Travancore holds a more advanced position than other Native States, or than British India. At the close of the year the Dewan Rama Rao retired from his office, and the Government of Madras recorded its congratulations to His Highness the Maharaja on the steady improvement which, under his auspices, had been observable in almost all departments of the State. Madras.

In Cochin, the year is said to have been one of progress in several respects, especially in regard to education, the post office, the administration of civil justice and of the medical department, and to some extent in regard to jails. The year under review was the last of the administration of the Dewan, C. Thiruvencata Chariyar. The new Dewan, V. Subramanya Pillai, is said to have entered upon his duties with a determination to improve all branches of the administration. Improvement is specially needed in the collection of revenues in the Salt, Abkari, and Forest Departments. The income of the State amounted to 17½ lakhs. This is a falling off from the figure of the previous year. But the general financial position should give no cause for anxiety, as the expenditure was less than the revenue, and the year closed with a State balance of nearly 44½ lakhs. Of the other States in the Presidency nothing need be reported, except that the Raja of Sandur died during the year. His infant son was recognised as the successor, and the late Raja's brother was appointed to manage the affairs of the State during the minority. Pudukota continues under British administration.

But for the outbreak of dacoity in Kathiawar, which has already been dealt with in this chapter, the year was one of unbroken peace and prosperity for the three or four hundred States subject to the political control of the Governor of Bombay

INTERNAL STATES. Bombay. Except in Kolhapur the harvests were generally fair; but the public health in the Gujarat States, and in those in the Southern Mahratta country, suffered from epidemics of cholera and fever. Crime, particularly serious crime, decreased in a marked degree; trade, aided by the abolition of vexatious imposts, and by the improved communications provided by enlightened rulers, continued to expand. It need not, perhaps, be wondered at that civil litigation is at the same time rapidly increasing. Of the Bombay Native States, one only, Khairpur, stands outside the current of administrative progress. The rulers of the rest are more and more assimilating their systems of government to that prevailing in British India.

The chronic disputes between Cutch and the States of Morvi and Navanagar on the opposite side of the Runn, reached a crisis during the year under review, and it was decided to take under temporary British management the villages and rights possessed by the Kathiawar States in Cutch, and by the Cutch State in Kathiawar, the object being to effect an accurate valuation of these properties, which is to be followed by a complete permanent separation of the interests of the States concerned.

The troubled condition of Kathiawar made it necessary for the Bombay Government to attach the State of Malia, the Chief of which had failed to control the turbulent tribe of Meenas, and had allowed his territory to become a nest of disorder, and the home of the outlaws who were ravaging the province. Moreover, the debts of the State exceeded five lakhs, or five times the income of the taluka. In Junagadh a Commission was appointed to inquire into, and effect a settlement of, some long-standing differences between the Nawab's Hindu and Mohammedan subjects. Unfortunately, before steps had been taken to carry out the recommendations of the Commission, the animosity between the parties broke out in serious fighting during the Mohurrum festival. This incident, however, belongs to the Report for 1893-94.

The most important States under British administration during 1892-93 were Porbandar, Rajpipla, Cambay, and Savantvadi. In the three former the work of reform was pushed on; in Savantvadi, which has long been under administration, there was less occasion for reform, but satisfactory progress on existing lines, especially in the matter of education, was recorded. Its chief town was benefited during the year by the completion of its new waterworks.

The following observations may be made regarding the more important States.

For Cutch, the year was not prosperous. There was a decline in trade, in revenue, in State expenditure on public works, and in the number of children under instruction; at the same time, the public health suffered, and crime increased.

In the Palanpur Superintendency the commencement of the Palanpur-Deesa Railway is to be noticed. The finances of both Palanpur and Radhanpur were satisfactory, and considerable sums were spent on public works. The abolition of *rev* or forced labour in Palanpur, and of import duties in Radhanpur, reflects credit on the Chiefs. Education is backward, and progress slow. The Agency police were reorganised during the year.

In the Mahikantha Agency, the Chiefs of Pól, Varsoda, Pethapur and Vasna, obtained their majority, and were entrusted with the management of their States; 18 others remained under management. Idar is the only important State in the Agency, and of the progress of this State little information can be furnished.

In Kathiawar the railway system profited by the development of trade, and gave more satisfactory returns on its capital outlay. The extension from Jetalsar to Rajkot was opened to traffic during the year, and arrangements were being made for a further extension to Jamnagar and to Jodia, the port of Navanagar. The Nawab of Junagadh, Sir Bahadur Khanji, G.C.I.E., died during the year, and his brother, Kasal Khanji, was recognised as his successor. The State Council of Bhavnagar appears to have worked satisfactorily. The income of the State increased by four lakhs. The continued absence of the Thakor Saheb of Gondal, who has been away from his State for two and a half out of the last three years, is considered an unsatisfactory feature of the year's report. A change of some importance was made in the matter of education. Hitherto the control and management of all educational institutions in Kathiawar, which may be said to have had their beginning in 1865, had been entrusted to a Government educational inspector. In 1892-93 it was decided to transfer, on certain general conditions, the control of these schools to such of the States as, in the opinion of the Political Agent, were, owing to the character of their administration, fit to undertake the control, and were willing to exercise it.

States were Junagadh, Bhavnagar, Porbandar, Morvi, Vankaner, Palitana, Rajkot, and Wadwan. The number of educational institutions in Kathiawar increased during the year from 939 to 998, and that of scholars from 59,804 to 60,957. INTERNAL STATES.

In Cambay the work of reform made good progress. The new survey settlement was introduced and was received with general favour. Arrears of land revenue were collected without difficulty, notwithstanding a harvest that was below the average. State liabilities were liquidated to the amount of 1½ lakhs. The courts worked satisfactorily, and there was less crime. Public works of importance were under construction; and there was a satisfactory increase in the number of schools and scholars. It was anticipated that it would be possible to re-invest the Nawab with full powers of government during the year 1893-94.

In the Rewa Kantha Agency the chief feature was the satisfactory administration of the Rajpipla State under a British officer. The financial position of the State is very strong. The management of the State forests is receiving careful attention. What is now most required is the establishment of a higher standard of magisterial and police administration.

In the South Konkan the Nawab of Janjira continues to earn the highest praises of Government by his successful and enlightened administration. The capital of this State, as well as that of Savantvadi, was benefited during 1892-93 by the completion of an important scheme for the supply of pure water.

A Council of Regency, under the supervision of the Political Agent, is successfully conducting the affairs of Kolhapur during the minority of the Chief. The season was not favourable to the cultivators. Notwithstanding, the horse and cattle show held at Chingli during the year was a great success. An advance is reported in educational matters; but there was some falling-off in revenue. It was possible, nevertheless, to spend 5½ lakhs on public works.

Jath and Daphlapur were during 1892-93 added to the number of States under the supervision of the Political Agent of Kolhapur and the Southern Mahratta Country. Jath, which is now under management during a minority, no longer causes anxiety, and the report on the Karundvad Senior State indicates improvement. Generally speaking, the administration of these States is favourably described.

TRANSMARINE DEPENDENCIES AND INTERESTS.

The relations of the Aden Residency with the neighbouring Arab tribes were generally friendly. Some sections of the Subaihi and of the Lower Aulaki tribes, however, gave trouble by their raids. It is noticed that the number of ships visiting Aden and Perim fell off, and was, indeed, lower than in any year of the last decade. But it must be remembered that the size of the ships is yearly increasing. The trade of the port was larger than in any previous year, and reached the total value of Rx. 8,175,500, of which Rx. 4,474,300 represented imports. While there was some improvement in the health of the general population in Aden, that of the troops, which suffered in 1891-92, was still worse in 1892-93. There has been an enormous and progressive growth of admissions of patients suffering from ague during the last four years. All the hospitals were more largely resorted to than in the previous year. TRANSMARINE.
DEPENDENCIES
AND INTERESTS.
Aden.

In the British Protectorate on the Somali Coast the year was not one of prosperity. There was an epidemic of cholera at Zaila and at Bulhar; the latter place was also destroyed by fire. The peace of the interior was disturbed not only by feuds between the Somalis, but also by raids of the Abyssinians on the Ogaden tribe. The progress of the trade of the Protectorate is thus described: that at Berbera increased largely; the Bulhar trade declined slightly; and at Zaila there was a very large decrease. The net variation was an increase to the extent of seven lakhs. The revenue of the Protectorate rose to nearly Rx. 22,000, which fell short of the expenditure by about Rx. 7,000, a sum nearly equal to the expenditure on public works, chiefly for police and military quarters and Residency buildings, during the year. The limits of British influence in the interior have not yet been defined. Somali Coast.

The reports of the Political Officers who have the supervision of British Indian interests in Muscat and on the Persian Gulf Coasts describe the year as one more than usually disturbed, except in Oman itself, the political affairs of which were markedly quiet. There was an increase of piracy; there were disputes between the Turkish authorities at El Katif and the Chief of Bahrein, and apprehensions lest the former should seek to enforce their pretensions on that island. Serious fighting also took place between the Wali of Bussorah and the Muscat and Persian
Gulf.

TRAFFIC
INTERESTS.

the insubordinate tribes of the El Katr peninsula. In Persian territory the severe rule of the Governor of Bushire led to a rising of the Baharloo tribe, which for a time closed the trade routes and spread the greatest alarm in the neighbourhood of Bushire. There were other feuds, also, in this neighbourhood and in Persian Baluchistan; and the prosperity of the country was further disturbed by an epidemic of cholera. Some cases of the importation of slaves into Persia were reported, but no slave dhows were captured by British vessels. There was a serious decline in the trade of the ports of Southern Persia in 1892. The aggregate of the trade of Bushire, Shiraz, Lingah, Bunder Abbas, Bahrein, and the ports on the Arab coast, was valued at 460½ lakhs for exports and 589 lakhs for imports. In Muscat the value of the exports was 1,055,000 dollars, and of the imports 1,982,000 dollars.

ARMY.

ARMY.

The sanctioned establishment for 1892-93 was as follows:—

British Troops	- - - - -	73,032
Miscellaneous Officers	- - - - -	999
Native Troops	{ Bengal	83,905
	{ Madras	32,102
	{ Bombay	28,748
		144,755
Total	- - - - -	218,786

Corresponding Total for 1891-92 - - - 218,244

The actual strength of the Army on the 1st April 1893 was as follows:—

BENGAL.				
<i>British.</i>				
Cavalry (5 regiments)	- - - - -	3,289		
Artillery (52 batteries)	- - - - -	7,411		
Engineers	- - - - -	38		
Infantry (33 regiments)	- - - - -	34,265		
			45,003	
<i>Native.</i>				
Cavalry (24 regiments)	- - - - -	14,973		
Artillery (7 batteries)	- - - - -	1,554		
Sappers and Miners (8 companies)	- - - - -	1,320		
Infantry, including Punjab Frontier Force (64 regiments).	- - - - -	59,196		
Other corps, including Hyderabad Contingent.	- - - - -	13,768		
			90,811	135,814
MADRAS.				
<i>British.</i>				
Cavalry (2 regiments)	- - - - -	1,370		
Artillery (15 batteries)	- - - - -	2,197		
Engineers	- - - - -	69		
Infantry (10 regiments)	- - - - -	9,803		
			13,445	
<i>Native.</i>				
Cavalry (3 regiments)	- - - - -	1,851		
Sappers and Miners	- - - - -	1,474		
Infantry (32 regiments)	- - - - -	25,613		
Other corps	- - - - -	4,559		
			33,917	47,362
BOMBAY.				
<i>British.</i>				
Cavalry (1 regiment)	- - - - -	682		
Artillery (21 batteries)	- - - - -	3,188		
Engineers	- - - - -	62		
Infantry (10 regiments)	- - - - -	9,768		
			13,700	
<i>Native.</i>				
Cavalry (7½ regiments)	- - - - -	4,415		
Artillery (2 batteries)	- - - - -	423		
Sappers and Miners	- - - - -	808		
Infantry (26 regiments)	- - - - -	20,767		
			26,413	40,113
TOTAL		- - - - -		223,289

The

The number of Troops in the Burma District on the 1st of April 1893 **ARMY.**
was—

British	- - - - -	3,814
Native	- - - - -	10,502
		<u>14,316</u>
	Total - - -	14,316

1892-93.

The total of the Native Army Reserves in India on 1st April 1893 was 11,570.

The net expenditure on the Army in 1892-93 was—

In India	- - - - -	Rx.	14,799,048
In England	- - - - -	£.	4,842,420
Exchange	- - - - -	Rx.	2,913,323
			<u>22,554,791</u>
	Total - - -	Rx.	22,554,791
	Total in 1891-92 - - -	Rx.	21,500,197

The number of Volunteers in the whole of India on 1st April 1893 was as under :—

	Enrolled Strength.	Efficient.
Bengal - - - - -	13,710	12,525
Madras - - - - -	8,725	7,259
Bombay - - - - -	5,601	5,166
	<u>27,936</u>	<u>24,950</u>

On the 1st of April 1892 the number of enrolled Volunteers was 26,746, of whom 23,454 were efficient. The number of Volunteers enrolled in the Reserve at the end of 1892-93 was 1,227.

During the year 1892-93 the following measures were sanctioned or brought into effect :—

The British cavalry regiments in India were organised in four squadrons, in lieu of eight troops as heretofore, the officer commanding a squadron being made responsible to the commanding officer of the regiment for the discipline, horses, arms, accoutrements, stores, &c., of the whole squadron. This system was already in force in the native cavalry.

Revised regulations were issued for the volunteer reserves to be formed in India and Burma. These reserve corps consist of Europeans or those persons of European descent who, from various causes, are unable or unwilling to enlist in active volunteer corps. They are armed and equipped in the same manner as members of active volunteer corps.

An important change in the system of recruiting for the Bengal native army was introduced on the 1st April 1892. Recruiting depots were established at the following stations, each to form the centre of a recruiting district for the classes specified :—

Peshawur	- - -	for Pathans.
Rawal Pindi	- - -	„ Punjabi Mohammedans.
Amritsar	- - -	„ Sikhs.
Sealkote (in winter)	- - -	„ Kashmir Dogras.
Dharmasala (in summer)	- - -	„ Kangra Dogras.
Delhi	- - -	„ Jats and Hindustani Mohammedans.
Lucknow	- - -	„ Hindustani Hindus.
Gorakhpur	- - -	„ Gurkhas.

ARMY.

Each centre is under an officer specially selected for his knowledge of the classes with whom he has to deal. All regimental recruiting parties report themselves to him for orders, and all recruits enlisted by them are brought to him for approval; but men presenting themselves for enlistment at regimental headquarters may be accepted and passed by commanding officers. The Peshawur district includes all trans-Indus territory north of Dera Ghazi Khan, and the Rawal Pindi district the tract between the Indus and the Jhelum. Operations from the Amritsar and Sealkote-Dharmasala centres extend to all districts inhabited by Sikhs and Dogras respectively; while the Delhi and Lucknow centres divide the rest of the recruiting area of Upper India, with the exception of the Nepal border, which is included in the Gorakhpur district.

With a view to increasing the efficiency and usefulness of the Intelligence branch of the Quartermaster General's department in India, it was enlarged and reorganised on the following scale:—The head of the branch is an Assistant Quartermaster General, and the whole office is divided into four sections, each under a Deputy Assistant Quartermaster General, who is assisted by a paid attaché and a sufficient clerical staff.

The military branch of the veterinary department in India was increased from 42 to 49 officers, to correspond with the increase in the number of horses which had taken place since 1885, when the establishment was reduced on the substitution of a system of station veterinary hospitals for the old regimental system.

During the year 1892, though the order did not have effect until the 1st April 1893, the following changes were sanctioned in the system of clothing, bedding, &c., for British troops:—

The State now provides all clothing actually required by the soldier, money compensation in lieu of clothing being abolished save in very special cases. All clothing, except light drill, remains the property of the State, instead of, as at present, becoming the property of the soldier, when the period fixed for its duration has been completed. These periods have been lengthened in the case of cloth clothing, which in many parts of India is little worn; and in view of meeting the requirements of various climates, commanding officers may substitute for any periodical issue other clothing of equivalent value. Similar changes are made in the bedding issues.

Concurrently with this change, the soldier is now required to pay for his necessaries at their cost price, converted at the rate of exchange for the year, instead of at 2s. the rupee as heretofore.

MILITARY OPERATIONS, 1892-93.

MILITARY
OPERATIONS.

Isazai Field Force.

The object of the Isazai expedition was to capture and bring in Hashim Ali Khan of Teri, a notorious outlaw and brigand, who had taken up his abode in Baio, a Hassanzai village, near the right bank of the Indus, and to enforce the observance of the agreement concluded after the Black Mountain Expedition of 1891, by which the Isazai Tribes (Hassanzai, Akazai, and Mada Khel) were bound to give no shelter or protection to Hashim Ali Khan.

The following was the composition of the force, which was concentrated at Darband on the 1st October 1892:—

In command	-	-	-	-	Major-General Sir W. Lockhart, K.C.B., C.S.I.
A.A.G.	-	-	-	-	Major Martin, 5th Goorkhas.
D.A.A.G.	-	-	-	-	Captain Gartside Tipping, 1st Bengal Cavalry.

1st Brigade	-	-	-	-	Brigadier General Pretzman, R. A.	MILITARY OPERATIONS
Brigade Major	-	-	-	-	Captain B. Duff, 9th Bengal Infantry.	
1st Batt. Bedfordshire Regiment.					700 rifles.	
4th Sikh Infantry	-				600 „	
25th Bengal Infantry	-				700 „	

2nd Brigade	-	-	-	-	Colonel (Brigadier General) Hammond, Corps of Guides.
Brigade Major	-	-	-	-	Captain W. G. Hamilton, East Lancashire Regiment.
1st Batt. King's Royal Rifles					700 rifles.
1st Batt. 5th Goorkhas	-				450 „
2nd Batt. 5th Goorkhas	-				450 „

Royal Artillery	-	-	-	-	Lieutenant Colonel Keith, R.A.
					Nos. 3, 8, and 9 Mountain Batteries, R.A.
					No. 1 (Kohat) Mountain Battery.

Divisional Troops :

11th Bengal Lancers, 2 squadrons.
Nos. 4 and 6 Companies Bengal Sappers and Miners
30th Bengal Infantry, 700 rifles.

Reserve at Abbottabad :

2nd Batt. Seaforth Highlanders.

The force encountered no opposition on the part of the enemy. When Baio was reached on the 6th October 1892, it was found to have been abandoned. After destroying the defences the troops returned, and the field force was finally broken up on the 13th of October 1892. The conduct of the troops was excellent, but they suffered severely from sickness.

The post of Chilás, in the Gilgit Agency, had been for some time past held by 300 rifles of the Body Guard Regiment, Kashmir State troops, and with the rest of the line of communication to Bunji, had been placed under the immediate orders of Major Daniell, 1st Punjab Infantry. On the 5th March 1893, owing to convoy and other duties, the available rifles at Chilás were about 270. For some time Major Daniell had received warning that an attack was preparing, which was to take place on the night of the Mohammedan feast known as Shab-i-Barab. Gilgit.

Unfortunately a mistake was made in calculating the night, which was thought to be that of the 2nd and 3rd March 1893. The attack was made about 3 a.m. on the morning of the 5th, and the fighting, which was severe, lasted throughout the day, when the enemy retired. The casualties were :—

One British officer (Major Daniell), three Native officers, and 19 rank and file killed.

One Native officer and 22 rank and file severely wounded.

One British officer, Lieutenant F. J. Moberly, 37th Bengal Infantry, and five rank and file slightly wounded.

The number of the enemy was estimated at between 4,000 and 5,000, and their loss at 250 killed and 50 wounded.

172 STATEMENT EXHIBITING THE MORAL AND MATERIAL

No military operation of any great importance took place in Burma during the year 1892-93.

A punitive expedition was organised to punish the Siyins and the Nwengals, on the west of the Manipur River. The operations were completely successful, and these tribes were reduced to a state of subjugation never before attained, as evinced by the surrender of 1,656 fire-arms, with a prospect of further disarmament before the close of the year.

Operations were also carried on by the military police against the Kachins to the north of Bhamo on the north-east frontier of Burmah.

The opposition of the tribes was severe and persistent, and was not overcome without considerable loss. Three British officers were killed: Captain Boyce Morton, Mr. Brooke-Meares, and Lieutenant Master, and three wounded; Native ranks, 34 killed and 66 wounded. Finally, a fort was established at Sima, where a permanent garrison was left. No further disturbances occurred during the year.

A P P E N D I X.

174 STATEMENT EXHIBITING THE MORAL AND MATERIAL

FINANCE

TABLES showing the NET REVENUE and EXPENDITURE in the several Provinces of INDIA, and in ENGLAND.

Bengal.

BENGAL.

NET REVENUE	1891-92				1892-93			
	Imperial	Provincial	Local	TOTAL	Imperial	Provincial	Local	TOTAL
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	2,737,718	733,805	—	3,456,523	2,667,125	625,674	—	3,292,799
Opium	4,154,024	—	—	4,154,024	4,554,339	—	—	4,554,339
Salt	2,333,403	5,224	—	2,338,627	2,401,665	—4,005	—	2,397,660
Stamps	398,217	1,098,651	—	1,464,868	373,737	1,121,271	—	1,496,008
Excise	735,123	261,708	—	1,046,831	820,344	273,448	—	1,063,792
Provincial Rates	—	408,022	335,517	804,539	—	418,235	417,568	836,133
Customs	505,170	—46,161	—	459,009	501,236	—45,363	—	455,873
Assessed Taxes	313,112	206,256	—	419,368	209,263	202,193	—	411,456
Other Heads	—19,164	16,943	—204	—725	—3,238	19,008	—489	15,281
TOTAL	11,127,302	2,633,207	335,513	14,106,222	11,794,481	2,506,861	417,338	14,648,741
NET EXPENDITURE:								
Interest	—130,110	—1,703	—3,781	—135,594	—111,504	—2,027	—3,942	—117,543
General Administration	27,559	161,633	23,218	218,410	25,260	163,651	30,830	222,741
Law and Justice	—	863,614	—	863,614	—	853,394	—	853,394
Police	4,431	551,318	—43,222	512,627	—	561,413	—41,572	519,841
Education	—	195,645	107,430	303,075	—	197,191	95,171	296,362
Medical	—	141,938	6,653	146,671	—	144,223	7,908	152,129
Territorial and Political Pensions	118,980	—	—	118,980	118,611	—	—	118,611
Civil Superannuation	—17,256	147,254	137	130,135	—11,201	162,455	437	151,711
Stationery and Printing	182,795	117,548	4,998	305,341	163,381	134,370	5,039	292,790
Railway Revenue Account	—65,228	—177,548	—	—242,776	—479,073	—300,127	—	—779,200
Irrigation	—	273,239	74	273,403	—	245,144	—173	244,971
Buildings and Roads	76,045	842,616	265,175	1,183,836	32,133	851,193	411,169	1,294,495
Other Heads	—65,743	—40,637	13,249	—93,131	4,150	—42,193	44,963	—6,080
Provincial and Local Balances	—	—11,534	—22,574	—34,108	—	—8,828	—1,353	—11,214
TOTAL	283,969	2,395,633	453,437	3,142,668	—255,633	2,371,641	552,419	2,633,622
Surplus	10,863,334	87,864	—6,584	10,863,334	12,010,119	125,020	—135,220	12,010,119

NORTH-WEST PROVINCES AND OUDH.

North-West
Provinces and
Oudh.

NET REVENUE.	1891-92.				1892-93.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	4,570,596	913,075	-314,276	5,169,395	4,621,639	870,997	-314,330	5,178,306
Stamps	169,612	508,836	—	678,448	175,382	528,085	—	703,467
Excise	382,577	127,526	—	510,103	400,571	133,523	—	534,094
Provincial Rates	—	173,395	764,177	937,572	—	173,088	764,809	937,897
Assessed Taxes	115,871	110,052	—	225,923	117,962	111,870	—	229,832
Forest	38,963	38,964	—	77,927	36,507	36,507	—	73,014
Other Heads	35,805	-24,791	-960	10,054	37,162	-25,858	-1,392	9,914
TOTAL	5,913,424	1,847,057	448,942	7,809,423	5,389,103	1,826,214	449,087	7,664,404
NET EXPENDITURE:								
Interest	—	—	—	—	73,835	3,820	-1,909	75,746
General Administration	20,370	125,090	7,393	152,853	22,551	127,801	7,433	157,785
Law and Justice	—	505,750	—	505,750	—	507,463	—	507,463
Police	8,141	353,352	253,309	614,802	—	375,968	266,044	642,012
Education	—	35,454	124,358	159,812	—	38,493	139,426	177,919
Medical	—	61,982	37,188	99,170	—	66,772	39,069	105,841
Scientific and other Minor Departments	37,183	12,487	258	49,928	3,264	9,797	1,384	14,445
Territorial and Political Pensions	80,295	—	—	80,295	106,604	—	—	106,604
Civil Superannuation	-12,398	167,857	1,143	156,602	-11,831	175,562	1,465	165,196
Stationery and Printing	-718	45,894	123	45,299	-836	56,204	131	55,599
Railway Revenue Account	-648,415	-20,494	—	-668,909	-630,759	4,044	—	-626,715
Irrigation	-114,802	-49,208	—	-164,010	-115,907	-14,893	—	-130,800
Buildings and Roads	15,456	356,345	257,558	629,359	15,198	257,667	235,089	507,954
Other Heads	45,334	-8,143	4,187	41,378	42,064	-15,250	7,104	33,918
Provincial and Local Balances	—	-4,399	28,179	23,780	—	-16,752	23,374	6,622
TOTAL	-574,852	1,533,749	712,250	1,721,147	-495,914	1,576,691	698,610	1,779,387
Surplus	5,888,376	283,308	-283,308	5,888,376	5,885,017	249,523	-249,523	5,885,017

176 STATEMENT EXHIBITING THE MORAL AND MATERIAL

FINANCE

Punjab.

PUNJAB.

NET REVENUE	1891-92.				1892-93.			
	Imperial	Provincial	Local	TOTAL	Imperial	Provincial	Local	TOTAL
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	1,761,101	791,799	-110,634	1,934,266	1,402,426	682,758	-116,819	1,968,365
Stamps	196,047	196,047	—	392,094	97,706	293,115	—	390,820
Excise	89,430	89,430	—	178,860	132,892	44,297	—	177,189
Provincial Rates	—	54,378	342,014	396,392	—	53,283	350,150	403,433
Assessed Taxes	73,226	59,554	—	132,780	73,516	60,226	—	133,742
Other Heads	33,623	20,213	-415	53,780	29,330	13,267	-327	42,269
TOTAL	1,653,477	1,313,710	232,265	3,069,452	1,725,968	1,162,732	232,260	3,121,560
NET EXPENDITURE:								
General Administration	17,543	96,060	12,497	126,115	13,323	88,688	12,696	114,706
Law and Justice	—	223,149	28	223,177	—	334,023	45	334,068
Police	24,600	273,671	-3,653	294,617	—	230,181	-4,012	316,169
Education	—	78,322	51,300	129,622	—	75,283	53,721	129,004
Medical	—	51,180	28,763	79,943	—	54,386	81,670	86,066
Political	120,274	—	—	120,274	127,400	—	—	127,400
Territorial and Political Pensions	26,094	—	—	26,094	33,190	—	—	33,190
Civil Superannuation	-6,959	79,641	451	73,133	-6,424	79,205	548	73,329
Stationery and Printing	-2,412	41,426	2,024	41,038	-2,350	37,054	2,029	36,733
Railway Revenue Account	-1,308,259	8,631	—	-1,299,628	-730,713	—	—	-730,713
Irrigation	-356,099	15,333	-2,357	-343,123	-406,658	23,515	-1,048	-384,191
Buildings and Roads	43,541	290,533	92,258	426,332	43,944	273,118	87,623	404,685
Other Heads	44,231	296	7,357	51,884	33,420	1,803	8,220	43,443
Provincial and Local Balances	—	-1,719	-8,791	-10,510	—	-106,253	-1,734	-108,987
TOTAL	1,385,426	1,367,108	179,873	2,932,407	-827,025	1,194,775	189,807	2,197,557
Surplus	2,057,923	-43,393	43,393	2,057,923	2,614,834	-43,543	43,043	2,614,334

BURMA.

Burma.

NET REVENUE.	1891-92.				1892-93.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	1,044,827	690,160	1,385	1,736,372	1,242,050	684,015	1,641	1,927,706
Salt	160,953	-1,016	—	159,937	161,559	—	—	161,559
Stamps	76,406	52,385	—	128,801	59,124	92,400	—	151,524
Excise	326,367	93,300	—	419,667	304,933	103,728	—	468,661
Provincial Rates	—	—	93,543	93,543	—	—	97,427	97,427
Customs	691,365	-14,389	—	676,976	597,408	-14,573	—	582,835
Assessed Taxes	43,042	28,693	—	71,735	45,029	29,739	—	74,768
Forest	175,062	76,668	—	251,720	274,645	111,073	—	385,718
Other Heads	53,382	-1,045	-35	52,302	73,375	-308	-48	73,023
TOTAL	2,571,404	924,766	94,893	3,591,063	2,818,123	908,076	99,022	3,823,221
NET EXPENDITURE :								
General Administration	87,487	68,997	2,037	103,521	40,621	66,068	2,214	108,903
Law and Justice	90,187	138,989	—	229,176	94,443	136,715	—	231,158
Police	668,878	259,008	6,899	937,885	638,956	266,892	2,039	907,887
Marine	80,295	-1,292	3,582	82,585	42,096	3,723	2,068	47,884
Education	8,690	28,917	12,884	50,491	9,936	29,788	13,143	52,867
Medical	16,014	18,120	3,470	37,604	17,433	19,901	4,420	41,754
Political	26,144	13	—	26,157	35,016	23	—	35,044
Stationery and Printing	77	37,019	—	37,096	-2,159	45,830	—	43,171
Railway Revenue Account	-89,374	-62,492	—	-151,866	25,539	-118,444	—	-67,365
Irrigation	100,836	90,398	646	191,880	112,317	67,433	1,171	180,921
Buildings and Roads	478,683	264,736	38,120	781,539	407,695	287,416	65,633	750,744
Other Heads	33,789	33,654	-11,768	55,675	39,162	66,841	-15,057	50,946
Provincial and Local Balances	—	50,698	36,514	87,212	—	66,642	29,437	96,079
TOTAL	1,401,308	922,265	97,384	2,420,957	1,451,034	910,132	94,966	2,456,132
Surplus	1,170,098	2,491	-2,491	1,170,098	1,367,089	-4,056	4,056	1,367,089

178 STATEMENT EXHIBITING THE MORAL AND MATERIAL

FINANCE.

Central Provinces.

CENTRAL PROVINCES.

NET REVENUE	1891-92.				1892-93.			
	Imperial	Provincial	Local	TOTAL	Imperial	Provincial	Local	TOTAL
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	377,098	306,639	-41,278	642,461	300,778	274,168	-43,305	531,642
Stamps	41,373	124,118	—	165,491	40,729	122,186	—	162,915
Excise	304,109	68,037	—	372,146	203,533	67,844	—	271,377
Provincial Rates	—	21,243	78,756	99,999	—	22,306	77,189	99,497
Assessed Taxes	23,282	22,155	—	45,437	25,804	24,505	—	50,309
Forest	27,838	27,839	—	55,677	18,926	18,995	—	37,921
Other Heads	43,352	1,371	-7	44,716	45,879	1,650	-45	47,484
TOTAL	617,062	671,407	37,473	1,325,927	635,519	531,657	83,739	1,200,915
NET EXPENDITURE:								
General Administration	6,064	36,865	2,756	45,685	7,355	41,767	2,784	51,906
Law and Justice	—	89,467	—	89,467	—	95,024	—	95,024
Police	268	126,915	-11,106	116,098	—	135,521	-11,635	123,886
Education	—	30,137	13,722	43,859	—	26,559	23,730	50,288
Medical	—	26,109	4,022	30,131	—	29,394	6,339	34,733
Territorial and Political Pensions	26,939	—	—	26,939	26,217	—	—	26,217
Railway Revenue Account	-319,585	—	—	-319,585	-266,202	—	—	-266,202
Buildings and Roads	4,588	192,641	25,235	222,464	2,489	169,028	24,120	195,637
Other Heads	8,882	44,890	-3,996	49,776	2,516	47,586	-2,377	47,725
Provincial and Local Balances	—	17,540	7,678	25,218	—	-21,798	245	-21,453
TOTAL	-272,823	564,564	44,311	336,052	-227,625	523,061	42,315	837,771
Surplus	889,875	6,833	-6,838	889,875	863,144	8,576	-8,578	863,144

ASSAM.

Assam.

NET REVENUE	1891-92.				1892-93.			
	Imperial	Provincial	Local	TOTAL	Imperial	Provincial	Local	TOTAL
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	91,465	280,700	—	372,165	112,700	267,084	—	379,784
Opium	39,719	—	—	39,719	38,877	—	—	38,877
Stamps	19,734	58,201	—	78,935	19,477	68,433	—	77,910
Excise	194,647	64,862	—	259,509	193,094	64,365	—	257,459
Provincial Rates	—	—	64,458	64,458	—	—	64,730	64,730
Other Heads	2,851	14,608	-30	17,329	18,415	17,302	-17	35,600
TOTAL	358,416	418,291	64,458	832,165	382,363	407,084	64,703	844,160
NET EXPENDITURE:								
General Administration	4,755	19,029	259	24,113	5,078	24,538	280	29,896
Law and Justice	—	48,372	—	48,372	—	47,676	—	47,676
Police	—	117,038	-5,245	111,693	—	110,052	-5,468	104,584
Education	—	12,391	16,106	28,497	—	13,367	18,465	29,832
Medical	—	18,295	7,394	25,689	—	19,320	6,250	27,870
Railway Revenue Account	—	9,715	—	9,715	-79,436	9,799	—	-70,637
Buildings and Roads	42,011	100,980	41,461	184,332	66,643	126,879	60,909	264,436
Other Heads	21,790	42,353	2,224	66,367	-5,119	53,715	2,256	50,851
Provincial and Local Balances	—	21,186	11,242	32,427	—	9,236	-24,566	-15,250
TOTAL	68,556	400,308	73,441	542,305	7,171	413,882	48,106	468,959
Surplus	289,860	18,983	-10,983	289,860	375,192	-6,598	6,428	375,102

INDIA GENERAL, *i.e.*, the Departments and Districts not administered directly by the Lieutenant Governors and Chief Commissioners of the Provinces previously enumerated.

NET REVENUE.	1891-92.				1892-93.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	93,013	—	—3,026	89,987	91,117	—	—3,053	88,064
Salt	1,855,451	—	—	1,855,451	2,017,810	—	—	2,017,810
Stamps	83,637	—	—	83,637	123,725	—	—	123,725
Excise	91,134	—	644	91,778	100,323	—	711	101,034
Assessed Taxes	151,842	—	—	151,842	148,242	—	—	148,242
Tributes from Native States	218,985	—	—	218,985	219,271	—	—	219,271
Assignments and Compensations	—313,047	—	—	—313,047	—302,438	—	—	—302,438
Other Heads	2,367	—	6,292	8,659	2,411	—	6,862	9,263
TOTAL	2,183,402	—	3,910	2,187,312	2,400,463	—	4,510	2,404,973
NET EXPENDITURE:								
Interest	57,524	—	—28	57,496	—99,105	—	—28	—99,133
Post Office	—196,559	—	78	—196,480	—230,244	—	73	—230,171
Telegraph	—289,376	—	—	—289,376	—275,279	—	—	—275,279
Mint	—79,794	—	—	—79,794	—56,144	—	—	—56,144
General Administration	427,328	—	120	427,457	422,372	—	133	422,505
Law and Justice	109,049	—	18	109,067	116,659	—	—48	116,611
Police	48,801	—	370	49,171	55,138	—	135	55,273
Marine	168,000	—	—	168,000	160,722	—	—	160,722
Political	440,788	—	28	440,816	489,528	—	24	489,552
Scientific and other Minor Departments	196,166	—	175	196,341	202,172	—	90	202,262
Stationery and Printing	—150,015	—	52	—149,963	—142,964	—	19	—142,945
Famine Relief and Insurance	688,803	—	—	688,803	17,174	—	—	17,174
Railway Revenue Account	—4,698,257	—	—	—4,698,257	—4,256,931	—	—	—4,256,931
Irrigation	623,910	—	—	623,910	648,601	—	—	648,601
Buildings and Roads	1,157,558	—	2,067	1,159,625	1,060,259	—	2,616	1,062,875
Army	8,883,760	—	—	8,883,760	8,863,691	—	—	8,863,691
Special Defence Works	304,710	—	—	304,710	255,723	—	—	255,723
Other Heads	41,136	—	1,073	42,209	50,405	—	964	51,369
Local Balances	—	—	—42	—42	—	—	549	549
TOTAL	7,723,023	—	3,910	7,726,933	6,987,957	—	4,510	6,992,467
Surplus	—5,539,621	—	—	—5,539,621	—4,587,494	—	—	—4,587,494

180 STATEMENT EXHIBITING THE MORAL AND MATERIAL

FINANCE.

MADRAS.

Madri

NET REVENUE.	1891-92.				1892-93.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	2,354,780	1,008,077	-313,369	3,049,488	2,949,788	1,085,744	-309,684	3,725,828
Salt	1,578,744	3,474	-	1,582,218	1,563,884	-34,450	-	1,529,434
Stamps	164,421	493,263	-	657,683	176,169	528,489	-	704,651
Excise	868,413	289,471	-	1,157,884	865,300	298,432	-	1,163,732
Provincial Rates	-	-	749,259	749,259	-	-	912,670	912,670
Customs	180,457	-12,307	-	168,150	180,968	-11,349	-	169,619
Assessed Taxes	103,320	85,995	-	189,315	109,311	91,792	-	201,103
Tributes from Native States	244,943	-	-	244,943	244,953	-	-	244,953
Assignments and Compensations	-121,914	-	-	-121,914	-116,362	-	-	-116,362
Other Heads	3,765	51,294	-2,747	52,312	21,298	29,198	-2,757	47,669
TOTAL	5,456,929	1,919,266	433,143	7,809,338	6,075,271	1,977,786	600,229	8,653,286
NET EXPENDITURE:								
General Administration	27,577	100,692	27,531	155,790	26,855	100,151	28,524	155,530
Law and Justice	-	436,580	-	436,580	-	449,458	-	449,458
Police	1,542	373,327	-	374,869	-	375,751	-	375,751
Education	-	132,071	84,036	216,107	-	140,659	84,005	224,664
Medical	-	107,695	129,443	236,138	-	113,666	124,015	237,681
Scientific and other Minor Departments.	85,169	16,145	-	101,314	4,458	18,390	-	22,778
Territorial and Political Pensions	83,991	-	-	83,991	79,963	-	-	79,963
Civil Superannuation	-13,352	128,399	547	115,594	-10,653	132,613	1,100	123,060
Stationery and Printing	16,609	66,193	-	82,802	24,738	64,075	-	88,811
Famine Relief	-	15,663	-	15,663	-	24,426	-	24,426
Construction of Protective Works.	546,364	-	-	546,364	1,039,043	-	-	1,029,043
Construction of Railways (charged to Revenue, in addition to that under Protective Works).	-	42,662	-	42,662	201,226	91,903	-	293,127
Railway Revenue Account	-276,829	3,610	-	-273,219	-341,435	-	-	-341,435
Irrigation	-382,237	383,836	2,344	3,343	-414,496	317,143	1,889	-95,465
Buildings and Roads	11,579	297,601	351,219	660,399	13,053	240,249	368,717	622,019
Army	3,422,040	-	-	3,422,040	2,386,182	-	-	3,386,182
Other Heads	7,794	34,040	-39,353	2,481	8,320	32,973	-39,339	1,954
Provincial and Local Balances	-	-241,770	-99,102	-340,872	-	-159,081	68,802	-82,279
TOTAL	3,450,547	1,896,744	458,665	5,805,956	4,907,371	1,942,303	635,712	6,585,386
Surplus	1,976,382	22,522	-22,522	1,976,382	2,068,000	35,483	-35,483	2,068,000

BOMBAY.

Bombay.

NET REVENUE.	1891-92.				1892-93.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	1,707,460	2,083,773	-10,210	3,781,023	1,880,040	2,007,708	-10,103	3,877,645
Opium	1,841,618	-	-	1,841,618	1,673,055	-	-	1,673,055
Salt	2,176,826	5,667	-	2,181,292	2,086,360	5,708	-	2,092,068
Stamps	180,667	392,001	-	522,668	137,338	412,012	-	549,350
Excise	742,840	247,816	-	990,466	744,069	248,023	-	992,092
Provincial Rates	-	-	299,093	299,093	-	-	299,061	299,651
Customs	276,872	8,967	-	280,839	288,899	4,307	-	293,206
Assessed Taxes	196,758	167,731	-	364,489	208,892	174,211	-	383,103
Forest	67,876	67,876	-	135,751	68,564	68,564	-	137,128
Tributes from Native States	126,629	-	-	126,629	128,549	-	-	128,549
Other Heads	-40,058	-6,820	-645	-47,521	-57,996	-6,950	-1,665	-66,611
Assignments and Compensations	-85,344	-918,752	-	-1,004,096	-58,265	-997,375	-	-1,055,640
TOTAL	7,140,954	2,043,058	288,238	9,472,250	7,085,515	-1,916,206	284,883	9,300,604
NET EXPENDITURE :								
Interest	-145,860	-5,344	426	-150,778	-142,604	-5,442	324	-147,722
Mint	-40,443	-	-	-40,443	-158,498	-	-	-158,498
General Administration	38,511	136,228	4,760	179,499	40,938	136,779	4,649	182,366
Law and Justice	-	440,475	-	440,475	-	433,693	-	433,693
Police	3,814	493,568	-7,844	479,538	-	481,779	-18,404	443,376
Education	-	135,581	122,614	258,195	-	135,511	122,789	258,300
Medical	-	121,441	16,081	137,622	-	130,273	18,170	148,443
Political	55,240	32,626	-	87,766	62,362	32,682	-	95,234
Territorial and Political Pensions	76,204	-	-	76,204	82,890	-	-	82,890
Civil Superannuation	-14,084	131,716	246	117,878	-8,752	137,333	84	128,615
Stationery and Printing	23,966	51,746	1,394	77,106	22,714	63,897	321	86,932
Construction of Provincial Railways.	-	117,221	-	117,221	-	42,181	-	42,181
Railway Revenue Account	-135,290	-92	-	-135,382	-148,763	12	-	-148,751
Irrigation	79,087	2,121	-	81,188	67,618	-780	-	66,788
Buildings and Roads	47,790	323,064	203,464	574,318	42,050	271,478	219,871	533,399
Army	2,714,839	-	-	2,714,839	2,849,175	-	-	2,849,175
Other Heads	12,783	54,824	-1,081	66,526	52,824	36,518	9,980	71,322
Provincial and Local Balances	-	-53,189	19,680	-33,509	-	-23,888	-8,691	-32,579
TOTAL	2,707,637	1,981,888	349,610	5,038,835	2,721,844	1,869,246	341,843	4,932,933
Surplus	4,433,417	61,372	-61,372	4,433,417	4,377,871	56,960	-56,960	4,377,871

NET EXPENDITURE in *England*, with the EXCHANGE thereon.

NET EXPENDITURE.	1891-92.			1892-93.		
	Sterling.	Exchange.	TOTAL.	Sterling.	Exchange.	TOTAL.
	£.	Rx.	Rx.	£.	Rx.	Rx.
Stamps purchased for India - - -	34,105	14,811	48,916	31,277	18,817	50,094
Interest - - - - -	2,680,879	1,120,780	3,701,659	2,409,174	1,449,420	3,858,594
Post Office - - - - -	96,821	41,829	138,150	95,658	57,550	153,208
Telegraph - - - - -	145,573	63,217	208,790	132,746	79,863	212,609
General Administration - - - - -	249,532	108,362	357,894	255,545	153,742	409,287
Marine - - - - -	133,447	57,951	191,398	290,476	174,758	465,234
Political - - - - -	25,806	11,207	37,013	22,327	13,432	35,759
Scientific and other minor Departments -	29,387	12,761	42,148	43,613	26,239	69,852
Territorial and Political Pensions - - -	54,223	23,547	77,770	29,218	17,578	46,796
Civil Furlough Allowances - - - - -	192,228	83,477	275,705	207,826	125,033	332,859
Superannuation - - - - -	1,625,441	705,868	2,331,309	1,709,546	1,028,506	2,738,052
Stationery and Printing - - - - -	41,098	17,847	58,945	52,868	31,807	84,675
Railway Revenue Account - - - - -	5,651,951	2,454,430	8,106,381	5,723,260	3,443,258	9,166,518
Buildings and Roads - - - - -	82,288	35,736	118,024	98,864	59,430	158,344
Army: Effective - - - - -	2,375,232	1,031,474	3,406,706	2,462,689	1,481,617	3,944,306
„ Non-effective - - - - -	2,141,764	930,088	3,071,852	2,379,731	1,431,706	3,811,437
Special Defence Works - - - - -	209,263	90,875	300,138	126,332	76,005	202,337
Other Heads - - - - -	43,242	20,949	69,191	43,158	25,965	69,123
TOTAL - - - - -	15,716,780	6,825,209	22,541,989	16,114,308	9,694,776	25,809,084

SUMMARY.

PROVINCES, &c.	1891-92.		1892-93.	
	Surplus.	Deficit.	Surplus.	Deficit.
	Rx.	Rx.	Rx.	Rx.
BENGAL - - - - -	10,863,334		12,010,119	
NORTH-WEST PROVINCES and OUDH - - -	5,888,276		5,885,017	
PUNJAB - - - - -	3,037,903		2,616,934	
BURMA - - - - -	1,170,098		1,367,089	
CENTRAL PROVINCES - - - - -	889,875		863,144	
ASSAM - - - - -	289,860		375,192	
INDIA GENERAL - - - - -	—	5,539,621	—	4,587,494
MADRAS - - - - -	1,976,382		2,068,000	
BOMBAY - - - - -	4,433,417		4,377,671	
ENGLAND and EXCHANGE - - - - -	—	22,541,989	—	25,809,084
TOTAL - - - - -	467,535			833,412