

EAST INDIA (PROGRESS AND CONDITION).

STATEMENT

EXHIBITING THE

MORAL AND MATERIAL PROGRESS AND CONDITION

OF

INDIA

DURING THE YEAR 1897-98.

THIRTY-FOURTH NUMBER.

(PRESENTED PURSUANT TO ACT 21 & 22 VICT. c. 106, s. 53.)

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[1]

CHAPTER I.

ADMINISTRATION.

LIST of the holders in 1897-98 of the more important appointments connected with the Administration of India, those appointed during the year being shown *in italics*.

OFFICE.		Date of Appointment or Assumption of Charge of Office.	REMARKS.
Secretary of State	The Right Hon. Lord George Hamilton.	5 July 1895	
Permanent Under Secretary of State.	Sir Arthur Godley, K.C.B.	30 September 1883	
Parliamentary Under Secretary of State.	The Earl of Onslow, G.C.M.G.	5 July 1895	
Members of the Council of India	Field Marshal Sir Donald M. Stewart, Bart., G.C.B., G.C.S.I., G.I.E.	16 December 1885	Re-appointed, 16 December 1895.
	Sir Alexander J. Arbuthnot, K.C.S.I., G.I.E.	1 November 1887	Period of office expired 31 October 1897.
	Sir James B. Peile, K.C.S.I.	12 November "	Re-appointed, 12 November 1897.
	Sir Alfred C. Lyall, K.C.B., G.C.I.E.	17 January 1888	Re-appointed, 12 November 1897.
	Sir Charles A. Turner, K.C.I.E.	21 February "	Period of office expired 20 February 1898.
	Lieutenant-General Sir Archibald Alison, Bart., G.C.B.	1 January 1889	
	Sir Charles H. T. Crosthwaite, K.C.S.I.	9 March 1895	
	Sir Stuart C. Bayley, K.C.S.I., G.I.E.	16 September "	
	F. C. Le Marchant -	27 February 1896	
	General J. J. H. Gordon, C.B.	1 January 1897	
	<i>Sir Dennis Fitzpatrick, K.C.S.I.</i>	24 April "	
	<i>Sir J. L. Mackay, K.C.I.E.</i>	27 April "	In succession to Mr. Hardie.
Governor-General	<i>Sir John Edge, Q.C.</i>	30 March 1898	In succession to Sir C. Turner.
	The Right Hon. the Earl of Elgin and Kincardine, G.M.S.I., G.M.I.E.	27 January 1894	
Members of Council	General Sir Geo. S. White, V.C., G.C.I.E., K.C.B. (<i>ex officio</i>).		Lieutenant-General Sir Charles E. Nairne, K.C.B., was appointed on the 20th March 1898 provisional Commander-in-Chief on the retirement of Sir G. S. White.
	Sir James Westland, K.C.S.I.	27 November 1893	
	Sir John Woodburn, K.C.S.I.	23 December 1895	
	M. D. Chulmers	8 April 1896	
	Major-General Sir E. H. Collen, K.C.I.E.	27 April "	
	Sir A. C. Trevor, K.C.S.I.	2 May "	
	<i>C. M. Rivaz, C.S.I.</i>	18 October 1897	Temporarily to 19 February 1898.
Lieutenant-Governor of Bengal	Sir Alexander Mackenzie, K.C.S.I.	18 December 1895	
	<i>Charles Cecil Stevens, C.S.I.</i>	23 June 1897	Officiating during the absence of Sir Alexander Mackenzie on leave.
Lieutenant-Governor of the North Western Provinces and Chief Commissioner of Oudh.	Sir Antony P. MacDonnell, G.C.S.I.	6 November 1898	
	<i>J. J. D. La Touche, C.S.I.</i>	6 May "	Officiating during the absence of Sir A. P. MacDonnell on leave.
Lieutenant-Governor of the Punjab.	Sir William Mackworth Young, K.C.S.I.	6 March 1897	
Lieutenant-Governor of Burma	Sir F. W. R. Fryer, K.C.S.I.	3 April 1895	Formerly Chief Commissioner.
Chief Commissioner of Central Provinces.	Sir C. J. Lyall, K.C.S.I., C.I.E.	21 December "	
Chief Commissioner of Assam	H. J. S. Cotton, C.S.I.	26 November 1896	
Agent to the Governor-General in Rajputana and Chief Commissioner of Ajmere-Merwara.	<i>A. H. T. Martindale</i>	9 March 1898	In succession to Sir R. J. Crosthwaite, K.C.S.I.

2 STATEMENT EXHIBITING THE MORAL AND MATERIAL

ADMINISTRATION.

OFFICE.		Date of Appointment or Assumption of Charge of Office.	REMARKS.
Resident in Mysore and Chief Commissioner of Coorg.	Lieutenant - Colonel D. Robertson.	7 December 1896	
Resident, Hyderabad - - -	Travor J. C. Chichele-Plowden, C.S.I.	6 March 1892	
Agent to the Governor-General in Central India.	Lieutenant-Colonel D. W. K. Barr, C.S.I.	20 March 1895	
Resident in Kashmir - - -	Lieutenant - Colonel Sir Adalbert C. Talbot, K.C.I.E.	14 June 1896	
Resident and Agent to the Governor-General, Baroda.	Lieutenant-Colonel N. C. Martelli.	25 July 1895	
Agent to the Governor-General for Baluchistan and Chief Commissioner of British Baluchistan.	H. S. Barnes, C.S.I. - - -	14 June 1896	
Political Resident, Persian Gulf-	Lieutenant-Colonel M. J. Meade.	10 March 1898	In succession to Col. F. A. Wilson.
Governor of Madras - - -	Sir Arthur E. Havelock, G.C.M.G., G.C.I.E.	18 March 1896	
Members of Council - - -	Sir H. W. Bliss, K.C.I.E. - - -	9 November 1893	
	James Grose, C.I.E. - - -	9 January 1894	
Governor of Bombay - - -	Lord Sandhurst, G.C.I.E. - - -	18 February 1895	
Members of Council - - -	H. M. Birdwood, C.S.I. - - -	24 April 1892	Period of office expired, 29 April 1897.
	J. Nugent, C.S.I. - - -	12 July 1896	
	Sir E. C. K. Olivant, K.C.I.E.	24 April 1897	
Political Resident, Aden - - -	Brigadier - General C. A. Cunningham.	9 May 1895	

LEGISLATION.

LEGISLATION.

Between the 1st April 1897 and the 31st March 1898 ten Acts were passed by the Council of the Governor-General for making Laws and Regulations; four, two, and three respectively were passed by the Legislative Councils of Madras, Bombay, and Bengal, and one each by those of the North-Western Provinces, Punjab, and Burma.

Four Regulations were also passed by the Governor-General in Council on the recommendation of the local governments of the provinces affected by them, in accordance with the provisions of 33 Vict. c. 3.

The following are the most important of the measures referred to :—

Governor General's Council.

Act XV of 1897 (The Cantonments Act) repeals Act V of 1895 and thereby restores to the Governor-General in Council the power to make rules to check the spread of venereal diseases in cantonments, giving him the same powers in respect of venereal disease that he has in the case of other contagious and infectious disorders.

Act XVI of 1897 amends the Oudh Courts Act, 1891, so as to take power to strengthen the Court for the time being by the appointment of a third judge.

Act II of 1898 "provides for the issue of currency notes on the security of gold received in England." Under the Indian Paper Currency Act, 1882, the Governor-General in Council was authorised to direct that currency notes should be issued by the Paper Currency Department in exchange for gold coins and bullion received in India at the office of issue. The new Act extends this provision so as to allow the issue of currency notes against gold received in London by Her Majesty's Secretary of State if he consents to receive the gold and to transmit it to India.

Act III of 1898 provides for "the segregation and medical treatment of pauper lepers and the control of lepers following certain callings." It gives effect to the recommendations of the Leprosy Commission which visited India in 1890, and is on the lines of legislation adopted in Bengal. Its provisions will be applied to any part of India on the issue of a notification by the Local Government with the previous sanction of the Governor-General in Council. Where adequate provision has already been made, as in Bengal, the local law will be allowed to continue in force.

Act IV of 1898 to amend the Penal Code (Act XLV, 1860) in regard to extra-territorial offences, sedition and other matters. The bill as first introduced had for its object simply to define the extent to which the code applied to offences committed outside British India. At the time when the Indian Penal Code was passed Parliament had only conferred on the Indian Legislature the power of dealing with extra-territorial offences where the offence was committed by a servant of Government. But since 1860 Parliament has conferred various extra-territorial powers on the Indian Legislature. These powers had to a large extent been exercised under the Foreign Jurisdiction Act, 1879; but no corresponding amendments had been made in the Indian Penal Code. This defect is remedied by the present Act. Opportunity was taken to amend the code in regard to sedition and other offences, new sections being substituted for sections 124A and 505 and a new section 153A inserted after section 153.

Act V of 1898 "to consolidate and amend the law relating to Criminal Procedure" incorporates 16 Acts which had been passed since the Code was last revised in 1882, and many amendments remedying defects which in the interval had come to light and had not been affected by the amending Acts. The amendments of certain sections of Chapter VIII are complementary to the amendments in the sedition sections of the Penal Code.†

Act VI of 1899 "to consolidate and amend the law relating to the Post Office in India" is intended to supply the defects and omissions which have been brought to notice in the Act of 1866 and to confer the protection and powers which have been found necessary in the extension and increase of postal business.

Act VII "to further amend the Petroleum Act, 1886," extends the definition of petroleum by including paints, varnishes, &c., containing inflammable material; and empowers the Governor-General in Council to prescribe additional tests on notification in the Gazette of India.

Act III of 1897 "for the suppression of Rain-gambling in common gaming-houses" deals with a form of public gambling which for many years was practised mainly by the Marwaris, by whom it had been introduced into Calcutta. Of late years the evil had assumed large proportions; crowds of all nationalities, and chiefly of the poorer classes, frequented the gambling establishments from morning to night, and even native women and children took part in the betting. The proprietors of the premises offered odds against rain from level money sometimes up to 50 to 1. Those who backed the rain did not win unless the fall sufficed to cause an overflow from a small raised tank through a spout which was visible from the courtyard. The action of the Government received the almost unanimous support of the native associations which were consulted in the matter.

Bengal.

Act IV of 1897 "to regulate the commutation of predial conditions or services in Chota Nagpur" is designed to remedy the defects of a system of tenure which have been the cause of a long series of disputes between the aboriginal cultivators of the soil and their alien landlords,—disputes culminating in a serious agitation which menaced the peace of the country and gave much trouble to the district authorities. There were faults on both sides, the zamindars demanding more than they were entitled to and the raiyats refusing to pay their legitimate dues. Under the peculiar system prevailing in Chota Nagpur rents are payable in money, in kind, and in service, which could be commuted into a money rental only if the parties came forward of their own accord and applied for it. Under the new Act Government is empowered to insist upon commutation, not in every case of dispute, but when the peace of the district is threatened.

Act V of 1897 "to amend the law relating to the Partition of Estates" has for its primary and chief object to simplify, cheapen, and shorten the procedure for effecting partitions of estates in Bengal. A secondary but very important object of the Act is to impose some limit on the endless divisibility of responsibility for land revenue to the State allowed under the law now amended.

† See Papers relating to amendments in the Law relating to sedition and defamation (c. 8871) presented in 1898 to both Houses by Command.

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LEGISLATION.
North-Western
Provinces and
Oudh.

Act I of 1897 provides for the summary realisation of sums due on account of loans granted by the Local Government during the pending famine operations. Under it such loans are recoverable from the recipients as if they were arrears of land revenue, in the same way that similar advances are recoverable under the Land Improvement Loans and Agriculturists Loans Acts. The present Act applies only to loans granted during the year preceding the 1st October 1897.

Madras.

Act III of 1897 amends the Madras District Municipalities Act IV of 1884. Its main points are that it provides for the formal consideration by Government of objections to the formation or dissolution of municipalities; it gives the Government power to suspend for a time from its functions a municipal council which persists in neglecting its duties; it defines the qualifications for the office of municipal councillor; and it provides for the punishment of the giver and receiver of bribes at an election. In view of the enormous advance which has been made since 1884 in every branch of municipal administration, and the growing demands for water and drainage works, for education and medical aid, the Act raises the maximum rate of municipal taxation, which, however, is not expected to be reached for many years to come. The Bill was introduced in March 1894, and was for three years the subject of discussion and the most careful consideration.

Bombay.

Act III of 1897 to amend Act VIII of 1870 (for the prevention of the murder of female infants). By the amending Act the accumulated fees acquired by registrations under the Act of 1870 in the districts of Ahmedabad and Kaira, were handed over to the respective Local Boards to be devoted to local improvements.

Burma and the
Punjab.

THE following proclamations, raising the status of Burma to a Lieut.-Governorship, and conferring a legislative council upon that province, and the Punjab, to which the sanction of Her Majesty the Queen, Empress of India, had been signified by the Secretary of State in Council, as required by section 49 of the Indian Councils Act, 1861, were published in the Gazette of India on the 10th April 1897.

“The Governor-General in Council is pleased to extend to the territories known as the *Punjab*, the provisions of the Indian Councils Act, 1861 (24 & 25 Vict. c. 67), touching the making of laws and regulations for the peace and good government of the Presidencies of Fort St. George and Bombay.”

“The Governor-General is pleased to constitute the territories at present under the administration of the Chief Commissioner of *Burma* to be, for the purposes of the Indian Councils Act, 1861 (24 & 25 Vict. c. 67), a province to which the provisions of that Act, touching the making of laws and regulations for the peace and good government of the Presidencies of Fort St. George and Bombay shall be applicable, and further to appoint Sir Frederic Wm. Richard Fryer, K.C.S.I., of the Indian Civil Service, now Chief Commissioner of Burma, to be the first Lieutenant-Governor of that province, with all powers and authority incident to such office.”

In both cases the first day of May 1897 was specified as the date on which the said provisions should take effect, and nine as the number of councillors whom the Lieutenant-Governor might nominate for his assistance in making laws and regulations.

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, and hospitals. 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 1897-98, apart from loans, sales of securities, and such-like extraordinary receipts, was Rx. 3,879,000. The sources of this income and the yield of each source are shown in the table on the last page of this chapter. The revenue enjoyed by the local and district boards during the year was, approximately, Rx. 4,649,000, inclusive of grants and transfers from provincial revenues. Of this total, the local rates levied on land, "for expenditure on roads, schools, hospitals, and general purposes," gave a gross yield of about Rx. 3,056,000; 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 income of the port funds, under the management of port trustees and local bodies, exclusive of loans, amounted in 1897-98 to Rx. 1,505,000.

The revenue of cantonment funds amounted to Rx. 228,000; that of town and bazaar funds came to Rx. 91,000; that of miscellaneous funds was Rx. 190,000.

Thus, the revenue from all sources managed by the various local bodies amounted in 1897-98 to about Rx. 10,542,000; of which total about one-third is shown in the accounts of the Government of India and in the financial section of this Statement.

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 a few minor towns all the members, are appointed by the Government. 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 prescribed 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 rent,	Conservancy rates,
Octroi duties,	Rents of public lands and pro-
Bazaar or market rents,	perties,
Carriage tax,	Public gardens and parks.

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, is not keen, save in a few cities and large towns; but, 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 imposing additional taxes, in adopting sanitary reforms, and in incurring new expenditure. 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.

Progress of local self-government

In an appendix to last year's (the thirty-third) number of this Statement will be found a copy of papers recently published by the Government of India, reviewing the progress of municipal and local self-government during the past nine or ten years. The progress of the municipalities and the working of district boards and councils in the several provinces are separately treated.

Bengal.
Calcutta.

The Calcutta Municipality consists of 75 commissioners, of whom 50 are elected and 25 nominated. The triennial elections were held at the end of the year, and resulted in the re-election of 38 out of the 50 commissioners. There were 13 contested elections in the 25 wards, in which the number of votes given varied from 31 to 90 per cent. of the voters on the list. Of the newly elected commissioners, 36 were Hindoos, six were Moslems, and six were Europeans. 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 corporation and its committees held 241 meetings during the year, as compared with 248 in the previous year, at which the average attendance of elected commissioners was 52 per cent., as compared with 50 per cent. in 1896-97. The income of the municipality during the year was Rx. 475,000, or slightly less than in 1896-97; the chief items being rates, Rx. 365,000, and taxes on professions, &c., Rx. 53,000. The incidence of municipal taxation on the population of the town was $6\frac{1}{8}$ rupees per head. The total assessment of the town was increased during the year to Rx. 2,085,000. The percentage of collections to the total demand was 82 per cent., against 84 per cent. in the previous year. The expenditure of the year out of revenue was Rx. 485,000, besides loan money spent on permanent improvements. This was the third successive year in which the commissioners had to draw on cash balances for expenditure on revenue account. The total debt of the city is Rx. 2,677,000, against which may be set reserve fund investments of Rx. 214,000. A fresh loan of Rx. 200,000 was floated during the year, but, owing to the unfavourable state of the market, only Rx. 148,000 was subscribed. The total charges for interest on loans were Rx. 119,000, besides Rx. 51,000 set apart during the year for the repayment of loans; the Calcutta 4 per cent. municipal stock stands above par in the market. The amount spent on improvements in the suburbs was Rx. 4,000, which, added to the charge for interest on previous expenditure, brought the total expended during the year slightly above the three lakhs which the corporation are required under the Calcutta Municipality Act of 1888 to spend on suburban improvements. During the nine years since the passing of the Act, Rx. 283,000 has been so spent, the statutory obligation being Rx. 270,000.

Among the more important matters that came before the Calcutta Municipality during the year were the new drainage works, electric tramways, the disposal of the sewage of Fort William, the grant of land for the Bhowanipur Hospital, and the preventive measures against the plague. The average daily supply of filtered water during the year was $20\frac{3}{8}$ million gallons, or a decrease of 150,000 gallons as compared with the previous year. The daily supply of unfiltered water for street-cleaning purposes was $5\frac{1}{2}$ million gallons as compared with $5\frac{1}{2}$ millions in 1896-97. Schemes for extending the sewerage to the suburbs were in hand. The death rate rose from $35\frac{1}{2}$ to 36 per

thousand, while the birth rate was 18½ as in the previous year, the highest MUNICIPALITIES ever recorded in Calcutta.

As described in last year's statement, proposals were made to amend the law so as to give more scope to the executive officers of the city, so as to secure adequate representation for trade and mercantile interests, and so as to reserve to the Government power to appoint the chief officers of the city in the sanitary and other departments. A Bill to this end was laid before the Bengal Council in 1898.

In the interior of Bengal there were 151 municipalities, or one more than in the previous year. The population living within municipal limits was 2,722,000 persons, or 3¼ per cent. of the whole population of Bengal; excluding Calcutta. The number of ratepayers entitled to vote at municipal elections was 469,000, or about one in six of the municipal population. The municipalities varied in size, from Patna with 168,000, to Nalchiti with 1,675 inhabitants; the majority, however, had populations of between 5,000 and 15,000 inhabitants. In all but 27 of the 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. Several general elections under the municipal law took place during the year, rendered necessary in most cases by irregularities which occurred in the general elections of 1896-97. Contested elections were frequent, and the percentage of voters fairly high. Of the 2,183 commissioners there were 1,171 elected and 1,012 nominated, 349 officials and 1,834 non-officials, 1,949 Indians, and 234 Europeans. Among the non-official commissioners were included 513 landholders, 516 pleaders and law agents, 236 merchants and money-lenders, 69 private schoolmasters, and 129 medical practitioners.

Bengal.
Interior of
province.

The number of meetings held during the year was 2,609, against 2,674 in the preceding year; 39 municipalities held more than 20 meetings each, while 15 failed to hold the prescribed minimum of 12 meetings. The attendance at meetings was higher than in last year; in 102 towns, as compared with 78 in the previous year, the attendance was, on the average, more than 50 per cent. of the members. The average incidence of municipal taxation rose from 15 to 15½ annas per head of the population; and ranged from 5½ rupees in Darjeeling to 3½ annas in a small town of the Midnapur district; in 39 towns the incidence exceeded one rupee per head; in 53 towns the incidence was less than half a rupee (eightpence) per head. Exclusive of loans and extraordinary receipts, the total income was Rx. 330,000, of which Rx. 267,900 came from municipal taxation; and Rx. 24,500 were borrowed during the year. The total expenditure was Rx. 360,000. The chief heads of outlay were, public safety (fire establishments, lighting, police, &c.), Rx. 28,200; water supply and drainage, Rx. 37,600; conservancy, Rx. 106,800; hospitals, dispensaries, and vaccination, Rx. 36,200; buildings and roads, Rx. 50,400. The chief water-supply works of the year were at Maniktola, Cossipore, and Berhampur, but the capital expenditure under this head was much reduced, owing to the completion of the Howrah and Bhagalpur schemes. Smaller sums were spent in other towns on new water supplies, and private individuals have in many cases contributed the necessary funds. There was also a decline in the capital expenditure on drainage works, except in Serampore and Jamalpur. Schemes were under consideration for Cossipore and Maniktola, and the Krishnagar scheme was adopted. The Howrah drainage project, which was to cost Rx. 676,000 capital outlay, and working charges of Rx. 41,500 has been found too costly; but it is hoped that something may be done there.

The number of municipalities in the North-West Provinces and Oudh was 104, as in the previous year. In all but six of these towns the majority of the members of municipal boards are elected by the ratepayers, who amount to nearly 2 per cent. of the municipal population of 3,267,000. In seven towns the population exceeds 100,000 souls. Elections were contested in 62 municipalities during the year. In some towns, including Saharanpur, considerable interest was shown in these contests. In 98 towns

North-West
Provinces and
Oudh.

8 STATEMENT EXHIBITING THE MORAL AND MATERIAL

MUNICIPALITIES.

the municipal boards elected their own chairman, and in ten cases they chose non-officials. The total number of municipal members was 1,608, divided thus :—

Elected	-	-	1,229		Non-officials	-	1,293		Indians	-	-	1,408
Nominated and <i>ex-officio</i>			381		Officials	-	315		Europeans	-	-	205

Each municipality held, on the average, 20 general meetings in the year; 7 of the smaller committees held less than the prescribed minimum of 12 meetings in the year. For all the municipalities of the province the average attendance of members at each meeting increased from 47 to 64 per cent.; in four towns the average attendance at each meeting exceeded 70 per cent., and in four it fell below 40 per cent. of the total members. In respect of number of meetings and attendance the year's results were better than those of 1896-97.

The chief source of municipal taxation was the octroi duty, which was in force in 80 towns, and yielded a net income of Rx. 236,000, which was 73 per cent. of the taxation; Rx. 125,800 accrued from rents and miscellaneous sources. The incidence of income from taxation was 15½ annas per head of the municipal population. The highest incidence was 5½ rupees a head at the hill stations of Mussoorie and Naini Tal; and the highest incidence at any town in the plains was 17/8 rupees at Agra. The total municipal income of the year was Rx. 448,000, including Rx. 32,000 under the head of debt. No public loans were raised. Of the expenditure, 50 per cent. was devoted to conservancy, hospitals, water supply, drainage, streets, roads, public works, and other objects for promoting the public health and convenience; 3½ per cent. was spent on education, 15½ per cent. on police, lighting, and fire establishments. The outlay on water supply was Rx. 52,800; on drainage, Rx. 18,100; and on conservancy, Rx. 99,000.

The towns which spent most on water supply and drainage during the year were Agra, Rx. 16,300; Naini Tal, Rx. 11,900; Allahabad, Rx. 10,200.

In Agra the daily supply of filtered water was 1,338,000 gallons, or about 8 gallons per head. Both there and at Allahabad the supply was less than in 1896-97, owing to special causes. In Allahabad the cost per 1,000 gallons was 4½ annas, slightly less than at Agra. In Benares the daily average supply of filtered water rose from 8½ to 9 gallons per head, and the cost of the supply was about 3¾ annas per 1,000 gallons. In Cawnpore the supply was about 8 gallons per head, at a cost of 2¼ annas per 1,000 gallons. The only large sewerage works in progress were at Benares, where Rx. 9,000 worth of work was done during the year. Measures were taken in nearly all the municipalities to prevent the spread of the plague, and the sanitary condition of many places is reported to be exceptionally good.

The number of municipalities in the Punjab was, as in the previous year, 148 in all, containing a population of 2,120,000, besides 30 small towns, which had 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 37 towns all the members are nominated; in one town the municipal fund was administered by the district officer. In two towns the power of electing a president had to be withdrawn from the committees, owing to mismanagement of the funds. The total number of members on all the committees was 1,671, divided thus :—

Non-official	-	-	-	-	1,348		Indians	-	-	-	-	1,546
Official	-	-	-	-	323		Europeans or Eurasians	-	-	-	-	125
Elected	-	-	-	-	815		Nominated and <i>ex-officio</i>	-	-	-	-	856

Punjab.

The number of vacancies to be filled during the year was 296, of which 122 were filled after contested elections. In many towns elections were keenly contested; the number of electors appearing at the polls averaged 56 per cent. of the constituents, as compared with 67 per cent. in 1896-97.

Six municipal committees held 30 or more meetings a-piece during the year, and but 45 committees failed to hold the prescribed minimum of 12 meetings,

The working of the committees in the larger towns throughout the province is reported to be fairly good; in some cases the proceedings of committees have been remitted for reconsideration or overruled. The Amritsar committee does its work zealously and usefully, as in previous years. MUNICIPALITIES.

The chief municipal tax was the octroi, which yielded Rx. 291,000, which though higher than the figure for the famine year 1896-97, was not equal to that of 1895-96, while the other taxes produced Rx. 23,000, of which Rx. 14,000 was levied in Simla; the incidence of the total revenue from taxation was 1.29 rupees per head of the population. The total municipal income of the year from all sources was Rx. 446,000, of which Rx. 19,000 was from loans. The expenditure was Rx. 440,000, out of which Rx. 16,700 were spent on water supply, Rx. 13,700 on drainage, Rx. 61,000 on conservancy, Rx. 42,000 on hospitals and vaccination, Rx. 35,000 on buildings and roads, Rx. 56,000 on schools, Rx. 10,200 on repayment of loans, and Rx. 66,000 on police, fire-engines and street lighting. The net amount of debt outstanding against all municipalities was Rx. 367,000; and the yearly charge for interest was Rx. 16,000. The year was on the whole a healthy one in all towns throughout the province.

The town of Rangoon contains a population of 215,000, and its municipal affairs are managed by a committee, composed of 17 elected and seven nominated members, with a salaried president. No elections took place during the year. Thirteen of the members were Europeans or Eurasians, and eleven were Asiatics; 21 were non-officials, and three, including the president, were officials. Sixteen general meetings and 68 sub-committee meetings were held during the year; the attendance at the general meetings averaged 56 per cent. of the whole strength. The total receipts of the municipality were Rx. 306,000, out of which Rx. 111,400 accrued from rates (general, water, lighting, and scavenging) on houses and lands; Rx. 73,000 from the proceeds and rents of municipal properties; Rx. 10,600 from provincial funds; and Rx. 54,000 on account of various loans. The year was prosperous and most sources of income showed a moderate increase. The expenditure of the year amounted to Rx. 283,000, of which Rx. 18,200 were spent on waterworks and drainage, Rx. 29,000 on conservancy, Rx. 20,700 on hospitals and vaccination, Rx. 43,200 on buildings and roads, Rx. 25,000 on reclamation of swamps, Rx. 6,800 on education, and Rx. 49,100 on the interest (Rx. 19,700) repayment (Rx. 19,600), &c. of loans. The net outstanding debt of the municipality at the end of the year was Rx. 402,000. The pneumatic sewage system worked well during the year, and is being gradually extended to other sections of the town. The ejectors disposed of 861 million gallons of sewage during the year at a cost of $1\frac{7}{8}$ annas per thousand gallons. The births registered during the year give a birth-rate of 17.61 per mille, or somewhat lower than in the preceding year; the death-rate was 32.1 per mille, against 31.3 and 28.5 in the two preceding years, for the whole town. Burma.
Rangoon.

The number of municipalities in Burma outside Rangoon was 41, as in the previous year, and they contained a total population of 644,000. In seven of these towns a majority of the municipal members are elected by the ratepayers, in the remaining towns all the members hold their position either *ex-officio* or by 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. It is in contemplation to introduce the elective system into Mandalay. There are in all 516 members on the several municipal committees, divided thus:— Burma.
Interior of
Province.

Elected	-	-	70	Non-officials	-	-	332	Asiatics	-	-	371
<i>Ex-officio</i> and nominated.	-	-	446	Officials	-	-	184	Europeans	-	-	145

The elections held in several municipalities aroused little or no interest. Two towns held less than 12 meetings in the year; the average attendance at

MUNICIPALITIES. each meeting ranged from 35 to 90 per cent. of the members; in eight towns only was the average attendance below half the total strength of the committee, and in some of these a good amount of work was done on sub-committees.

The chief sources of municipal taxation are the rates on the annual value of houses and lands, yielding Rx. 46,000 out of a total income from taxation of Rx. 71,000; ferry tolls yielded Rx. 9,900, and conservancy rates Rx. 5,900. The other chief sources of municipal revenue were municipal property, chiefly bazaar rents, Rx. 113,600; provincial and other grants and contributions Rx. 3,900. The total income of the year, apart from loans and debt account, was Rx. 192,800, which exceeds that of 1896-97 by 8½ per cent., owing largely to increased receipts from markets and slaughter-houses. The total expenditure of the year was Rx. 178,900, of which the chief items were Rx. 32,700 on conservancy; Rx. 21,200 on hospitals and dispensaries; Rx. 14,700 on markets and slaughter-houses; Rx. 46,500 on streets and roads; Rx. 7,400 on education; and Rx. 1,500 on water supply. Rangoon, Mandalay, Moulmein, Bassein, Akyab, and Prome are the only towns in Burma that have a municipal income of over Rx. 10,000. The average incidence of municipal taxation outside Rangoon was 20 annas a head in Lower and 15 annas per head in Upper Burma. No money was borrowed by any town during the year; Rx. 3,900 were repaid towards outstanding loans, and the interest due on all loans during the year was Rx. 1,100; the outstanding loans of all towns amounted to Rx. 18,300 at the end of the year. Besides municipalities there are seven other places in Lower Burma where town funds are raised, the amount during the year being Rx. 10,600, and are managed by committees nominated from among the townfolk; Expenditure does not keep up with income in these towns, and a balance of Rx. 7,300 has been accumulated.

Central Provinces. The number of municipalities in the Central Provinces was 53, as in the preceding year. A majority of the members of all committees, except that at the hill resort of Pachmarhi, are elected; out of 623 members on all committees, 445 were elected, and 178 were nominated, or *ex-officio*; 145 were officials, and 478 non-officials; 58 were Europeans, and 565 were Natives of India. There were general elections in 28 of the municipalities, many of them having been postponed in the previous year on account of the prevailing distress. The total municipal receipts of the year were Rx. 149,600, of which Rx. 80,900 accrued from octroi duties, and Rx. 10,400 from loans. The total income, apart from loans, was Rx. 13,700 above similar receipts in the previous year. The total municipal expenditure was Rx. 153,100, or Rx. 10,900 less than in the preceding year. The expenditure on waterworks was Rx. 12,900, or Rx. 10,200 less than in 1896-97, the decrease occurring chiefly on the Khundwa water works; on conservancy Rx. 27,000; on schools and colleges Rx. 12,200; on streets and roads Rx. 6,700; and on dispensaries, hospitals, and vaccination, Rx. 8,100. The refund of octroi duty accounts for Rx. 21,100, as compared with Rx. 17,000 in the previous year; the net octroi receipts were therefore Rx. 59,800, against Rx. 52,300 in 1896-97. These figures show an increase both in the through traffic and in the consumption of dutiable articles.

When reviewing the work of the municipalities, the local government says, "The Municipal Committees appear to have worked well on the whole during the year, but there can be no doubt that the efficiency of a committee is in many cases due to one or two energetic members who take a keen interest in municipal affairs."

Assam. The number of municipal bodies in Assam was 14, as in the preceding year; of these, three were first-class, and six were second-class municipalities, two were stations, and three were unions. In only one town, Sylhet, does the population exceed 10,000; in six of the larger places the majority of the members are elected. In all the 14 towns the members are divided thus: nominated 90, elected 52, total 142, of whom 92 were non-officials and 50 officials, 113 were Natives of India and 29 Europeans. The total income of the 14 towns increased from Rx. 20,700, to Rx. 25,200 of which Rx. 9,000 accrued from taxation. The two chief items of taxation were Rx. 4,300 from

rates on houses and lands, and Rx. 1,700 from tolls on roads and ferries. Among the other receipts, the larger items were Rx. 7,700 from grants by the Provincial Government including Rx. 4,000 in consequence of the earthquake, and Rx. 2,300 from markets and slaughter-houses. The incidence of municipal taxation was $1\frac{1}{8}$ rupees per head of the population, ranging from $2\frac{1}{8}$ rupees at Shillong and 2 rupees at Gauhati to $6\frac{1}{4}$ annas per head at Golaghat. The total expenditure was Rx. 23,300, of which the chief items were Rx. 6,600 on conservancy and drainage; Rx. 3,600 on water supply, and Rx. 5,900 on roads and buildings. MUNICIPALITIES.

For the municipality of Madras there are 33 members, of whom 24 are elected by 5,720 ratepayers. There were during the year 15 vacancies, of which 10 were contested; at these an average of 49 per cent. of the registered electors recorded their votes. The names on the roll of qualified voters represent 12.5 per mille of the total inhabitants of the city. At 20 meetings of the Commissioners the average attendance of members was 23, or about 70 per cent. of the total number of members; ten members attended less than 10 meetings during the year; and two members lost their seats by absenting themselves from three consecutive general meetings, one of them doing so a second time after reinstatement. The total income of the year, apart from loans and Government contributions, was Rx. 136,000, or Rx. 14,000 more than in the preceding year; of the year's total, Rx. 103,000 accrued from taxation, which fell on the population at the rate of 2.27 rupees per head; the principal tax is one of 10 per cent. on houses and lands. No new tax was imposed during the year. The Government contributions fell from Rx. 18,300 to Rx. 3,000; last year's contributions had included special grants of Rx. 15,000 towards the new drainage scheme. A loan of one lakh was raised during the year for the new market which is in course of construction. The total expenditure came to Rx. 170,000, of which Rx. 49,500 were spent on water supply and drainage; Rx. 38,300 on hospitals, sanitation and conservancy; Rx. 30,200 on streets, roads, and other public works; and Rx. 20,600 on the interest for and repayment of debt. The balance was reduced by Rx. 17,400. An estimate for the new water supply scheme has been submitted; and new drainage works are making progress. The quantity of water supplied was 29,000 cubic feet more than in 1896-97. The number of small-pox vaccinations rose from 27,000 to 33,000, being an increase of 18 per cent., due to an epidemic of the disease in the latter part of the year. The registered municipal death-rate, calculated on the census of 1891, was 35.5 per mille, against 37.8 in 1896, and 41 in 1893. The mean of the previous decade was 39.7. Food prices were high, especially in the latter part of the year, when a great rise occurred. A case of plague was imported into the city from Poona. Another fatal case occurred from direct inoculation at the post mortem. Rigorous measures were taken, and no outbreak ensued. The outstanding debt of the municipality amounts to Rx. 337,000, against which must be set the sinking fund, which now amounts to Rx. 122,000. The payments to the sinking fund during the year were Rx. 6,800, and the charge for interest was Rx. 15,100. Madras. Madras City.

The number of municipalities in the interior of Madras was 58, as in the previous year. The councils were partly elective in 34 of these towns, 3 per cent. of the population being registered as voters. The privilege of election was also extended to 22 other towns, but was not exercised during the year. In 39 towns the councillors elected their own chairman. On an average 29 meetings were held by each council. The average attendance of councillors at meetings was 8.8, as compared with 9 in the previous year. There are 868 municipal councillors in all, divided thus:— Interior of the Madras Presidency.

Elected	-	367	Non-officials	-	676	Indians	-	727
Nominated	-	501	Officials	-	192	Europeans and Eurasians	-	141

There was a decrease of 9 per cent. in the total municipal income, which came to Rx. 292,000; of this, Rx. 153,000 came from taxation, the chief items being Rx. 71,000 from rates on lands and houses, Rx. 35,900 from tolls; and the

MUNICIPALITIES.

average incidence of taxation was $14\frac{1}{2}$ annas per head of the population. The chief sources of miscellaneous receipts were fees and revenue from markets and slaughter-houses, Rx. 18,900, and grants from Government, local funds, and other sources, Rx. 41,800. The total expenditure of the year was Rx. 350,300, of which the chief items were public works, Rx. 104,000, including drainage and water supply, Rx. 56,600; education, Rx. 34,300; medical services and sanitation, Rx. 101,700, including Rx. 66,800 spent on conservancy; lighting and miscellaneous purposes, Rx. 25,800. The outstanding public debt of all municipalities was Rx. 150,400. Loans raised during the year amounted to Rx. 11,800. Water supply schemes were completed during the year at the towns of Conjeveram, and Kurnool, and were in progress at the towns of Coconada, Tirupati, and Vizagapatam.

Bombay.
Bombay City.

The Municipality of Bombay is administered by a corporation consisting of 72 councillors, of whom 16 are nominated by the Government, 36 are elected by the ratepayers, 16 by the justices, 2 by the Chamber of Commerce, and 2 by the University. Eighteen of the members were Europeans, and the rest were Indians; among the latter 16 were Hindoos, 24 were Parsees, and 12 were Mahomadans.

Plague was epidemic in Bombay to a greater or less degree throughout the year, and had a disastrous effect on the trade of the city and on the municipal expenditure; a considerable proportion of the inhabitants, though not so many as in the first epidemic, fled from the city, and business of all kinds was greatly hindered. The total income of the municipality, exclusive of loans, was Rx. 715,000, or Rx. 93,000 more than in the previous year; of this total, Rx. 576,000 accrued from municipal taxation and market receipts, Rx. 44,000 is due to an adjustment for plague expenses incurred out of revenue in 1896-97, the balance being contributions from Government and receipts from other property. The chief items of revenue were the general tax, which yielded Rx. 206,000, the water-tax, which yielded Rx. 133,000, and the town duties, which yielded Rx. 95,000. The general tax and town duties both showed a satisfactory recovery, and there was a good increase, from Rx. 24,000 to Rx. 35,000 under wheel tax. No new tax was imposed, and no rate was enhanced during the year. The total expenditure of the year came to Rx. 1,041,000, of which Rx. 291,000 were from borrowed money. The chief items of outlay from current revenue were Rx. 159,000 on the public health department, Rx. 50,000 on operations against plague, Rx. 147,000 on streets and other public works, and Rx. 226,000 on the interest and sinking fund of the city debt. Of the expenditure from loan funds, which amounted to Rx. 312,000, the largest items were Rx. 49,000 for sewerage works, Rx. 43,000 for minor sanitary works, and Rx. 198,000 for plague expenses. The quantity of water in the storage lakes was abundant; the consumption for domestic purposes was, as usual, high, and a large quantity was used for flushing drains in connection with plague operations. The death-rate of the year in Bombay was 58.28 per mille, against 40.71 in the previous year, and 30.64 the average of the five years 1891 to 1895. Of the excess mortality, the greater part occurred in the months of January, February, and March. Deaths from plague were reported to have been 2,110 in January 1897, 3,349 in February, 2,424 in March, and 1,309 in April; they then sank to a low figure, but rose again in December to 643. The highest mortality from plague occurred in the suburbs, the death rate from that cause being 35.99 per mille in Mahim, while the highest number of deaths, 919, occurred in Byculla. Cholera was also prevalent during the year. The outstanding debt of the city at the end of the year was Rx. 4,112,000, against which may be set Rx. 546,000 invested in behalf of sinking and other funds belonging to the municipality. In consequence of the plague expenses and the inability to raise the intended permanent loans for drainage and other works, temporary loans amounting to 35 lakhs were raised from the Bank of Bombay.

Interior of the
Bombay
Presidency.

The total number of municipalities in the interior of Bombay was 167, or one less than in the previous year. The population within municipal limits was 2,245,000, besides the population of Bombay city. The total number of municipal commissioners in these towns was 2,343.

The constitution of the committees was much the same as in the preceding year, namely:—

Elected	- 908	Officials	- 630	Asiatics	- 2,164
Nominated	- 1,435	Non-officials	- 1,710	Europeans	- 175

Everywhere the requisite number of quarterly meetings was held; and in many towns the number of meetings was considerable; Ahmedabad again headed the list with 55 meetings in the year. The attendance was not quite so good as in the previous year; but in most towns the average attendance of members exceeded one-half the total strength of the committee. The income of the municipalities, excluding loans, was Rx. 580,000, as compared with Rx. 500,000 in the preceding year. The incidence of municipal taxation ranged from 13½ annas per head in the southern division to 40 annas per head of the municipal population in Sind. Rx. 203,000 of the taxation was raised by octroi duties, and Rx. 147,000 by other taxes. There were no changes in the systems of urban taxation; and the increase of municipal revenues, especially in the octroi receipts was due to the recovery from the famine of the previous year. The total expenditure was Rx. 672,000. The outlay on water supply, roads, and drainage fell from Rx. 324,000 to Rx. 274,000, expenditure on these heads being curtailed to set free funds for plague operations, on which in the Northern and Central divisions alone, 5½ lakhs were spent during the year. The expenditure on conservancy was Rx. 128,000. Water supply works and improvements were prosecuted during the year at Sukkur, Karachi, Hyderabad, Jacobabad, Yeola, and Ahmedabad; drainage works were being prosecuted at Karachi and Sukkur, and on a smaller scale elsewhere, while extensive drainage schemes are in contemplation for Poona, Ahmedabad, and Sholapur.

The number of municipalities in Berar was 12, as in the previous year, and in eight of these towns the majority of the municipal committees are elected by the ratepayers. There were altogether 177 members of these committees, at the end of the year, divided thus:—

Elected	- 95	Non-officials	- 119	Asiatics	- 148
Nominated	- 92	Officials	- 58	Europeans	- 29

The proportion of municipal electors to the total population of the municipalities according to the last census, is 2½ per cent. In eight municipalities there occurred 34 vacancies, for which 70 candidates presented themselves. Out of 4,923 registered voters, 1,135, or only 23 per cent. of the electors, recorded their votes; and the proportion of voters going to the poll ranged from none to 59 per cent. in the different towns. Only one committee held less than 15 meetings during the year, and five committees held 20 or more meetings; the average proportion of members present at a meeting was about the same as last year and exceeded one half for all municipalities except one. The total income of the municipalities was Rx. 27,500, of which Rx. 5,400 accrued from markets, Rx. 4,800 from taxes on trades and professions, Rx. 2,000 from water-rates, Rx. 2,100 from conservancy tax, and Rx. 3,500 from other municipal property. Municipal income, apart from loans and grants, ranged from 10½ annas at Akot to 2½ rupees per head of the population in Buldana. Taxation, apart from other income, ranged from 3½ annas per head in Karinja to 22½ annas per head of the population in Buldana. The total expenditure was Rx. 29,000, of which Rx. 5,500 were spent on water supply, Rx. 7,500 on drainage and conservancy, Rx. 1,200 on markets, Rx. 2,600 on buildings and roads, Rx. 2,900 on public instruction, Rx. 1,100 on famine relief, Rx. 1,700 on repayment of loans, and Rx. 2,000 on general administration charges. Eleven out of the 12 municipalities contribute towards schools or colleges, and six towards libraries; only five spent more than Rx. 100 on water supply. Sanction for new taxation has been obtained or applied for by six committees since the commencement of 1897-98.

DISTRICT BOARDS.

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

DISTRICT BOARDS. exercised control in the administration of local roads, local hospitals, and local schools. 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. A review by the Government of India on the working of District Boards in India during the past nine years will be found in the Appendix to last year's Statement.

Bengal.

✓ In Bengal there were 38 district boards and 104 local boards, as in the previous year. On the district boards were 794 members, of whom 328 were elected by the local boards; on the local boards were 1,253 members, of whom 413 were elected. Out of the total number of 2,047 members, 1,633 were non-officials and 1,761 were Indians. On the district and local boards sat 921 landholders and planters, and 505 lawyers; these two classes thus composed 87 per cent. of the non-official members. During the year general elections for the local boards were held in only one sub-division. In the year 1897-98 each district board held on the average 15 meetings. The average attendance at each meeting was 10·7 members, or rather less than in the preceding year. The local boards held a few more meetings than in 1896-97 but the average attendance was only five members, as compared with nearly six in 1896-97, which showed that less interest was taken in the work. The number of meetings that had to be adjourned for lack of a quorum was 6 for district and 202 for local boards.

The Bengal boards enjoyed during the year an income of Rs. 711,000, of which the largest items were road cess, Rs. 392,000; contributions from provincial funds, Rs. 54,000; cattle pound fees, Rs. 47,000; receipts from ferries and other similar sources, Rs. 122,000; and loans, Rs. 53,000. The expenditure of the year was Rs. 691,000, of which the chief items were roads, bridges, and waterways, Rs. 379,000; education, Rs. 120,000; hospitals &c., Rs. 30,000; and famine relief, Rs. 19,000. The expenditure on sanitary improvements rose from Rs. 18,600 to Rs. 26,000, of which Rs. 22,000 were spent on water supply.

North-West Provinces and Oudh.

In the North-West Provinces and Oudh there were four district committees and 44 district boards, as in the previous year. The boards consisted of 1,533 members, who were divided as follows:—

Elected -	-	1,245	Indians -	-	1,475
Nominated	-	293	Europeans	-	63

The Committees had 82 members, either *ex-officio* or nominated, of whom 17 were Europeans. The district boards held on an average 11 meetings each the average of the district committees being 8. The average attendance at meetings was 11 members at the Boards and 9 members at the Committees.

During the year the financial system was assimilated to that generally obtaining in other Provinces, separate funds being opened for each board and committee, in place of the old system under which the boards administered funds placed at their disposal in the departmental budget, and had no recognised separate balance. They will now be able to carry forward any balance that accrues on the transactions of the year through economy or improved receipts. Opening balances, amounting to four lakhs of rupees, were made over to them by the Local Government, and arrangements for contributions to their funds by Government were determined according to the financial position of each board.

The income of the boards during 1897-98 was Rs. 395,000, of which Rs. 280,000 came from taxes; the expenditure was Rs. 397,000, including Rs. 132,000 on education, Rs. 202,000 on drainage, waterworks, buildings, and

roads, and Rx. 55,000 on medical services and sanitation. The net contribution from the local government was Rx. 8,000. DISTRICT BOARDS.

The work of the boards during the year is reported to have been on the whole satisfactory, many members having taken a commendable interest in local administration, at the cost of much time and personal convenience. It is expected that the newly granted financial independence will stimulate increased activity among members.

In every district of the Punjab except Simla there was a district board constituted under Act XX. of 1883; in most districts there were subordinate local boards acting under the district boards; in two districts these local boards were abolished during the year. In 12 districts, most of which are situate on or near the frontier, the district boards are composed entirely of nominated members, and in other 16 districts the members are in part nominated or *ex officio*, and in part are elected delegates from the local boards. Of the 66 local boards 11 are filled up wholly by nomination, and 55 partly by nomination and partly by election. Out of a total of 2,494 members the number of elected members in the whole province was 1,153, and of nominated members 1,341. The number of non-officials on the boards was 2,154, and the officials were 340. Elections to the local boards were held in 11 districts during the year; out of 230 vacant seats, concerning which returns are given, 30 were contested; little or no interest is reported to have been taken in the elections. Eleven out of the 31 district boards held less than four meetings during the year, which is the minimum number of meetings required by the rules; in 15 districts the average attendance at meetings of the district boards was more than half the number of members. Of the 66 local boards only 15 held the prescribed number of six or more meetings, while five local boards held no meetings at all; in 24 of the local boards the average attendance of members exceeded half of the whole strength; the attendance was thus less regular than in the previous year. The local officers again report that the district boards have on the whole worked satisfactorily. The local boards have, save in a few districts, been of little use. There is rarely sufficient work to keep both district and local boards employed. Punjab.

Excluding suspense items, the year's income of all the boards came to Rx. 312,300, of which the chief items were Rx. 240,700 from local rates, Rx. 27,700 from civil works, and Rx. 9,800 from school fees. The total expenditure of the year was Rx. 311,300, of which the chief items were:— education, Rx. 66,500; hospitals, vaccination, and other medical or sanitary charges, Rx. 40,300; and roads and other public works, Rx. 85,700. Of the last-mentioned grant, Rx. 16,000 was spent on water supply and sanitation. No district or local board has contracted any debt. The credit balance fell from Rx. 64,600 to Rx. 63,400.

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. There are 17 district councils and 53 local boards. The total number of members on these bodies was 1,197, divided thus:— Central Provinces.

Elected members -	913	Non-officials	1,054	Asiatics -	1,162
Nominated or <i>ex officio</i> -	284	Officials	143	Europeans or Eurasians -	35

A fair amount of interest was taken in the Balaghat general election held during the year, but the interest in bye-elections is usually not great. The number of meetings held was 440, as compared with 456 in the previous year. Of 280 officials the average attendance was 97, or 35 per cent., and of 1,054 non-officials the average attendance was 342, or 33 per cent. The maintenance and construction of metalled roads is undertaken by the Provincial Public Works Department in behalf of the councils, which, however, advise upon road projects within their jurisdiction. A number of roads were made as famine relief works, and the maintenance of them, or their completion, will come as a charge on local funds. Education is one of the most important matters 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. The income of the councils and boards was Rx. 87,300, of which Rx. 37,600

DISTRICT BOARDS. were yielded by local rates, Rx. 19,500 by cattle-pound fees, and Rx. 14,000 by contributions from provincial funds. The main items of their expenditure, which amounted to Rx. 80,800, were Rx. 19,400 on roads and other works, Rx. 28,900 on schools, and Rx. 8,700 on hospitals and sanitation.

In Assam there are 19 local boards, constituted under the Assam Local Rates Regulation of 1879. The total number of members on the district boards was 375, of whom 69 were officials and 306 non-officials; 137 were elected, and 234 were natives of India. The boards enjoyed for the year 1897-98 an income of Rx. 127,000, or rather more than in the previous year. The local rates yielded Rx. 64,600, or Rx. 800 above their yield in 1896-97. The boards spent Rx. 112,300; 64 per cent. of the total expenditure was devoted to public works, 18 per cent. to education, and 18 per cent. to sanitary and medical objects. The outlay on village sanitation was Rx. 6,600.

Madras.

In Madras there were 21 district boards, with not less than 24 members on each, of whom one-half are elected by taluk or subdivisional boards except in the Nilgiris. The members of 80 taluk boards are appointed by Government from the residents and ratepayers of the taluk. On all the boards there were 1,769 members, of whom 1,257 were non-officials and 512 were officials; out of the latter number 67 were members elected by taluk boards to be their representatives on the district boards. Below the taluk boards were 376 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 237 meetings, at which the average attendance was 17 (12 non-officials and five officials), as compared with 16 in the previous year, out of an average strength of 31 members. The taluk boards held 1,034 meetings, at which the average attendance was eight members (six non-officials and two officials), out of an average strength of 14 on each board. The village unions held 4,938 meetings, or 24 less than in the previous year. The Local Government considered that the administration of local affairs was on the whole efficient, except in four districts, though the development of vaccination was not satisfactory.

The income of all the boards during the year was Rx. 842,900, or Rx. 20,500 more than in the previous year. The chief sources of income were: local rates, tolls, and taxes, Rx. 636,700; grants from provincial funds, Rx. 31,500; school fees, Rx. 22,000, and rents of municipal properties, Rx. 73,400. The expenditure of the year was Rx. 799,900, of which Rx. 428,000 were spent on roads, ferries, and other public works; Rx. 156,600 on medical and sanitary purposes, and Rx. 109,600 on education. Out of the public works outlay, Rx. 46,200 were spent on new roads, and Rx. 266,000 were spent on maintaining existing roads. The expenditure on public works was Rx. 11,000 less than in the previous year. The length of new roads made during the year was 81 miles, and of roads repaired by local boards was 21,210 miles. The expenditure on sanitation, as distinguished from hospitals and vaccination, was Rx. 52,700, of which Rx. 11,300 were spent on improving the water supply.

Bombay.

In Bombay there were 23 district and 204 taluk (or subdivisional) boards: all these boards are partly elective, except in three backward districts and seven exceptional subdivisions. There were altogether 3,538 members of all boards, classified very nearly as in the preceding year, namely:—

Elected	-	1,593	Non-officials	-	2,745	Asiatics	-	3,347
Nominated	-	1,945	Officials	-	789	Europeans	-	187

The total number of meetings held during the year was 1,204 as compared with 1,201 in the previous year, and the average attendance of members ranged rather lower than in the preceding year. The triennial terms of the boards in many districts expired during the year, and elections were held, at which a proportion of the qualified electors varying from 15.6 to 75.8, generally about 35 to 40 per cent., came to the poll. The gross income of the boards was Rx. 449,000. The total expenditure of the boards came to Rx. 477,000, or Rx. 37,000 less than in the preceding year; the chief heads of expenditure were education, and public works. In the last category were included

PROGRESS AND CONDITION OF INDIA, 1897-98.

Rx. 42,000 spent on water supply. The incidence of local (as distinct from municipal) taxation ranged from $2\frac{1}{2}$ annas per head in the central division to $3\frac{1}{2}$ annas in the northern division and $3\frac{1}{2}$ annas in Sind, per head of the total population. DISTRICT BOARDS.

In Berar there were six district and 21 taluk (or subdivisinal) boards. Each taluk board consists of 18 members, of whom 12 are elected by the people. Berar. The members of the district boards are, for the most part, elected by the taluk boards. The members of the 27 boards were divided thus:—

	TOTAL.	Nominated.	Elected.	Non-officials.	Officials.	Native.	European.
District Boards	158	32	126	124	34	150	8
Taluk Boards	377	139	244	344	33	377	-

All the district boards held more than the minimum number of four meetings prescribed by the rules; 18 boards held eight or more than eight meetings, and three taluk boards held less than the prescribed number of eight meetings. Sixty-seven vacancies occurred on the taluk boards during the year, for which 139 candidates came forward. Out of 26,341 persons entitled to vote, 1,826, or 7 per cent., recorded their votes; in the previous year the percentage of voters to electors was 9½. The income of the local boards was Rx. 71,400, of which Rx. 37,400 accrued from provincial rates and Rx. 8,300 from taxes on trades or professions; Rx. 3,900 from school fees; and Rx. 10,100 from provincial contributions. The expenditure was Rx. 66,600, of which Rx. 19,100 were devoted to education, Rx. 4,300 to village conservancy, Rx. 4,500 to the improvement of water supply, Rx. 3,700 to the improvement of village sites, Rx. 18,800 to roads and other public works, and Rx. 12,100 to famine relief.

In Burma local boards have not been constituted. In Lower Burma Burma. 19 district cess funds had an income of Rx. 165,100, as compared with Rx. 149,800 in 1896-97. The expenditure was Rx. 155,300, of which Rx. 72,000 occurred under the head of "Civil Works" and Rx. 17,000 under "Education." There were 16 district funds in Upper Burma, with a total income of Rx. 42,600, and an expenditure amounting to Rx. 44,300. The balance to the credit of the district funds at the end of the year was Rx. 16,700.

PORT TRUSTS.

The custody of harbours and the administration of harbour and shore affairs PORT TRUSTS. 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 district or local boards, receive any fees for the performance of their local duties.

In the year 1897-98 the income of the Bombay Port Trust was Rx. 460,000, Bombay. or slightly above the income of the preceding year. The receipts were below the average, owing to the failure of crops and to the plague epidemic, which combined to cause a very great shrinkage in the import and export trade. Dock dues and wharfage fees yielded Rx. 221,000, against Rx. 236,000, and warehouse fees and rents Rx. 197,000, against Rx. 180,000, in the previous year. The expenditure was Rx. 480,000, of which the chief items were Rx. 228,000 for interest, repayment of debt, and Rx. 115,000 spent on working and

PORT TRUSTS.

maintaining the wet docks, and Rx. 48,000 on warehouse property. As compared with 1896-97, the exports of grain were much lower, while imports, chiefly of Burmese rice, rose considerably. Towards the end of the year a sharp recovery began in the exports of wheat. The exports of cotton yarn fell 29 per cent., and imports 39 per cent. Kerosine oil imports increased very largely, the exports being also less. The imports of coal were 26 per cent. higher. At the close of the year the outstanding debt of the Port Trust was Rx. 5,209,000, of which Rx. 3,028,000 were due to Government, and Rx. 106,000 represent an advance from cash balances in place of a 12 lakhs loan which could not be floated this year because of the tightness of the market; while the value of the assets and property of the Trust, after being written down, stands at Rx. 5,520,000. Fewer steamers entered the port than in the previous year, but the total steam tonnage entered during the year was 2,013,000 tons, as compared with 1,997,000 tons in 1896-97. The Board have under consideration schemes for providing better facilities for handling and moving goods.

Calcutta.

The income of the Calcutta Port Trust was Rx. 618,000, or Rx. 78,000 more than in the previous year, and the expenditure was Rx. 610,000, inclusive of the Kidderpore Dock Account. The increase of income was distributed over nearly all heads, and was due to the great increase of trade, which is shown by the figures of tonnage given below. The new docks were opened in September 1892; they have cost Rx. 2,877,000. In addition to this, a 15 lakhs debenture loan was raised during the year for carrying out improvements at the docks and jetties, erecting warehouses, &c., as part of a new scheme which has been introduced, to meet the increased demand for accommodation. The chief feature of this scheme is that the jetties are to be used only for the discharge of the cargoes of liners, which are to load cargoes in the docks or from lighters in the river. The total outstanding debt is now Rx. 4,278,000, against which may be set Rx. 183,000 at credit of the sinking fund. The special tolls, imposed to meet the charges on account of the new docks, yielded Rx. 112,800. The largest items of port expenditure were Rx. 211,900 for interest and sinking fund of the debt and Rx. 247,800 for salaries and working expenses. The receipts from the new docks rose from Rx. 61,600 to Rx. 118,200, while the cost of working and repairs rose from Rx. 53,800 to Rx. 101,200. This increase must be considered as partly due to the new arrangements for loading vessels referred to above. The charge for municipal tax on the docks and for interest on the docks loan was Rx. 129,500, as in the previous year. The deficit on the new docks was thus Rx. 112,600. The number and tonnage of sea-going vessels entering the port during the last five years has been:—

	1893-94.	1894-95.	1895-96.	1896-97.	1897-98.
Number of vessels	991	1,029	1,027	1,057	1,235
Gross tonnage	2,567,440	2,785,975	2,895,528	3,004,166	3,562,373

In the last year 1,102 of the vessels were steamers, with a tonnage of 3,311,415 tons, as compared with 133 sailing vessels, with a gross burden of 259,958 tons. There were 13 casualties during the year, none of which resulted in serious loss.

There were 41 accidents during the year, eight of them being collisions; in three only of the latter were the pilots found to have been in fault. One vessel was sunk and two damaged.

Rangoon.

The year 1897-98 showed an increase of 111,000 tons, or 8½ per cent., in the tonnage of the sea-going vessels visiting the Port of Rangoon; the aggregate tonnage was much larger than in any previous year. The number of steamers with a tonnage of over 3,000 tons is increasing. The ordinary revenue of the Port Trust was Rx. 109,400, showing an increase of 11 per cent., as compared

with 1896-97, while the expenditure decreased 2½ per cent. The increase of revenue is due to the growth of trade and shipping. Rx. 5,000 of debt was paid off during the year; interest paid on the port loans has come down from Rx. 4,500 in 1890 to Rx. 2,700 in 1897. Rx. 22,100 were spent on repairs and extensions of works of improvement. Eleven accidents to shipping took place during the year in the harbour and approaches; in no case was material damage done to vessels in pilotage charge.

The expenditure of the Madras Harbour Trust was Rx. 73,000 and its receipts were Rx. 72,000. The contribution from port funds fell from Rx. 24,500 to Rx. 8,300. Harbour dues increased slightly, owing to larger imports of coal, rice, and petroleum. The total value of the trade passing through the Madras port during the year was about one-half per cent. below that of 1896-97, which had been 4½ per cent. below that of 1895-96. The tonnage of vessels entering the port was 7 per cent. below the figure of the preceding year. No further advances were made to the Trust during the year; the Trust repaid Rx. 10,000 on account of previous advances paid, and spent Rx. 22,400 on account of interest. No outlay was incurred on harbour extension and improvement during the year.

The income and expenditure of the Karachi Port Trust were respectively Rx. 93,000 and Rx. 75,000, as compared with Rx. 82,000 and Rx. 73,000 in the previous year. In the early part of the year there was a shrinkage of trade caused by famine and plague, but grain exports in the beginning of 1898 made the figures better than those of 1896-97. The principal improvements of the year were the dredging operations for deepening the port entrance and channel, on which good progress was made. The tonnage entering the port was 7 per cent. below the very low figure of the preceding year. The exports of grain were 116,000 tons, as compared with 117,000 tons in the previous year. Cotton exports and petroleum imports were the only items that showed an increase over the previous year's trade.

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

NAME OF PORT.	Value of the Total Foreign Trade, in Merchandise only, excluding Government Stores and re-exports, during the Year			
	1894-95.	1895-96.	1896-97.	1897-98.
	Rx.	Rx.	Rx.	Rx.
Bombay	63,159,000	65,800,000	60,017,000	62,068,000
Calcutta	71,319,000	72,817,000	74,761,000	71,996,000
Rangoon	10,481,000	12,803,000	11,259,000	12,347,000
Madras	10,986,000	10,785,000	10,261,000	10,161,000
Karachi	10,641,000	10,170,000	8,372,000	9,226,000

STATEMENT showing the Number of Municipalities in India, their Receipts and their Expenditure, for the Year 1897-98.

	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	151	104	148	42	53	14	1	58	1	167	20	760
Population according to the Census of 1891 - - - - -	691,560	2,722,170	3,267,308	2,120,372	859,363	688,999	84,727	452,518	1,702,402	821,764	2,246,285	283,344	15,929,712
Receipts :	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Octroi - - - - -	-	-	235,008	290,697	-	80,878	-	-	-	126,822	203,143	25,502	962,645
Other Taxation - - - - -	426,459	267,919	86,919	23,411	177,242	27,029	9,010	102,836	152,706	453,411	142,923	2,939	1,872,818
Sources other than Taxation (excluding Deposits and Advances).	61,006	62,535	93,341	117,732	248,183	31,288	15,848	36,812	108,046	134,323	123,048	11,778	1,043,940
Loans - - - - -	159,670	24,300	27,800	12,982	54,000	9,704	-	10,000	11,538	270,000	68,870	2,000	650,864
TOTAL (1897-98) - - - Rx.	647,135	354,754	443,663	444,822	479,425	148,809	24,867	149,648	272,290	984,556	537,989	42,219	4,520,267
TOTAL (1896-97) - - - Rx.	704,773	362,564	411,735	433,175	415,696	145,870	20,535	138,986	314,088	724,248	557,880	40,972	4,270,542
Expenditure :													
Cost of Collection and Administration - - - - -	51,963	36,797	40,452	66,601	42,319	98,296	1,761	11,436	23,908	56,050	113,154	8,479	500,210
Public Health and Conveniences - - - - -	441,722	247,206	239,760	187,646	269,313	75,041	19,010	120,352	207,034	425,460	282,302	15,698	2,530,551
Public Safety - - - - -	49,534	28,103	64,358	67,142	31,719	1,440	860	7,830	11,502	87,739	24,673	4,602	379,608
Interest on Debt - - - - -	118,763	12,156	34,750	16,199	20,734	5,200	25	15,107	6,453	187,578	19,116	1,879	438,520
Miscellaneous (excluding Investments, Advances, and Deposits, and Payments to Sinking Fund).	39,711	36,038	50,541	99,242	57,019	24,278	1,356	10,275	52,186	253,767	164,735	10,840	808,988
TOTAL (1897-98) - - - Rx.	701,693	360,360	447,861	436,830	421,098	144,821	23,021	165,000	301,083	1,010,594	603,930	41,496	4,657,837
TOTAL (1896-97) - - - Rx.	569,437	358,008	567,502	455,299	409,864	151,512	20,346	140,829	287,031	747,828	592,793	45,519	4,355,056

SANITATION.

SANITATION.
European troops.

The health of the European troops in India during 1897 was much worse than the average, owing largely to the prevalence of malarial fevers. The average strength was 68,395, as compared with 70,484 in 1896. The total admissions into hospital were in the ratio of 1,557 per 1,000, against 1,387 in 1896, and 1,457, the average for each of the preceding 10 years; the daily average sick-rate rose from 94 to 101, and the death-rate was 22·93, or 8·09 higher than in 1896. The chief causes of admission were, as usual, venereal diseases and ague, which accounted for 31 and 26 per cent. respectively of the total sickness. Enteric fever was the chief cause of mortality, yielding a death-rate of 9·01 per 1,000, as compared with 6·31, the ratio of the previous year. This fever alone caused nearly 39 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 between the ages of 20 and 25 the death-rate from this disease was 12·74 per 1,000, while among men between the ages of 25 and 30, and between 30 and 35, the mortality equalled 4·98 and 2·77 per 1,000 respectively; and whereas among men of less than one year's service in India the death-rate from enteric fever was 18·50 per 1,000, among men of four years' service it was 6·71, and among men of five to ten years' service the rate was 2·98 per 1,000.

Cholera was more prevalent among the European troops in 1897 than in the previous year; the fatal cases rose from 63, or 0·89 per 1,000 to 80, or 1·17 per 1,000. The excess occurred chiefly at Sitapur, where there was a virulent epidemic which caused 40 deaths.

The loss to the whole European Army in India by invaliding during 1897 amounted to 2,258 men, equal to 34·99 per 1,000 of strength, against 1,966, or 27·89 in 1896. Out of the total number, invalided, 1,301, or 58 per cent., were discharged as unfit for further service, as compared with 39 per cent. in 1896. As regards the influence of age and length of residence in India upon invaliding, 22 per cent. of the men between 30 and 35 years of age were invalided, whilst the figure for those between 20 and 25 was 42, and for those over 40 was 56 per cent.; 44 per cent. of men with three years' service were invalided, 37 per cent. of those with one year, and 33 of those with more than 10 years' service.

There was more sickness and mortality among the Native troops in 1897 than in the preceding year. On an average strength of 129,802, the admissions into hospital were in the ratio of 839 per 1,000, against 763 in 1896; the daily sick-rate was 31, an increase of 2 per 1,000, and the death-rate was 13·12, against 10·20. Ague continued to rank first among the causes of admission, and yielded 41 per cent. of the total. Respiratory diseases, as usual, were the chief causes of death, and represented a ratio of 3·23 per 1,000 of average strength, against 3·72 in 1896. Of these diseases, pneumonia alone accounted for 293 deaths, or 2·73 per 1,000 of strength, a ratio nearly five times as high as that among European soldiers from this disease. The mortality from intermittent and remittent fevers was 1·69 per 1,000. From these two causes, pneumonia and malarial fever, nearly half the total deaths were recorded. From cholera the death-rate was 0·52 per 1,000, against 0·69 in 1896. Fevers of all kinds were the cause of 14 per cent. of the total deaths, while among the European troops 44 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 1·82 per 1,000; while among the European troops the proportion was only 1·02. On the other hand, the death-rate from enteric fever among the native troops was only 0·12 per 1,000, as compared with 9·01 among the European troops. The deaths from plague during 1897 numbered 82; the chief outbreaks were among the 2nd Bombay Lancers (16 deaths), 4th Bombay Cavalry (10 deaths), and 26th Madras Infantry (22 deaths).

SANITATION.
Jails.

The health of the prison population in India was affected unfavourably by the scarcity prevalent during 1897. The ratios of admission into hospital and daily average sick per 1,000 of strength were 975 and 39 respectively, against 939 and 39 in 1896. The death-rate rose from 27·79 per 1,000 to 39·64. The average rate of mortality ranged from 134·98 in the Central Provinces to 16·3 in the Punjab. The death-rate was higher in six provinces than in the previous year, the most noticeable case of increase being the Central Provinces, where the death-rate had been 72·11 in 1896. The mortality was next highest in Assam (48·69) and Madras (47·45), but in all provinces, excepting the Punjab, Burma, and Coorg, it was above 30 per 1,000. The increase in the general death-rate was mainly due to the emaciated condition of the prisoners admitted; while the famine also increased the amount of crime, and led to overcrowding in jails. Of the total number of prisoners discharged during the year, 17·2 per cent. had lost weight, and 62·54 per cent. had gained weight.

General
population.

Births were registered throughout all the 10 provinces during 1897. The highest mean provincial birth-rates recorded were:—the Punjab, 42·6 per 1,000 of population; Berar, 39·7; Bengal, 36·94; Bombay, 33·46; North-Western Provinces and Oudh, 31·10; and Assam, 32·59. In the remaining provinces the rates ranged between 31·82 in Burma and 20·24 in Coorg. In all provinces the birth-rates were lower than in the previous year. The birth-rates exceeded the death-rates in four provinces, the excess per 1,000 varying between 11·5 in the Punjab and 2·7 in Madras. The year 1897 was marked with exceptional mortality in consequence of the famine, and the death-rate for all the provinces rose from 32·05 per 1,000 of population in 1896 to 36·03. The highest death-rates were registered in the Central Provinces (69·34) and Berar (52·6). In Assam the rate was 50·61; in Coorg, 50·03; in the North-Western Provinces, 40·46; in Bombay, 39·84. In the remaining provinces the rates ranged from 32·94 in Bengal to 25·4 in Madras. In all the provinces, except Bengal and the Punjab, the death-rates were higher than in 1896. The greatest increase occurred in the Central Provinces, where the death-rates rose from 49·31 to 69·34.

From all the chief diseases, more deaths were registered than in 1896. From cholera there were 550,768 deaths in 1897, being in the ratio of 2·59 per 1,000 of population, against 469,667, or 2·21, in the previous year. The chief increase occurred in Madras and Assam. The death-rate from cholera was highest in Assam, 6·62 per 100, and in the Central Provinces, 6·01 per 1,000. Madras came next, with 4·4, a ratio much higher than that recorded in the previous year; the rate in Berar was 3·5 and in Bombay 3·03.

From small-pox the deaths rose from 132,784, or 0·62 per 1,000, to 160,059, or 0·75. The increase occurred especially in the North-Western Provinces and Madras. In the former the deaths rose from 42,771, or 0·91 per 1,000, to 87,127, or 1·86, which was the highest ratio recorded by any province; and in the latter, from 9,410, or 0·3 per 1,000, to 21,678, or 0·7.

Fever deaths rose from 4,531,833, or 21·36 per 1,000 of population, to 4,979,028, or 23·48. This shows an increase in 1897 of 447,195 deaths, in which all the provinces except Bengal participated. The increase in fever mortality was most marked in the Central Provinces, the Punjab, Assam, and the North-Western Provinces and Oudh, the fever death-rates of which rose from 29·55, 19·15, 20·18, and 25·71 in 1896 respectively to 40·98, 20·57, 28·74, and 31·21 in 1897.

The total number of deaths returned under dysentery and diarrhoea was 396,285, or 1·87 per 1,000, against 235,235, or 1·11, in 1896. In all provinces the mortality under this head was more than in the previous year; in the Central Provinces, Bombay, and Berar the increase was marked, the death-rates being 8·53, 4·57, and 10·3, as compared with 3·41, 1·92, and 6·2 in 1896.

Vaccination.

The total number of successful vaccinations performed during 1896-97 was 7,124,474, being a decrease of 184,613 on the previous year's work. Over 2½ millions (2,884,596) of the total cases were under one year of age, and nearly 3½ millions (3,099,235) were between the ages of one and six years. The proportion of population protected by the year's operations ranged from 58·24 per 1,000 in Coorg, and 46·67 in Assam, to 25·97 in the North-Western Provinces and Oudh.

Some of the important sanitary works which have been either completed, in progress, or under consideration during 1897, were as follows:—In Calcutta further progress was made in the improvement of bustees, or clusters of Native huts. The increased supply of filtered water which was begun in the previous year was fairly maintained, and the average daily consumption was 38·1 gallons per head of population for the town proper, and 11·26 gallons for the suburban area. In the course of the year the distribution pipes were extended about 2½ miles, bringing the total length up to 315 miles, and the total number of premises connected had reached 27,775. The supply of unfiltered water was lower than in the last two years, the daily consumption per head of population being equal to 12·51 gallons as compared with 13·43 gallons in 1895. At the close of the year 1897-98 the total length of sewers was 200 miles, and the number of premises connected with them was 29,848, of which 260 connections were made during the year. The new drainage project for the municipality was in hand, and the work has been going on vigorously throughout the year.

SANITATION.
Bengal.

The municipalities of the interior of Bengal spent Rx. 203,426 on sanitation, a decrease of Rx. 39,581 as compared with the sum expended in 1896. In addition, the municipalities and district and local boards spent Rx. 209,934 on sanitary works; and a further sum of Rx. 116,747 was contributed by private individuals for the same purpose, the latter item showing a satisfactory increase. The most important works were the completion of the Bhagalpur water-supply, commencement of work on the Berhampore water-supply, and the extension of that of Cossipur-Chitpur. A drainage scheme for the latter municipality, and for that of Maniktola, were under consideration, and the Krishnagar scheme has been adopted. The Howrah scheme, which was prepared by the engineer of the Calcutta Corporation, was found too expensive, and has fallen through. The Sanitary Board held two meetings in the course of the year, when, among other important matters, they discussed the Howrah drainage scheme and the drainage of the suburbs of Calcutta. Under the orders of the Government the Board prepared a water-supply scheme for the Garden Reach Municipality, estimated to cost Rx. 5,000, and another for Darjeeling, to cost Rx. 11,000. For the Patna Municipality a road drainage scheme was prepared, estimated to cost Rx. 5,600. Experimental borings for water were carried out with great success at Patna, and it is in contemplation to substitute the river Sone for the Ganges as the source of the town's water-supply.

In the North-Western Provinces and Oudh the municipalities expended over 41 per cent. of their income on water-supply, drainage and conservancy. In most of the municipalities possessing waterworks, house connections were extended, and the quality of the water was good. The year was one of plague and famine in this province, and was therefore unfavourable to the initiation of any large schemes. Extensions were made to waterworks at Allahabad and Benares, and reservoirs were begun at Naini Tal, for which town a comprehensive scheme is in course of preparation. At Benares and Mussoorie drainage projects were in progress. The chief work of the year lay rather in village improvements in connection with famine relief, and in the measures taken for the prevention of plague. The sanitary commissioner reports that the principal towns of the provinces have never been, during the last 20 years, in so satisfactory a sanitary condition as they are at present. The Village Sanitation Act, which had been found useful in certain districts to which it had been tentatively extended, was in 1896 brought into force throughout the provinces. Two meetings of the Sanitary Board were held during the year under report.

North-Western
Provinces and
Oudh.

In the Punjab the municipal towns spent 23 per cent. of their income on sanitary work. During the year the water-supply scheme of Pind Dadan Khan, in the Jhelum district, was completed, as was also the water-supply for the cavalry lines at Kohat. The water-supply projects of Bhiwani, Peshawar, and Edwardesabad were in progress, and those of Amritsar, Ludhiana, and Mooltan, the extension of the Delhi supply, and the supply of the Mian Mir cantonments from Lahore, were under preparation. In Delhi a portion of the drainage scheme has been completed, and the remainder is under preparation.

Punjab.

SANITATION.

Drainage projects for Mooltan, Rawalpindi, Hazro, and other towns were in progress, while Rx. 7,800 were spent on the works at Lahore, and Rx. 1,060 on drains at Peshawar. Besides these, several works of public utility were constructed by private individuals at their own expense to serve sanitary purposes. The Sanitary Board met once during the year, when they considered, among other matters, the prevalence of fever in the province, specially in swampy and water-logged areas, and the remedies that might be applied; and suggestions concerning the unhealthiness of certain villages in the Umballa district.

Burma.

The towns and districts of Burma spent over 33 per cent. of their income on sanitary improvements. No important work was undertaken during the year, but municipal committees are reported to have devoted a considerable share of their attention to the subject, and expenditure was incurred on the preliminary experiments and surveys which are necessary before a mature scheme can be elaborated. A sanitary engineer has been appointed for the province, and was employed during this year in examining a scheme for supplying water to the town of Moulmein. In Rangoon experiments carried out by private individuals, with a view to testing the efficiency of tube wells as a permanent source of water-supply, appear to have met with success. Schemes for improving the water-supply were being considered by the municipal committees of Bassein and Prome. The work of the Sanitary Board was again restricted to the provision of suitable sanitary maps of the larger towns.

Central Provinces.

The municipalities in the Central Provinces expended 18 per cent. of their income on conservancy, drainage, and waterworks. The most important works undertaken or in progress were schemes for supplying water to certain municipalities. The Jubbulpore waterworks were further extended during the year, and are now nearly completed. The Khandwa works were practically completed, and progress was being made with those at Wardha; but the Harda scheme has been temporarily postponed for want of funds. The system of village sanitary inspection books has been introduced in several districts, but little progress was made in filling them in with the information required, owing to the heavy duties falling on civil surgeons in connection with the famine. The Village Sanitation Act of 1889 was extended to one additional village during the year. The Sanitary Board met in each of the four divisions during the year, when proposals and estimates for schemes of sanitary improvement in the various districts were considered.

Assam.

Excluding the towns of Hailakandi, Sunamganj, Karimganj, and Maulvi-bazar, which have no separate incomes of their own, the municipalities, stations, unions, and towns in Assam spent 44 per cent. of their income on sanitation. No extensive sanitary work was undertaken during the year, but the waterworks at Gauhati and Shillong, which suffered from the earthquake, were under repair. The sanitary improvements effected in rural tracts were comparatively unimportant, though some progress was made in the direction of providing a purer water-supply by the construction of masonry wells and the excavation of tanks at some of the larger villages. No meeting of the Sanitary Board was held during the year.

Madras.

In the Madras Presidency the municipal councils allotted 63.6 per cent., and the district boards 8.4 per cent., of their income for sanitary purposes. During the year the water-supply works at Conjeeveram and Kurnool were completed. Village sanitary inspection report books were in use in all unions in 19 out of the 22 districts of the Presidency at the end of the year, the exceptions being Malabar, Anantapur, and Tanjore. The Sanitary Board during 1897 scrutinised plans and estimates for 46 municipal and 68 local fund works. The Sanitary Engineering Department completed surveys for water-supply or drainage for two municipalities, and one scheme was still under consideration. Four schemes, costing Rx. 167,700, were submitted to the Sanitary Board, the most important being the water-supply scheme for Negapatam, estimated to cost 10 lakhs, and a drainage scheme for Cuddapah, to cost 5½ lakhs. The latter, as well as a water-supply scheme for Tuticorin and a drainage project for Ootacamund, was under consideration of Government at the end of the year. Preliminary reports were also made regarding the water supplies of Ellore, Conjeeveram, Trichinopoly, and Cuddapah (extension); the estimate for the Coconada works was revised, and other minor estimates made.

The water-supply works which had been in progress at Kurnool and Conjeeveram were completed during the year, and those of Coconada, Tirupati, and Vizagapatam were in progress. In improving the sanitation of Madras City several useful improvements were being carried out. The water-supply was extended, and a project estimated to cost nearly 16 lakhs was submitted to Government. The long-contemplated scheme for the drainage of the city has been taken in hand, the Commissioners having now almost finished the drainage of Mylapur. But it will be several years before the drainage scheme is completed, and until this is done, and the proposed improvements in the water-supply are effected, Madras cannot be expected to become a healthy town. SANITATION.

In Bombay Presidency the municipalities, exclusive of Bombay itself, allotted 75·21 per cent., and the district boards 20·84 per cent., of their income for sanitary purposes. During the year improvements to the waterworks at Hyderabad, Surat, Ahmednagar, and Jacobabad were executed; while those at Yeola, Sukkur, and Karachi were practically completed. One-fifth part of the sewerage scheme at Ahmedabad was completed. There was not, however, satisfactory progress in sanitary works during the year, owing to the demands on municipal funds caused by the plague. The Bombay Village Sanitation Act of 1889, under a modified form, has been brought into force in all the districts except Kanara and Upper Sind Frontier. The Sanitary Board gave advice concerning a large number of projects, including the waterworks of Malegaon in Nasik district, and Sholapur, the sewage farm at Hyderabad, and other sanitary schemes which had been submitted to them. The water-supply and drainage of Poona and Nasik are still unsatisfactory. In Bombay City the Shone system of sewerage at Colaba worked uniformly during the year. In other divisions drainage and sewerage works were in progress, while several new works were commenced. The water supply of the city from the Tansa, Vehar, and Tulsī lakes continued to be adequate; structural and other improvements in the reservoirs were being carried out. Bombay.

The municipalities of Berar spent 71 per cent. and the district boards about 16 per cent. of their income on sanitary improvement. No new works of any great importance were undertaken during the year, but Rx. 2,500 were spent on repairs to the Khamgaon tank, and a drainage scheme for Amraoti was under consideration, while in the latter town specially active measures were also taken to guard against plague. The District Sanitary Boards met once at each of the six headquarter stations. The Medical Department of the province was much occupied in supervising famine relief camps, and the sanitary survey did not make much progress during the year. The total of towns and villages surveyed up to date is 918. The Sanitary Commissioner states that sanitary progress has been steady, though slow, and that the people have generally appreciated improved water-supply, drainage, or conservancy. Berar.

CHAPTER II. A.

FAMINE AND PLAGUE.

FAMINE.

Last year's Statement brought down the account of the famine to the end of 1897, which may be considered to have been its close, although its effects are strongly marked on the economic history of the year 1897-98. At the end of 1897 a Commission was appointed, under the presidency of Sir James Lyall, G.C.I.E., K.C.S.I., to inquire in India into the circumstances of the famine, and to report, not on the broad principles upon which famines should be combated, but on the working of the famine codes in the various provinces, the success of the measures adopted, and the modifications which the famine had suggested for future guidance. The main features of the Commission's report may be summarised as follows.

North-Western Provinces.

In the North-West Provinces the work assumed larger proportions than elsewhere. Much valuable experience had been gained in the well-managed famine of 1896 in Bundelkhand, and relief was begun in good time. The Government showed incessant activity, a constant grasp of the situation, and power of enlisting the services of native leaders. The result was, in the words of the Commissioners, a "conspicuous success and a great administrative feat." The degree of success in saving life and relieving distress they consider to have been very great; but in view of the difficulty of satisfactorily defining the term "starvation deaths," the figures returned on this subject are not held to be sufficiently trustworthy in any province for serious discussion. The rate of mortality in the famine districts during the year ending September 1897 was 39½, as compared with a normal death-rate for the whole provinces of 33 per mille. Some of the measures adopted with the view of economy contained elements of risk, and with a weaker set of officers under less able guidance might have led to failure; though the Commissioners guard themselves from implying that any necessary relief was withheld in this case.

Bengal.

In Bengal famine was declared to exist in 15 out of the 46 districts of the province. The general conclusion of the Commission is that the measures taken were eminently successful, both in saving life and in mitigating distress, and that the result was attained, on the whole, with a due regard to economy.

Central Provinces.

There had been considerable distress in the Central Provinces from 1894 onwards, and in the opinion of the Commissioners the official recognition of famine and the initiation of relief measures were unduly delayed, and the relief given in 1895 and 1896 was insufficient. The death-rate was very high in both those years, while it rose in 1897 to 69·3 for the whole province, as compared with a normal rate of 33·7 per mille. The Commissioners recognise the many special difficulties which had to be met, but consider that the degree of success achieved was not in all respects complete.

Madras.

In Madras the approach of the calamity was promptly foreseen, and the measures taken were as a whole adequate and successful; it is, however, a question whether the relief afforded was not in some respects needlessly liberal, as the famine in Madras was of no long duration and no exceptional severity.

Bombay.

Nine districts in Bombay were affected, and the death-rate in the Presidency during the year ending in October 1897 was 45 per mille, as compared with a normal rate of 29·56. The administration of relief is reported to have been distinctly successful both as regards saving of life and mitigation of distress. The points open to criticism are the concentration of famine labour on large public works, and the small amount of remissions and suspensions of land revenue; on the other hand, very large advances were made under the loans Acts to agriculturists, and the camps formed at the relief works were exceptionally good.

Burma.
Punjab.

There was little actual famine in the Punjab and in Burma, but the measures adopted in cases where relief was needed were very successful.

The hill tribes of Berar suffered severely from famine, and the extreme difficulty of getting relief to these tribes rendered it impossible to prevent loss of life; the actual figures are not, however, available. Elsewhere in the province the existence of famine, to such extent as it existed at all, was mostly due to the influx of famished wanderers from the Central Provinces.

FAMINE.
Berar.

The opinion of the Commissioners as to the success of the famine operations as a whole, is summed up in the following extract from the report :—

“Viewed as a whole, we consider that while the areas over which intense and severe distress prevailed in the famine of 1896-97 were greater than in any previous famines, the success actually attained in the relief of distress and saving of human life was, if not complete, far greater than any that has yet been recorded in famines that are at all comparable with it in point of extent, severity, or duration; and that this result has been achieved at a cost which, when compared with the expenditure in previous famines, and with other standards that we have had before us, cannot but be regarded as very moderate.”

The following paragraph of the report deals with the material progress of the people and their capacity to resist famine :—

“In thus following the Famine Commissioners in recommending an active policy in the extension of irrigation, we recognise that in one respect the case is less urgent now than when they made their recommendations. Except in Upper Burma there are now no large works which are certain to be remunerative awaiting construction or completion within the districts which are most liable to famine, or in which the pressure of population is most severe. But all other reasons in favour of such a policy hold good, and they are strengthened by changes in condition which have occurred since 1880, namely, the great extension of the railway system, the growth of the export trade in grain, and the still greater rate of increase in the population. In view of these conditions, we have no hesitation in recommending the rapid extension of irrigation to remote districts in Sind and the Punjab, however free they may be from liability to famine, and however scanty their population, as the principal means for giving to the country an additional food supply which is beyond the risk of drought, and for increasing the proportion of secure to insecure cultivation. One of the most remarkable features in the recent famine was the uniform level of prices all over the country, which is attributable to the ever-extending system of railways, and which, if it increased the area, greatly diminished the intensity of distress. By some it may be thought that the value of the latter result is much diminished by the effect of the former, but if new grain-producing centres can be established in districts which are themselves remote from all danger of famine, the railways which transport their produce to the regions in which scarcity and distress prevail will be an unmixed blessing to all. The completion of the Southern Punjab and other railways will render the grain that may be grown in Sind or the Southern and Western Punjab almost as valuable a reserve for Northern, Central, or Western India as if it had been grown in these regions. The demand for export, which is by some viewed with apprehension, will stimulate and encourage the cultivation in these newly-irrigated tracts, but as that demand contracts or ceases on the rise of prices in India, due to the approach of famine, the produce will be available for consumption within the country. Moreover, as the amount of exports depends on other considerations than the quantity of grain in the country, much of this new produce will, even in ordinary years, remain and form a permanent addition to the food supply.”

The famine has, as was inevitable, suggested a large number of alterations in the famine codes, and with these the Commissioners deal in detail. Their other recommendations relate (1) to the famine insurance grant; they consider that it should be regularly maintained at a rate of 1½ crores per annum, and that the portion of it which is available for the construction of protective works should be devoted for the most part, if not wholly, to irrigation; and (2) to the nature and object of irrigation works which should be selected, while they recommend that minor irrigation works in the districts liable to famine should be undertaken, they express their views as to the desirability of major works in the following paragraph :—

FAMINE.

"The general conclusions we are disposed to draw are, that it may be said of India as a whole that of late years owing to the high prices there has been a considerable increase in the incomes of the landholding and cultivating classes, and that their standard of comfort and of expenditure has also risen. With a rise in the transfer value of their tenures, their credit has also expanded. During the recent famine these classes, as a rule, have therefore shown greater power of resisting famine, either by drawing on savings, or by borrowing, or by reduction of expenditure, than in any previous period of scarcity of like severity. Whether it can be safely said that they have much improved in thrift, that is, in the accumulation of capital, seems open to doubt. There is some evidence to the effect that the export trade and the improvement of communications have tended to diminish the custom of storing grain, as a protection against failure of harvest, which used to be general among the agricultural classes. The skilled artizans, excepting the weavers, have also greatly improved their incomes and their style of living and very few of them required relief. The commercial classes, whose numbers are relatively small, are not generally injuriously affected by famines of short duration. The poorer professional classes suffered severely from rise of prices, but do not come on famine relief. Beyond these classes there always has existed, and there still does exist, a lower section of the community living a hand-to-mouth existence, with a low standard of comfort, and abnormally sensitive to the effects of inferior harvests and calamities of season. This section is very large, and includes the great class of day labourers and the least skilled of the artizans. So far as we have been able to form a general opinion upon a difficult question from the evidence we have heard and the statistics placed before us, the wages of these people have not risen in the last twenty years in due proportion to the rise in prices of their necessaries of life. The experience of the recent famine fails to suggest that this section of the community has shown any larger command of resources or any increased power of resistance. Far from contracting, it seems to be gradually widening, particularly in the more congested districts. Its sensitiveness or liability to succumb, instead of diminishing, is possibly becoming more accentuated, as larger and more powerful forces supervene and make their effects felt where formerly the result was determined by purely local conditions."

PLAGUE.

PLAGUE.

In last year's Statement was given an account of the plague epidemic in Western India; the narrative was brought down to the end of 1897; and some account was given of occurrences during the early months of 1898.

Up to the end of 1897 the total number of plague deaths reported from the Bombay Presidency had been 57,943; probably the real total was considerably above this figure; the proportion of deaths to cases had ranged from 63 to 94 per cent.; only a very few sporadic cases had occurred outside the Bombay Presidency; and plague never appeared among the millions of famine-stricken people who were receiving relief in many parts of India during the nine months ending in September 1897. Severe precautions were being taken to prevent plague being carried to new places, either in India or beyond the sea; a large outlay was being incurred on the mitigation and prevention of plague; and the epidemic had contributed to cause a large shrinkage in the external trade of India, especially of Bombay. The beginning of January 1898 found the plague epidemic established in Bombay, Poona, Satara, Surat, Nasik, Sholapur, Belgaum, Ahmednagar, Baroda, and six other places or districts in the Bombay Presidency. The reported plague deaths of the first week of January in the Bombay Presidency were 1,318, while for the same week 11 plague deaths were reported from the rest of India. The plague deaths rose rapidly in Bombay city until the middle of March, when 1,228 deaths a week were reported; the mortality then fell, reaching its lowest, 25 deaths a week, in June, as compared with three deaths a week in July 1897. From July 1898 the deaths again increased; they reached 146 a week by the end of December. Early in 1899 there was another severe outbreak, the plague deaths of Bombay reaching 1,120 a week at the end of March 1899. Karachi was absolutely free from plague for eight months ending March 1898, when another severe outbreak occurred, culminating in 480 deaths a week in the first half of May.

As the year went on, the epidemic abated considerably during the hottest months, but it spread to new districts, and before the end of the year 1898 the epidemic had been very severe in the districts of Satara, Dharwar, Belgaum, Kolhapore, and parts of Kathiawar. It was serious in four other districts. In October 1898 the Belgaum district returned 1,295 plague deaths a week, and in November the Dharwar district returned 2,358 deaths in one week. The worst week was in October, when 5,078 plague deaths were reported from the Bombay Presidency. The total reported deaths for the year from the whole Presidency were 104,881, while 28,103 more were reported during the first three months of 1899. Thus the reported plague deaths from the Bombay Presidency, from the beginning of the plague in September 1896 down to the end of March 1899, a period of 2½ years, were 191,000.

Wherever plague broke out, medical men and women and nurses were sent, hospitals were organised, disinfection of houses was carried out, and in the rural districts whole villages were evacuated, the people migrating into temporary booths erected at some distance from their villages. In the Dharwar district more than three-quarters of the villages attacked were thus evacuated. Perhaps the most notable instances of these operations were Sholapur, a town of the Bombay Deccan, where 25,000 people were moved out bodily into a town of booths, while their houses were thoroughly disinfected; and Kophal, a town in the Hyderabad territory, containing 18,000 people. The report says that "six fatal cases of plague occurred in the town; the evacuation began on the 25th January, and was completed by the end of the month, a large camp of substantial bamboo and grass huts having been erected in the interval. The evacuation is said to have been entirely spontaneous, and was effected, including the erection of the camp, by the people themselves." In very few instances did the people object to evacuation of this kind; everywhere the plague was stayed by the process; and in very few cases did the disease reappear after the return of the inhabitants to their disinfected homes. But evacuation was not in many cases so prompt as at Kophal, and complete evacuation was impossible in large cities like Bombay, Calcutta, or Poona; but in such places every infected house was almost invariably evacuated for disinfection. To some of the plague precautions serious objection was, ignorantly or otherwise, taken by the people; and riots, accompanied in some cases by attacks on plague officers, occurred in Bombay, Calcutta, Poona, Hurdwar, Rahon in the Punjab, in the Nasik district, and at some other places. Now that plague has been epidemic for three years in succession, the tendency is to relax some of the severe precautions which at one time were adopted in the interior of the country, while at the same time enforcing to the full all prescribed precautions against the carriage of plague by steamers or other vessels to places outside India. In the exercise of these precautions many hundreds of thousands of sailors and passengers have been examined by special medical officers at the seaports before they were allowed to depart from India. The number of plague cases known to have occurred on ship-board after the departure of vessels from India has been extremely small. Outbreaks of plague have been reported from Jeddah, the Mauritius, and Madagascar, but in no case did the disease become epidemic.

The year 1898 and the first four months of 1899 have been marked by the spread of plague into Mysore, the Nizam's territory, the Panjab, Bengal, and the Central Provinces. But Bangalore, Mysore town, parts of some districts in the Mysore State, and parts of three districts in the Hyderabad country, are the only places or tracts outside the Bombay Presidency in which the disease has assumed epidemic form. The total plague deaths reported outside Bombay Presidency from 1896 down to April 1899 have been, approximately,—

Bengal	-	-	-	-	953
North West Provinces	-	-	-	-	117
Central Provinces	-	-	-	-	133
Panjab	-	-	-	-	1,920
Madras	-	-	-	-	1,804
Mysore State	-	-	-	-	9,046
Hyderabad State	-	-	-	-	4,764
Central India and Rajputanta States	-	-	-	-	135
					18,872
					18,872

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PLAGUE.

These, added to the total number reported from the Bombay Presidency, make a grand total of about 210,000 reported plague deaths. Probably the real total is larger, and may amount to between 250,000 and 300,000 in all during the 2½ years for British India and Native States. The loss of life from plague is, so far, much less serious than the loss from cholera, which, during the 10 years 1883-92, numbered from 762,695 (the highest figure of the decade) to 208,371 (the lowest figure of the decade) victims a year in British India alone.

In November 1898 a Plague Commission, consisting of three medical experts from the United Kingdom and two Indian officials, was appointed to investigate plague questions in India. After visiting all the plague-stricken provinces, making scientific investigations, and taking evidence, the Commission returned to England at the end of April 1899, and their report will be submitted to the Government of India during the summer of the present year (1899).

CHAPTER III.

CRIME AND POLICE.

The sanctioned strength of the District Executive Police at the close of 1897 was 23,788 of all ranks. The railway police, in addition, numbered 654, and the military police 300. These numbers give a proportion of one policeman to 2,880 persons, which is one-third the proportion in Bombay, and considerably less than half the proportion in the other provinces excepting Assam. The difference is as marked with respect to the proportion of police to cognisable crime investigated. In Bengal the proportion is one to 4·3 cases; in the North-West Provinces and Oudh, where, with a much smaller population, the cases investigated are about the same in number, the proportion is one policeman to 2·8 cases.

The expenditure on the force in 1897-98 was Rx. 528,328, or Rs. 24,408 more than in 1896-97, and Rs. 39,928 over the budget grant. Of this excess, Rs. 27,314 represents compensation for dearness of provisions.

Under recent rules for the more careful selection of subordinate officers, a much better-educated class is recruited; as many as 84·5 per cent. of officers are now educated; the proportion of educated men in the rank and file being 24·6 per cent. The police training school was maintained in a high state of efficiency. The range of subjects taught, in addition to law and criminal procedure, includes drill, surveying, anthropometry, finger print decipherment, &c. Athletics are encouraged, and cricket and football matches are played against neighbouring schools, and annual sports are held.

It has been found to be necessary to raise the pay of the town police in order to attract suitable recruits. A self-checking system of patrol has been tried with satisfactory results, and introduced in many districts, in place of the old system of watch and ward, which did not work well. Its more general introduction is in places obstructed by the defective street lighting and by the many other calls on the resources of municipalities.

The rural police number 160,000 men. Their position has been very much improved of late years, and the office of *chaukidar* has in consequence risen in general estimation. Formerly this body was unprovided with officers. Within the last three years, by an amendment of the Police Act, any specified area or group of dwellings can be formed into a statutory village; petty officers, to the number of over 3,600, have been provided as intermediaries between the village watch and the regular police, and many more will be appointed. A maintenance of the present rate of progress will ensure a reform in *chaukidari* arrangements, which will be greater than has been effected in any other branch of the criminal administration, and very beneficial to the community.

A new station-beat system, by which the police are made better acquainted with all that is going on in their jurisdictions, has been fully introduced in almost all districts, and has already secured the following results:—(1) the arrest of absconders and thieves, (2) the discovery of unreported cases of burglary and theft, and (3) the prevention of disturbances by bringing to notice local dissensions and unrest likely to cause breaches of the peace.

In certain divisions and districts members of the village police are detailed for the patrol of roads used for commercial, pilgrim, or mail traffic which pass through jungles and over hills. Rivers, also, that serve as trade routes between Eastern Bengal and Calcutta are patrolled by the police.

The Bengal Military Police, a smart and well-conducted force, consists of three companies, who maintained the peace during the Muharram and after the Calcutta riots. They enlist under a three years' engagement, and are consequently more to be relied on than ordinary constabulary, who can resign by giving two months' notice. The service is popular, and most of the men renew their engagement. Of the various forms of athletic sports which are encouraged among them, wrestling is the most popular.

CRIME AND POLICE.

In the last three years the casualties in the force from all causes have been 10·6, 9·4, and 8·3 per cent.; the number of deaths, however, in 1897 (552) representing an increase from 2·13 per cent. to 2·25.

A well-considered diminution in the number and severity of departmental punishments, which was opposed at first by many officers, has not brought about any relaxation in discipline; on the contrary, there is less discontent and more ready obedience to regulations than formerly.

Of late years the police have succeeded in securing the conviction of a larger proportion of criminals than in any corresponding period; they have acquitted themselves creditably throughout the time of unrest which has more or less prevailed since Hindu fanaticism, first excited by the appeal to their religious feeling in the matter of the sacrifice of kine, gradually brought about counter demonstrations on the side of the Musalmans. On no occasion have they been overpowered by a mob, or shown any inclination to side with co-religionists.

The number of deaths by suicide among the general population increased from 3,154 to 3,366, and accidental deaths reached the large figure of 46,412, or 58 per cent. higher than in 1896; 25 reported cases of accidental death proved on inquiry to be murder.

*Cognisable crime increased more than 25 per cent., four-fifths of the increase consisting of petty offences against property committed by persons under stress of hunger. The police investigated 75·5 of the number reported, against 78·0 per cent. in 1896, and 75·2 per cent. in 1895, or omitting sanitary offences, the figures for the three years are 70·5, 72·3, and 67·7 per cent. respectively.

North-Western
Provinces and
Oudh.

The year was one of exceptional difficulties in this province, and the strain on every branch of the police force was severe. Apart from the famine and the precautions taken against the spread of the plague, there was a serious increase in crime calling for investigation by the police. Though many of the offences reported were petty thefts and burglaries, connected with the scarcity and high prices, there was also a considerable increase under the head of graver crimes. Dakaiti was rife in many districts, chiefly those adjoining Native States, and was accompanied by the increased use of firearms. Efficient assistance in breaking up the gangs was rendered by the authorities of the Rampur and Gwalior States. The police were, on the whole, remarkably successful, not only in tracing and bringing to justice offenders of this class, but also in preventing crime by the arrest of armed gangs. There was a general increase in cattle theft, which was on the whole well met by the police, as shown in a substantial increase of convictions. Cattle poisoning was more prevalent owing to the demand for hides and the poverty of the village *chamárs*. There was an increase also in other heinous crimes, especially homicide and kidnapping.

The total strength of the Provincial, Municipal, and Railway Police, amounting to 25,711, was rather higher than in 1896, and 7,524 of them carried firearms. Progress was made with various reforms, including the raising of the pay of subordinate grades, at a cost of 2 lakhs of rupees, which increased the total expenditure from Rx. 523,937 to Rx. 546,320.

Judging from the smaller number of punishments the discipline and efficiency of the force showed considerable improvement. Four charges of torture were, however, brought against the police, all of which ended in conviction.

Punjab.

The sanctioned strength of the Punjab police in 1897 was 19,819 of all ranks, or, roughly, one to five square miles. All but 90 were natives of India. The estimated cost of the force was Rx. 353,224, of which Rx. 295,133 was debitable against imperial or provincial revenues. With a very slight decrease in the ratio of convictions to cases reported (33 per cent.), the percentage of persons convicted to those put on trial rose from 58 to 62. The force did excellent service in connection with the frontier disturbances and with the plague operations in the Jullundur Division.

Burma.

The sanctioned police force of Burma was reduced from 13,859 to 13,545, and the total cost of its maintenance was Rx. 375,674. The actual force was, at the end of the year, 4·4 per cent. under sanctioned strength. The general conduct of the men was above the average, as shown by a decrease (20 per cent.) of punishments, and an increase (12 per cent.) of rewards. The propor-

* Cognisable offences are those for which the police can arrest without warrant.

tion of illiterate men remained at about 20 per cent. The training schools show progress, the number of constables passed through them during the year having increased from 6,431 to 6,839. CRIME AND POLICE.

The total number of true cases of cognisable crime disposed of in 1897 was 48,484. Crimes of violence again diminished in number, though such crimes and also cattle theft were prevalent in Tharawaddy and Hanthawaddy districts, and dacoity and the frequent use of firearms by dacoits, in the Akyab district. With judicious management village headmen are generally able and willing to render the greatest assistance to the magistracy and police, and it is an important part of the duties of a district superintendent to do his best to secure their aid.

The sanctioned strength of the railway police was raised to 347, but the force was 38 short of that number at the end of the year.

The military police force was reduced to 15,167 men, and the expenditure to Rs. 420,646. Their conduct was generally good. The only fighting was in the Wa country, where six men were killed.

Excluding public and local nuisances, the number of offences reported in 1897 was 47,801, an increase of 37 per cent. upon the figure for 1896, and more than double that for 1893, which stood at 19,555. The effect of the distress which prevailed during the year is apparent in the much larger number of offences against property, the crime being mostly of a petty nature. Murders and dacoities were considerably more numerous, but the latter were generally cases of grain looting by starving villagers, and were seldom accompanied by violence. Of the 231 murders of the year, 45 more than in 1896, 10 were by dacoits and 71 by robbers, the majority of the latter being attributable to famine and distress, and eight were murders of reputed wizards and witches. In 1896, compared with 1895, dacoities trebled; in 1897 they further increased by 37 to 161. Famine again was responsible to a great extent for the increase of robberies from 185 in 1896 to 268 in 1897, many of the cases being robbery of grain from men and women returning home from markets in the neighbouring villages. There was no renewal of the serious outbreaks of lawlessness and the grain riots which occurred in 1896. Central Provinces.

Though there was a slight diminution in the ratio of investigations to reports, 34 per cent. more cases were investigated in 1897 than in the preceding year, and there was an improvement in the number of convictions and in the amount of property recovered. These results, though largely due to the open way in which much of the crime against property was committed by distressed people, and the consequent ease with which it was brought home to the offenders, were nevertheless creditable to the police, the more so that their work was greatly augmented, not only by the increase of theft, but also by duties of an extremely arduous nature incidental to famine relief.

The district executive police numbered 8,121 of all ranks, the average pay of the mounted and unmounted constables being Rs. 21.12.0. and Rs. 7 per month respectively. There were also 381 railway police of all ranks.

The sanctioned strength of the police force in Assam at the close of 1897 was as follows:—Military police, 2,942 of all ranks; civil, 2,298; union, 15; rural, 6,993; in all 12,248. The cost of the military and civil police increased from Rs. 140,895 to Rs. 148,918, owing chiefly to the greater cost of free rations and compensation for the high price of food grains. The cost of the rural police, which is paid by the villages, was Rs. 32,651. The conduct of the force was good, but the resignations were more numerous than they should have been. The percentage of convictions was 78.9 of the cases decided, and that of tried cases to cases reported was 84.2, representing one offence to 422 of the population. Assam.

The strength of the police force of the province consisted, as in 1896, of nine gazetted officers, 563 subordinate officers, and 2,326 constables. The total expenditure amounted to Rs. 55,601. Berar.

Owing to the famine, which was severely felt throughout the first three quarters of 1897, cognisable crime (exclusive of nuisance cases) increased greatly, the number of cases being nearly double that of any of the preceding four years, and the increase being distributed among all classes of offences.

CRIME AND POLICE. The number of murders increased from 39 to 49, of which 21 were connected with robbery, the significant feature being that in several instances the property, for the sake of which the crime was committed, was of trifling value. The increase of dacoity was very marked. The number of housebreakings also rose from 1,185 in 1896 to 3,147, and in a large proportion of these also the value of the property taken was small.

The working of the police was satisfactory during a year in which the strain upon their services was exceptionally severe. Of the cases that occurred 82 per cent. were investigated by them, and in 60 per cent. of these cases convictions were obtained. The proportion of stolen property recovered was 31·3, against 28·1 in 1896.

Madras. The actual strength of the executive police force in Madras (22,815) and its cost (Rx. 437,409) were somewhat less than in 1896, giving a proportion to population of one policeman to 1,689, and an average cost of Rs. 194·5·5., or not two annas per head of the population. The proportion of men able to read and write increased from 85·7 to 86·4.

The number of violent deaths rose from 12,401 to 13,969, of which 2,208 were suicides and 11,043 were accidental. There were 9,789 fires, and property worth 14½ lakhs was destroyed and 153 lives were lost; these figures are much more favourable than those for 1896.

The high prices were the cause of a considerable increase of crime under the penal code, but under special and local laws there was a decrease. As might be expected in a year of distress, there were more dacoities, robberies, and cases of housebreakings and thefts of cattle.

Bombay. The strength of the police, including Aden, was 24,214, an increase of 691 being due to the inclusion of the Abkari force among the Mofussil police. For the same reason the cost of maintenance rose from Rx. 499,434 to Rx. 529,441.

The number of cognisable cases reported in the whole Presidency, excluding Aden, rose from 67,405 in 1896 to 72,930, the decrease both in the city of Bombay and in Sind being in the less serious offences. In the Mofussil an increase in actual crime under all the important heads testifies to the severity of the distress from scarcity during the year. Murders increased from 182 to 234, dacoities from 317 to 589. The rise extended to all the divisions of Bombay, and was especially remarkable in the central division. Khandesh alone accounted for 234 cases against 108 in 1896.

Robberies increased from 248 to 406, housebreaking from 2,441 to 3,694, thefts from 4,610 to 7,116. In Sind the number of murders rose from 50 to 73, and dacoities from seven to 13, but there were fewer robberies and cases of housebreaking.

Of the total number of cognisable offences, 59,934, or over 82 per cent., were investigated by the police, and of the 58,745 persons who were arrested by the police in connection with cognisable cases 76·9 per cent. were convicted, against a percentage of 82·89 in 1896. In the city of Bombay the police had heavy extra duties in connection with the plague, which would account for the convictions falling off from 93·12 to 89·35.

Non-cognisable offences amounted to 179,632, or 13,830 more than in 1896, the increase being almost wholly confined to the Central Division, Ahmednagar alone contributing 14,095 cases relating to non-payment of municipal taxes.

In the city of Bombay the police force numbers 2,232 officers and men, or one to 452½ of the population. The falling off in the less serious offences was partly due to the absence of persons from Bombay on account of the plague, and partly to the excessive strain put on the police by extra plague duties, to which their ordinary work had to give way.

The railways, upon which a force of 2,121 police is employed, are the Great Indian Peninsula, the Southern Maratha, and the Bombay-Baroda and Central India and Rajputana-Malwa Railways.

Coorg. The police force for the protection of this small province, which has an area of 1,582 square miles, amounted to 226 officers and men, or one to nine square miles, and 995 persons. Only 174, however, were actually engaged in the

prevention and detection of crime. The convictions rose from 52 to 55 per cent. of the persons arrested. CRIME AND POLICE.

The conduct of the police was not as satisfactory as could be wished, but it is explained that owing to the low rate of pay it is difficult to get suitable recruits. The force was maintained at a total cost of Rx. 3,088.

CRIMINAL JUSTICE.

The total number of offences reported in Bengal during the year increased from 351,882 to 355,448, offences against property showing a large increase, mainly due to the famine. There was also a considerable increase in rioting, and the question of preventive and police measures in Calcutta and its neighbourhood was under consideration. There were 373 murder cases which were returned as true, and the conviction of 137 persons was a distinct improvement on that of 134 persons in the preceding year, when there were 406 true cases. Calcutta continues to show a large increase in reported crime, the figures having increased steadily from 39,558 in 1894 to 53,166 in 1897, or nearly 33 per cent. in three years. The total number of cases brought to trial rose from 197,837 to 203,730, and the number dismissed on complaint fell from 44,975 to 42,029; 274,182 persons were tried for all offences, against 265,231 in 1896, but the percentage of convictions fell from 66·1 to 65·8. CRIMINAL JUSTICE.
Bengal.

At the close of the year there were 424 stipendiary magistrates of varying powers, including the district magistrates, and 2,003 honorary magistrates, excluding in both cases Calcutta. The former disposed of 166,356 cases, reducing the number undisposed of at the close of the year from 4,380 to 4,196. The latter tried 49,571 cases. The average duration of each case in the courts of the several classes of magistrates rose from nine days to 9·6. Taking into consideration the additional work caused by the famine and scarcity which prevailed over many districts, the outturn of criminal work was creditable.

The number of cases committed to the courts of sessions, or referred to the sessions' judges, rose from 1,755 to 1,875, and the number tried from 1,711 to 1,835, leaving undisposed of at the close of the year 324, against 305 in 1896. The average duration of trials rose from 48·1 days to 50·2 days, while the percentage of persons convicted to the number tried fell from 61·6 to 59·9.

The number of persons tried by jury rose from 593 to 848. The sessions judge agreed with the verdict of the jury in respect of 796 persons, and differed from it in respect of 52, the percentages being 93·8 and 6·2 respectively. The number of persons tried with the aid of assessors was 2,412.

The number of appeals before the High Court from the various criminal courts of the province, including those pending, rose from 946 in 1896 to 1,073, and the number decided from 854 to 1,009. The judgment of the lower courts was affirmed in 759 cases, reversed in 67, and modified in 175; the percentage of appeals in which the judgment of the lower court was affirmed to the total number of appeals decided was 75·2, against 82·6 in 1896. Appeals to sessions judges rose from 7,800 to 8,706, while those to district magistrates fell from 5,694 to 5,636. The percentage of decisions confirmed to decisions appealed against fell in the case of appeals to sessions judges from 51·77 to 50·86, and of those to magistrates from 61·58 to 60·42.

A large increase in the number of sentences to whipping, from 2,266 to 4,030, was probably due to the large number of petty offences against property during the year. In 1896 the number of persons sentenced to imprisonment by magistrates outside Calcutta and by courts of session was 27,560 and 1,648 respectively. In 1897 the numbers were 34,499 and 1,829, and the sentences generally were more stringent.

Although the North-West Provinces and Oudh have, for legislative purposes, been united, Oudh remains technically a "non-regulation province," and its judicial statistics are separately presented. North-West
Provinces.

CRIMINAL JUSTICE

In the North-West Provinces 145,663 offences were reported, of which 120,061 were returned as true, and 108,229 were brought to trial. In spite of the famine, the number of offences reported was only a few hundred more than in 1896, but there was a satisfactory improvement in the number found true and brought to trial compared with 1896. The proportion of persons convicted to those brought to trial rose from 56 per cent. in 1896 to 61 per cent. in 1897, theft and hurt being the offences with which 55,229, or one-third, of the 169,241 who were brought to trial were charged, this proportion being the same as in 1896.

Of 107,373 cases disposed of in the several classes of magistrates' courts, 19,772 cases, or about 17 per cent., were tried by honorary magistrates, who continue to render efficient assistance to the administration. The average duration of cases in all the magistrates' courts was reduced from 7·2 to 6·4 days, a creditable result in a year when, besides having an increased number of criminal cases to deal with, magistrates were hard worked in connection with famine relief.

Sessions judges, with the assistance of two additional judges for part of the year, disposed of 2,921 out of 3,134 cases for trial, the corresponding figures for 1896 being 2,366 and 2,705, and they reduced the list of 308 cases pending at the close of that year to 235 at the close of 1897.

Sentences to death increased from 88 to 152, and to transportation from 332 to 573. A considerable rise in the number of short-term sentences was due to magistrates passing light or nominal sentences in the case of hungry offenders, and a similar increase of long-term sentences is accounted for by the serious outbreaks of dacoity in several districts with which the Sessions Courts had to deal. Whipping (the punishment of juveniles and first offenders) was inflicted in 17,187 instances, or 38·40 per cent., of possible cases, being an increase of 54·5 per cent. compared with 1896. It is generally recognised that this form of punishment is preferable in such cases to short terms of imprisonment; 94 per cent. of the sentences were in lieu of other punishment; 91·9 were on first convictions.

Of 18,062 appeals during the year, 3,872 were to courts of magistrates, 12,420 to Courts of Session, and 1,770 to the High Court, and the numbers disposed of were respectively 3,854, 12,543, and 1,687, after an average duration of 14, 16, and 32 days. The sentences appealed against in the several classes of court were upheld against 67·5, 79·8, and 84 per cent. respectively. In the Courts of Session the pending file has been reduced from 462 in 1895 to 165 in 1897, and in the High Court from 111 in 1896 to 83.

Oudh.

As in the North-West Provinces, the returns of offences were but slightly heavier than those of 1896, which were the lowest for some years past. The number of cases brought to trial, 40,572 out of 50,765 reported, though exceeding by 3,075 that of the previous year, was lower than that of 1895, when the provinces were free from famine. The percentage of persons convicted to persons brought to trial for offences against the penal code rose from 44 in 1896 to 54 in 1897, and the total percentage of convictions for all offences from 51 to 59. To a greater extent than usual the offences were of a simple description, easily capable of proof, and mainly under the head of offences against property. On the other hand there was a decrease in the number of cases causing hurt, due probably to the population being too much occupied in the struggle against famine to bring their petty grievances into court.

With a larger number of cases to dispose of, the number of cases pending at the close of the year was smaller than in 1896. The percentage of convictions in magistrates' courts rose from 50 to 59, though with honorary magistrates, who disposed of 21 per cent. of the total number of cases, the percentage of convictions fell from 59 to 23. Sessions judges, including two additional judges who were employed for part of the year, disposed of 706 cases, against 656 in 1896, and reduced the number of cases pending from 108 to 67.

Appeals to the Court of Session increased from 3,854 to 4,328, and the proportion in which the sentence of the Lower Court was modified or reversed was reduced from 23·7 to 17·6 per cent.

In the Judicial Commissioner's Court the work was the heaviest since 1891; appeals, 955, were nearly 59 per cent. more numerous than in 1896, the

sentence being upheld in 83 per cent. of the cases as compared with 78 per cent. in 1896. CRIMINAL JUSTICE.

Though in the Punjab the total number of reported and admitted offences fell from 192,652 and 133,232 respectively in 1896 to 187,084 and 128,880 in 1897, serious crime was more prevalent than in any of the preceding five years. This, as a rule, was due to the special circumstances of the year; the magistrates, from the same cause, having less time and inclination, and the people less desire, for prosecutions under local and special laws. In Umballa there is said to be a growing tendency on the part of petition writers to try and turn civil suits into criminal cases, and to lend as grave an aspect as possible to every complaint. In the new colony on the Chenab Canal, a considerable increase of violent crime is attributed, in part, to difficulties in making the administration keep pace with the large increase in population. After Simla, where the offences of all kinds were 61 per thousand of the population, the district with the worst record is Kohat, with 11 offences per thousand. Punjab.

The number of complaints under the Penal Code dismissed after reference to the police has diminished in four years from 10,226 to 8,128, showing either that the magistrates send fewer cases to the police for preliminary investigation, or that the police succeed in finding a greater proportion of the complaints sent to them to be true.

The worst feature of the report is the steady increase in the number of murders. In 1897 there were 655, or 24 per cent. above the average for the preceding five years. While in Ferozpur there was a decrease from 48 in 1896 to 27 in 1897, and in Bannu from 67 to 48—in Jhelum, on the other hand, murders increased from 24 to 35; in Kohat, from 27 to 37; in Rawalpindi, from 51 to 60; and in Peshawur, from 95 to 133. The large increase in the last instance was mainly due to the disturbed state of the border, but partly also to a change in the system of enumerating murders, the death of each person, where more than one is killed, being now treated as a separate murder.

In the last three years prosecutions under the Forest Act have fallen from 976 to 372, owing, no doubt, to large tracts having been thrown open to grazing, and to a feeling on the part of officers that leniency should be shown in a time of agricultural distress. Similarly, there were fewer persons convicted than in 1896 under the Canal and Drainage Act and the Cattle Trespass Act.

Convictions in Magistrates' Courts fell to 30 per cent. of the number of persons disposed of, this being the lowest figure recorded since 1890; and the pending file at the end of the year was unduly large. A diminution in the number of cases tried by district magistrates in Lahore, Ferozpur, and Rawalpindi is accounted for by the increasing burden of district work causing the transfer of many of their cases to the Sessions Courts. For this reason mainly, the cases disposed of by those courts increased from 476 to 611; on the other hand, the percentage of convictions fell from 60 to 46; in murder cases the ratio was 31 per cent. only.

With regard to punishments, sentences of death were passed by the Sessions Courts in 146 cases, and confirmed by the Chief Court in 112. In 1896 only 69 such sentences were confirmed out of 130. There was a satisfactory decrease in sentences of fine with or without imprisonment, and an equally satisfactory increase in the number of sentences of whipping, a punishment which is not imposed as being a more severe punishment, but as being more appropriate in a large number of cases.

The number of persons who appealed (21,883) represents a fall in the percentage of actual to possible appeals from 38 to 28. Of these, 11,787 appealed to District Magistrates, 9,068 to Sessions Judges, 1,028 to the Chief Court; the numbers in 1896 having been 13,502, 8,336, and 863 respectively. In the District Courts the number of unsuccessful appellants was 59 per cent. of the whole; in the Sessions Courts it was 65 per cent. In the Chief Court the proportion of nearly 72 per cent. of unsuccessful appellants was attributed by the judges to improved working on the part of the police.

The number of cases in Burma which were returned as true increased from 64,295 in 1896 to 66,572, mainly owing to the large number of petty prosecutions in Rangoon, where, on the other hand, there was a satisfactory diminution of serious crime. Burma.

CRIMINAL JUSTICE. The proportion of offences found on investigation not to be true increased both in Upper Burma and Lower Burma, in the former from 5·7 to 10·2 per cent.

The number of cases brought before the tribunals rose from 65,728 to 68,623. Of 114,497 persons under trial, 70,359, or 63·21 per cent., were convicted. Much assistance was rendered by honorary magistrates in Lower Burma, especially at Rangoon, Mandalay, and Moulmein. In Rangoon the proportion of convictions rose to 74·83; but with this exception convictions fell off somewhat, the net result being, as stated, 63·21 per cent. for the whole province, and for several districts much less.

Of the 70,359 who were convicted, 51,133 were sentenced to fines amounting in the aggregate to Rs. 56,849, of which 83·48 per cent. was realised; 13,119 to rigorous imprisonment, and 3,711 to whipping.

The Recorder of Rangoon, sitting as a court of session, tried 28 persons, of whom 24 were convicted. In other Sessions Courts of Lower Burma 722 persons were tried, of whom 497 were convicted. Sessions Courts in Upper Burma tried 175 persons, and convicted 115. Appeals decreased considerably in Lower Burma, and increased slightly in Upper Burma, the proportion of unsuccessful appeals in the former being 74·81. The number of criminal appellants whose cases were disposed of by the Judicial Commissioner, Lower Burma, was 622, and by the Judicial Commissioner, Upper Burma, 166, against 586 and 136 respectively in 1896.

Central Provinces. Reported cases in this province increased from 32,063 in 1896 to 35,428, and the number of true cases from 29,106 to 33,611, or 94·8 of the cases reported, a proportion which has not been exceeded in 10 years. The increase in crime was practically confined to cases cognisable by the police, and the great bulk of it was petty.

An addition of seven third-class magistrates increased the number of stipendiary magistrates to 152; and there were 251 honorary magistrates, a decrease of four. Of 61,310 persons brought before the magistrates for trial 41,878 were convicted or committed, the proportion of convictions being 68·3 per cent, against 61·6 in 1896. This improvement indicates the simple character of the cases; and it is probable that petty crime was often committed for the sake of the shelter and food to be obtained in jail.

The number of persons punished in Magistrates' Courts increased from 30,429 to 39,791, or 37 per cent. in the year. Punishment with fine decreased 16 per cent. Sentences to whipping increased 13 per cent., and imprisonment 3 per cent.

The four sessions judges (who are the Commissioners of Division) were assisted by three additional judges. The number of persons disposed of in the Sessions Courts increased from 341 to 610, but the percentage of convictions fell from 73·9 to 64·4.

The number of appeals disposed of during the year by District Magistrates was 1,070, by Courts of Session 1,838, and by the Judicial Commissioner 314.

Assam.

Reported offences in Assam fell from 32,047 to 29,384, of which 21,773 were accepted as true, the proportion, 76·4, being the same as in 1896. The decrease occurred chiefly in the districts where the earthquake was felt most severely. Where there was an increase, as in Goalpara, it is attributed to the incursion of famine-stricken people from other districts. Of Sylhet it is remarked that for two months after the earthquake the people were too much concerned with looking after their own affairs to seek redress against petty wrongs in the courts.

Murders increased from 35 to 41, in respect to which 17 persons were convicted; dacoity, from eight cases to 11; theft, from 1,245 to 1,539. As for the rest of the offences amenable to the Penal Code, there was a general diminution; the same being the case with offences under special or local laws.

In the 13,867 cases which were brought to trial, 22,005 persons were implicated, of whom 12,646 or 59·4 per cent. were convicted, representing 1 in 393 of the population.

Bengal.

The number of Criminal Courts open during the year was increased from 68 to 77, and there was a corresponding increase of criminal business, the number of offences brought to trial being 15,874 as against 13,868 in 1896, a rise of

2,006, or 14·4 per cent. Of the 29,554 persons who were concerned in the cases for disposal during the year, 29,137, or 98·5 per cent., were dealt with, 13,781 being discharged and 13,402 convicted; 20 were sentenced to death, 17 to transportation, and 3,395 to imprisonment; 7,585 were fined, and 3,711 were sentenced to be whipped. Offences affecting the human body decreased from 5,349 to 4,357, but offences against property increased from 2,750 to 5,172, or 88·1 per cent.

CRIMINAL JUSTICE.

The average duration of cases disposed of was 9·5 days, against 8·4 in 1896. The number of witnesses was 57,403, of whom 74·2 were detained for one day only, 17·8 for two days, 5·2, for three days, and 2·8 for more than three days.

Thirty-eight cases, involving 103 persons, came before the Sessions Court in its original jurisdiction in 1896; in 1897 there were 72 cases, involving 162 persons, of whom 143 were disposed of. The percentage of convictions rose from 57·1 to 62·2, and that of acquittals fell from 41·7 to 36·4. The average duration of sessions cases rose from 51·8 days in 1896 to 54·9 days in 1897.

The number of appeals for disposal before the Courts of the Judicial Commissioner, the Civil and Sessions Judge, and the Deputy Commissioners, rose from 1,057 to 1,478, or 39·6 per cent., of which all but 74 were disposed of during the year.

In Madras City criminal jurisdiction was exercised by the High Court, two Courts of Magistrates, and the Court of the Commissioner of Police. In the Madras. Mofussil there were 5,666 Village Magistrates' Courts, 20 Courts of Session, and 720 regular Magistrates' Courts.

The number of offences returned as true was 301,304, or 2 per cent. less than in 1896; 470,418 persons were brought to trial, and the percentage of convictions under the Indian Penal Code was 25·2. The total number of original cases in all the courts (304,798, of which the Presidency town contributed 48,746) was 2,438 less than in 1896, and there were 10,687 appeals, an increase of 577.

The original cases disposed of by the regular magistrates numbered 244,032, affecting 407,411 persons, of whom the rather larger percentage of 46·6 were convicted; and of 8,405 appeals to these magistrates, preferred by 16,828 persons, 8,310 were disposed of; confirmation of the sentences of the lower courts being the result with respect to 49·1 per cent. of the 16,599 persons who preferred the appeals.

Sessions Courts disposed of 1,212 cases, against 1,083 in 1896, and the percentage of convictions rose from 42·2 to 45·7. As courts of appeal they disposed of 1,419 cases, or 308 more than in 1896; the confirmation of the sentences of the lower courts in 76·8 per cent. being a great improvement upon the percentage of 65·4 in 1896.

The Presidency Magistrates' Courts disposed of 48,701 cases, the percentage of convictions, 86·6, being lower than in 1896, when it was 88·5.

The High Court in its original jurisdiction disposed of 46 cases, and adjudicated in 22 cases in which the sessions judges disagreed with the verdicts of juries, and 70 cases in which capital sentences were submitted for confirmation; 68 of the 79 concerned in the latter were convicted, and sentence of death was confirmed with respect to 55.

As a court of appeal the High Court confirmed the sentences of the lower courts in 85·3 per cent. of the 769 appeals which were disposed of during the the year, the figures for 1896 being 596 and 78·1. The court also had 534 revision cases, perused 2,637 calendars, and disposed of 153 miscellaneous petitions.

Criminal jurisdiction was exercised in the Bombay Presidency by the following Bombay. courts:—

Regulation Provinces.

The High Court.	4 Presidency magistrates.
19 sessions judges and joint sessions judges.	116-first class magistrates.
4 assistant sessions judges.	219 magistrates of the second-class.
18 district magistrates.	195 magistrates of the third-class.
	15,160 police patels.

CRIMINAL JUSTICE.

Sind.

The Sadar Court.	37 magistrates of first-class.
4 sessions judges.	53 magistrates of second-class.
2 additional or joint sessions judges.	52 magistrates of third-class.
5 district magistrates.	

Of the High Court judges, five were Europeans and two natives; of 29 sessions judges and assistant sessions judges, five were natives, two of them being statutory civilians; of 198 first-class magistrates, 122 were natives; of 519 second and third-class magistrates, all but 13 were natives.

The total number of offences reported during the year was 258,610, of which 205,616 were returned as true. In 1896 the corresponding numbers were 263,303 and 226,112 respectively. The decrease occurred mainly under criminal force and assault, hurt and attempts and hurt, and mischief; on the other hand, theft, robbery, and dacoity were more prevalent; also receiving stolen property and offences under special and local laws. The ratio of offences to population varies greatly. Taking the districts in which they were most numerous, the ratio to population was in Bombay, 1 offence to 24, and Surat, 1 to 29, in both cases an improvement on 1896. In Ahmedabad, which was not affected by famine (1 to 36), and Broach (1 to 66), the increase was considerable; Poona was slightly worse than in 1896, with 1 to 66; Sholapur, (1 to 73), Kolaba (1 to 100), Canara (1 to 190), Belgaum (1 to 274), and Bijapur (1 to 384), all show a great falling off, and the latter district, which was the least criminal in 1896, gave place to Ratnagiri with 1 offence to 476 of the population.

The total number of persons under trial during the year, including those whose cases were undisposed of in 1896, was 326,862, or 6,877 more than in 1896, of whom 146,686 (about 45 per cent.) were acquitted or discharged, 103,741 (31·7 per cent.) were convicted, and 73,809 (22·8 per cent.) remained under trial at the close of the year; the proportion of acquittals and discharges to convictions in 1896 and 1897 being 63·62 and 64·88 per cent. respectively.

The number of persons brought to trial before the Court of Sessions rose from 2,302 to 4,216, and 169 were brought before the High Court and Sadar Court.

On the appellate side of the High Court there were 30 cases, involving 47 persons, for confirmation of sentence of death, and 12, involving 48 persons, were referred to the court by the sessions judges. Ninety-five persons were involved in these cases, of whom 24 were acquitted and 65 convicted, sentence of death being confirmed as to 41 persons.

The High Court on its original side passed six sentences of death, and 217 persons were sentenced to transportation. The number sentenced to imprisonment rose from 14,801 to 21,972.

Coorg.

The number of reported offences diminished from 3,761 in 1896 to 2,949 in 1897, of which 1,834 were returned as true, and, with 99 cases pending from 1896, were brought to trial, conviction being obtained in 24·70 per cent.

With regard to the rejection of the large proportion of 37·8 per cent. of the cases reported, it appears that 1,487 reported breaches of contract were reduced to 610, and 330 cases of theft to 175. These two heads, therefore, account for 1,032 out of a total of 1,115 cases rejected *in limine*. Every class of offence brought to trial in 1897 shows a considerable reduction in the number of cases compared with the number in 1896. Those against the person fell from 420 to 290; those against property from 504 to 426; other offences under the Penal Code from 504 to 354; and though the percentage of convictions on the whole number of cases was rather worse than in 1896, the convictions in the more heinous cases were more numerous.

With respect to the amount of work performed by the several classes of magistrates, it appears that the sessions judge disposed of eight cases; the district magistrate of 108; the magistrates with first-class powers of 41; the seven magistrates with second-class powers of 1,200; the 10 magistrates with third-class powers of 506. The average duration of the trials in all the courts was 15·02 days, against 14·11 days in 1896.

Compared with 62 appeals presented in the District Magistrates' Court and 18 in the Sessions' Court in 1896, the numbers in 1897 were 56 and 8 respectively, of which 6 were rejected; in 22 the sentence was confirmed, against 49 in 1896; in 17 it was modified, against 9; in 19 it was reversed, against 17; and the average duration of appeals rose from 18 days to 27.1.

CRIMINAL JUSTICE.

JAILS.

Jails suffered from the adverse conditions of the year in more ways, and to a greater extent perhaps than any other branch of the administration. The scarcity which had begun to be felt before the close of 1896, especially in two provinces, deepened, and spread to other provinces in 1897. Crime marched with want, and filled the jails to overcrowding, in spite of the leniency shown to those whom hunger had driven to petty theft. In Bombay the prevalence of plague added to the difficulties of the situation. The condition of the prisoners on their admission ensured a high rate of mortality. The cost of feeding the jail population was very much greater; the cash earnings of prisoners were very much less. It would appear from observations recorded by the Governments of Madras and Bombay and that of the North-West Provinces and Oudh, that crime was less prevalent, and that the jail mortality was lower in 1897 than in the years when those provinces were last visited by severe famine. In the opinion of the Government of India, the great difficulties which beset the jail administrations were on the whole well and earnestly met.

JAILS.

The number of jails and subsidiary jails in British India hardly varies from year to year. There were 40 central jails, as in 1896, 192 district jails, and 494 subordinate jails and lock-ups, of which 303 were in Madras alone.

Scarcity having appeared towards the close of 1896, the jail population, which at the beginning of that year was 101,061, had risen, by more than 8 per cent., to 109,935 at the beginning of 1897, of whom 106,552 were males and 3,382 were females. The number of admissions during the year advanced from 476,180 in 1896 to 568,348, an increase of 17 per cent.; and the daily average from 103,688 to 113,011.

The number of prisoners discharged during 1896 was 467,307, but in 1897 the number was 568,429, exceeding slightly the number of admissions, so that the jail population at the end of the year (109,853) was rather less than when the year began.

The number of convicts in jail on the 1st January 1896 was 94,052; on the same day of 1897 it was 99,597, an increase of nearly 6 per cent. The aggregate number of convicts, excluding transfers, was, during the two years, 276,075 and 314,662 respectively. The increase was shared by all provinces except Burma, Assam, and Coorg. The North-West Provinces and Oudh had the largest increase, 9,740; in Madras the increase was 6,446; in Bombay, 5,673; in Bengal, 9,596; in the Punjab, 2,534; in the Central Provinces, 4,680, and in Berar, 1,458.

The number of convicts released during the year was 172,279 in 1896, and 209,227 in 1897. The increase was largely due to the release of 21,584 prisoners in commemoration of the celebration of the 60th year of Her Majesty's reign. The release of 144,169 on expiration of sentence, an increase of 16,000 compared with 1896, was in accordance with the larger number of prisoners who passed through the jails; 923 prisoners under short sentences, whose crimes were due to hunger, were liberated in the Central Provinces in order to relieve the overcrowded jails. There were 519 executions, an increase of 99, and 4,083 deaths, an increase of 1,593. There remained at the end of the year 101,035 convicts, against 99,589 at the end of 1896.

Of the convicts admitted during the year 51,163 were Muhammadans, 139,292 were Hindus (including Sikhs), 15,680 were Buddhists (including Jains), 1,754 were Christians, and all other classes numbered 7,114. These figures represent more Muhammadans (23.8 per cent.), Hindus (64.7 per cent.), other classes (3.4 per cent.), and fewer Buddhists (7.3 per cent.), and Christians (.8 per cent.).

Classified by age, 2,543 of the convicts on their admission were under 16 years of age, 169,344 were between 16 and 40, 38,977 between 40 and 60,

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4,129 over 60 years. Compared with 1896, these figures represent an increase under each period respectively of 849, or 50 per cent.; 2,529, or 17 per cent.; 6,142, or 18 per cent.; and 762, or 22 per cent. The large relative increase in the number of juvenile offenders points to insufficient recourse to the provisions of the law under which they may be released after admonition, or on their parents or guardians becoming surety for their good behaviour.

By the Reformatory Schools Act, which came into force in March 1897, several changes of importance were introduced in reformatory administration. Bengal has two of these schools; Madras, Bombay, North-Western Provinces, Burma, and the Central Provinces have one each. At the close of 1897 the number of juvenile offenders confined in them was close on 1,300.

Of the convicts admitted into jail in 1897 those who were able to read and write numbered 8·8 per cent.; 2·7 were able to read only and 88·5 were illiterate. In 1896 the corresponding proportions were 10·7, 3·2, and 86·1 per cent. In both years Burma had the best record, and the North-Western Provinces and Oudh the worst.

Of the 201,187 male convicts admitted in 1897, those who previous to their admission were engaged in agriculture or with animals numbered 109,174, or 54 per cent., this being 13·5 per cent. more than their number in 1896; but the largest proportionate increase was among those engaged in miscellaneous pursuits, their number (44,984) being nearly 34 per cent. greater than in 1896. This is attributed to the pressure of want being most severely felt among the persons whose occupations are unclassified, including daily labourers.

Of the female convicts 8,571 (62·1 per cent.) were married, 4,149 (30·0 per cent.) were widows, 702 (5·1 per cent.) were unmarried, 384 (2·8 per cent.) were prostitutes.

Distributed according to length of sentence, 67,650, or 31·47 per cent. were sentenced to terms not exceeding one month; 41,211, or 19·17 per cent., to not less than three months; 39,411, or 18·33 per cent., to not less than six months; 33,452, or 15·56 per cent., to not less than one year; 18,559, or 8·64 per cent., to not less than two years; 8,836, or 4·11 per cent., to not less than five, and 3,129, or 1·46 per cent., to not less than 10 years; 125 or 0·06 per cent. to more than 10 years; 1,857, or 0·86 per cent., to transportation for life or for a term; and 737, or 0·34 per cent., to death. Compared with 1896 the sentences to imprisonment not exceeding six months were 148,272, or 18·2 per cent. more numerous, and the aggregate of all higher sentences was 66,715, or 17·8 per cent. greater. In the provinces most affected by famine, persons who were driven by want to the commission of petty theft were as far as possible not sent to prison. Of the total number admitted 30,678, or 14·26 per cent., had been previously convicted. The detection of old offenders is greatly assisted by the general introduction of the system of identification by finger impressions.

The average number of convicts who were sentenced to labour rose from 92,054 in 1896 to 98,901 in 1897. Of these, 8·1 per cent. were employed as prison officers, 10·5 per cent. as prison servants, and 38·7 per cent. in manufactures.

Notwithstanding the large increase in the jail population the number of more important offences committed in jails, tried by courts only, increased from 336 to 339. The remarkable variation which appears in the proportion of prison offences to the prison population can only be accounted for on the supposition that the jail administrations have different standards of discipline and methods of reporting offences. This is a matter which has been remarked upon before, and has again been commended to the careful attention of the

Offences dealt with by Superintendents.

	1897.		1896.	
	Daily Average Population.	Offences.	Daily Average Population.	Offences.
Madras - - - -	8,635	12,056	8,268	13,436
Bombay - - - -	7,760	9,390	7,100	6,150
Bengla - - - -	17,366	38,406	15,895	35,548
N. W. P. and Oudh -	33,382	27,452	30,784	17,570
Punjab - - - -	11,648	29,965	10,940	33,807
Burma - - - -	13,063	37,177	14,031	42,646
Central Provinces -	6,838	7,811	5,196	6,495
Assam - - - -	1,371	757	1,391	1,059
Coorg - - - -	72	125	87	122
Berar - - - -	1,697	1,024	1,844	946
	101,832	164,563	95,031	159,779

local governments. It will be seen that the North-Western Provinces and Oudh, with an average jail population nearly twice that of Bengal, more than twice that of Burma, and three times that of the Punjab, had a lower record than any of the three, and that yet the offences in that province were 10,000 more than in 1896. JAILS.

The punishments are classed as minor and major. The former diminished from 142,951 to 141,148, while the latter increased from 16,829 to 23,415. These were "separate cellular confinement" 6,691 cases, to which 4,278 is contributed by the Punjab alone, where it is said to be the most effectual method of dealing with the class of habitual offenders who are foremost in resisting authority; "penal diet with solitary confinement," 2,711; "fetters," 7,299, a punishment which is in steady use in Bengal (1,568), rose from 300 to 1,140 in Bombay, from 947 to 1,860 in Burma, and from 20 to 833 in Madras; "corporal punishment," 1,634 or '99 per cent. of the total of all punishments, against 1'09 per cent. in 1896.

The number of convicts who came under the mark system (28,891) was somewhat less than in 1896, owing to the liberation of prisoners at the time of the Jubilee, who would otherwise have earned remission of their sentences during the year. As usual the great majority (78·2 per cent.) of those who earned remission were under sentences not exceeding two years. The maximum remission (1,843 days) was earned by a convict in Burma under a sentence exceeding 10 years. The largest amount earned in 1897 by a convict under a year's sentence was 78 days. Gratuities were paid to convicts in Madras, Bombay, the Punjab, and the Central Provinces. The mark system appears to have a generally beneficial effect on the conduct of the prisoners.

In December 1895 the Government of India circulated to the local governments a resolution advocating the more general adoption of the cellular system. It was decided, after consideration of the opinions received, gradually to adopt, as funds permitted, the system until recently existing in Madras, under which all male prisoners passed a certain portion of their sentence in separate confinement, except those who were under sentence of less than two years, and who were not habituals. The Government of Madras having recently substituted a penal stage for the stage of cellular confinement, no objection was raised by the Government to the experiment being tried in other provinces in place of cellular confinement. The provision of cubicles in sleeping wards has also been urged upon the attention of local governments.

The gross cost of jail administration increase and in 1897 was Rx. 757,728, or 21 per cent. higher than in 1896, representing a rise in the cost of each prisoner from Rs. 60. 8. 6. to Rs. 67. 5. 7. The cost of establishment rose from Rx. 218,981 to Rx. 221,421; that of dieting from Rx. 273,872 to Rx. 390,917, or more than 42 per cent. Saving was effected in the North-West Provinces and Oudh and in the Punjab by the storage of grain in time of plenty. Clothing and bedding charges came to Rx. 35,474. Hospital charges rose from Rx. 31,994 to Rx. 35,528, the average hospital charges of a sick prisoner being highest in Bengal (Rs. 137. 10. 4.) and lowest in the Central Provinces (Rs. 44. 12. 1.).

The cash earnings of prisoners fell from Rx. 134,265 to Rx. 109,393, nearly 19 per cent., the decrease in Madras alone being from Rx. 15,666 to Rx. 4,142; in the Punjab from Rx. 12,728 to Rx. 7,392; in the Central Provinces from Rx. 11,716 to Rx. 5,173. On the other hand the earnings were larger in Bengal, Burma, and Berar. The general causes of the decline were the stagnation of industry, owing to the prevalence of famine and plague, and the weak condition in which many of the prisoners were received in jail.

Deducting the cash earnings of prisoners from the gross cost, the net cost of jail administration during the year advanced from Rx. 490,322 to Rx. 648,333, or over 31 per cent., and the average net cost from Rs. 47. 8. 4. to Rs. 57. 10. 0. The net cost per prisoner was highest in Bombay and Bengal, over Rs. 73, and lowest in Burma, Rs. 34.

The health of the jail population was seriously affected by the abnormal conditions of the year. The number of deaths, 4,462, represents an increase

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of 55·4 per cent. compared with 1896, and a ratio of 39·64 per mille in place of 27·79 per mille. The average death rate was indeed higher in every group of jails except in Assam, where, in spite of hardship and exposure, the result of the destruction of buildings during the earthquakes, the death rate, by more careful attention to the details of jail hygiene, was reduced from 50·98 in 1896 to 48·69 per mille in 1897. In the North-West Provinces and Oudh the number of deaths rose from 951 to 1,286 (28·83 to 35·47 per mille); in the Central Provinces from 401 to 999 (72·11 to 134·98 per mille); in Madras from 187 to 490 (19·51 to 47·45 per mille); but it should be noted that these figures for Madras compare favourably with those of the famine years 1877 and 1878, which were 173·7 and 127·6 per mille, and that if the deaths caused by a severe outbreak of cholera in one jail be excluded, the rate for 1897 falls to 26·75. In the Punjab and Burma the death rate was low, the increase being from 15·68 to 16·30 per mille in the one case and from 18·19 to 24·04 in the other. In Bombay the plague prevented the usual transport of prisoners to the Andamans, and hindered the customary transfers for the relief of overcrowded jails. In one jail, moreover, there was a severe outbreak of cholera. In the Central Provinces, dysentery, mainly the result of the condition of the prisoners on their admission, was terribly prevalent, notwithstanding most careful treatment and dietary, and accounted for nearly half the mortality. To lessen the overcrowding in this province, neighbouring buildings were made use of, and temporary sheds were erected. Material relief was afforded by the release of 1,646 prisoners on account of the Jubilee, and of 923 short term prisoners by the orders of the Chief Commissioner.

CIVIL JUSTICE.

CIVIL JUSTICE.
Bengal.

The civil suits for disposal on the original side of the High Court were 1,044 pending at the close of 1896 added to 904 suits instituted during 1897, or altogether 1,948, against 1850 in 1896; 920 suits were decided, and the pending file was reduced to 1,028.

On its appellate side there came before the High Court 8,249 cases. Out of 3,278 first and second appeals from the decrees and orders of subordinate courts 3,148 were decided, the number decided in 1896 having been only 2,506 out of 3,182. The Court also disposed of a large number of criminal cases (2,484) in its appellate and revisional jurisdiction. In cases affecting the lower courts their decisions were reversed or varied in 25·3 per cent. of the appeals from original decrees, in 7·8 per cent. of the appeals from appellate decrees, and in 18·4 per cent. of the miscellaneous appeals; the corresponding proportions for 1896 being, 31·6, 10·3, and 23·2 per cent. respectively. There was, therefore, a distinct improvement in the work of the subordinate courts.

The number of suits instituted in the civil courts subordinate to the High Court has risen steadily in the last five years, from 567,088 in 1893 to 606,360 in 1897, and the number decided from 560,169 to 602,472. Though temporary additional assistance is provided from time to time the pending file grows, and at the close of 1897 was 16 per cent. of the institutions. Of the 94,689 cases so pending, 1,813 were more than a year old, 5,536 more than six months, and 37,807 more than three months.

Of the cases decided by ordinary courts (383,895), 61,550 were suits for money or moveables, 248,376 were suits under the rent law, and 73,969 were title and other suits, the corresponding figures for 1896 being 60,733, 239,817, and 69,501 respectively. The remainder of the suits (218,577) were decided under Small Cause Court Procedure. The percentage of contested cases to the number of suits tried by the two classes of courts was 20·8 and 14·04 respectively in 1897, and 25·1 and 15·5 in 1896. The reduction in contested cases appears to account partly for the larger number of cases disposed of in 1897.

In appellate courts subordinate to the High Court, the number of appeals instituted and determined fell from 19,273 and 23,168 in 1896 to 18,663 and

19,516 respectively, and though the pending file was reduced from 11,046 to 10,898, the number of appeals pending for more than six months increased. The decisions of the lower courts were reversed or modified in 27·7 per cent. of the total number of appeals, a somewhat larger percentage than in appeals heard by the High Court. CIVIL JUSTICE.

In the Presidency small cause court institutions increased from 23,924 to 25,704, and decisions from 24,516 to 26,207, leaving the increased number of 1,454 cases pending at the close of the year. Institutions in the provincial small cause courts (13,558) were rather less numerous.

Institutions of civil suits rose by 7,591, to 100,256, of which 73 per cent. were for money or moveable property; the total for disposal from 104,423 to 111,441; and the number disposed of from 94,990 to 102,887, so that the pending files were reduced from 9,433 cases to 8,554, or 879 less than at the close of 1896, and 3,435 less than at the close of 1894. This result was effected with the assistance of additional judges. The proportion of contested suits was 28·4 per cent.; *ex parte* decrees were passed in a larger number of cases, (33·3 per cent.); plaintiffs were successful in 61·3 per cent., showing the continuance of a steady rise from 56·6 per cent. in 1894; the average duration in contested cases was reduced from 79 in 1895, and 71 in 1896 to 61. North-Western
Provinces.

The number of appeals for disposal in courts other than the High Court fell from 13,414 in 1896 to 12,948 in 1897, of which 8,217 were disposed of, leaving a pending file of 4,731, which was greater by 502 than at the close of 1896. This falling off was owing to the judges being too fully occupied in sessions work and criminal appeals to devote as much time as usual to Civil appeals. The results of these appeals was somewhat less favourable than in 1896, the per centage of sentences upheld being reduced from 62 to 61.

The High Court had before it 4,172 cases, a decrease of 72; disposed of 2,035, and left a reduced pending file of 2,138. The average duration of the cases decided was 142 days, which is a considerable improvement upon 178 days in 1896 and 246 days in 1895. The results of appeals compared favourably with those of 1896.

In Oudh there was a decrease in the number of suits instituted, from 55,512 to 54,457, and a considerable falling-off in the total outturn of work. Nevertheless the number of pending cases was reduced from 7,428 to 6,265, and the work of the subordinate judges showed a substantial increase. Further measures were taken during the year to relieve the munsifs, who, compared with the subordinate judges, were found to be unduly burdened with work. Oudh.

There were 3,621 appeals for disposal by the judges and subordinate judges, or 70 less than in 1896; of these 2,730 were disposed of, reducing the pending file from 1,260 to 891. The average of work done by subordinate judges was higher, and the average duration of appeals in the courts was reduced from 116·99 days to 96·17. Owing to heavy criminal work the outturn of the district judges was less, though the average duration of appeals in their courts was also improved, from 388·27 days to 356·74.

The results of appeals were less favourable to the decisions of the lower courts than in 1896, the percentages of decrees reversed or modified having risen from 19 to 23.

In the court of the Judicial Commissioner the number of cases for disposal rose from 3,742 in 1896 to 4,292. The disposals, 1,770, were nearly 400 better than in 1896, but the pending list at the close of the year stood at the increased figure of 2,522. To meet the increasing work of the court it was necessary to appoint a second additional Judicial Commissioner.

Civil suits in the Punjab, which fell 3·8 per cent. in 1896, fell again 4 per cent. in 1897, notwithstanding good harvests and the cessation of the distress; but the decrease was entirely under the head of suits for money or moveable property not exceeding Rs. 50 in value, other classes showing an upward tendency, and the average value of all suits, which was close on Rs. 10, was higher than ever before; the total value being about 6 per cent. higher than in 1896. Of 278,116 suits for disposal in the District Courts, 254,723 were disposed of, and the pending file, which has risen steadily in the last five years, stood at 23,393. Punjab.

CIVIL JUSTICE.

at the close of the year. Of the contested cases 76 per cent. were decided in favour of the plaintiff. A gradual rise in the average duration of contested cases (in 1897 it rose to 39 days) is thus accounted for:—"Owing to the growth in numbers of the members of the bar, competition among them is very keen. Their fees have fallen to an extent that would be ridiculous if they were not so lamentable. Consequently parties are represented by pleaders in very many more cases than formerly, and this lengthens the proceedings. Changes among officers appear to be more frequent than they were, and each time a change takes place a certain amount of delay is inevitably caused in the disposal of cases left pending. It cannot be said that the general rise in the duration of cases is due to any dilatoriness on the part of the officers."

The appellate business of the Chief Court increases beyond the powers of the five judges composing it to keep pace with it. Of 3,003 suits before the court 1,216 were disposed of, leaving an increased pending file of 1,757 suits. Even with the appointment of a sixth judge recently the reduction of the list can only be very gradual.

Burma.

Against 48,952 civil suits instituted in Burma in 1896 the number in 1897 was 50,995. The increase was almost entirely in Lower Burma, where the total, 37,686, was larger by 1,833, and was distributed over all classes of suits, the bulk of the increase being in township courts and relating to immovable property.

The total value of suits in Lower Burma rose from Rx. 575,197 to Rx. 623,739, and the average value from Rs. 160 to Rs. 166, a fact which with the rise in the number of suits, is attributed to the favourable rise in the market of 1897, following a period of depression. A similar increase in Upper Burma is attributed to the rise in the value of land, owing to the extension of irrigation works. The scarcity in certain districts of Upper Burma seems to have little affected the course of civil justice there. The total value of suits increased from Rx. 150,354 to Rx. 162,434, and the average value from Rs. 115 to Rs. 122.

Of 51,122 suits disposed of in the province, 10,228 were decided without trial and 23,015 more without contest. In the contested cases judgment was given for the plaintiff in whole or in part in 12,196, or 69 per cent., the percentage in 1896 being 71. Execution proceedings were more successful and realisations better; these results were obtained with a much smaller number of attachments and sales.

Original and second appeals increased somewhat in both Upper and Lower Burma, and in the latter the percentage of confirmation fell slightly.

The publication of the Digest of Buddhist Law was nearly completed.

Central Provinces.

At the close of 1897 there were 224 civil courts in the Central Provinces, two more than at the beginning of the year. The number of suits filed fell from 98,791 to 91,739, this figure being less than in any year since 1883, when the marked increase in civil litigation began. The decrease is most marked in suits of Rs. 50 and under, and indicates that famine prices are opposed to the luxury of litigation. Suits for arrears of rent also diminished considerably, probably because the large suspensions of revenue granted were conditional on a similar suspension of rent by the landlords. A considerable increase in the average duration of cases, and a very slight increase in the average number of hearings were to be expected in the peculiar circumstances of the year, when every official had more work than he could do, and all branches of work had to give way to the paramount claims of famine relief.

The total number of appeals disposed of was 6,637. The number pending at the close of the year was reduced from 277 to 60, and the average duration of each appeal from 304 days to 118. Applications for execution of decrees fell from 100,592 in 1896 to 92,120, and the amount realised from Rx. 144,300 to Rx. 125,948.

Assam.

The number of civil suits in Assam diminished from 30,352 to 27,781, the decrease being shared by all districts, except Lakhimpur. The decrease in Sylhet is attributed to the effects of the earthquake; in the Assam Valley to the same cause, and to unusual floods and high prices of food superadded; in Cachar to fever and high prices. Nevertheless, the total value of the suits rose from

Rx. 222,886 to 242,982, and the average value from Rs. 73 to Rs. 87. Of 28,108 suits disposed of, 22·1 per cent. were contested, a smaller number than in any year since 1893, and plaintiffs were successful in 59·3 per cent. CIVIL JUSTICE.

Fewer appeals were instituted in the Appellate Courts of Assam; the number decided rose from 837 to 1,104, and the pending list was reduced from 1,008 to 716. The ratio of actual to possible appeals was 23·98 per cent., against 20·89 in 1896; the decrees of the lower courts were confirmed in 69·5 per cent.

Fifty-four appeals were preferred to the High Court of Calcutta; of the 79 appeals decided by that tribunal, 52 resulted in the confirmation of the decrees of the lower courts.

The number of officers employed on civil work at the close of 1897 was 40, or two less than in 1896. The number of suits instituted in 1897 was 23,840, showing a decrease of 3,309, or 12·2 per cent. Including 6,512 cases pending from 1896, the total number for disposal in 1897 was 31,101, a decrease of 7·4 per cent., and of these 25,282, or 81·3 per cent., were disposed of, leaving a diminished balance of 5,819. Of the suits instituted, 19,965 were for money or moveable property, a decrease of 3,068, or 13·3 per cent., compared with the previous year. The aggregate value of the suits disposed of was Rx. 404,469, an increase of 1·04 per cent., representing an average value of Rs. 164. Of the total number 73·3 were uncontested, and 26·3 were contested. The average duration of the former was 80·4 days, and of the latter 169·7. In 1896 the averages were respectively 69·1 days and 138·7. The total income realised from fees was Rx. 44,055, as against Rx. 49,963 in 1896. Including 449 cases pending from 1896 there were 1,608 appeals for disposal in 1897, as against 1872 in 1896, and 1,202 were disposed of. Berar.

Besides the Presidency Court of Small Causes, the City Civil Court and High Court in the Presidency Town, there were in the Mofussil 4,388 Village Courts, 71 Revenue Courts, a Cantonment Court of Small Causes, 136 District Munsifs' Courts, 22 Subordinate Judges' Courts, and 23 District Courts. Madras.

The number of original suits instituted in all the courts increased from 335,980 in 1896 to 362,512, and that of appeals from 11,069 to 12,171.

The suits instituted in the Village Courts (94,908) were more numerous than in any previous year, and the number of suits disposed of in those courts increased from 85,541 to 93,949. Those instituted in the regular courts in the Mofussil increased from 227,826 in 1896 to 242,322, of which 86·74 per cent. was contributed by the District Munsifs' Courts; 8·54 by the Subordinate Judges' Courts, and 0·51 by the District Courts.

The same courts disposed of 243,115 suits and 11,451 appeals as against 232,217 suits and 9,171 appeals in 1896. The number of suits filed and disposed of in the Presidency Court of Small Causes increased from 21,445 and 21,701 to 24,574 and 24,436 respectively. In the City Civil Court, 381 suits were filed, and 434 disposed of.

On the original side of the High Court, the number of suits instituted increased from 258 to 327, and of 502 suits in all for disposal 375 were settled, of which 129 were contested. On the appellate side the suits received and disposed of were 2,052 and 1,808 respectively in 1896, and 2,671 and 3,041 in 1897. The proportion of sentences confirmed was 69·30 per cent. as against 55·10 in 1896. The surplus of the Civil and Criminal Courts was Rx. 145,937.

The number of 178,079 suits instituted in all the Civil Courts in 1897 represents a falling off of 16,585, compared with 1896, and the aggregate value of the claims involved fell from Rx. 4,450,000 to Rx. 3,690,000. The decline was greatest in suits for money or moveable property. With the exception of the High Court, in which the value of claims rose by Rx. 444,000, all the courts shared in the decrease. Bombay.

The number of suits disposed of was 176,927, and shows a decrease of 26,141, which was shared by all but the Revenue Courts. Cases undisposed of at the end of the year rose from 31,107 to 34,166. There was an increase in the average duration of suits which was general, except in the courts of the Cantonment magistrates.

There were 11,394 appeals, of which 6,665 were disposed of.

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CIVIL JUSTICE.

Applications for execution of decrees fell from 263,365 to 217,035, and the sum recovered by all the courts in execution of proceedings from Rx. 457,582 to Rx. 407,688.

Coorg.

The total number of suits instituted during the year was 3,038, or about 600 less than in 1896. Including 306 suits pending from that year, the total number for disposal was 3,344 of which 3,128 were disposed of during the year, 404 without trial, 2,152 without contest; in 438 cases judgment was for the plaintiff, and in 134 for the defendant. The average duration of suits disposed of was 74 in contested, and 35 in uncontested suits, as compared with 65 and 33 days in 1896.

There were 76 appeals, including 12 pending from 1896, of which 41 were disposed of by the 1st Assistant Commissioner, and 30 by the District Judge; 63 of them were contested, the sentences being confirmed in 32 cases, modified in nine, reversed in 16, and six were remanded.

Working of the Dekkan Agriculturists' Relief Act, XVII. of 1879.

The number of suits instituted in the four districts of Poona, Satara, Ahmednagar, and Sholapur, which are subject to the operation of the Dekkan Agriculturists' Relief Act, fell off 25·8 per cent. in 1897, the diminution being ascribed partly to the prevailing scarcity and partly to the prevalence of plague in several places.

The number of conciliation agreements and of institutions before the village munsifs also decreased; and, owing mainly to the difficulty of serving processes on defendants whom plague or scarcity had driven from their ordinary residences, and partly, also, to the extra work imposed on some of the subordinate judges, the average duration of suits was considerably longer.

The experience of 18 years is said to justify the opinion that the operation of the Act has had a beneficial effect on the relations between the money lenders and the ryots, and has led to the gradual acquiescence by the former in lower rates of interest than are willingly accepted elsewhere.

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 1897-98 there were in British India more than 2,000 registration offices; the total number of documents registered during the year was 3,051,000, or 5 per cent. more than in 1896-97; this total does not include the 180,553 registrations under the Dekkhan Agriculturists Act. The total registration fee receipts of the year 1897-98 were Rx. 485,000, as compared with Rx. 455,000 in the preceding year; and the cost of the registration offices was Rx. 248,000, leaving a surplus of Rx. 237,000, against Rx. 189,000 in the year 1896-97. 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 408 to 423; the total number of documents registered rose from 1,312,153 in the year 1896-97 to 1,437,964 in the year 1897-98, or more than 9 per cent.; but the aggregate value of the property represented by the deeds was lower by 12 per cent. The increase occurred under documents of which registration is optional, as well as under those for which it is compulsory, and was attributed to the hard times caused by famine and dearness of food. There was a slight decrease at Calcutta, ascribed to dullness of trade. Nearly 87 per cent. of all the documents brought for registration related to immovable property. The number of registered transfers of holdings by ryots (tenants), paying at fixed rates or enjoying occupancy right, rose from 189,174 in 1896-97 to 263,062 in 1897-98; the transfer was made in 183,921 cases to other ryots, and in 31,037 cases to money-lenders. The average price of occupancy holdings was equal to nearly 17 years' purchase of the rent. The number of ceremonies registered under the Muhammadan Marriage Act fell from 23,380 in 1895-96, the highest number since the law was passed, to 19,685 in 1896-97, and to 17,902 in 1897-98. The fall, which occurs chiefly in marriages, is ascribed to the high price of food grains; but the popularity of this registration does not seem to have been increasing. The Act was extended to one additional district, and is now in force in 30 districts, as compared with 29 districts in the year 1896-97; and 15 new offices for registering such marriages were opened in the year.

Bengal.

Registrations under the Bengal Land Records Maintenance Act of 1895 began during 1896-97 in parts of three Behar districts, and in a small part of Midnapore, but during 1897-98 nothing was done in Midnapore, and the operations in Bettiah and Muzaffarpur did not show a satisfactory increase. In one office only was there a surplus of receipts over expenditure, i.e., in Mahnar, where there were 14 mutations per village. The number of transfers of holdings were found to be generally three times as numerous as successions. It is too early to say that the Act has failed, but it is not working satisfactorily at present. The causes assigned are the nature of the fees, the absence of compulsion to register, and certain points in which further experience of the working of the Act may effect a change. The desire to register holdings is believed to exist, if the facilities are offered in an acceptable way. The subject is under discussion.

The number of registration offices in the North-Western Provinces and Oudh fell from 291 to 290, and the total number of documents registered fell from 248,973 to 230,042. The variation was largest under documents

North-Western
Provinces and
Oudh.

REGISTRATION.

for which registration was optional. There was an increase of 5 per cent. in the registration receipts as compared with 1896-97. The surplus of receipts over expenditure was Rx. 18,400, compared with Rx. 21,900 in the previous year. The number of mortgages registered showed a decrease of 9 per cent. as compared with the preceding year; the number of leases alone showed a slight increase. The number of documents relating to movable property, for which registration was optional, fell from 48,828 in the previous year to 42,208 in the year 1897-98. The total value of the property regarding which documents were registered during the year was Rx. 9,466,000, as compared with Rx. 9,434,000 in the previous year. Twelve prosecutions for breach of the Registration Law were instituted, as compared with nine in 1896-97; in eight cases the accused were convicted and punished.

Panjab.

The number of registration offices in the Panjab was 293, or four more than at the end of the previous year. The total number of documents registered was 172,246, or 2 per cent. above the total of 1896-97, and 38 per cent. above that of the previous year. The fee receipts do not show a proportionate increase, being Rx. 41,804, against Rx. 41,660 last year, owing to the introduction of a lower scale of fees for deeds registration of which is compulsory. The surplus fell from Rx. 26,720 to Rx. 26,630. The increase of registration business, following after a previous year of increase, was attributed to the pressure caused by the scarcity in the early part of the year, to the anxiety of moneylenders to realise securities, and to the increased prosperity of agriculturists; the increase was most marked under the head of both compulsory and optional registrations of mortgages of agricultural land, while those of sales of land decreased in number. The proportion of optional registrations of immovable property was only 30 per cent. of the total transactions, and the increase occurred entirely in documents of which registration was compulsory. The total value of property to which registered documents related was Rx. 6,061,000, or Rx. 130,000 less than in the preceding year.

Burma.

The number of registration offices in Lower Burma was 110, as in the previous year; the number of registrations increased from 15,183 in the previous year to 15,682. The figure is still below that of 1895-96, owing to the state of the money market and to the temporary depreciation of property in Rangoon, where the number of documents registered fell from 2,138 to 1,719. Leaving Rangoon out of account, there was a fair increase, which occurred chiefly in compulsory registrations. The aggregate value of all property registered was Rx. 1,759,000, or 15 per cent. less than in 1896-97; outside Rangoon the aggregate value rose by 16 per cent. The fee receipts rose to Rx. 5,571, or 5 per cent. above the income of 1896-97. The surplus of receipts over expenditure was Rx. 3,036, against Rx. 2,845 in the previous year.

Registration offices were open in Upper Burma only for the compulsory registration of documents relating to immovable property; the number was 49, as compared with 31 in the year 1896-97; the number of documents registered was 5,045, as compared with 4,268 in the previous year; the value of the property concerned rose from Rx. 264,000 to Rx. 278,000. The chief increase was under the head of "mortgages." In both Upper and Lower Burma the majority of registered deeds continue to be sales and mortgages of land; but the whole registration business is still small.

Central Provinces.

The number of registration offices was 90, as in the previous year, and the number of documents registered during the year in the Central Provinces was 36,975, or 6½ per cent. less than in 1896-97. The decrease was mainly under compulsory registrations, mortgages showing a large fall. The general decline in registrable transactions, as compared with the increase which occurred in 1896-97, which was also a year of distress, is ascribed to the liberal suspensions of rent and the grants from the Famine Relief Fund, together with the good autumn crops of 1897. The value of the property concerned was Rx. 1,275,000, a decrease of nearly 10 per cent. as compared with the previous year. Of the documents registered 79 per cent. were of classes for

which registration is compulsory. The cost of the Registration Department was 36½ per cent. of the receipts, and the net revenue was Rx. 8,360, as compared with Rx. 9,400 in the preceding year. REGISTRATION.

In Assam there were 26 registration offices, one more than in the previous year, a sub-registry being opened at Katigora; 39,370 documents were registered, or 3·7 per cent. less than the total of the preceding year. The decrease was mainly in documents of which the registration is compulsory, and occurred chiefly in Sylhet. The value of the property registered rose from Rx. 681,000 in the previous year to Rx. 700,000. The fee receipts were Rx. 5,076, and the expenditure was Rx. 2,900, leaving a surplus of Rx. 2,176. Assam.

The marriages registered under the Muhammadan Marriage Act were 305, as compared with 345 and 357 in the two preceding years; the number of these marriage registrations in Assam, after increasing for several years, has now fallen; and the Act is reported to be not popular among the Muhammadans of Cachar and Sylhet.

The number of registration offices in Berar was 69, or one more than at the end of the previous year; the number of documents registered was 37,190, or about 2 per cent. more, the rise being chiefly in the optional class. The value of the property registered was Rx. 1,072,000, or 1 per cent. less than in the preceding year; the fee receipts increased very slightly; the expenditure increased 4 per cent., the surplus falling from Rx. 4,000 to Rx. 3,800. Berar.

Two new registration offices were opened in Madras, bringing up the total to 425. The number of documents registered was 884,123, showing an increase of 7 per cent. compared with the previous year, and of 1 per cent. as compared with the year 1892-93, when the number of registrations was the largest on record. The increase occurred mainly in the river-irrigated districts, and is partly ascribed to the abnormal demand for food grains, causing greater commercial activity; partly also to the more favourable state of the money market, and to the failure of the north-west monsoon. In the Deccan there was a decrease. Instruments compulsorily registrable accounted for 77 per cent. of the increase, and nearly 68 per cent. of the total amount. Nearly 94 per cent. of all the registrations in Madras concerned immovable property. The total value of the property concerned in all the registrations was 19½ millions, against 17½ millions of Rx. in the preceding year. The registration receipts were Rx. 152,200 as compared with Rx. 120,300; the expenditure was Rx. 94,800; and the surplus was Rx. 57,366, or 150 per cent. more than in the previous year. The number of documents of which registration was refused rose from 1,680 to 2,030; of this latter total 453 cases were due to denial of execution, 557 to non-appearance of executants, 518 to unwillingness to complete registration, and 212 to minority of executants. The system of taking thumb impressions is being extended with satisfactory results. Madras.

The number of registry offices in Bombay was 252, or one more than in the previous year. The number of registrations was 190,794, or 4·5 per cent. less than in 1896-97. The decrease took place entirely under compulsory registrations, which formed nearly 86 per cent. of the whole number. Registered deeds of sale and mortgages of immovable property numbered 63,918 and 78,872 respectively, being in each case a little below the corresponding figure for 1896-97. The value of the property affected was Rx. 9,051,000. The gross receipts were Rx. 53,157. The registration surplus of the year, including Rx. 2,028 under the Joint Stock Companies Act, was Rx. 28,041, as compared with Rx. 31,814 in the year 1896-97. Bombay.

Under the special law for the protection of Dekkhan agriculturists in the four districts of Poona, Satara, Ahmadnagar, and Sholapur, there were 180,553 registrations, or nearly 18 per cent. above the total of the previous year. Of the registered sales, leases, and mortgages of land, 45 per cent., a somewhat smaller proportion than in 1896-97, were between agriculturists on both sides, and 55 per cent. between agriculturists and money-lenders. The aggregate value of property concerned in these special registrations was Rx. 923,000, or 12 per cent. larger than in the previous

REGISTRATION.

year. There was an increase of nearly 14 per cent. in the fee receipts; and the net surplus on these registration proceedings was Rx. 239, as compared with a deficit of Rx. 989 in the preceding year, and over Rx. 1,600 in earlier years.

JOINT STOCK COMPANIES.

JOINT STOCK COMPANIES.

During the year 1897-98, in all provinces of India, the number of new joint stock companies registered was 179, with a nominal capital of Rx. 3,081,200 and a paid-up capital of Rx. 356,900; while 203 companies, with a paid-up capital of Rx. 886,000, ceased to work. The number of new companies registered in the previous year was 388. At the end of the year there were in operation 1,572 companies, with a nominal capital of Rx. 50,139,600 and a paid-up capital of Rx. 33,123,300. The companies work chiefly in the provinces of Bengal and Bombay; more than 84 per cent. of all the paid-up capital pertains to those two provinces; in Madras the paid-up capital was Rx. 2,439,000, and in the North-Western Provinces it was Rx. 1,277,700; in no other province did the aggregate paid-up capital of registered companies reach Rx. 600,000. The Bombay companies are, taking the figures as they stand, much the richest, the average of paid-up capital for the 349 companies in that presidency being Rx. 39,600; while for the 666 companies of Bengal it is Rx. 21,200, for the 307 of Madras Rx. 7,900, and for the 100 of Mysore Rx. 3,600. The low average in Bengal is due to the recent large development of "provident" companies, with practically no paid-up capital at all. 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	- 4,410,000	Brewery companies	- - 170,000
Trading and shipping	- 5,207,000	Mills and presses	- - 16,280,000
Mining and quarrying	- 1,978,000	Tea and planting	- - 3,346,000

The companies with the largest aggregate subscribed capital, Rx. 16,280,000, were for weaving and spinning, or for pressing cotton, jute, wool, and silk; and nearly two-thirds of the capital of such undertakings belonged to the Bombay presidency. The capital invested in mills of these kinds increased nearly 9½ per cent. during the year; while the capital invested in tea-planting decreased. In the 14 years 1884-98 the number of joint stock companies at work has risen from 694 to 1,572; the paid-up capital has risen from 20¾ to 33¾ millions.

Bengal.

In Bengal 49 new companies were registered during the year, with a nominal capital of Rx. 462,000; while 144 companies, with a nominal capital of Rx. 1,127,000, were wound up during the year. Of the 52 Native provident companies limited by guarantee but possessing no capital, which were working at the end of 1896-97, 13 have been wound up.

Bombay.

In Bombay 83 new companies were registered, including 54 provident societies, chiefly in Gujarat. Twelve companies went into liquidation. At the end of the year 435 joint stock companies were in existence, with a paid-up capital of Rx. 13,824,000; 221 companies, with a paid-up capital of Rx. 10,512,000, were working cotton mills and presses.

Madras.

In Madras 73 new companies were registered, including two companies without capital. Of the 71 other companies, 49 were mutual loan associations, and 17 were trading companies. The nominal capital was Rx. 1,249,000; the paid-up capital Rx. 271,000. The number of companies on the register at the end of the year was 319, with a paid-up capital of Rx. 2,439,000.

PATENTS AND DESIGNS.

The total number of applications filed in 1897 for the registration of **PATENTS** inventions under the Patents' Law was 451, as compared with 460 in the preceding year. Of these, 19 were refused or abandoned, and 83 were undecided at the end of the year. Of the applications, 94, as compared with 107 in the year 1896, were referred for the opinion of experts. The number of specifications filed during the year was 392, or eighty more than in the preceding year. The number of exclusive privileges kept alive by payment of the prescribed fees was 251, as compared with 236 in the previous year. There were 19 applications for the registration of designs, of which five were rejected. The number of applications for patents made by natives of India fell from 49 in 1896 to 43 in 1897. Many of the other applications were due to the desire of European and American inventors to acquire Indian protection for their inventions. The fee receipts of the Indian Patent Office during the year were, after refunds, Rx. 3,100, against Rx. 2,760 in the previous year.

FINANCE.

FINANCE.

[The denomination Rx. means tens of rupees.]

THE gross revenue and expenditure of British India in 1897-98 may be thus compared with the figures for 1896-97 :—

Gross Revenue and Expenditure.

	1896-97.	1897-98.	Increase.
	Rx.	Rx.	Rx.
Revenue - - - - -	94,129,741	96,442,004	2,312,263
Expenditure - - - - -	95,834,763	101,801,215	5,966,452
Deficit - - - - -	1,705,022	5,359,211	{ Result worse by - Rx. 3,654,189

In the gross revenue are included very large receipts, amounting altogether to about 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 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, first, the refunds and drawbacks, assignments and compensations, which are a direct set-off against the revenue; secondly, the charge which is incurred for the production of opium, and which is subject to variations caused by the state of the season and of trade; thirdly, the charge for the establishment and maintenance of public works, which 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 income and expenditure, a statement of which is annually laid before Parliament.* The following is the comparison of the net revenue, *i.e.*, of the gross revenue after the deduction of the refunds and drawbacks, &c., and of the opium charges, with the net expenditure, *i.e.*, the expenditure after the deduction of the various departmental receipts :—

NET REVENUE.

Net Revenue.

	1896-97.		1897-98.		Increase or Decrease (—).	
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue, &c. :						
Land Revenue - - - - -	22,814,085		24,548,274		1,733,589	
Forests - - - - -	1,727,763		1,735,027		7,264	
Tributes from Native States - - - - -	863,733		844,174		- 19,559	
		25,406,181		27,127,475		1,721,294
Opium : Net Receipts - - - - -	—	3,915,624	—	2,783,045	—	- 1,131,979
Taxation :						
Salt - - - - -	8,035,543		8,209,238		173,695	
Stamps - - - - -	4,721,089		4,783,877		62,788	
Excise - - - - -	5,536,001		5,414,084		- 121,917	
Provincial Rates - - - - -	3,527,252		3,717,560		190,308	
Customs - - - - -	4,356,334		4,536,533		180,199	
Assessed Taxes - - - - -	1,860,348		1,881,233		20,885	
Registration - - - - -	457,075		485,419		28,344	
		28,494,292		29,027,944		533,652
Miscellaneous Receipts :						
Mint - - - - -	94,812		93,498		- 1,314	
Exchange on Remittance Transactions.	144,233		43,970		- 100,263	
Miscellaneous - - - - -	233,143		238,777		5,634	
		472,188		376,245		- 95,943
TOTAL NET REVENUE - - - - -	—	58,288,285	—	59,315,309	—	1,027,024

* See Parliamentary Paper 80 of 1899.

NET EXPENDITURE.

FINANCE.
Net Expenditure.

	1896-97.		1897-98.		Increase or Decrease (—).	
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Debt Services :						
Interest on Public Debt (other than that charged to Railways and Irrigation) and other Obligations.	—	2,371,398	—	2,600,019	—	228,621
Military Services :						
Army - - - - -	23,302,008		26,114,910		2,812,902	
Buildings and Roads : Military -	1,095,738		1,115,824		20,086	
Special Defence Works - . . .	94,610		23,708		—70,902	
		24,492,356		27,254,442		2,762,086
Collection of Revenue - - - - -	—	6,533,380	—	6,601,604	—	68,224
Commercial Services :						
Post Office - - - - -	—80,363		—149,689		—69,326	
Telegraph - - - - -	—124,765		—257,836		—133,071	
Railways - - - - -	2,659,981		1,432,616		—1,227,365	
Irrigation - - - - -	100,370		—425,779		—526,149	
		2,555,223		590,312		—1,965,911
Civil Services :						
Civil Departments - - - - -	13,766,628		14,016,036		249,408	
Miscellaneous Civil Charges - -	5,167,511		5,058,579		—108,932	
Famine Relief and Insurance. -	2,126,355		5,363,125		3,236,770	
Construction of Railways (charged against Revenue, in addition to that under Famine Insurance).	12,750		3,792		—8,958	
Buildings and Roads : Civil - -	3,991,343		3,635,289		—356,054	
Provincial and Local Surpluses or Deficits.	—1,023,637		—457,678		565,959	
		24,040,950		27,610,143		3,578,193
TOTAL NET EXPENDITURE	—	50,993,307	—	64,674,520	—	4,681,213

Thus, there was an increase of the net revenue by Rx. 1,027,024, and of the net expenditure by Rx. 4,681,213, making the position worse by Rx. 3,654,189, and producing a deficit of Rx. 5,359,211 in 1897-98, as compared with one of Rx. 1,705,022 in 1896-97. This is the result of an increase of the net revenue in India by Rx. 1,072,444, and of the net expenditure in India by Rx. 5,400,511, and in England by 535,872*l.*, while in exchange there was an improvement of Rx. 1,209,750, the gold value of the rupee having risen from an average of 14.45*d.* in 1896-97 to 15.354*d.* in 1897-98. Result of the Year.

The improvement of Rx. 1,027,024 in the net revenue is due especially to the recovery of the Land Revenue, which in the North-West Provinces was better than in 1896-97 by Rx. 625,024, in Madras by Rx. 293,558, in Bombay by Rx. 281,253, in Burma by Rx. 251,048, in the Punjab by Rx. 179,860, and in Bengal by Rx. 102,198,—making, with a small addition of Rx. 648 elsewhere, a total enhancement of Rx. 1,733,589. From each of the various heads of taxation there was a moderate increase, with the exception of Excise, the total being larger by Rx. 533,652. The net receipts from Opium were, however, reduced by no less than Rx. 1,131,979, caused mainly by the fall in Alterations in Net Revenue and Expenditure.

the average price paid for a chest at the auction sales in Calcutta from Rs. 1,244 in 1896-97 to Rs. 1,023 in 1897-98; the amount received in March 1898, Rs. 948, was the lowest on record at that time, but in the next three months yet smaller prices were obtained; on the Bombay side there was a diminution in the number of the chests paying duty from 21,751 to 17,432, and the rate, which had been lowered on the 23rd of July 1896 from Rs. 650 to Rs. 600, was further reduced on the 27th of October 1897 to Rs. 500. The gain by exchange on remittance transactions was smaller than in 1896-97 by Rx. 100,263; and in other respects the net revenue was diminished by Rx. 7,975.

For the large increase of Rx. 4,681,213 in the net expenditure, Famine and War were mainly responsible. The expenditure on Famine relief rose from Rx. 2,079,525 in 1896-97 to Rx. 5,325,608 in 1897-98, the increase being Rx. 1,042,523 in the Central Provinces, Rx. 849,026 in Madras, Rx. 642,356 in Bengal, Rx. 619,329 in Bombay, Rx. 77,365 in the North-West Provinces, and Rx. 15,484 elsewhere; after allowing for a slight reduction of Rx. 9,313 in the outlay on Protective Irrigation Works, the net increase under Famine relief and Insurance is Rx. 3,236,770. The Military operations on the North-West Frontier cost in 1897-98 Rx. 3,813,633; but, as is not unusual at such a time, owing to difficulties of classification, the ordinary net Army charges in India were reduced by Rx. 658,382; those in England were larger by Rx. 39,368, while the exchange thereon was less by Rx. 381,717; and hence there was a net increase of Rx. 2,812,902 in the Army expenditure. In the Military and Special Defence Works there was a reduction of Rx. 50,816; so that the net increase under Military Services was Rx. 2,762,086. On the other hand, the Commercial Services showed an improvement of Rx. 1,955,911, of which Rx. 1,227,365 occurred under Railways, owing to the net receipts being more by Rx. 581,417, and the charges less by Rx. 645,948, chiefly through the higher rate of exchange; Irrigation was better by Rx. 526,149, the year 1897-98 being the first in which a surplus was shown as the result of such operations, after defraying all capital charges on minor works; and Post Office and Telegraphs also gave profits better by Rx. 69,326 and Rx. 133,071 respectively.

In the Debt Services there was an increase of Rx. 228,621, caused chiefly by the absence of such premiums as were obtained in 1896-97 on the issue of loans. The charges for the Collection of the Revenue were enhanced by Rx. 68,224, mainly in Madras, Burma, and the Central Provinces. In the Civil Departments the increase amounted to Rx. 249,408, which may be attributed to the plague, the augmentation of the net medical charges having been Rx. 282,227. In Civil works there was a reduction of Rx. 356,054, and under other heads of Rx. 117,890; but the portion of the expenditure defrayed from the Provincial balances was less by Rx. 565,959.

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 1896-97 and 1897-98, 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 and expenditure of Berar, which form no part of the general 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 revenues of the various Provinces, as shown in the Summary on page xl of the Appendix, were applied to meet the general charges in India and in England in approximately the following proportions:—In 1896-97: Bengal $38\frac{1}{3}$, Bombay 15, Madras 14, North-West Provinces $13\frac{1}{3}$, the Punjab 11, Burma $5\frac{2}{3}$, Central Provinces $1\frac{1}{3}$, and Assam $1\frac{1}{3}$. In 1897-98: Bengal $36\frac{1}{2}$, North-West Provinces $16\frac{1}{3}$, Madras $14\frac{1}{3}$, the Punjab $14\frac{1}{3}$, Bombay $12\frac{1}{2}$, Burma 8, and Assam $1\frac{1}{4}$, while in the Central Provinces there was a deficiency amounting to 3 per cent.

CAPITAL OUTLAY ON PUBLIC WORKS.

FINANCE.

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 :—

Capital Outlay on Public Works.

	1896-97.	1897-98.	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	4,243,974	3,632,005†	-	611,969
Irrigation Works	740,448	692,431	-	48,017
	4,984,422	4,324,436	-	659,986
Amount met by Debentures issued by the East Indian Railway Company -	1,435,702	980,684	-	455,018
Amount defrayed from Revenue :				
Provincial Railways	12,750	3,792		
Surveys of Railways charged to revenue in previous years	293	-		14,389
Protective Railways	-	-		
Protective Irrigation Works	46,880	37,517		
Other Irrigation Works*	8,540	12,715		
TOTAL Direct Outlay by the State	6,488,537	5,359,144	-	1,129,393
In addition to this, the outlay by companies guaranteed or subsidised by the Government was	3,674,211	4,736,162	1,061,951	-
So that the TOTAL Outlay was	10,162,748	10,095,306	-	67,442

* Excluding capital outlay on the minor works, against which interest is not charged in the Accounts.
 † Besides Rx. 4,105 for the construction of the jetty and shed at Chittagong.

DEBT.

The following table shows the alteration in the amount of the debt that took place in 1897-98 :—

	Amount of Debt on 31 March 1897.	Amount of Debt on 31 March 1898.	Increase.	Decrease.
In India	Rx. 109,115,058	111,695,634	2,580,581	-
In England (permanent)	£. 113,883,233	117,274,680	3,391,447	-
„ (temporary)	£. 1,000,000	6,000,000	5,000,000	-

In 1897-98 a loan was raised in India for the prosecution of railways, at 3½ per cent., to the amount of Rx. 3,000,000, at an average price of Rs. 98.5.3 per cent., and debt was discharged to the extent of Rx. 419,419. In England, India 2½ per Cent. Stock to the amount of 3,500,000*l.* was issued, at an average price of 96*l.* 15*s.* 11*d.* per cent.; 105,751*l.* India 3½ per Cent. Stock was cancelled by means of the Sinking Funds, and 2,802*l.* of the outstanding India 4 per cent. Stock was repaid. The temporary debt was increased by 5,000,000*l.*, India (sterling) bills for 6,000,000*l.* having been issued at average rates varying from 2*l.* 4*s.* 5*d.* to 2*l.* 15*s.* 2*d.* per cent. per annum, while 1,000,000*l.* of such bills was repaid.

FINANCE.

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 :—

	1896-97.	1897-98.
	Rx.	Rx.
Savings Banks, &c. (net deposits or withdrawals) - - -	-288,382	-324,948
Loans to Port Trusts, Municipalities, Native States, &c. by the Imperial Government (net receipts or disbursements) - -	34,930	44,963
Loans by the Provincial Governments (net disbursements) - -	-829,486	-553,549
Other Obligations (net receipts or disbursements) - - -	-413,564	155,397
TOTAL - - -	-1,496,499	-678,137

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.	
	1896.	1897.	1898.	In 1896-97.	In 1897-98.
In India - - Rx.	16,500,510	13,873,753	15,982,443	-2,626,758	2,108,691
In England - - £.	3,393,798	2,832,354	2,534,244	-561,444	-298,110

COINAGE AND PAPER CURRENCY.

Coinage and
Paper Currency.

The value of the coinage at the Mints in India was :—

	1896-97.	1897-98.
	Rx.	Rx.
Silver - - - - -	573,353	985,691
Copper - - - - -	176,901	186,638
TOTAL - - -	750,254	1,172,329

Of the silver coinage in 1897-98, Rx. 486,472 was on account of the Native States of Bhopal, Kashmir, and Bikanir. The remainder was limited to half-rupees, quarter-rupees, and eighth-rupees. There were also coined at Bombay, from silver tendered by Exchange Banks, 21,286,427 British dollars, of the value of Rx. 4,830,083, of which 21,157,568 dollars were issued to the Banks, and exported to Singapore, Penang, and Hong Kong.

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

	1896-97.	1897-98.
	Rx.	Rx.
Receipts - - - - -	156,635	182,055
Expenditure - - - - -	61,823	88,557
Net Receipts - - -	94,812	93,498

On the 31st of March 1898 the amount of notes in circulation was **FINANCE.** Rx. 24,764,049, being more by Rx. 1,010,742 than on the corresponding date in 1897. The reserve was, in gold Rx. 255,420, in silver coin Rx. 14,508,634, and in Government securities, Rx. 9,999,995.

OPIUM.

OPIUM.

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; and the area on which cultivation is permissible is calculated each year with a view of obtaining a fixed amount of opium. 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 dispatched to the Government factories at Patna and Ghazipur to be prepared for the China market. The price for some years had been Rs. 5 per seer (two lbs.); and was raised to Rs. 6 per seer, with effect from the spring of 1895. 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. During the year 1897-98 the number of chests sold was 39,000, as in 1896-97. During 1898-99 it has been notified that 3,400 chests are to be sold monthly. The opium reserve, which recently, through a succession of bad seasons, was entirely depleted, is being gradually restored. The surplus amounted on the 1st January 1899 to 6,830 chests, and there is expected to be a reserve of 10,105 chests at the beginning of the year 1900. 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 140 lbs. weight, but since that year it has fallen; in February 1895 the price rose to Rx. 154, the highest average at any monthly sale for the previous 23 years; it fell to Rx. 92 in May 1898. In the year 1897-98 the average price per chest was Rx. 102, and in 1898-99 it was Rx. 105; it had been Rx. 124 in 1896-97 and Rx. 139 in 1895-96.

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 had been Rx. 60 per chest for several years until December 1894, when it was raised to Rx. 65. The duty was again reduced to Rx. 60 in July 1896, and to Rx. 50 in October 1897. The yield of the opium revenue during recent years has been:—

	1889-90.	1892-93.	1896-97.	1897-98.
Opium Receipts^c:	Rx.	Rx.	Rx.	Rx.
Auction sales of monopoly opium	6,477,979	6,096,327	4,850,352	3,991,045
Duty on Bombay or Malwa opium	1,890,854	1,675,653	1,338,282	970,638
Cost of opium issued to the Excise and other Departments.	215,123	221,300	220,601	218,089
Total	8,583,056	7,993,180	6,409,238	5,179,772
Opium expenditure, chiefly in Bengal	1,605,107	1,602,496	2,486,692	2,389,117
Net Opium Revenue	6,977,949	6,390,684	3,922,546	2,790,655

^c These receipts are outside the provincial opium duties of Rx. 978,000, shown in the Excise section of this Statement.

OPIUM.

The number of chests of Bengal opium sold in each of the years 1889-91 was 57,000, but it had fallen to 37,695 chests in the year 1895-96, and was 39,000 in the years 1896-97 and 1897-98. The number of chests of Bombay opium exported to China was 31,233 in the year 1893-94, 21,693 in the year 1895-96, 22,289 in the year 1896-97, and 16,676 in the year 1897-98.

The decrease in the net opium revenue for 1897-98 was due partly to the heavy fall in prices at the Calcutta sales, and partly to the reduction in the pass duty on the exports of Bombay (or Malwa) opium. The net opium revenue during the past 27 years has been as follows:—

Net Opium Revenue in		Net Opium Revenue in	
	Rx.		Rx.
1872-73	6,870,423	1894-95	5,707,652
1878-79	7,700,671	1895-96	5,054,981
1880-81	8,451,276	1896-97	3,922,546
1888-89	5,964,404	1897-98	2,790,655
1893-94	4,750,964		

Bengal.

The area actually cultivated with the poppy in the Ganges Valley has fluctuated much, thus:—

Area of Bengal Opium Cultivation in Acres.

1886	594,921	1897	561,975
1894	458,181	1898	539,885
1896	519,640		

The rise in recent years, as compared with 1894, was partly due to the increase of 20 per cent. in the price paid by Government to the cultivators for their raw opium. The fall in the last year, as compared with 1897, occurred in the Benares agency, and was due to the high prices of grain, which rendered cultivators unwilling to grow opium, as well as to other causes. The total of land engaged for opium cultivation in the Behar agency increased slightly, and in consequence of favourable weather in the early part of the season there were comparatively few failures. During February and March, however, conditions were less favourable, and the crop was much below expectation, especially in the Behar agency. The opium harvest has for eight successive seasons been much below the average of former years; the yield was very poor in 1894, was a little better in 1895, and somewhat larger again, though still much below the old average in the three last years. The average yield of opium was 13½ lbs. per acre, as compared with 13¼ lbs. per acre in 1897, and with a normal outturn of 18 lbs. per acre in a year of good harvest.

The number of prosecutions for breaches of the Opium Laws was 1,722 as compared with 1,469 in the preceding year; in these cases 1,272 persons were convicted, and 305 were acquitted, as compared with 1,208 and 246 respectively in the previous year.

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 ¼ of a rupee (in Burma) to 3¼ rupees (in Bengal) per maund of 82½ lbs.; during the year 1895-96 the rate was 2½ rupees over the whole of India, except Burma, where it was one rupee per maund. The Indian sources of salt supply are

PROGRESS AND CONDITION OF INDIA, 1897-98.

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 pits 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 prevented salt production by solar evaporation at the Sambhur Lake in Rajputana, special supplies from the Bombay coast factories were carried inland, and partly made 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 1897-98 were as follows:—

PROVINCE.	Price of Government Salt, and Excise on Salt made Locally.	Duty on Salt Imported from England.	Duty on Salt Imported from other Sources.	Miscellaneous.	TOTAL.	Charges.	Net Salt Revenue.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Northern India	1,932,092	—	—	15,718	1,947,810	108,948	1,838,862
Burma	24,234	119,694	12,816	—	156,744	642	156,102
Bengal	4,631	1,479,445	987,613	11,826	2,469,315	16,475	2,446,840
Madras	1,718,310	481	472	7,898	1,726,961	180,779	1,546,182
Bombay	2,214,849	928	1,442	82,176	2,299,395	171,903	2,127,492
TOTAL, 1897-98	5,894,110	1,600,548	982,343	117,218	8,594,225	473,747	8,120,478
1896-97	5,692,657	1,483,062	1,145,324	120,662	8,421,705	523,362	7,898,353

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. The net revenue increased by Rx. 222,000, which is about half the amount of the fall caused in 1896-97 by famine stringency. The rate of salt consumption per head of the population differs widely in the several provinces. In ordinary years it is over 17 lbs. per head in Burma, where the rate of salt duty is one rupee a maund; it is 18 lbs. a head over a great part of Madras, where the duty is 2½ rupees per maund; it is about 10½ lbs. per head in Bengal, where the duty is 2½ rupees per maund; and it is about 8 lbs. a head in the North-West Provinces and Oudh, where the duty is also 2½ rupees per maund. The small difference, about 15 per cent., due to longer distance from salt sources, in the retail prices of salt between northern and southern India, does not explain the great differences in the rate of consumption per head.

During the last eleven years the total salt consumption of India has been as follows:—

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 82½ lbs. avoirdupois.
1886-87	34,330,000
1888-89 (The rate of duty was raised in January, 1888 from 2 Rs. to 2½ Rs. per maund).	31,474,000
1890-91	33,722,000
1892-93	35,451,000
1893-94	34,029,000
1894-95	34,555,000
1895-96	35,090,000
1896-97	34,639,000
1897-98	35,123,000

SALT.

These figures are not absolutely accurate, because the amount of local salt consumed in Burma is not precisely known, but in the foregoing figures it is estimated at 600,000 maunds in 1897-98 and 1896-97, at 500,000 maunds for the year 1895-96, at 400,000 maunds in the years 1889-95, and at 560,000 maunds in earlier years.

Northern India.

The Northern 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 in 1897-98 to 7,765,000 maunds, or nearly the same as the sales of the previous year. Compared with the preceding year sales of salt increased at the Sambhur Lake and at the Punjab salt mines. The season was again very unfavourable for the manufacture of salt at the Sambhur Lake or at other salt sources of Rajputana. The price of salt ex-duty at the Sambhur Lake, which is the largest source of supply, was 4 annas per maund as in the preceding year. Of the total duty-paid salt consumed, the Sambhur Salt Lake supplied 4,098,000 maunds, the Mayo and other mines in the Punjab supplied 2,158,000 maunds, and the remainder came from minor salt sources. The issues of salt from the Kohat mines fell 35 per cent. as compared with the sales of the previous year. The enhancement of salt duty at the Kohat mines, from half a rupee to two rupees per local maund of 102 lbs., took effect in July 1896, and in view of this, and of the disorganisation of trade by the frontier war, it is considered that the figures of this year are satisfactory. At the end of the year under report, the Indus Preventive Line was abolished. The gross receipts on account of salt revenue increased from Rx. 1,876,000 in the year 1896-97 to Rx. 1,958,000 in 1897-98; the charges came to 5½ per cent. on the receipts as compared with 6½ in the previous year. The average wholesale price of duty-paid salt, at the chief marts of the provinces supplied from the northern salt sources, ranged during the year: in the Punjab, from 2½ rupees a maund at Rawalpindi to 3½ rupees at Amritsar; in the North-West Provinces, from 3½ rupees at Agra to 3½ at Fyzabad; in the Central Provinces, from 3½ in Nimar to 4 rupees at Jubbulpore and Nagpore. The price of imported salt in the adjoining province of Behar ranged from 3½ rupees at Patna to 3½ rupees at Muzafferpur and Chupra. Prices were about the same as in 1896-97.

The number of persons prosecuted for breach of the salt law fell from 542 to 500; of this latter number seven persons were acquitted and 486 were convicted, of whom 290 were imprisoned in default of payment of fine. The number of serious cases of salt smuggling were very few; 1,024 persons who were arrested for very petty cases of salt smuggling were released by the departmental officers without being sent for trial.

Bengal.

The chief administrative changes in Bengal under consideration or effected during the year were the formation of a preventive staff to suppress illicit manufacture of salt in the coast districts, the revision of the salt law in Bengal and its extension to Orissa, and the re-transfer of the salt administration of Orissa from Madras to Bengal.

The total quantity of salt paying duty in Bengal during the year was 10,336,000 maunds, or slightly less than in the previous year. The quantity consumed in Bengal, after deducting net exports by land, was 9,706,000 maunds against 9,695,000 in 1896-97. The amount of salt imported and manufactured during the year was 12,222,000 maunds, of which there came from—

	Maunds.
The United Kingdom	7,115,000
Germany	973,000
Bombay	557,000
Madras	87,000
Red Sea and Persian Gulf Ports	2,333,000
Aden	1,128,000
Madagascar	29,000

There were very considerable increases under all heads, the total being **SALT.** 48·6 per cent. above that of 1896-97. The imports from the United Kingdom increased by 2,633,000 maunds. The stocks in hand at the end of the year were 3,446,000 maunds, as compared with 1,475,000 at the beginning of the previous year, the increase being due to the great advance in salt importations from Europe, which lowered the price of salt, and kept a large quantity of Aden and Red Sea salt off the market. In view of accumulated stocks it was intended to close the Orissa factories for the year; but the famine rendered it necessary to open them as a relief measure, and the amount manufactured was only about 17 per cent. less than last year. The gross salt revenue was Rx. 2,465,000, or a small fraction below the receipts of the preceding year, against an expenditure of Rx. 36,000. In Orissa the consumption of locally-manufactured salt fell from 46,000 to 17,000 maunds; but the sales of Ganjam salt increased, owing largely to the increased facilities given by the East Coast Railway and the total consumption of Orissa was 2·75 per cent. larger than in the previous year, though still below that of the year 1893-94. The average price of salt, including duty, at the nine chief marts of Bengal decreased by 1 anna 1 pie per maund, or 1·75 per cent., as compared with the previous year. The decrease was mainly due to a fall in the price of Liverpool salt, which ranged during the year from 98 rupees to 63 rupees per 100 maunds, as compared with a range of 124 to 72 rupees during the previous year. The average consumption of salt in Bengal was about 10½ lbs. or about the same as in the previous year.

The number of cases in which contraband salt was confiscated was 1,051, as compared with 1,097 in the previous year. There were in all 904 prosecutions for salt offences; and 30 persons out of a total of 1,017 accused people were acquitted. In the previous year there were 905 prosecutions.

It was explained in a previous number of this Statement* that in Madras, where **Madras.** 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 was 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 were eventually to be somewhat more than one-third of a year's consumption. The stocks have, as a matter of fact, accumulated to the extent of about two years' requirements, and much waste has resulted; and in view of this, it has now been decided that the requirements for a reserve at each factory shall be considered, and amounts settled, any excess above which shall be sold at a fixed price.

During the year 1897-98 there were 59 factories at work, or seven less than in the previous year; of these 18 were Government, and 41 private, establishments. The average price of bonded salt throughout the presidency, which had been 6½ annas per maund under the excise system in 1887-88, was nearly 3½ annas per maund in 1897-98, or slightly dearer than in the previous year. The average retail price of salt in the several districts of the plains ranged during the year from 9·25 seers per rupee in the Nilgiris to 13·02 seers per rupee in Chingleput. The total quantity of salt manufactured during the year was 6,570,000 maunds, besides 1,280,000 maunds of salt imported from Bombay, against 9,488,000 maunds manufactured 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 decrease was due partly to an unfavourable season and partly to the large stocks which had been accumulated, amounting to 14,673,000 maunds, or 25 months' consumption. Owing to the smaller manufacture, and to the destruction of 425,000 maunds of old salt, the stock at the end of 1897-98 fell to 12,484,000, which is equivalent to 21 months' consumption, compared with about eight months' supply at the end of the year 1887-88. The reason for the maintenance of such large stocks is that an unfavourable season may in any year reduce the output of existing factories by 50 per cent.

* See the Twenty-fourth Number of this Statement (for 1887-88), p. 76, and the Twenty-fifth Number (for 1888-89), p. 73.

SALT.

The issues of Madras salt for home and inland consumption were 8,379,000 maunds, or more than 4 per cent. above the issues of the preceding year, and the highest on record. The consumption of salt by 34,388,000 of the population of South India, including Mysore, Coorg, and certain Native States, but not including certain districts on the northern coast of Madras, came to 16.46 lbs. per head, as compared with 15½ lbs. per head in 1896-97; the consumption, by a population of 18½ millions in the Tamil districts south of Madras, came to 18½ lbs. per head, as compared with 18 lb. in the previous year.

The gross revenue from Madras salt was Rx. 1,727,000, as compared with Rx. 1,682,000 in the preceding year, and was about equal to the average of the last 10 years.

During the year 1897-98 there were 128 bonded yards in the Madras Presidency open for curing fish under special regulations, whereby cheap salt is sold to fish-curers. The quantity of fish brought to be cured was 43,300 tons, or 1,200 tons more than in the previous year. The cost of the yards to the treasury was more than covered by the reduced price (6¾ to 10 annas per maund) realised for salt; and in order to encourage the industry, special privileges have been granted in the case of the yards on the East Coast. Most of the salt fish is consumed within the presidency, the net exports being returned at 4,400 tons, valued at 1⅞ annas (about 1½ pence) per pound.

Prosecutions under the salt laws, though more than 12 per cent. fewer than in the previous year, were still numerous in comparison with other provinces; 9,449 persons were charged with salt offences, of whom 2,081 were released by departmental officers with a warning, and 7,211 were sent for trial. Of the persons tried during the year by magistrates, more than 99 per cent. were convicted. The average fine imposed on offenders against the salt laws was a little under 2 rupees per head.

Bombay.

On the Bombay coast salt is made partly by boiling and partly by solar evaporation, at 449 factories, or 11 more than in the year 1896-97. The amount of salt manufactured was 10,337,000 maunds, or 384,000 maunds more than in 1896-97; the stocks at the beginning of the year were unusually large, and the quantity of salt written off as wastage was slightly larger than in the previous year. The total removals of salt for consumption came to 9,093,000 maunds, or 325,000 more than in 1896-97. The amount of Baragra salt issued to the Central Provinces and North-West Provinces shows a recovery; but traders in Oudh and other parts of Northern and Central India are beginning again to draw their supply of salt from the Sambhar Lake, which used to supply them before its failure in 1893. The export of sea salt to the Madras Presidency, including Malabar, shows a total increase of 52,000 maunds, though British Malabar alone took 280,000 maunds less than last year. The total imports of salt, chiefly from Goa, were 9 per cent. larger than in 1896-97. The amount of duty-paid salt taken for consumption in Bombay districts was 3,366,000 maunds, or 11½ lbs. per head of the population, as compared with 11 lbs. in the previous year. In Guzerat, the richest part of the presidency, the rate was 7.8 lbs. per head, and in the rest of the presidency it was 13.68 lbs. The gross salt revenue receipts were Rx. 2,228,000, or Rx. 60,000 above the total of the previous year, and Rx. 188,000 below the receipts of 1894-95. During the year the average price of salt, exclusive of duty, ranged from 1½ annas per maund at the Baragra works to 4½ annas per maund at the dearest of the sea-salt works, near Bombay; the wholesale price of duty-paid salt ranged from Rs. 2½ per maund in the cheapest district, Ahmedabad, to Rs. 4½ per maund at Nasik, the dearest market. Seventeen fish-curing yards were at work, being two more than in 1896-97. The quantity of fish brought to be cured in bond was 1,744 tons, which shows a great falling off, due to scarcity of fish, and only 530 tons of cheap salt were issued to fish-curers.

The number of persons tried for offences under the salt laws was 1,198, against 1,072 in the previous year; the number convicted was 1,125, against 1,013.

In Sind the amount of duty-paid salt passed into consumption was 268,000 maunds, or about the same as in the previous year; and the salt revenue was Rx. 74,000, or 2 per cent. below the receipts of 1896-97. The percentage of charges to receipts was 11.72, against 11.98 in 1896-97. The consumption of duty-paid salt came to 7.90 lbs. per head of the population, against 7.98 lbs. in the previous year. The average price of salt rose slightly, and was Rs. 3.8½ As. per maund. SALT.
Sind.

The number of prosecutions for salt offences rose from 122 to 136; and in 95 per cent. of these, convictions were obtained.

The amount of foreign salt which paid duty in Burmese ports during 1897 was 1,196,370 maunds, or 70,173 more than in the previous year. This comes almost entirely from England and Germany, and pays a duty of Rs. 1 per maund. The Excise duty on locally manufactured salt is raised by a fee on vessels used for boiling brine. It amounted to Rx. 21,332 in 1896, and to Rx. 24,677 in 1897. The output of local salt is estimated at 488,636 maunds in 1896, and 620,060 maunds in 1897. This increase has been taken to indicate that the rates of Excise duty give the home product an unfair advantage, and the rates in Lower Burma have therefore been under revision. During the year the retail price of foreign salt at Rangoon, which governs the price throughout Burma, has been 1½ rupee per maund; this is about the same as last year. The price in inland markets varies, but was generally over Rs. 2; the price of local salt varied from 1½ rupee at Meiktila to 5 rupees in Northern Arakan; generally, it may be said to be less than Rs. 2 per maund. The total consumption of the year in Burma is estimated at 1,800,000 maunds. The imports of salt fish and fish-paste from the Malay Peninsula increased from 264,542 to 338,858 maunds. Burma.

EXCISE.

Excise.

The excise revenue of India is raised partly from the following sources:—
 (1) Monopolies for the sale of liquors and intoxicating drugs, over defined areas; (2) Still-head duty on all spirits manufactured at distilleries; (3) Licenses for the working of stills at specified places; (4) Licenses for the sale of various kinds of liquor.*† Tobacco, which is grown in almost every village, and is consumed by nearly all men and by many women in India, 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. 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 some places more than seven rupees per gallon of London proof spirit. The system of excise management followed in these tracts is called the central distillery system. Over a large part of Bengal, and over most of the Central Provinces, over the whole of Assam and about half of 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 in past years declared their intention to restrict the farming and out-still systems as narrowly as possible. The difficulties are 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 General.

* A customs duty is also levied on all imported spirits, 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.

† The Excise duty on cotton yarns on counts above 20s. is dealt with under the heading of "Customs."

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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 1897-98 for each province under the different heads, as shown in the Finance and Revenue 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.
Foreign Liquors, &c.	6,215	107,543	46,425	35,008	97,897	741	2,556	89,662	22,256	246,443
Country Spirits	79,343	558,181	253,445	138,196	75,836	103,949	84,821	615,243	763,701	2,622,775
Toddy	3,474	101,364	9,180	-	89,128	2,123	19	716,053	144,161	1,015,509
License Fees for sale of Opium and its preparations.	2,545	60,683	14,317	37,483	132,999	19,319	31,267	36,525	3,972	332,119
License Fees for sale of other drugs.	2,833	137,775	82,269	24,028	1	7,858	18,158	6,865	45,434	228,209
Duty on Opium consumed in India.	1,439	171,188	45,739	17,157	70,391	30,788	161,809	40,432	108,364	635,953
Acreege on Land cultivated with the Poppy.	-	-	-	2,849	-	-	-	-	-	2,849
Fines, Confiscations, Miscellaneous.	2,808	1,265	141	176	5,327	865	73	6,020	9,392	25,877
Duty on Ganja	-	186,539	-	-	-	8,668	17,989	-	322	186,527
TOTAL Revenue	98,656	1,274,775	451,496	334,674	421,579	174,311	276,791	1,462,610	1,065,162	5,489,462
Charges	2,604	67,399	5,797	5,360	19,230	5,036	471	99,237	35,309	240,371
Net Revenue, 1897-98	96,052	1,207,376	445,699	329,314	402,349	169,275	276,320	1,363,373	1,029,853	5,249,091
Net Revenue, 1896-97	104,328	1,270,289	440,865	213,758	405,869	206,288	277,730	1,418,977	1,063,263	5,401,345

The sum of Rx. 661,312 was yielded by import duties on liquors and spirits imported into India during the year 1897-98, and thus the total drink and drugs revenue of India amounts to about 4½ annas a head on the whole population of British India. There has been a 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 taxation, and has, at the same time, restricted the use of illicit intoxicants. The totals of the net excise and customs revenues on liquors and drugs consumed in India during the past 24 years compare thus:—

	Rx.		Rx.
1874-75	2,633,000	1892-93	5,660,000
1880-81	3,515,000	1894-95	5,947,000
1883-84	4,259,000	1895-96	6,176,000
1886-87	4,865,000	1896-97	6,061,000
1889-90	5,294,000	1897-98	5,909,000

For the 232* millions of people who inhabit the several provinces of British India and Berar, the total number of shops licensed for the retail

* This figure is an estimate based on the results of the Census of 1891, which showed a population in British India of 221,172,952.

sale of spirits, fermented liquors, opium and drugs, is as follows, province by province:—

PROVINCE.	Number of Retail Shops licensed in 1897-98 for the Sale of					Quantity of Opium sold for Local Consumption so far as known.	
	Spirits made in India.	Imported Spirits or Liquors.	Toddy and Rice Beer or other Indian Fermented Drinks.	Opium.	Narcotic or Intoxicating Drugs, other than Opium.		
Bengal	3,211	513	16,393	1,607	3,090	2,066	
North-West Provinces and Oudh.	6,126	280	4,477	1,112	3,387	1,356	
Punjab	1,286	483	36	1,522	1,445	1,499	
Burma	66	410	1,069	59	None.	752	
Central Provinces	5,985	90	654	916	978	462	
Assam	217	73	9	758	276	1,332	
Madras	10,387	772	17,002	1,087	272	901	
Bombay	2,825	256	1,765	1,151	1,198	1,471	
Berar	5,141	21	971	461	197	307	
TOTAL	1897-98	31,244	2,878	42,976	8,706	10,973	10,166
	1896-97	32,016	3,014	42,454	8,837	10,862	10,406

There are thus, 97,179 licensed shops for the retail sale of intoxicants and narcotics in British India, or one shop to an average of 2,400 of the population. In the United Kingdom in 1897-98, there were 168,534 licenses for the retail sale of beer, wine and spirits, or one shop to 237 of the population. In neither computation are occasional or part-year licenses reckoned; of these latter licenses 36,376 were issued in the United Kingdom during the year, while the temporary or part-year licenses in India are under 2,000 a year.

In Bengal the total excise revenues of 1897-98 and the two previous years were as follows:—

Receipts from	1895-96.	1896-97.	1897-98.
	Rx.	Rx.	Rx.
Country spirits	591,184	608,046	558,101
Foreign liquors and rum	75,478	71,320	70,703
Fermented local liquors, toddy and rice-beer	145,933	145,447	138,506
Opium	247,282	232,560	231,860
Ganja, bhang, and their compounds	276,002	261,817	274,295
Miscellaneous	1,901	1,868	1,336
TOTAL EXCISE REVENUE	1,337,780	1,341,058	1,274,801
Add duties on imported liquors	186,668	191,900	184,406
TOTAL REVENUE FROM DRINKS AND DRUGS	Rx. 1,524,448	1,533,048	1,459,207

The excise charges were rather less than in 1896-97, and the result is a decrease in net excise revenue of about 6½ lakhs, which was due to the

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famine. During several years the normal annual increase has been about four lakhs.

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 was 30, as in the previous year. The number of licensed out-stills in the whole province was 2,018 as compared with 2,097 in the previous year, and 5,250 out-stills in the year 1881-82. The total number of retail licenses for the sale of country spirits, rum and imported liquors, during the past three years, has been :—

	1895-96.	1896-97.	1897-98.
Number of licenses granted for the retail sale of—			
Country spirits from out-stills	2,091	2,097	2,018
Country spirits from central distilleries	1,197	1,191	1,193
Rum, imported wines, spirits and other liquors	586	484	513
	3,874	3,772	3,724

The revenue derived from country spirit declined by five lakhs, as shown above. Much of the out-still liquor is of very low alcoholic strength. The quantity of spirit issued from the out-stills was reported to be equal to 1,045,000 gallons of London-proof liquor, as compared with 1,390,000 gallons in the previous year. The out-turn from central distilleries in the year was 442,000 gallons London-proof spirit, against 478,000 gallons in the previous year. The still-head duty levied on central distillery liquor ranged from 1½ to 5 rupees per gallon of proof spirit. The incidence of excise revenue per head of population was Rs. 2½, as compared with Rs. 2½ in the preceding year.

The revenue from toddy was Rx. 101,422, as compared with Rx. 101,048 in the previous year; the number of licensed shops for fermented toddy was 13,233, against 13,301 in 1896-97. In 1897-98 as many as 1,568 shops were licensed for the sale of unfermented toddy or palm-tree juice. Attempts have been made to raise *tari* revenue in selected districts by imposing a tree-tax on the Madras system; in some districts the attempt has been abandoned, as being unsuited to local circumstances; in others the experiment is being continued with some prospect of success. The number of shops licensed to retail pach-wai, or rice-beer, was 1,592. The number of licensed ganja shops was 2,706, as compared with 2,688 in the preceding year, and the amount of licit ganja consumed was 4,651 maunds, against 5,008 in the preceding year; the rate of duty has been twice enhanced during the previous six years, but remained the same through the year 1897-98. Ganja is grown under close supervision in the Rajshahi district, and its cultivation elsewhere, including the Tributary States of Orissa, is forbidden. The number of shops licensed for the retail sale of bhang and charas (other hemp drugs) was 330 and 54, as compared with 322 and 54 in the previous year. The number of shops licensed for the retail sale of opium was 1,667, or 13 less than in the preceding year; the amount of licit opium consumed fell from 2,110 to 2,086 maunds. No shops are licensed for selling opium prepared for smoking after the Chinese fashion, known as *chandu*, or opium prepared for smoking after the Bengali manner, known as *madak*.

The number of arrests for offences against the excise and opium laws fell from 4,148 to 3,634, and convictions were obtained against 3,188, or 88 per

cent., of the accused persons; of these, 210 persons were convicted of the offence of illicit distillation. EXCISE.

The latest excise report for the North-Western Provinces and Oudh relates to the year ending in September 1897. For the last three years the excise revenues have been :— North-Western Provinces and Oudh.

Receipts from	1894-95.	1895-96.	1896-97.
	Rx.	Rx.	Rx.
Country spirits - - - - -	359,820	326,381	288,849
Foreign liquors and rum - - - - -	38,901	42,154	43,426
Opium - - - - -	76,506	67,822	60,177
Other drugs - - - - -	79,747	78,729	73,198
Toddy and miscellaneous - - - - -	8,692	9,216	8,643
TOTAL - - - Rx.	563,666	524,302	428,787

There was a decrease of Rx. 100,500, or 19 per cent., below the revenue of the preceding year, which year had shown a decrease of Rx. 39,000, or 7 per cent.; the fall in revenue was due to the famine, which caused high prices and hard times for the people.

The revenue from country spirits was raised as follows :—

- (a) Rx. 206,646 under the central distillery system, which extends over 67,000 square miles, inhabited by 37½ millions of people.
- (b) Rx. 19,143 under the out-still system, which extends over 20,000 square miles, inhabited by 6 millions of people.
- (c) Rx. 12,554 under the farming system, which extends over 19,500 square miles, inhabited by 3 millions of people.

The rate of still-head duty charged at the distilleries was Rs. 2 per gallon of London proof spirits, and Rs. 1½ per gallon for spirit 25° below proof with intermediate rates in a few districts to meet special difficulties. The total amount of spirit passed out of the central distilleries was 861,000 gallons, against 1,194,000 gallons in the previous year, and against 2,056,000 gallons in the year 1885-86. The total consumption of distillery liquor during the year represented 661,000 gallons of London proof spirit. The number of distilleries was 31, four less than in the previous year. The number of licensed retail shops for country spirits in the two provinces fell from 4,881 to 4,697 in the central distillery tracts; and rose from 1,395 to 1,429 in the tracts where the out-still and farming systems prevailed; the retail licenses for rum and foreign spirits increased from 273 to 300; and the consumption of rum from the Rosa factory fell from 30,741 to 30,519 gallons.

The number of shops licensed for the sale of opium and its compounds was 1,112, as compared with 1,103 in the previous year. No shops were licensed for the sale of chandu and madak, or opium prepared for smoking. The quantity of licit opium passed into consumption was 1,356 maunds, against 1,532 maunds in the previous year. The number of shops licensed for the retail sale of other narcotic drugs was 3,587, as compared with 3,637 in the previous year. A new system of taxing hemp drugs by a quantitative duty in addition to license fees came into force this year. The amount was fixed at Rs. 6 to Rs. 9 per seer for Bengal ganja and Rs. 1½ for ganja from other places; while the duty on charas is Rs. 2½ to Rs. 2 per seer. These rates are receiving further consideration. The number of licensed toddy shops increased from 4,464 to 4,477. The Madras system of taxing toddy trees was given a further trial in two districts; but it does not work well in a province where the toddy revenue is comparatively small.

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The number of prosecutions under the Excise Act was 686, or 2·4 per cent. more than, and under the Opium Laws 611, or 15·7 per cent. more than, in the previous year; the prosecutions for illicit distillation were 99, against 61 in 1895-96 and 186 and 305 in the two preceding years. The proportion of convictions to prosecutions was rather higher than in the previous year.

Punjab.

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

Receipts from	1895-96.	1896-97.	1897-98.
	Rx.	Rx.	Rx.
Country spirits - - - - -	117,835	117,277	127,820
Imported liquors and rum - - -	24,543	24,252	25,016
Opium - - - - -	52,565	55,962	57,270
Other drugs and miscellaneous - - -	18,933	21,766	24,585
TOTAL - - - Rx.	213,876	219,257	234,690

The increase of 7·3 per cent. in the revenue was due partly to the further increase under the two new duties which came into force last year, one on opium imported from the Hill States into the Punjab, and the other on *charas*, a variety of hemp drug, imported into the Punjab from the Upper Himalayas; but it was chiefly caused by a general expansion under liquors.

The central distillery system is in force throughout the whole province, save in small parts of the Gurgaon, Pirozpur, and Kangra districts, and there were during the year 17 central distilleries, as compared with 19 in the previous year. The rates of still-head duty were three rupees per gallon of spirit less than 25 degrees below proof, 2½ rupees for spirit from 50 degrees to 25 degrees below proof, and two rupees for spirit more than 50 degrees below proof. Country spirits in the Punjab are distilled from molasses. The total of licit spirits issued for consumption and the number of licensed shops for the past three years are returned thus:—

	1895-96.	1896-97.	1897-98.
Consumption of country spirits computed at London proof, in gallons.	238,794	228,329	235,928
Ditto rum, London proof, in gallons - - -	53,313	44,737	48,080
Ditto other imported spirits, in gallons - - -	79,350	60,189	68,307
Licensed retail shops for country spirits -	1,293	1,269	1,286
Licensed retail shops for rum and imported liquors, including hotels, refreshment rooms, and travellers' rest-houses.	473	473	483

It is noted that there is very keen competition at the sales of licenses for retail sale of country spirits, with the result that the revenue from that source is constantly on the increase without a proportionate increase in the number of licenses issued.

The opium revenue comprised Rx. 2,643 from an acreage fee on lands growing the poppy, and Rx. 37,482 from licenses for the vend of opium, besides Rx. 12,215, the duty on imported opium, and Rx. 4,912, the gain on sale of excise opium. The area licensed for poppy cultivation fell from 12,741 acres in 1895-96 to 9,757 in 1896-97; it is stated to be 10,412 acres in 1897-98, the

increase, as compared with the previous year, occurring in Umballa. But on the whole poppy cultivation seems to be declining in this province. The number of shops licensed for retail sale of opium was 1,552, as compared with 1,540 in the previous year; the quantity of licit opium returned as consumed was 1,499 maunds, as compared with 1,471 maunds in 1896-97. No licenses are granted for shops where opium preparations could be consumed on the premises. The number of shops licensed to retail hemp and other drugs was 1,445, as against 1,340 in the previous year.

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The number of persons prosecuted under the liquor and drug laws fell from 446 to 376, of whom 207 persons were convicted for serious offences, such as illegally distilling or smuggling liquor, and 53 for petty offences; and the number prosecuted under the opium laws fell from 366 to 269.

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

Burma.

Receipts from	1896-97.	1897-98.	1897-98.
	Rx.	Rx.	Rx.
Distillery and imported liquors	98,327	98,067	96,491
Out-stills	11,021	12,389	10,935
Toddy	38,882	40,491	38,102
Rice beer	53,613	52,757	60,659
Fines under excise laws	3,165	5,388	5,586
Opium (after deducting prime cost of Government opium).	182,308	217,479	215,862
TOTAL - - - Rx.	389,314	426,571	427,635
Add duty on imported liquors	102,567	107,767	104,519
TOTAL - - - Rx.	491,881	534,338	532,154

The distress which prevailed at the end of 1896-97 had its effect in slightly lowering the figures of 1897-98, as compared with the previous year. The only item which shows an increase of importance is rice beer, a comparatively innocuous beverage. Five central distilleries and one brewery were working during the year in Burma. The receipts from Customs duty on imported spirit fell 3 per cent., as compared with the previous year. In Pegu and Irrawaddy foreign spirits are being replaced to some extent by country liquor. The number of out-stills was 45, as compared with 53 in 1896-97. The central distilleries produced 35,827 gallons of spirits, against 50,719 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:—

	1896-97.	1897-98.
Out-still shops	53	45
Distillery spirit and foreign liquor shops	436	421
Toddy shops	863	817
Rice beer and other fermented liquor shops	339	252
Opium shops	52	52
Licit opium consumed (in maunds)	708	702

* The obligation on toddy palm owners to take out licences for sale of toddy to retail shops was removed during the year.

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There was a considerable increase in the consumption of opium; but as the prices offered for retail licenses were smaller the total revenue shows a slight falling off. The number of licenses remained the same as in 1896-97.

From the 1st January 1894 opium could not be legally sold to or possessed by Burmans, unless they had registered themselves as consumers before the end of June 1894. Non-Burman residents are allowed to buy and possess opium under the same restrictions as before. A maximum supply of opium is fixed for each licensed shop, calculated according to the number of legitimate consumers that are likely to frequent such shop. There were 52 licensed opium shops in Burma, and opium was sold to legitimate consumers from the Government treasury at four places where the number of such persons is not large enough to warrant the licensing of a shop. The total issues of opium permissible for the whole province were 882 maunds, against which 752 maunds of licit opium were consumed. In Lower Burma the retail price of opium, which had doubled under these regulations, experienced a fall during the year. The total net revenue per seer of licit opium consumed in Burma was 136 rupees. Regarding the apparent effect of the prohibition of opium among Burmans, the Local Government say:—

“The weight of opinion among district officers appears to support the view that opium is being supplanted to a certain extent by *tari* and rice-beer. This is undoubtedly a change for the better, as these liquors are a far less powerful stimulant than opium. The new opium regulations which were issued at the end of 1893 have been in force for nearly five years, and their effect should by this time be apparent. Local officers are now being consulted as to the extent to which they have fulfilled the purpose for which they were issued and as to the changes, if any, which should be made in them with a view to adapting them more closely to existing conditions and requirements.”

The amount of opium seized during the year was 230,775 tolas, as compared with 154,670 last year, an increase due to greater activity in the detection of smuggling. The working of the special preventive establishments was also more successful than in 1896-97, and the system of rewards is being extended, the rewards paid during the year amounting to 66 per cent. of the penalties inflicted. An attempt is being generally made to enlist the co-operation of the village headmen. From the majority of rural districts it is reported that there is no reason to believe that the taste for liquor or for opium is growing among Burmans.

The number of offences against the opium and excise laws reported in 1897-98 was 4,776, against 4,646 in 1896-97; those in connection with ganja were fewer in number, though the amount confiscated was rather more. The confiscations of liquor also increased from 12,200 gallons to 15,800 gallons, and the illicit stills suppressed numbered 574, as against 465.

Central Provinces.

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

Receipts from	1894-95.	1895-96.	1896-97.	1897-98.
	Rx.	Rx.	Rx.	Rx.
Country spirits - - -	173,474	148,704	132,332	103,074
Opium - - - -	97,947	91,923	76,592	70,182
Ganja - - - -	27,082	24,501	18,972	16,516
Toddy - - - -	2,240	2,061	2,095	2,123
Miscellaneous - - -	2,905	3,440	2,743	2,696
TOTAL - - - Rx.	303,648	270,719	232,734	194,591

The large decrease of revenue, for a third consecutive year, was due to the depressed condition of the people caused by famine and scarcity over most districts.

The greater part of the country is supplied with spirits from out-stills, of which there were licensed 1,504 at the close of the year, besides 24 central distilleries. The chief changes of the year lay in the creation of new central distilleries and the enlargement of the area served by existing ones, resulting in a reduction of the number of out-stills from 1,706 to 1,504. Contract stills were finally abolished. At the end of 1896-97 the bonded warehouse system in its original form was abandoned, and a modified form introduced in two districts, whereby liquor made by contractors is sold out of bond at fixed strengths and prices. 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. The duty ranges from 1½ rupees on liquor 50 degrees below proof to 3 rupees a gallon on stronger spirit.

The number of permanent shops for the retail of country spirits fell from 6,366 to 5,985. The number of temporary shops licensed for different periods was 208, as compared with 209 in the preceding year. 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 inhowa tree. The number of licenses for the retail of imported liquors was 90, against 64 in the previous year. The number of licensed tari shops was 654, or 23 less than in 1896-97. The quantity of Shahjahanpore rura imported into the province rose from 6,709 gallons to 7,933 gallons.

The number of shops licensed for the sale of opium was changed during the year from 920 permanent and 270 temporary shops, or 1,190 in all, to 916 permanent and 269 temporary shops, or 1,185 in all; and the quantity of Government opium sold to the licensed vendors fell from 493 to 462 maunds. No licenses were given for the sale of madak, or opium prepared for smoking. The amount of opium supplied on payment to feudatory chiefs and zemindars was 134 maunds, as compared with 140 maunds in the previous year. The number of permanent shops licensed for the retail sale of ganja and its compounds was 978, or 20 less than in the preceding year; while the number of temporary shops fell from 245 to 238. The quantity of ganja passing into consumption fell from 630 to 609 maunds; while the quantity sold to feudatory chiefs decreased from 157 to 140 maunds.

The number of prosecutions under the excise laws fell from 449 to 300, and from 222 to 150 under the opium laws. The number of licenses for the cultivation of ganja fell from 140 to 95, and the area cultivated was 132 acres, or 50 acres less than in 1896-97.

The excise demand of Assam for the year 1897-98 and previous years was distributed thus:—

Receipts from	1894-95.	1895-96.	1896-97.	1897-98.
	Rx.	Rx.	Rx.	Rx.
Country spirits	45,276	47,646	55,178	52,752
Imported liquors and rum	2,500	2,088	2,604	2,402
Opium and its compounds	193,634	190,101	186,101	183,589
Ganja and its compounds	30,195	32,281	35,285	35,611
Miscellaneous, including toddy, &c.	171	203	225	284
TOTAL	271,760	272,319	279,393	274,638

The whole revenue of the year was collected, except Rx. 248, the remission of which was mainly due to the earthquake, and Rx. 114, which were outstanding at the end of the year. The revenue from country spirits is raised

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Excise.

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 217, against 218 in the previous year, besides seven shops on the sanctioned list, but temporarily closed in each year. Much of the liquor is weak; it sells from six annas to one rupee per quart bottle, according to strength, and is chiefly consumed by immigrants. Out of 36 samples tested at different shops in each of the plains districts, 26 were found to be weaker than 50 per cent. below London proof, five samples were from 25 per cent. to 50 per cent. below proof, and five samples were stronger than 25 per cent. below proof. The number of retail shops licensed to sell rum was 12, against 13 in the previous year, and 24 in 1894-95; this rum is sold at from one to two rupees per quart bottle. No rum was distilled in Assam during the year, and 2,432 gallons were imported, as compared with 2,890 in the previous year. The number of shops licensed for the retail sale of foreign liquors, including licenses on board steamers, was 60, as compared with 64 in the previous year. For toddy three licenses, and for rice beer seven licenses, were issued. It having been decided to license experimentally the sale of *bhāng* in selected localities, licenses were offered for sale; but no satisfactory offers were received and only one was sold. For the first time since 1880, licenses were issued for the sale of *charas*, to meet the demand of Pathan coolies. None, however, were imported or sold. The number of licensed ganja shops was 272, or four less than in the previous year; and the quantity of ganja disposed of during the year was 623 maunds, against 634 in the year 1896-97. Ganja is consumed chiefly in the two districts of the Surma Valley. The opium revenue again shows a decrease as compared with the previous year; but opium still yields about two-thirds of the total excise revenue of Assam. The issue price of opium in Assam is 37 rupees per seer, as compared with 8½ rupees, the cost of production at the Government factory. The number of licensed opium shops has been gradually reduced from 1,283 in the year 1883-84 to 827 in the year 1895-96, to 804 in the year 1896-97, and 758 this year; while the quantity of licit opium consumed was 1,333 maunds, against 1,331 maunds in the preceding year, 1,494 in the year 1889-90, and 1,874 maunds in the year 1875-76. No shops were licensed for the sale of madak or chandu, preparations of opium for smoking, during the year.

The number of prosecutions under the excise and opium laws fell from 335 to 267, and convictions were obtained against 87 per cent. of the accused persons. Three cases of unlawful cultivation of the poppy were reported; 17 cases of unlawful cultivation of ganja and bhāng came to light; and 23 cases of illicit manufacture and sale of spirits were prosecuted. Most of the other cases were of trifling character; one conviction was obtained for the illicit importation of *charas*.

Madras.

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

Receipts from	1895-96.	1896-97.	1897-98.
	Rx.	Rx.	Rx.
Country spirits	623,747	654,017	610,064
Toddy alone	682,823	702,462	718,622
Foreign liquors and miscellaneous	43,984	48,672	49,152
Opium and other drugs	82,080	82,789	78,666
TOTAL Rx.	1,432,634	1,487,940	1,456,504
Add,—Customs duties on imported liquors	111,481	110,052	109,924
TOTAL REVENUE FROM } DRINK AND DRUGS } . . . Rx.	1,544,115	1,597,992	1,566,428

The total excise revenue showed a decrease of Rs. 31,436, or 2 per cent. Excise. less than the previous year; last year there was an increase of 5 per cent.

Duties on country spirits are raised under the central distillery system over the whole presidency, except in parts of Ganjam, Godavery, and Vizagapatam, most of Malabar and Kistna, and in the first part of the year in South Canara. In these exceptional tracts, which contain a population of five millions, or one-seventh of the presidency, the monopoly of manufacture and vend is farmed out, but the farmer has to pay stipulated rates of duty on all spirit that he distils or sells. Shop licenses are sold by auction in all the towns, and in most of the rural circles. Over nearly the whole of the presidency a tree tax, ranging from one rupee to six rupees a year, is imposed on all palm trees tapped for toddy, while the shops for retail sale of toddy pay a license fee, or outside the tree-tax area are sold by auction to the highest bidder. The rates of still-head duty range from 5½ rupees a gallon to 1½ rupees per gallon on proof spirit; while the total taxation, including license fees, exceeds six rupees per gallon of proof spirit in 15 districts or tracts, ranges from five to six rupees in ten districts or tracts, and is between four and five rupees in two areas. Much of the spirit consumed in the Madras Presidency is made from sugar at large distilleries worked with modern appliances. The number of licensed shops for the retail sale of country spirits had been reduced from 17,736 in 1888-89 to 10,636 in 1896-97, and fell to 10,383 in 1897-98; the licenses for the retail sale of foreign liquors were 772, as compared with 754 in the preceding year. The quantity of foreign spirit imported into Madras was 188,585 gallons, or 15,646 gallons less than in the previous year. The total quantity of licit spirits issued from the distilleries, reduced to London proof strength, was 922,200 gallons in 1897-98 against 976,400 gallons in the preceding year.

The system of tree-tax on toddy trees has now been extended to practically the whole of the presidency. The rate of the tax was enhanced in three districts and parts of two other districts during the year. The number of licensed toddy shops was 17,602, against 18,415 in 1896-97, and 26,180 in the year 1888-89. The number of licensed shops for opium decreased from 1,129 in the previous year to 1,067, besides 270 shops licensed for the sale of hemp drugs. The total quantity of opium consumed fell from 77,102 lbs. in the year 1896-97 to 73,876 lbs. in 1897-98. The consumption of ganja and bhang was 1,625 maunds against 2,018 maunds in the previous year.

The total excise revenue of Madras fell on the population (as per census of 1891) at the rate of about 6½ annas per head, as compared with 6¾ annas in the previous year. The number of persons sent for trial for offences against the excise laws was 21,724, against 22,673 in the previous year, and among these, and 1,965 persons whose cases were pending at the beginning of the year, 91 per cent. of convictions were obtained. The number of reported cases of illicit distillation or sale or possession of illicit spirits were 1,380, besides 1,869 cases of smuggling spirits from foreign territory; while the reported cases of illicit manufacture of toddy increased from 11,830 to 11,889.

In the Bombay Presidency the central distillery system obtains nearly every- Bombay where, and in the Dohad and Jhalod talukas of the Panch Mahals, in which the out-still and farming systems have hitherto prevailed, the still-head duty system was introduced during the year. 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 most districts a tax is imposed on every toddy tree that is tapped for its juice. In the Bombay Presidency spirits are distilled from fermented mhowra (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 three years were:—

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EXCISE.

Gross Receipts from	1895-96.	1896-97.	1897-98.
	Rx.	Rx.	Rx.
Locally-made liquors, including toddy - - - - -	973,760	971,775	937,591
Licenses on foreign liquors - - - - -	16,784	22,121	16,351
Opium - - - - -	150,786	150,506	125,050
Intoxicating drugs - - - - -	38,646	38,650	48,093
Miscellaneous items - - - - -	10,860	11,053	9,658
TOTAL EXCISE REVENUE - - - Rx.	1,188,836	1,194,105	1,136,743
Import duties on potable liquors for Bombay and Sind - - -	188,202	176,224	181,499
TOTAL REVENUE FROM } DRINK AND DRUGS } - - Rx.	1,377,038	1,370,329	1,318,242

The rate of still-head duty ranges from five 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 three years is returned at,—

	1895-96.	1896-97.	1897-98.
For—			
Country spirit - - - - -	2,807	2,805	2,825
Toddy - - - - -	1,810	1,810	1,765
Drugs other than opium - - - - -	1,243	1,139	1,198
Opium - - - - -	1,149	1,141	1,151
Imported liquor (including wholesale licenses)	451	441	471

In one district the rate of still-head duty was raised during the year. The decrease in the revenue from country spirits was attributed to the ravages of plague and famine. The total consumption of excised country spirits in all parts of Bombay, except Sind, during the past two years is returned as equivalent to 2,722,000 gallons of spirit 25° below London proof for 1895-96, to 2,368,000 gallons for 1896-97, and to 2,435,000 gallons for 1897-98. The number of licensed opium shops was 1,141, as compared with 1,146 in the previous year. The consumption of licit opium in the districts of the Bombay Presidency was 1,466 maunds, as compared with 1,555 maunds in the year 1896-97. The quantity of licit opium sold in Native States of the Bombay Presidency was returned at 1,784 maunds, of which 593 maunds were sold in Baroda, and 617 maunds in Kathiawar. The total excise revenues fell on the population of Bombay province at the rate of 8½ annas per head, and in Sind at the rate of 5½ annas per head.

BERAR.

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

	1895-96.	1896-97.	1897-98.
	Rx.	Rx.	Rx.
Country spirit - - - - -	102,485	95,407	85,123
Opium and drugs - - - - -	25,347	24,756	23,025
Toddy and miscellaneous - - - - -	2,992	3,818	4,192
Foreign liquors - - - - -	165	182	205
TOTAL - - -	130,989	124,163	112,545

Over rather less than half of Berar the revenue on country spirits was still raised by selling annually at auction the monopoly of the spirit trade in the circles into which the province was divided; but in the Ellichpur and Akola districts and part of the Amraoti and Buldana districts the central distillery system was last year in force, with a duty of 2 rupees per gallon of liquor 25° below London proof, and one rupee per gallon at 60° below that standard. The number of shops licensed for the retail sale of country spirits was 1,141, or 36 more than in the previous year; and for imported liquors, 20 against 18. The number of licensed toddy shops was 971, as in the preceding year. The number of licensed opium shops was 461, or ten less than in the previous year; and the quantity of opium consumed fell to 307 maunds, against an average of 401 maunds for each of the preceding five years. The number of licensed ganja shops was 127, or 11 fewer than in 1896-97. Under the excise and opium laws, 220 convictions were obtained, as compared with 149 in the previous year.

In Coorg the manufacture of spirits is limited to a central distillery. The total excise and opium revenue in 1897-98 was Rx. 23,200. There were 56 shops licensed to sell country spirits; the licenses for foreign liquors fell from 12 to 11. The consumption of ganja decreased 22 per cent. as compared with 1896-97, and that of country spirit was 33 per cent. lower.

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 stamps receipts, province by province, for the year 1897-98:—

	Bengal.	North Western Provinces and Oudh.	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 -	1,270,720	553,818	261,276	103,990	111,294	61,323	29,755	549,678	343,667	3,305,876
Sale of commercial and other stamps.	501,310	176,715	152,809	63,201	43,393	25,229	19,553	282,472	186,512	1,466,034
Fines and miscellaneous -	3,911	1,263	6,261	2,986	445	489	209	9,681	49,795	76,632
TOTAL Stamp Revenue of 1897-98	1,775,941	731,796	440,346	170,106	155,132	87,041	49,517	841,830	579,974	4,887,048
TOTAL of 1896-97	1,757,429	709,449	459,439	164,063	172,697	90,019	57,709	794,086	571,861	4,777,742

The refunds of the year were Rx. 53,166, and the charges of collection came to Rx. 154,027. There was an increase in revenue of 1½ per cent., as compared with an increase of 1 per cent. in 1896-97, and of 2 per cent. in each of the two previous years, for the whole of India. Court fees still yield about two-thirds of the whole stamp revenue, and general stamps yield something under one-third. In purely agricultural tracts like Berar the court fees revenue is more than double the general stamps revenue; in commercial centres like Bombay, Calcutta, and Rangoon the proportion of revenue yielded by general stamps is much larger. The increase in the year 1897-98 accrued chiefly under court fees, though general stamps yielded slightly more than in 1896-97. The revenue from commercial stamps in Bengal and the Punjab did not quite maintain the high figures of last year; the stamp revenue in the Punjab showed a decline from last year, though still higher than that in 1895-96; satisfactory increases occurred in Burma, Madras, and the North-Western Provinces; elsewhere the stamp revenue was virtually stationary.

CUSTOMS.

CUSTOMS.

In a previous year's Statement it was said that "in consequence of the great fall in the gold value of silver, and the resulting increase in the loss by exchange on remittances to meet Indian expenditure in England, it was found necessary to re-impose, in March 1894, import duties, which had been abolished in 1892." The general duties were levied from the 10th of March 1894, at the rate of 5 per cent. *ad valorem*, with the exception of the petroleum duty, which, was raised to one anna per gallon. At first cotton goods were exempted, but in December 1894 a 5 per cent. duty was imposed on imported cotton goods and yarns; while a countervailing excise duty of 5 per cent. *ad valorem* was imposed on all yarns of counts above 20 spun at power mills in British India. In February 1896 the cotton duties were revised; all cotton yarns, whether imported or manufactured in India, were freed from duty, while a uniform duty of 3½ per cent. *ad valorem* was imposed on all woven cotton goods either imported from abroad or manufactured at power mills in India.

The appended table shows the customs revenue for four years, namely, 1894-95, during which the new tariff was in force with the addition of the 5 per cent. duty on cotton goods from the 27th of December 1894; 1895-96, during which the tariff remained as at the end of the previous year, until the reduction of the cotton duties in February 1896; 1896-97 and 1897-98, during the whole of which the tariff remained unchanged, the duty on woven cotton goods being 3½ per cent., and cotton yarns being on the free list.

Customs Receipts after deduction of Refunds and Drawbacks.

	1894-95.	1895-96.	1896-97.	1897-98.
	Rx.	Rx.	Rx.	Rx.
Sea Customs :				
Export duty on rice - - - -	801,026	914,371	737,270	709,285
Import duty on arms, &c. - - - -	15,189	17,105	19,669	17,798
" " Liquors - - - -	609,533	661,004	656,811	659,739
" " Petroleum and other oils	319,677	406,172	503,925	554,375
" " Other articles - - - -	1,879,073	2,795,561	2,289,245	2,435,608
Miscellaneous - - - -	10,041	2,656	10,976	11,016
TOTAL Sea Customs - Rx.	3,724,539	4,796,869	4,217,926	4,387,821
Land Customs :				
Imports - - - -	11,629	11,774	10,325	8,444
Exports - - - -	12,161	8,238	14,713	21,540
Miscellaneous - - - -	36	83	111	64
TOTAL Land Customs - Rx.	23,826	20,095	25,149	30,048
Excise duty on cotton manufactures - - - -	10,838	60,948	109,159	113,895
Miscellaneous (including warehouse and wharf rents) - - - -	16,160	23,009	19,940	23,309
TOTAL Customs Revenue. - Rx.	3,775,363	4,905,921	4,372,174	4,555,073

There had been a decrease of Rx. 533,000 in 1896-97, partly due to the reduction in import duties on cotton goods, and partly to the shrinkage in

trade caused by the famine and plague; in 1897-98 there was a recovery to the extent of Rx. 183,000. CUSTOMS.

The total import duty "on other articles," in each of the two last years is made up of the following items:

	1896-97.	1897-98.
	Rx.	Rx.
Duty on articles of food and drink (not being alcoholic liquors)	272,611	369,042
" chemicals, &c.	90,352	105,583
" cotton manufactures	898,182	784,267
" silver bullion and coin	196,830	428,509
" other metals and manufactures of metals	426,235	218,834
" other raw materials and manufactured and unmanufactured articles	405,035	529,283
TOTAL - - - - Rx.	2,289,245	2,435,608
The total yield of the cotton duties was:		
Customs duties	898,182	784,267
" " (land)	676	356
Excise	109,159	113,895
TOTAL - - - - Rx.	1,008,017	898,518

Regarding the working of the excise duties on cotton goods complete report is available for the Bombay Presidency, where 53 cotton factories produced excisable woven goods, including three hosiery factories, while 58 factories produced yarn only. The total output of the cotton mills in the British districts of Bombay for 1897-98 was 323 million lbs. of yarn and 70 million lbs. of woven goods, showing altogether an increase of 6½ per cent. on the figures of 1896-97. The net excise revenue realised on cotton goods in Bombay was Rx. 94,000, as compared with Rx. 89,000 in the previous year, and Rx. 56,000 in 1895-96, chiefly under the old Act, which taxed fine yarns only. Production of cotton goods has partially recovered from the effects of the plague. Drawback was paid, without friction, on more than 8 million lbs. of exported woven goods. The valuation of the bulk of goods was 6½ annas per lb. Inspections were made of mills from time to time to secure correct return of goods; mill owners gave every facility to inspecting officers; and the excise duty was collected without difficulty. The only mills in Native States, that might compete with mills in British territory, are situated in Bhaunagar and Baroda. But in both of these States an excise duty is now levied on cotton goods.

PROVINCIAL RATES.

PROVINCIAL
RATES.

Provincial rates are levied for the most part on the land. They are imposed 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, after deduction of the small establishment charges, were Rx. 3,665,000 in the year 1897-98, as against Rx. 3,473,000 in the preceding year. 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 income from provincial rates 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, for the most part, collected punctually with the land revenue and by the same agency.

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.	2,120	444,271	64,600	527,042	229,878	37,607	124,650	560,090	279,466	2,269,731
Provincial:										
Cess on Land for expenditure on Roads, Schools, &c.	—	444,316	—	—	—	212	—	—	—	444,527
Cess on Land for Famine Assurance, Canals, and Railways.	—	—	—	119,464	60,186	17,564	—	—	—	197,204
Cess on Land for District Post	—	37,397	—	—	11,397	4,205	—	—	—	52,999
Cess on Land for Village Service and Path-waries.	3,357	—	—	232,387	140,084	37,654	—	224,010	40,907	678,399
Assessment on Wards' Estates for Establishment Charges.	—	14,155	—	—	2,319	—	—	—	—	16,474
Miscellaneous	5,751	—	—	52,062	422	—	—	5,721	—	63,956
TOTAL Receipts	11,328	940,138	64,600	930,946	442,287	97,242	124,650	789,629	320,373	3,723,290
Refunds and charges of collection	—	41,094	401	1,816	1,670	675	5,163	1,188	6,530	68,560
Net Receipts, 1896-97	11,328	899,044	64,199	929,130	442,617	96,567	119,487	788,441	313,843	3,665,030
Net Receipts, 1895-96	10,370	868,658	61,702	873,691	406,252	104,958	109,637	741,263	292,475	3,472,951

INCOME TAX.

INCOME TAX.
General.

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 (2.6 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 :—

INCOME TAX.

	Gross Collections.	Refunds.	Net Receipts.	Charges for Assessment and Collection.
	Rx.	Rx.	Rx.	Rx.
Bengal	503,884	2,169	501,715	18,977
North-Western Provinces and Oudh	250,129	2,592	247,537	212
Punjab	153,723	863	152,860	1,163
Burma	101,496	3,730	97,766	3,322
Central Provinces	49,039	384	48,655	82
Assam	31,691	57	31,634	191
India, General	145,322	686	144,636	106
Madras	266,446	1,788	264,658	2,802
Bombay	393,735	1,963	391,772	5,423
TOTAL, 1897-98	1,895,465	14,232	1,881,233	32,278
TOTAL, 1896-97	1,872,809	12,461	1,860,348	30,322

A review of the results of the Income Tax Act was published in November, 1895, showing how the tax had been worked during the nine years 1886-94, for which period the law and the rates of taxation remained the same. During the nine years the income tax revenue had increased from Rx. 1,369,000 to Rx. 1,709,000, or by 25 per cent., while the costs of collection have fallen from Rx. 53,000 to Rx. 31,000, or 1½ per cent. on the receipts. Of the total revenue 23½ per cent. is contributed by the three cities of Calcutta, Bombay and Madras; 30 per cent. accrues from salaries and pensions, and 6 per cent. from interest on securities. The total number of persons assessed to income tax in India was 436,283, or one in 527 of the whole population, in the year 1893-94; and the average incidence of the impost on each taxpayer was Rx. 3½. Outside the Presidency towns and Rangoon the incidence was much smaller; for instance, in Calcutta, Bombay and Rangoon, the tax fell at over two rupees per head of the population, whereas outside these cities the incidence of the tax on the population ranged from 0·03 to 0·10 of a rupee per head. Under Part II. of the Act [Profits of Companies], the largest contributions to the Income Tax revenue in 1893-94 were made by

Results of the income tax during 1886-94.

Railway Companies	Rx.	29,000
Cotton spinning and weaving companies		21,000
Banking Companies		13,000
Under Part IV. [other sources of income, not being salaries and pensions, profits of companies, or interest on securities], the largest contributions were made under Professions by barristers and other legal practitioners		49,000
Under Trade and Commerce, by money lenders		291,000
general merchants		88,000
piece-goods dealers		54,000
grain dealers		51,000
Under Property, by house owners		49,000

Income derived from land is not, as stated above, liable to income tax.

Out of the total income tax [Rx. 1,127,000] paid under Parts II. and IV. [Profits of Companies and Trades or Professions], somewhat more than half was paid under Classes I. to VI. by persons enjoying incomes of Rx. 50 to Rx. 200; while incomes under Classes I. and II., ranging from Rx. 50 to Rx. 100 a year, yielded about one-fifth of the total receipts from all classes.

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INCOME TAX.

Provincial details.
Bengal.

The following paragraphs give provincial details for the year 1897-98 :—

In Bengal the number of objections against 113,625 assessments was 11,036, as compared with 10,493 and 10,795 in the two previous years; 33·3 per cent. of the objectors were more or less successful, as against 32·5 per cent. in the previous year; and the final demand was 2·6 per cent. below the original assessments. The total receipts in Bengal, Rx. 494,700, show an increase of Rx. 3,000, or ·6 per cent., as compared with 1896-97.

The amounts realised under the several schedules for the last three years, as returned by the Bengal Government, were, exclusive of arrear receipts :—

		1895-96.	1896-97.	1897-98.
		Rx.	Rx.	Rx.
I.	Salaries and pensions - -	103,000	105,000	108,000
II.	Profits of companies + -	38,000	46,000	42,000
III.	Interest on securities - -	7,000	7,000	8,000
IV.	Trades, professions, &c. - -	317,000	318,000	322,000

The proportion of persons assessed to the total population of Bengal was 1 to 637, and the incidence of the tax was one rupee to every 16·2 persons; outside the city of Calcutta the incidence was one rupee to every 32·2 persons of the total population. Nearly 50 per cent. of the income tax revenue of Bengal accrued in the city of Calcutta.

North-Western
Provinces and
Ondh.

In the North-Western Provinces and Oudh, out of 67,616 assessments on trades and professions, the number of objections was 25,590; 27·5 per cent. of the objectors were in some degree successful, the proportion in the previous year having been 30·6; and the final demand was 6·3 per cent. below the original assessment. Notices of arrear were issued in 3,093 cases, and in 436 cases further coercive measures had to be taken against defaulters; while in 113 cases attached property had to be sold for arrears. The total receipts, Rx. 240,900, were about the same as in the previous year. One person was assessed in every 670 of the whole population. Of the whole tax over 74 per cent. was paid by trades and professions, and 14 per cent. by Government servants on their salaries.

Punjab.

In the Punjab objections were filed against 34 per cent. of the original assessments under Part IV.; of these, 34 per cent. were successful, as in the year 1896-97; and the final demand was 8·3 per cent. below the original assessment. Rx. 967 of the year's demand were uncollected at the end of March. The total receipts in the Punjab were Rx. 138,700, showing an increase of Rx. 7,100, or 5½ 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.

Burma.

In Burma the income tax was applied to all Government servants and to 93 towns in the lower province, and it was extended to Mandalay in Upper Burma during the year; income taxpayers were exempted from capitation tax. In the year 1897-98 the number of objections preferred against 14,694 assessments under Part IV. was 3,547, of which 52 per cent. were more or less successful; and the final demand was 19·5 per cent. below the total of the original assessments. The initial assessments in Mandalay under Part IV. numbered 2,642, for an amount of Rx. 8,302; there were 943 appeals, of which 209 were completely successful; reductions were allowed on a liberal scale, and the final demand was Rx. 5,088, nearly all of which was collected during the year. Against 108 assessments under Part II. (Profits of Companies) two objections were preferred, of which one was partly successful. In 794 cases warrants were issued against defaulters, as compared with 917 in 1896-97, and 895 in 1895-96; property was sold in 11 cases only. Of the whole income tax revenue in Burma in 1897-98, 27 per cent. was paid on salaries, pensions, and

securities. The total receipts of the year 1897-98 were Rx. 93,900, as compared with Rx. 77,800 in the previous year; the increase was attributed partly to increased prosperity and partly to the inclusion of Mandalay. INCOME TAX.

In Assam the yield of the tax was two per cent. more than in the previous year. The number of objections was 937, against 5,524 assessments under Part IV.; 413 objections were successful in whole or in part; and the final demand under Part IV. was more than 3 per cent. below the original assessment. The number of processes for the realisation of arrears was 54 above that of the previous year; and in 34 cases the property of defaulters was sold for arrears, against 18 in 1896-97. The proportion of collections on salaries and pensions paid by Government was 14.7 per cent., on salaries paid by companies 46 per cent., and on commerce 21 per cent. of the whole income tax revenue. Assam.

The total number of persons finally assessed to income tax in Madras was 75,459, as compared with 75,435 in the previous year; of these 88 per cent. were assessed on incomes of less than Rx. 200. Against 71,438 assessments under Part IV., 27,185 objections were preferred, of which 6,573, or 24 per cent., were wholly or partly successful. The final demand was 7 per cent. below the original assessment. In 43,590 cases notices had to be issued against defaulters, and in 305 cases property was sold on account of arrears. The collections for the year were Rx. 241,704 showing a slight increase over those for 1896-97. The year was not prosperous, but as assessment was based on the profits of the preceding year, the collection did not show this; there was, in fact, a slight increase in the receipts under Part IV. (Trades and Professions); 73 per cent. of the total demand came under that part, and 21 per cent. was paid on salaries. The assessments fell at the rate of one in 421 on the whole population, and at 29½ rupees on each taxpayer. Madras.

Almost half the income tax demand of the Bombay Presidency accrued in the city of Bombay, where the average incidence on each taxpayer was 74 rupees, against an average of 25 rupees in the interior. The original number of persons assessed to the tax was 84,254, which number was reduced on revision and appeal to 80,757; and the final demand for the whole Presidency including arrears, was Rx. 404,000, against original assessments amounting to Rx. 420,000. The share of the final demand assessed upon official salaries, pensions, and securities was about 15 per cent. of the whole. The total collections, including arrears and penalties, were Rx. 383,000, against Rx. 389,000 in the preceding year. The decrease occurred chiefly in Bombay city, and was due in part to the effect of the plague and famine on commerce. In Bombay city, apart from the tax on salaries and securities, the income tax collections on account of the year were Rx. 139,000, as compared with Rx. 126,000 in the districts of Bombay and Sind outside the Presidency town. Bombay

CHAPTER VI.

SURVEYS AND SETTLEMENTS.

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

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

The account given below of progress under heads one, two, four and five relates to the work of the season 1896-97.

Trigonometrical.

Out of 21 survey parties, and two small survey detachments, employed during the year, one party (No. 24) was engaged on trigonometrical work in Baluchistan. The triangulation, which was begun in the previous year, was carried across the Las Bela plain, and closed at the eastern end of the Kej Valley. The principal series extended over a direct distance of 75 miles, and embraced an area of 1,380 square miles; while secondary triangulation to intersected points was completed over an area of 1,200 square miles. Horizontal and vertical angles were taken at nine principal and two secondary stations; while astronomical observations were taken for azimuth at one station.

Topographical.

Six parties were engaged on topographical work, and accomplished in all 14,460 square miles of topographical survey, as against 19,798 in the preceding year. Party No. 10, having completed its work in the Southern Mahratta country, was transferred to Upper Burma, to join Parties Nos. 11 and 21. The difference in the character of the country, and other causes, prevented this party from making much progress during the year. The Shan States country in which these three parties were at work, is hilly and covered for the most part with forest. The total outturn of work by the three parties was 5,747 square miles surveyed in detail, chiefly on the 1-inch scale, and 8,690 square miles triangulated in advance. Geographical survey was also carried out by Parties Nos. 11 and 21, over 11,718 square miles of new country. The parties were to be reinforced for the ensuing season. No. 12 Party continued the survey of Sind on the 2-inch scale, and completed an area of 2,244 square miles. A large-scale survey of the Layari quarter of Karachi was also carried out by this party. The work of No. 15 Party consisted in topographical survey of 2,814 square miles, chiefly on the 1-inch scale, in Sind, together with minor surveys, and triangulation of 1,940 square miles. The Himalaya party, No. 18, surveyed 446 square miles on the 4-inch scale, and 364 on the 2-inch scale, chiefly in the Mandi, Suket, Sirmur, and Simla Hill States. Classification of forests and soils was also carried out over 181 square miles in British territory. The country surveyed included some very high ground, some peaks being 20,000 feet high, and 29 glaciers, some of great extent.

Forest Survey.

Five parties were employed in mapping the forest reserves, No. 9 Party being transferred to Madras, from traverse surveying in the Central Provinces. Party No. 14 completed the survey of the Damoh forests, and began the Bilaspur forests of the Central Provinces, where they effected 74 square miles of detail survey, and triangulated in advance a considerable area. The cost of the detail work was 70½ rupees per square mile. Party No. 17 was engaged in the reserved forests of the Poona, Thana, Ahmednagar, and North Kanara districts of Bombay; 723 square miles of detail survey were accomplished; the rates of work on the 4-inch scale was 78 rupees per square mile, as compared with 67 rupees in the previous year. Parties No. 19 and No. 9 were engaged in the forest reserves of the Kurnool, Salem, and North Arcot districts and on the Pachamalai range in Trichinopoly, respectively; 1,148 square miles of detailed

survey were accomplished. The latter of these two Madras parties, being new **SURVEYS.** both to the work and to the climate, was unable to accomplish very much. Party No. 20 effected the survey of 501 square miles of reserved forest in the Pegu and Youngoo districts of Burma. The whole area of forest surveys accomplished by all these parties during the year was 3,260 square miles, against 3,202 square miles in the previous year; a further area of 1,563 square miles of forest was surveyed by the survey branch of the Forest Department. Thus, a detail survey was effected of 4,823 square miles of forest reserves, in all, during the year 1896-97.

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

Observations were taken during the year for redetermining the value of the **Geodetic.** latitude of Madras, and the result combined with a value obtained by Mr. Michie Smith, the Government Astronomer, Madras, and two previous values gave a mean value for Madras of $13^{\circ} 4' 8'' \cdot 02$ north latitude.

The demand for maps again showed some decrease. The number of new **Map printing.** maps and new editions of maps completed during the year was satisfactory; while 5,493 cadastral maps were prepared for publication. In all, 853,945 copies of maps and plates of different kinds were printed off during the year, besides 529,664 impressions from type, 72,246 heliogravure prints, and 3,621 photographic prints. Among notable new maps of the year were charts of parts of the south-east and north-east frontiers, which are now completed, maps of Upper Burma, and forest maps.

The recording of tidal curves by self-registering tide gauges, their reduction, **Tidal and levelling operations.** and the publication of tide tables, were continued during the year at 12 stations, of which seven are permanent and five are temporary for five years; the Trincomalee station was closed during 1896. The tidal operations of the year are reported to have been successful, with the exception of those at Diamond Island, where the pipes became choked. The total number of ports treated between 1877 and 1897, for which tide tables are issued, was 37, in 26 of which operations had been closed. So far as predictions of high water were concerned, 96 per cent. of the entries in the tables were correct within eight inches of actual heights at open coast stations, and 63 per cent. at riverain stations; while as to time of high water, 70 and 56 per cent. respectively of the entries were correct within 15 minutes. All but three of the observatories were inspected during the year, and steps were taken to correct shortcomings or deficiencies detected.

The levelling operations of the season consisted in the completion of the Vizagapatam-Bilaspur line of double levels, by the connection of Potanghi with Vizianagram; and in a considerable advance northwards from Bilaspur to within 150 miles of Allahabad. The total length of double-levelling accomplished was $291\frac{1}{2}$ miles, much of it over rough, hilly, sparsely-peopled country; the total rises and falls amounted to 12,818 feet; the instruments were set up at 3,239 stations; and the heights of 23 embedded bench marks, of 370 inscribed bench marks, and of five Great Trigonometrical Survey stations, were determined.

In Upper Burma, an area of 11,718 square miles was geographically surveyed, **Explorations.** while 2,000 square miles of triangulation were also completed. The aggregate areas geographically surveyed during the year on the eastern and western frontiers amounted to 78,718 square miles.

The survey vessels "Investigator" and "Nancowry" were employed on **Marine Survey.** marine surveys throughout the open season of 1896-97, the staff being employed in the chart office during the rainy months. The principal coast survey work was off the Andamans and in the Gulf of Martaban at the mouth of the Rangoon river. Off the Andamans, sundry rocks and shoals were discovered, which might cause serious risks to vessels if the waters had remained unsurveyed. Considerable changes were found to have occurred in waters and shoals of the Martaban Gulf. The survey of the Bombay Harbour region, and

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of the Thana and Bassein creeks, adjacent thereto, was finished in the previous year, and new charts were prepared. The directions for navigating the Rangoon river were revised and altered in some respects. The naturalist on board the "Investigator" reports that the hauls of the trawl from the mud of the Martaban Gulf yielded little of interest, but one haul from a coral bottom gave several specimens; investigations into the littoral sea fauna of the Andamans were of interest, and one haul at a depth of 400 fathoms yielded many valuable and some new specimens. But on the whole the finds of the year were not rich.

Meteorology.

During the year 1897-98 meteorological observations were recorded at 227 stations, stretching from Bagdad, Zanzibar, and Aden on the west, to Dibrogarh and Bhamo on the east, and from Resht on the Caspian Sea, Kabul and Kashgar on the north, to the Nicobar, Seychelles, and Minicoy Islands, and Mergui on the south. Of these stations 174 were maintained by the Government of India, subject to the immediate control of the meteorological officers. The Minicoy observatory, which was closed in 1896, has been transferred to the Lighthouse, and was reopened during 1897. The Government observatory at Rajamundry was closed, and a new one was opened at Car Nicobar in the Nicobar Islands. Besides these changes, new observatories have been established at Oodeypore and Kotah in Rajputana, Parachinar in the Punjab, and at places in Madras and the States of Kashmir and Hyderabad. Three stations have been closed, one at Mardan, and one each in Assam and Hyderabad. Full information was obtained from the Himalayan and sub-Himalayan stations concerning the snowfall of the year, and a forecast was published in June of the probable effect of the snowfall on the ensuing south-west monsoon. Of the 174 observing stations belonging to the Government,—

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-one were second-class stations, where less frequent observations are recorded;

One hundred and nine were third-class stations, which record twice or only once 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 were kept of the rainfall at 2,240 stations.

The forecast of the probable rainfall for the monsoon of 1897 was founded mainly on information regarding the snowfall on the mountain region to the north and north-west of India, and 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 generally normal and favourable rainfall over the greater part of India; but indicated that the rainfall might be short in Sind, Cutch, Rajputana, and parts of the Punjab.

So far as Sind is concerned, this forecast was not verified, and there was an unexpected deficiency of rain in Central India, the fall being 15 per cent. below normal; but the general character of the monsoon was favourable, Berar (20 per cent. below normal) and Central India being the only districts in which the rainfall was not either nearly equal to or slightly in excess of the normal amount. The forecast for the winter rains was not quite so successful. They fell in good quantity in the north-west and the centre of India, but in the north-east and in Berar were below the normal.

The average and actual rainfall of the years 1896 and 1897 in the region SURVEYS into which India has been divided were as follows:—

Meteorological Division.	Area, Square Miles.	Number of Stations.	Normal Rainfall.	Actual Rainfall, 1896.	Actual Rainfall, 1897.
			<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>
I.—Punjab Plains	120,000	29	19·30	13·35	18·41
II.—North-Western Provinces and Oudh.	83,500	44	38·11	23·69	41·39
III.—Rajputana	67,000	19	22·13	24·13	24·43
IV.—Central India States	91,000	20	34·52	36·22	37·53
V.—Bihar	30,000	15	41·48	32·52	50·48
VI.—Western Bengal	38,000	10	42·62	45·50	52·50
VII.—Lower Bengal	54,000	28	50·41	52·86	64·53
VIII.—Assam and Cachar	61,000	16	90·03	78·26	94·48
IX.—Orissa and Northern Circars	27,000	16	52·16	38·36	52·10
X.—Central Provinces, South	61,000	17	48·15	56·77	50·21
XI.—Berar and Khandesh	43,000	13	31·76	31·97	32·72
XII.—Gujarat	54,500	13	25·53	36·67	33·08
XIII.—Sind and Cutch	68,000	10	5·98	8·74	9·87
XIV.—North Decan	48,000	13	31·97	30·51	33·13
XV.—Konkan and Ghâts	16,000	11	121·84	160·41	152·28
XVI.—Malabar and Ghâts	18,000	8	103·50	134·92	140·33
XVII.—Hyderabad	74,000	16	37·69	23·36	28·72
XVIII.—Mysore and Bellary	58,000	18	31·50	25·73	32·19
XIX.—Carnatic	72,000	37	42·61	38·23	32·25
XX.—Arakan	11,000	7	121·99	137·21	144·47
XXI.—Pegu	32,500	7	64·08	75·94	72·91
XXII.—Tenasserim	10,500	4	156·96	199·78	177·65
XXIII.—Upper Burma	?	13	41·55	33·31	35·67

Over the whole of India the rainfall was 15 inch below the normal. It was over 20 per cent. below normal in only three regions, Berar, Gujarat, and the central part of the east coast of Madras. In Sind, Malabar, and parts of the Punjab it was more than 25 per cent. in excess of the normal.

Eleven notable storms were observed in the Bay of Bengal, the most severe of which was the cyclone which passed over the Chittagong coast on the 24th October and did much damage. Eight storms, none of which was severe, were reported from the west coast of India. Storm signalling was effectively performed at Bombay and Calcutta; ample and definite warning is said to have been given of all the more important storms that visited the coasts of India during the year. These warnings were sent to 21 ports on the Bay of Bengal and to 22 ports on the west coast. The reorganisation of the storm-signalling system was undertaken during the year, and a committee on the subject recommended that signals should emanate from one source, and that a more complete system should be used for large ports than for small. These recommendations were put into force on the 1st April 1898. The system of flood warnings to canal, civil, and railway officers continued to be useful; 277 such warnings were issued by the Meteorological Department during the year; in the previous season 289 of these warnings were issued. 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 barometrical, wind, and thermometric observations, and of the variations from normal conditions, were published regularly.

The chief events of the year from this point of view were the cyclone mentioned above, the earthquake of the 12th June 1897, and the eclipse of the sun on the 22nd January 1898. The wind during the cyclone had an estimated velocity of 80 miles an hour and caused a series of storm waves to sweep over the coast, and a large number of buildings, as well as crops and trees, were levelled to the ground, and much damage was done in the harbours. The loss of life is estimated at 14,000. The earthquake, of which mention was made on page 32 of last year's statement, affected the whole of Assam and the north-eastern portion of Bengal, from Calcutta northwards. It is reported to have caused 135 deaths in Bengal and 1,542 in Assam, and had it not fortunately occurred at a time when people were out of doors, many more must

SURVEYS.

have perished. The damage was estimated at many crores of rupees, Government roads and buildings alone having suffered to the extent of Rx. 480,000; parts of the Assam-Bengal railway were seriously injured. An inquiry conducted by the Geological Department leads to the conclusion that it was due to a nearly horizontal fracture or "thrust-plane," along which the upper part of the earth's crust was pushed over the lower.

The eclipse of the sun was observed by a party of the Survey of India at Dumraon, and by parties sent out by the Joint Eclipse Committee from England at Viziadrug, Pulgaon, and Sahdol. There were also other parties, sent by the British Astronomical Association, for which all necessary assistance was provided by the Government of India. Generally speaking, the conditions of observation were favourable, and good results were obtained.

Among the other special observations taken during the year were wind observations, solar and terrestrial radiation observations, underground temperature observations, and bright sunshine observations.

The number of stations inspected by officers of the Meteorological Department was 44, of which 26 observatories were found to be "satisfactory" or "very satisfactory"; 13 were said to be "fair"; and five were in bad condition.

Rainfall of 1898.

The general history of the rainfall of the year 1898 was as follows:— In the months of January and February the rainfall was in excess of the normal supply, and was abundant in the Punjab and North-West Provinces, where the winter rains are specially valuable for the spring crops. During the hot months of March to May the rainfall was normal, save in Bengal and Assam, where a large deficiency in the usual summer rain seriously affected the tea industry. During the south-west monsoon, or ordinary rainy season, from the end of May to the middle of October, the rainfall was normal or above normal over the greater part of India, but was short in the Punjab, in Rajputana, in Berar, Upper Burma, and part of the north-east coast of Madras. The latter rains, from the middle of October to the end of December, were far short of normal, save on the south and centre of the Madras Presidency; in those regions, where the north-east monsoon is heavier and more important than in any other part of India, the rainfall of the last three months of 1898 was abundant. The defect in the latter rains was serious in Bengal, Assam, and Burma; happily the Punjab and the North-West Provinces, for the most part, received bountiful rain in January and February 1899, which largely compensated for the shortness of the Christmas rains.

On the whole the rainfall of 1898 was favourable, though the winter harvests were not so abundant as they were in 1897, or as they would have been with a favourable north-east monsoon.

SETTLEMENTS AND CADASTRAL SURVEYS.

SETTLEMENTS
AND CADASTRAL
SURVEYS.

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 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, is based 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 or record 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. In re-settlements in the North-West Provinces and Oudh, the rents now enjoyed by the owner of the land are practically the main basis on which the new land revenue is assessed. 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 the latter.

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 courthouse; and usually a third copy is placed in the sub-divisional or tahsil 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 some districts of Madras, the Punjab, Oudh, Berar, and the Central Provinces; also in outlying parts of Bengal. Original settlements are still being prosecuted on the west coast of Madras and in Lower Burma; while in Upper Burma the first settlement of the land revenue has been begun.

The Bengal report brings the account of survey and settlement affairs down to September 1898; settlements were in progress in the three districts of Bengal.

SETTLEMENTS
AND CADASTRAL
SURVEYS.

Orissa and on the Khurda Government Estate, in Chittagong, in Tipperah, and in some hundreds of petty estates and plots in different parts of the province. Settlements and cadastral survey and record of rights were being prosecuted in North Behar, and on Government estates in Noakhali and elsewhere.

In Orissa, draft records were published for 3,045 villages during the year, and rents were settled for 421,000 tenants in the temporarily settled tracts, besides 7,000 in the Government estate of Khurda and 10,000 in the Madhupur Ward's estate. The rents settled up to date from the commencement show an increase of nearly 15 per cent. in the temporarily settled tracts and of 21 per cent. in the Khurda estate. Assessment of revenue began during the year under report, and a total increase of 57 per cent. resulted on 3,855 estates, the additional revenue being Rx. 47,600. It is reported that the new assessments have been accepted by the zamindars with readiness. The Orissa settlement is expected to be completed by September 1899. In Chittagong the assessment of revenue was completed, and the total increase amounts to Rx. 18,400 or over 50 per cent. In Tipperah the operations on the Maharaja's estates resulted in the settlement of rents for 15,746 small landholders during the year, giving an increase of nearly 21 per cent.; and also for 384 tenureholders, where the increase was 60 per cent. The total addition to the rent roll since the beginning of operations is Rx. 6,966. The fair rents settled on Government estates in Noakhali during the year yielded an increase of Rx. 1,680, or 36 per cent.

In North Behar cadastral surveys and settlements were prosecuted in the Mozufferpore, Champaran, Saran, and Darbhanga districts, the total area of which is 12,524 square miles. In Mozufferpore the survey and the initial record writing had both been finished. The district contained over four million separate plots or fields, and over one million separate tenancies. Fair rents had to be settled for only 20,345 tenancies, or for about 2 per cent. of all tenancies; and the total rents in these disputed cases were raised 19 per cent. The final record of rights has been prepared and published for 4,311 villages; final publication had still to be completed for 194, out of the total of 4,505 villages in the district. The tenants-at-will were found to be less than one-tenth of all the tenants; and rent rates ranged from $4\frac{1}{2}$ rupees per acre for occupancy ryots to $5\frac{1}{10}$ rupees per acre for tenants-at-will. In Champaran the survey and record of rights have been finished, final records having been published for 2,860 villages. Fair rents had to be settled for 110,437 out of a total of 450,000 tenancies, and rents were enhanced on the average 9 per cent. in these disputed cases. Over 92 per cent. of all the tenants were found to possess occupancy rights of some kind; and the rent rates averaged $2\frac{1}{4}$ rupees per acre for both occupancy ryots and tenants-at-will. Most tenants-at-will pay their rents in kind, and their fields are said to be inferior to those held by occupancy ryots. In the 4,296 villages of Saran six sevenths of the survey work and the record of rights had been done. Fair rents had to be settled for 57,628 tenancies out of a total of 448,874 tenancies, with a resulting enhancement, generally on compromise, of nearly 11 per cent. In Saran rent rates have, so far, ranged from $4\frac{1}{2}$ rupees for occupancy ryots to $3\frac{1}{4}$ rupees for tenants-at-will. The total cost of the work is set down at 8 annas per acre in Mozufferpore and Champaran, and 10 annas per acre in Saran, where the business had been found more complicated. The survey began in the Darbhanga district during the year 1896-97, and 1,617 villages in all have been surveyed; disputes were found to be far more numerous than in other districts, great difficulty being found in ascertaining the existing rents; but attestation was completed in more than a million fields. These disputes were apart from any questions of rent which may have to be faced at a later stage of the operations. Of the amount of Rx. 116,700 demanded up to the end of the year on account of recovery of the cost of the Behar operations, 86 per cent. has been collected.

North-West
Provinces and
Oudh.

Settlement operations in the North West Provinces made considerable progress; in Garhwal, Unao, Hardoi, Barabanki, Fyzabad, Lucknow, and Partabgarh they were practically at an end last year; in the year 1896-97 the

assessments in Badaun, Rai Bareli, and Sitapur were finished; while progress was made in Bijnor, Sultanpur, and Meerut, and operations were begun in Shahjahanpur, Bahraich, Lalitpur and Kheri. The revised assessments which have been sanctioned by Government up to the end of the year yielded increases ranging from 20 per cent. in Unao to 32 per cent. in Partabgahr, and 53 per cent. in the small hill tract of Garhwal. The cost of the operations varies considerably, being at the rate of Rs. 43 per square mile in Sitapur and Rs. 215 per square mile in Unao; the figure of Rai Bareli, Rs. 136, being the lowest of the districts in which complete revision of maps and records has been made.

The rent-rolls for all districts of the North-West Provinces and Oudh show that the rental demand of the year 1895-96 was Rx. 12,109,000, out of which the landlords realised Rx. 9,125,000 during the year, besides Rx. 1,499,000 on account of arrears of previous years. In consequence of the depression caused by bad seasons, the percentage of rent collections to the total rent demand has fallen from 93 per cent. in 1892-93 to 91 per cent. in 1893-94, and to 88 per cent. in 1895-96; in the latter year the proportion of collections was 86 per cent. in the North-West Provinces, and 93 per cent. in Oudh. The rent-rolls include 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.
	<i>Acres.</i>	<i>Acres.</i>
By cultivating proprietors	5,994,000	1,182,000
„ privileged tenants	933,000	366,000
„ ryots with occupancy rights	8,815,000	118,000
„ tenants-at-will	10,894,000	7,195,000
„ rent free	451,000	401,000

The Imperial Survey Department was not employed on revenue or cadastral survey in the Punjab during the year. Settlement operations were in progress in parts of five districts, and were completed in one of these districts, Dera Ghazi Khan, by 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 in occasional tracts the existing field maps are so incorrect as to necessitate a fresh survey.

In Mooltan, half the villages have been re-measured; the cost during the year was Rx. 10,700. Operations in the Montgomery district are approaching completion, some re-assessment still remaining to be done. So far, the result has been to reduce the area under fixed and to increase the area under fluctuating assessments.

In Muzaffargarh, settlement was begun at the close of 1897, but not much was done during the year under report. In Dera Ghazi Khan the settlement has been completed; it has cost Rx. 37,000, of which Rx. 23,000 is recoverable from land revenue assignees; it has occupied four years, and it has resulted in an increase of Rx. 11,200 a year in the land revenue, and of Rx. 3,000 in the canal water rent. In Jhelum, survey operations are complete for more than half the villages. Rx. 8,900 were spent during the year, making the cost of re-settlement up to Rx. 20,000 in all. The work is being done by specially trained village officials.

In Lower Burma one party of the Imperial Survey was employed on the cadastral survey of the Toungoo district; this party effected 770 square miles of cadastral work at a cost of Rx. 138 per square mile, besides 887 square miles of topographical survey, and minor operations. Locally trained surveyors accomplished cadastral surveys of 49 square miles of revision survey in the Pegu district, besides smaller areas in Amherst, and 29 square miles in Thayetmyo.

SETTLEMENTS
AND CADASTRAL
SURVEYS.

A revised assessment was sanctioned for 611 square miles in the Thaton district; this assessment yielded an increase of nearly 54 per cent. in the land revenue of the tract. Settlement operations were conducted over 796 square miles in the Pegu district, and revision settlement operations over 2,155 square miles in Hanthawaddy, Bassein, and Myaungmya. The 20 Government survey schools have worked successfully, with 425 students on the rolls at the end of the year. The course includes active work with a surveyor in the field. The number of students obtaining certificates during the year was 247, out of 410 presenting themselves for examination; the proportion of passed students was higher than in the previous year. The area under supplementary survey, that is, the area for which the field maps and records are tested and corrected yearly, increased from 21,237 to 22,269 square miles in Lower Burma, and from 3,174 to 4,693 square miles in Upper Burma. The area transferred by private sale was 395,000 acres, against 339,000 in the previous year, for Lower Burma; the increase, it is reported, is partly owing to re-purchase by dispossessed cultivators. The average price paid for land was somewhat higher in most districts, compared with the previous year. The area sub-let to tenants was 1,343,000 acres, or 20 per cent. of the whole cropped area in Lower Burma; the rent realised per acre came to an average of about 8 rupees, as compared with an average revenue rate of about 2 rupees per acre.

One survey party in Upper Burma effected the cadastral survey of 1,461 square miles in parts of four districts, at a cost of 191 rupees per square mile. An area of 789 square miles, chiefly in the Lower Chindwin, was topographically surveyed; and triangulation was completed over 2,556 square miles near Prome. Settlement operations were in progress, but no assessments were sanctioned during the year.

Central Provinces.

In the Central Provinces cadastral survey has now been completed in all tracts where re-survey had begun, except some of the zemindarees or chiefships; during the year the settlement of Saugor was completed; final reports on the Damoh, Wardha, Jubbulpore, and Narsingpur settlements are awaiting submission, while those of Nagpur, Hoshangabad, Chindwara and Saugor are in preparation. Assessment work was in progress at the end of the year in five districts, namely, Nimar, Balaghat, Seoni, Bhandara, and Betul; 4,846 square miles were finally assessed during the year, and the result is estimated to be an annual increase of Rx. 27,200. Assessments and the completion of the record of rights were prosecuted in the chiefships of Chutteesgurh. The total revised assessments framed during the year yielded an increase of Rx. 43,600 in the revenue. The local government is confident that with a return of good harvests the settlements will be found to work well. In some cases the enhancements are spread over a period of three to five years, or have been postponed during bad seasons.

Assam.

Regular survey operations in the province of Assam conducted by No. 6 Party of the survey of India, mainly for the purpose of checking work done by local agency, were effected over 1,543 square miles; cadastral surveys were effected by local agency over 177 square miles in Sylhet, Goalpara, and Darrang. The cadastral survey of Cachar was completed in 1896-97. The re-settlement of the Jaintia tracts in Sylhet was finally approved during the year, and came into operation on the 1st April 1898. Cadastral surveys had been previously completed in the Assam Valley; and the re-settlement of the revenue was finished in 1895-96.

The Statement for 1893-94 described how revised revenue rates had, after the old rates had stood for 26 years, been sanctioned for the districts of the Brahmaputra Valley. During the year 1895-96 the re-classification of all cultivated lands under the new rates was finally completed with the fiscal result of increasing the land revenue of the Assam Valley from Rx. 320,000 in 1890-91 to Rx. 441,000 in 1895-96, or about 37 per cent; some part, however, of this increase was due to the normal extension of cultivation during the five years.

Madras.

In Madras six parties were employed on original cadastral surveys and on re-surveys during the year 1897-98. The area of original survey effected

during the year was 360 square miles, besides 417 square miles of cadastral re-survey. The great decrease shown by these figures, as compared with those of preceding years, is due to the difficulties presented by the tracts dealt with during the year. The work was done in parts of fourteen districts, namely, South Canara, Tanjore, Kurnool, Madura, Coimbatore, Kistna, Salem, Godavari, Ganjam, North Arcot, Chingleput, Nilgiris, Trichinopoly, and Tinnevely. The village accountants (*karnams*) performed a considerable share of the business, which was in most districts much scattered. The forecast now shows 7,573 square miles remaining to be surveyed or re-surveyed; of this area 4,251 square miles are in Kurnool, where the work should be completed by 1902. The number of copies of survey and other maps struck off during the year was 273,000, or 153,000 less than in 1896-97. The cost of the survey during the year was Rx. 48,671; this includes Rx. 12,267 expended on maintaining survey records and boundary marks. The total outlay on survey and settlement, since operations began in 1858, has been Rx. 3,487,000; while the net increase of revenue secured has been Rx. 838,000, or 24 per cent on the outlay.

In Bombay, where survey and settlement work are approaching completion, three parties were employed in three British districts during the year, while a small party was employed in and paid by Native States. During the year ending October 1897, the parties in British districts measured an area of 2,074 square miles, and classified an area of 2,507 square miles, besides considerable areas in the Surat district, whereof the old measurement and classification were tested and found correct. The largest area was done in Gujarat, where the cost of the combined operations was 54 rupees per square mile, against 118 in the previous year; in the Konkan the combined cost was 263 rupees per square mile against 345 rupees in 1896-97. Much of the work consisted of testing and correcting old surveys and records, rather than of measuring the land anew; and the average expenditure on survey and classification per square mile for British territory fell from 151 rupees to 97 rupees. The cost of the Department during the year was Rx. 36,290 or Rx. 3,930 less than in the preceding year. The revised assessments of the year amounted to Rx. 75,000, which was Rx. 11,500, or 17.9 per cent. above the previous demand. The total increase of revenue secured by the settlement revision operations in Bombay, up to October 1897, came to Rx. 441,426 a year; or 30 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. 718,000.

Bombay.

In Berar, progress was made with re-settlement, begun in consequence of the expiration of the original settlement, which was made on the Bombay system about 30 years ago. The total area to be dealt with is 13,350 square miles, of which 12,134 square miles are either under crop or current fallows. The original measurement and classification of the land are being left untouched, save in a few cases where tests are applied to the old work, or for special causes re-measurement is found necessary. A further year's testing shows the old work of 1861-67 to be in the main good and trustworthy. Out of 3,627 square miles, over which the survey has passed during the past two years, only 94 square miles, or about 2½ per cent., had to be re-surveyed; over 97 per cent. of the area of the old surveys were found to be correct. Three survey parties were at work, consisting chiefly of indigenous surveyors. The survey was completed for 961 villages, against 1,065 in the previous year; re-measurement was effected of 18,000 acres, and for 1,028,000 acres the old work was confirmed, during the field season. The cost of the operations came to 21 rupees per square mile. The party in the Melghat taluka finished its work in 1896-97, and was disbanded. The settlement of this tract confirmed, with but few exceptions, the yoke (or plough) rates previously in existence. Re-settlements were finally completed and announced for one taluka in the Akola district, and one in the Ellichpur district. The operations cost Rs. 25 and Rs. 24 per square mile respectively.

Berar.

VII.

LAND REVENUE.

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

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 1897-98; also the net land revenue for the past two years.

DETAILS of LAND REVENUE and EXPENDITURE.

	Bengal.	North- Western Provinces and Oudh.	Punjab.	Burma.	Central Pro- vinces.	Assam.	India, General.	Madras.	Bombay.	TOTAL.
REVENUE	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Ordinary Land Revenue	3,815,633	5,674,375	2,349,366	1,427,146	664,562	549,647	134,170	5,360,035	2,763,463	23,738,50
Recovery of Survey and Settlement Charges.	68,229	—	—	—	—	—	—	—	—	68,229
Sale of Proprietary Right of Government in Land.	5,206	45	376	—	—	2	26	2,391	—	8,646
Assessment of alienated lands, less quit-rents.	5,116	—	33,312	—	—	—	—	—	978,275	1,009,703
Sale of Waste Lands and Redemption of Land Revenue.	7,222	3,366	44,214	88	—	2,514	385	14,857	—	78,648
Capitation Tax, or House Tax levied in lieu.	1,504	—	—	925,607	—	—	1,204	—	—	926,405
Receipts for the Improvement of Government Estates.	54,369	—	—	—	—	—	—	—	—	54,369
Fisheries and other Receipts classed as Miscellaneous.	17,350	41,690	93,601	293,339	3,102	43,960	12,869	236,695	26,174	737,333
Total Gross Revenue - Rx.	3,978,219	5,719,578	2,510,602	2,646,970	667,764	596,123	148,654	5,612,876	4,767,912	28,648,380
Deduct portion credited to Public Works for irrigation.	—	17,498	67,914	—	—	—	—	675,130	114,196	964,738
Total credited to Land Revenue for 1897-98 } Rx.	3,978,219	5,602,180	2,442,688	2,646,970	667,764	596,123	148,654	4,937,746	4,653,716	25,683,642
Corresponding Total for previous year 1896-97 } Rx.	3,976,538	4,996,876	276,63	2,396,961	660,493	656,231	147,471	4,640,036	4,376,024	23,974,489
EXPENDITURE										
District Administration	307,137	364,271	191,918	187,007	82,659	57,275	26,955	431,072	595,189	1,944,012
Survey and Settlement	130,717	43,667	46,063	77,360	20,512	0,069	15,129	60,180	40,603	451,566
Land Records and Agriculture	7,625	263,276	150,313	88,587	64,106	10,265	9,597	180,743	220,560	1,062,664
Charges directly connected with the collection of Land Revenue.	48,150	18,681	8,698	154,587	18,511	14,018	2,123	332,765	130,218	727,701
Total Charges in India - Rx.	493,629	702,225	401,492	457,911	194,788	90,627	53,484	1,005,358	656,919	4,186,913
Charges in England, including exchange	—	—	—	—	—	—	—	—	—	1,408
Total Charges - Rx.	—	—	—	—	—	—	—	—	—	4,188,321

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, either permanently or periodically, on estates or holdings. The assessment was fixed permanently 100 years ago on certain tracts paying about Rx. 4,300,000 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 periodical assessment is a share, generally about one-half, of the rental enjoyed by the proprietors; on small estates cultivated by peasant proprietors the periodical assessment is imposed 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-third of Madras, and certain southern districts of the North-West Provinces. Of the temporarily settled tracts, the North-Western 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.

The appended table gives the acreage of land held under various tenures, and the amount over which proprietary right was transferred, either by order of court or by voluntary gift or sale (including generally mortgage with possession, and excluding inheritances and temporary transfers) during the year 1896-97. The figures are in thousands of acres:—

	Rayatwari (peasant Proprietors).	Zamindari (larger Proprietors) and Village Communities.		Total.	Transfers.
		Permanently settled.	Temporarily settled.		
Upper Burma	49,411	—	3	49,414	22
Lower Burma	53,317	5	155	53,477	399
Assam	21,400	3,930	1,153	26,483	53†
Bengal	—	81,879	16,136	98,015	•
North-Western Provinces	—	6,159	46,438	52,597	966
Oudh	—	1,113	14,225	15,338	267
Punjab	—	—	70,719	70,719	977
Sind	29,935	—	—	29,935	•
Bombay	44,861	—	3,955	48,816	•
Central Provinces	1,215	—	42,811	44,026	600
Madras	60,877	29,529	—	90,406	466

* Figures not available.

† Does not include the Sylhet and Goalpara districts, for which figures are not available.

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 the permanently settled tracts of Madras and 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.

LAND REVENUE.

The land revenue of the year 1897-98 shows an increase of Rx. 1,700,000, as compared with the previous year; but, owing to the famine of that year, it may be more usefully compared with the revenue of 1895-96, of which it fell short by Rx. 517,000. This was due to the past famine, which still adversely affected the receipts, as may be gathered from the details given below for each province. In the last nine months of 1898, however, the progress was resumed, and the revenue has been nearly 5 per cent. in advance of the figures for the corresponding period in 1895, the previous highest. The normal increase of the land revenue in ordinary seasons may be seen in the following table:—

	Land Revenue Receipts excluding Receipts due to Irrigation.		Increase or Decrease.
	Rx.	Per Cent.	
1861-66 (five years' average)	19,931,000		
1866-70	19,990,000		+0.8
1871-75	20,965,000		+5.0
1876-80		(includes the great famine of South India)	
	21,114,000		+0.7
1881-85	22,122,000		+1.8
1886-90	23,166,000		+4.7
1891-95	24,782,000		+7.0
1895-96	26,201,000		+5.7
1896-97 (famine year)	23,974,000		-8.5
1897-98	25,684,000		+7.1

A part of the increase during later years was due to the acquisition of Upper Burma, which yielded Rx. 167,000 of land revenue in the year 1886-87, and Rx. 772,000 in the year 1897-98.

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.

Bengal

The rainfall of 1897-98 was generally very favourable all over Bengal both during and after the monsoon season. The yield of all food crops over the province was estimated to be equal to a good average crop. Food prices in some districts were still high, but fell much below the figures of 1896-97, the famine year.

The current land revenue demand amounted to Rx. 3,891,800, showing an increase of Rx. 16,500, owing to resettlements of Government estates in parts of Eastern Bengal; the collections on account of the current year's demand showed an increase of Rx. 6,800, amounting to Rx. 3,749,300; the proportion of collections to the total demand was 95½ per cent., and 99½ per cent. to the current demand; the collections were somewhat less punctual than in the previous year, owing to the Chittagong cyclone and other causes. Remissions decreased to Rx. 14,900, as compared with Rx. 17,300 in the previous year. The uncollected arrears at the end of the year were Rx. 155,000, or 11 per cent. more than in the previous year. Sales of land for arrears occurred in 1,645 cases, out of 20,977 cases in which land became liable to sale under the law; the estates sold were all small. In 172,800 cases, against 174,572 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 5,039 cases, against 4,814 cases in the previous year, attached property was sold; in 5,557 cases warrants for arrest were issued, and in 22 cases defaulters were actually sent to jail. The number of defaulters sent to prison in the previous year was 37.

The revaluation of the rental, for the purposes of the road cess, is practically complete for the whole province. The gross rental of Bengal was returned for road cess purposes at Rx. 16,315,000 for the year 1897-98, as compared with Rx. 13,117,000 in 1873, showing an increase of 21.6 per cent. in the rental during the past 24 years. Only two districts showed any, and that a small, decrease in rental at the recent revaluations. The registration of landowners had previously been completed for the whole of Bengal; the total number of interests registered under the initial registration is 986,767, and the percentage of transfers by succession or otherwise that were registered during

the year was 6·7 on the total number of interests recorded at the initial registration. The corresponding percentages in each of the two previous years was 6·9 and 7·3.

The relations between landlords and tenants are reported to have been, on the whole, "satisfactory, with some exceptions in particular localities." The ordinary causes of trouble are quarrels about forest rights or the cutting of trees; the illegal enhancement of rents; no-rent combinations among tenants; disputes about appraisement of produce-rents; casual acts of oppression by agents or servants of the landlords. In many cases the causes of dispute are being, or have been, abated, by the landlord claiming to have a survey and record of rights under the Tenancy Law; in some places the tenants, especially those with large holdings, are too strong for the landlords. Many landlords remitted rents in part in view of the distress at the beginning of the year. Advances to agriculturists under the Loans Acts amounted to Rx. 155,000 during the year.

The Bengal Tenancy Act continues to work 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:—

1891	-	-	-	-	204,250 total suits instituted under the Rent and Tenancy Law.
1892	-	-	-	-	208,505 " " "
1893	-	-	-	-	219,157 " " "
1894	-	-	-	-	238,399 " " "
1895	-	-	-	-	237,308 " " "
1896	-	-	-	-	246,387 " " "
1897	-	-	-	-	257,009 " " "

The latest report on land revenue affairs in the North-West Provinces and Oudh pertains to the year ending 30th September 1897. During most of this period there was acute famine distress in the province. The total area of crops was 36,907,000 acres, as compared with 40,136,000 acres in 1895-96; the decrease of 3,230,000 acres, or 8 per cent., was due to the unfavourable character of the season, and occurred almost entirely in the crops of rice and gram. The rainfall was 40 per cent. below the average, and the rains ceased unusually early. The autumn crops failed generally; the crops of rice, jowar, bajra, and pulses being especially bad. The spring crops also failed on the unirrigated lands. The failure was so general as to cause extensive and serious distress, and to necessitate relief measures over a great part of the provinces. A good autumn harvest in 1897 has relieved the pressure. Prices of food were phenomenally high, being on the whole twice as high as in normal seasons. The irrigated area was 9,650,000 acres, or 13 per cent. more than in 1895-96; the increase was due to the dryness of the season; of the total, 6,316,000 acres were irrigated from wells as compared with 4,426,000 acres in 1895-96. The year was marked by general unhealthiness. There was a virulent epidemic of rinderpest in the Benares division during the year, but few other outbreaks of cattle disease. Many cattle, probably the less valuable, died owing to want of fodder and water.

North-West Provinces and Oudh.

The gross collections of land revenue in the North-West Provinces and Oudh under all heads were Rx. 6,538,000, as compared with Rx. 7,443,000 in the previous year; the decrease was chiefly owing to suspensions of land revenue proper, only 76 per cent. being collected during the year. About a crore of rupees was suspended out of the autumn demand, and a further 45 lakhs from the spring demand, while fresh enhancements of revenue in Oudh, amounting to about 3 lakhs, were postponed. Subsequently, about 60 lakhs, or 42 per cent. of these amounts, were entirely remitted. There was also an increased demand for canal water, due to the scantiness of the rainfall in the previous years. The uncollected balance at the end of the year amounted to Rx. 1,474,000, or 24 per cent. of the demand. The total number of coercive processes of all kinds was 47,726, against a total of 63,222 during the preceding year; attachments of property for arrears were 10,387 as compared with 12,032, and the number of sales of defaulters' property was 401, against 713 in the previous year. These decreases were due to suspensions of revenue and general leniency.

LAND REVENUE.

The number of suits and applications under the rent law in the North-West Provinces was 235,459, or 1 per cent. below the total of 1895-96. Of the suits more than 90 per cent. were for arrears of rent. The number of notices of ejectment brought against privileged tenants was 19,232, or 23 per cent. less than in the previous year, and in 6,084 cases ejectment was effected; the area affected by the ejectments was 33,100 acres, or 46 per cent. less than in the previous year. Against tenants-at-will 52,317 notices of ejectment, or 17 per cent. more than in 1895-96, were issued, affecting 300,000 acres. The number of notices of relinquishment filed by tenants in the North-West Provinces fell from 42,801 to 27,144; and the number of applications by distraining landlords for sale of tenants' property rose from 40,559 to 46,282.

In Oudh the number of suits instituted under the rent law fell from 35,351 to 29,366. Of the suits, nearly 80 per cent. were for arrears of rent, and 35 per cent. of all suits were contested. Notices or applications for ejectment of tenants of all kinds fell from 13,462 cases, affecting 118,852 acres to 7,694 cases, affecting 89,689 acres. Tenants were actually ejected from 4,288 holdings, with an aggregate area of 51,011 acres. The applications for ejectment of statutory tenants in Oudh fell from 4,169 to 1,296, and ejectment took place from 857 holdings, covering 4,301 acres. In Kumaon 948 suits were instituted during the year, 78 per cent. of them being for arrears of revenue and rent.

The number of loans granted under the Land Improvement Loans Act of 1883 increased from 1,886 to 151,543, of which 18,978, for Rx. 22,215, were to landlords, and 132,565, for Rx. 83,162 were to tenants; under the Agriculturists Loans Act, Rx. 224,743 were advanced during the year, against Rx. 63,767 in the previous year; these advances were very much larger than in any former year. The outstanding amounts of principal and interest under both Acts, at the end of the year, were Rx. 471,096; and instalments for principal and interest, falling due during the year, amounted to Rx. 199,066, of which little over 40 per cent. was collected, owing to the prevailing distress.

Punjab.

The latest Punjab land revenue report is for the year ending on the 30th September 1897, and for that reason the following paragraphs deal with that year. A short account of the harvest of 1897-98 will be found below, in the chapter on Agriculture. The autumn rains were light and ceased early, but the winter rains were prolonged and satisfactory. The crops of the province were considerably below the average. The total area of crops harvested was 16½ million acres, as against 17 million acres in the preceding year, and 21¾ millions in 1894-95. The area of "Current fallows" in which are included the lands on which crops failed to mature, rose to over 10½ million acres, as compared with 5½ millions and 9¾ millions in the two previous years. The irrigated area rose from 7¾ to 8¾ million acres, and covered 47 per cent. of the cropped area, showing an increase of 11 per cent. on last year, and 21 per cent. as compared with normal years. The exports of wheat fell to 114,000 tons against 527,000 tons in 1894-95 and 292,000 tons on the average of the previous 10 years. There was, in 1897, a general rise in the ruling prices of almost all agricultural produce, which was especially marked in the case of food grains, all of which rose more than 35 per cent., while bajra, maize, and gram rose about 70 per cent., and jowar over 84 per cent., as compared with last year's high prices. Food crops of all sorts covered 92 per cent. of the total crop area, but the breadth of food crops was about 5 million acres, or one-fourth, less than the decennial average.

The regular land revenue collections on account of the year were 6 per cent. below the collections of the previous year, or Rx. 2,009,000 in all. The uncollected balances at the end of the year were Rx. 301,000, as against Rx. 95,000 in the previous year; the increased balances were due to the adverse season. The number of writs and warrants issued against defaulters fell from 41,724 to 40,837, of which latter figure nearly one-third were warrants.

The number of suits for enhancement of rent had fallen from 3,788 in 1892-93 to 686 in the year 1894-95, 870 in the year 1895-96, and 779 in the year under review; landlords were successful in 78 per cent. of these suits in this year. There were 38 suits brought by occupancy tenants for reduction of rent, and 50 per cent. of them were successful. The number of decrees passed for ejectment of occupancy tenants was two only, and 7,736 decrees of eject-

ment were issued against tenants-at-will, compared with 7,446 in the previous year. About 50 per cent. of the total cultivated area of the province was tilled by owners, and about 1 per cent. by tenants at a nominal or no rent, of the lands held by other tenants 20 per cent. was in the hands of occupancy tenants, the remainder being cultivated by tenants-at-will. The latter tenancies are increasing in number from year to year. Cash rents range from 5 annas in a rainless tract of the Derajat up to 40 rupees per acre on the very best irrigated land, and they are estimated to average $2\frac{2}{3}$ rupees per acre for the whole province. On $66\frac{1}{2}$ per cent. of the area held by tenants-at-will, the rent is still paid, wholly or partly, in kind; and the average rent payable in kind is for the whole province 40 per cent. of the produce. The excess of area mortgaged, over area redeemed in the year, was 219,000 acres, which is more than last year, and above the average of preceding years; the excess being ascribed to the prevailing distress. The area under mortgage at the end of the year was 4,937,000 acres, or 8.7 per cent. of the total of proprietary lands; the area mortgaged and sold was considerably higher than in the preceding year, while the area redeemed from mortgage also increased. The average price realised for land sold during the year is returned at 71 rupees per acre, for a total area of 371,000 acres sold; in 1895-96 the figures were 59 rupees per acre, and 352,000 acres. The advances to agriculturists for purchase of seed or of stock amounted to Rx. 161,540, the increase above the amount usually applied for being due to the famine.

LAND REVENUE.

The rainfall of 1897 in Lower Burma was sufficient and evenly distributed; the rice-crop, which covers more than nine-tenths of all the cultivated land in Lower Burma, was above the average. In Upper Burma, for the most part, the rainfall was below the average, but it was seasonable, and resulted in a good harvest. The prices of the paddy (rice in husk) at the sea-ports were not so high in 1897-98 as in the previous year, when they were raised abnormally by the demand caused by famine in India; but they were still comparatively high, ranging from Rs. 83 to Rs. 103 per 100 baskets. In Lower Burma the cultivated and assessed area increased by 267,000 acres, or rather more than 4 per cent. during the year. The total collections under land revenue and capitation tax for the combined provinces were Rx. 2,651,700, as compared with Rx. 2,369,900 in the previous year, showing an increase of 12 per cent. In Lower Burma the net land revenue demand increased by Rx. 93,000, or 8 per cent., and was collected during the year, all but Rx. 21,000; the capitation tax also showed an increase of $1\frac{1}{2}$ lakhs, and the revenue from fisheries was slightly higher. In Upper Burma the capitation tax yielded Rx. 90,000 more than in the previous year, being an increase of nearly 22 per cent.; the revenue from State lands was 25 per cent. higher, and there was an increase of Rx. 14,000 or 12 per cent. under miscellaneous heads. The increased receipts in Upper Burma were partly due to the levy of higher rates in certain districts; during the two preceding years, owing to drought and bad harvests, the collections had fallen 20 per cent. In Lower Burma the increase was caused by general prosperity and good harvests. The number of coercive processes issued decreased by 21 per cent. in Lower and 11 per cent. in Upper Burma. The area occupied by tenants continues to increase in Lower Burma, the average rent during 1897-98 being Rs. 8 per acre. The effect of the famine and drought in India and in Upper Burma on the rice trade of Lower Burma may be gathered from the following figures. The total exports of cleaned rice from Lower Burma in the year 1897-98 amounted to 1,492,000 tons, as compared with 1,299,000 tons in the preceding year. Of the total more than three-quarters went from Rangoon.

Burma.

The latest land revenue report from the Central Provinces is for the year ending in September 1897. The monsoon of 1896 ceased early in September, and hardly any showers fell during October, so that sowing of the spring crops was greatly hindered, or even stopped altogether. The small millet crop and most of the rice crop was practically destroyed, and the autumn crops were generally very bad. Showers which fell at the close of November rendered the germination of spring crops better than might have been expected over the restricted area sown. Taking the outturn of all crops together it was only

Central Provinces.

LAND REVENUE.

47 per cent. of the normal outturn over the whole province; while the average for the last three years was only 65 per cent. of a full normal outturn. The failure was worst in the northern and eastern districts, where the crops had been very short in the two previous years. Prices of field produce almost doubled after the failure of the rains in 1896, and throughout 1896-97 the average price of food staples ranged from 50 to 100 per cent. above the normal rates. The cultivated area fell considerably, and was more than a million acres below that of 1893-94, the decrease occurring, as stated above, in the area sown for spring crops. During the year 1897-98 there has been a considerable recovery.

The ordinary land revenue demand showed an increase of Rx. 37,000, or 5 per cent., due to resettlements of revenue. Of the total, current and arrear, demand of Rx. 947,000, Rx. 563,000 were collected, leaving an uncollected balance of Rx. 384,000, or 41 per cent. The short collections were due to the famine, and nearly half occurred in the Jubbulpore division. The payment of Rx. 265,000 was suspended during the year, and by subsequent remissions the outstanding balance was reduced to Rx. 177,000. The total remitted was therefore about Rx. 207,000. There was a decrease in the number of coercive processes for realisation of arrears, and the total number was 8,274 against 12,216 in the previous year. Only 271 defaulters were arrested, and five were sent to jail during the year; no land was sold for arrears, and the sales of moveable property for default were 115, as compared with 276 in the previous year. There was a decrease in the area of land transferred by sale or mortgage; the total area of such transfers was 422,000 acres, as compared with 528,000 acres in the previous year. Litigation under the Tenancy and Rent Law decreased. Suits for arrears of rent fell from 16,049 in the preceding year to 14,145, of which 17 per cent. went in favour of the defendant. The number of suits for ejectment of tenants fell from 831 to 597. It is stated that landlords as a class generally treated their tenants with consideration, but reports from some districts show that exceptions did occur during the year, particularly in the case of those landlords who do not belong to the agricultural classes. Out of a total occupied area of 20 millions of acres, 5 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 16 million acres, was $12\frac{1}{2}$ annas per acre.

Assam.

In the Assam Valley, the rainfall of 1897-98 was sufficient in most districts, and the rice crop, which forms two-thirds of the total crops, was generally satisfactory. Considerable damage was, however, done by continuous floods, which were ascribed to the silting up of river channels by the great earthquake which occurred in June 1897. The outturn of sugar cane was poor, and the weather was not favourable for the tea crop. The price of food was generally high, owing chiefly to the dearth in Bengal and other parts of India. In a previous Statement was given an account of the resettlement of revenue rate in the Assam Valley, with a resulting increase of 25 per cent. in the Government demand. The rates previously in force had remained unaltered from 1867 to 1894. The demand for the year 1897-98 came to Rx. 556,000, or nearly 1 per cent. above that of the preceding year, of which $93\frac{1}{2}$ per cent. was realised during the year. The uncollected arrears at the end of the year were Rx. 42,600, which is large, compared with other years. Of this balance Rx. 14,200 is due from Nowgong, where malignant malaria has of late years caused great damage. The miscellaneous land revenue receipts showed an increase of $3\frac{1}{2}$ per cent. over the total of last year, and amounted to Rx. 47,100.

Madras.

In the Madras Presidency the season was not altogether favourable to agriculture during the year 1897-98 on the east coast, in the Deccan, and in two other districts. The average rainfall of the year was above the normal rate, the rains of the north-east (or early) monsoon having been very light, and the south-west monsoon setting in late; but the rainfall was badly distributed. The total area under crop was $27\frac{1}{4}$ millions of acres, as compared with $26\frac{1}{2}$ millions in the preceding year. The outturn of the crops is reported to have been on the whole not much below the normal. Prices of food ranged

considerably dearer than in the previous year; the three millets, which are the principal food of the poor, rose more than 40 per cent., while rice rose 27 per cent. The scarcity of the previous year and the large demand from other parts of India caused an unwillingness among the ryots to place their stocks upon the market. LAND REVENUE.

The collections of ordinary land revenue in Madras were Rx. 5,384,000, as compared with Rx. 5,017,000 in the preceding year 1896-97. The increase was chiefly due to realisations of arrears of 1896-97. The uncollected revenue at the end of the revenue year ending in June 1897 was Rx. 333,500, or 5½ per cent. of the whole demand, as compared with 1½ per cent. in the preceding year. The number of notices of demand issued to defaulters was larger than usual, though less than in 1895-96; but there was a decrease in the number of subsequent processes which imply real coercion. The total extent of land sold for arrears of revenue fell from 27,728 to 21,467 acres; and 7,076 acres were bought in at these sales by the Government.

The season of 1897-98 was on the whole good in the Bombay Presidency; the rainfall was below the average almost everywhere, excepting in Sind, but it was well distributed. In Sind the inundations rose very high and lasted long, and harvests were bountiful, though spoilt in some places by floods. Prices declined generally from the high figures of the previous year, though the normal level was not reached; towards the end of the year, however, prices were so low in Sind that cultivators are reported to have been unable to meet revenue demands, in spite of the large yield. Jowar was about 50 per cent. cheaper, and other grains, excepting rice, were proportionately lower. The land revenue demand for the year was Rx. 3,926,000, and Rx. 151,000 on account of arrears; and the total collections were Rx. 3,962,000, or nearly 8 per cent. more than in the previous year. The number of distraints for arrears was returned at 1,346, compared with 1,441 in the previous year. Bombay.

The rainfall of 1897-98 in Berar was above that of the preceding year, but was still 19 per cent. below the average; the autumn crops did not suffer, and were excellent, but the absolute cessation of rain after September was very unfavourable to the spring crops. Prices of food grains fell generally, and that of millet in particular was little more than half the very high figure of 1896-97. The year was an unhealthy one. The total area under crop was 6,636,000 acres, or 384,000 acres more than in 1896-97. Berar.

The collections on account of land revenue and local rates of the year were Rx. 751,700, against Rx. 725,400 in the previous year. The number of coercive processes issued against defaulters showed a decrease, there having issued 12,175 writs of demand, against 14,380 in the previous year. In 46 cases personal property was sold for arrears; 50 fields were also sold; no defaulters were sent to prison. In spite of the fact that at the commencement of the agricultural year 1897-98 the famine distress was at its height, the area brought under cultivation was slightly in excess of that in the two previous years. The number of boundary marks found to be out of repair on cultivated land was 128,000, of which all except 1,100 were repaired by the close of the year.

WARDS' ESTATES.

In most of the larger provinces a Court of Wards has been established, which undertakes the management of estates belonging to minors, idiots, or other persons declared incapable of managing their own affairs. The position and powers of the Court of Wards are prescribed by law; and recent enactments have enabled indebted proprietors to place their estates voluntarily under the Court of Wards. The duty of the Court is to manage the estates under their charge to the best advantage of both proprietors and tenants, to support the family of the proprietor, and to educate young wards; to pay off debts due by the estates, and to spend the surplus income on the improvement of the property in the best attainable way. During the year 1897-98 the number of estates managed by Courts of Wards or under in different parts of British India was WARDS' ESTATES.

WARDS' ESTATES. 1,199, with a total annual income of Rx. 2,210,000. The period for which an estate remains under the Court of Wards is generally from 10 to 12 years.

Bengal.

In Bengal, 71 wards' estates and 70 attached estates, or five less than in the preceding year, were under the management of the Court of Wards, with a total rental of Rx. 1,195,922; the collections on account of the current rental came to 66 per cent. on the demand, as compared with 62 per cent. in the preceding year. The decrease of the two years, as compared with the percentage in 1895-96, which was 97, was due to the drought and calamities of the past season. The cost of management was 6.9 per cent. on the current rental demand, as compared with 8.1 in the preceding year. There was spent on schools, dispensaries, and improvement and maintenance of estates, a sum of Rx. 94,674. Debts to the amount of Rx. 106,324 were paid off during the year, and the outstanding debts due from all wards' estates were Rx. 1,195,000 at the close of the year. Surveys and record of rights were being prosecuted over 685 square miles, situated in parts of five different estates, and were completed during the year on four of those estates; the expenditure on this work was Rx. 2,700. The cash balances at credit of wards' estates were Rx. 314,000 on the 31st March 1898, and the investments in Government securities were valued at Rx. 561,000. Thirteen estates were taken over, and 13 released by the Court of Wards during the year.

For 11 out of the 13 estates released during the year the net results of the Court's management were as follows: During the period of the Court's administration the gross yearly rental increased from Rx. 47,596 to Rx. 56,843; the outstanding debts have been reduced from Rx. 541,600 to Rx. 3,900; Rx. 22,100 have been spent on improvements; investments have been increased from Rx. 3,900 to Rx. 36,300; schools and hospitals serving the estates have been helped, and wards have been educated.

**North-Western
Provinces and
Oudh.**

The number of estates under the Court of Wards in the North-Western Provinces and Oudh at the end of September 1897 was 179, with a yearly rental of Rx. 726,000. Twenty-three fresh estates were made over to the Court of Wards; 12 estates were restored to their proprietors during the year; some of these were very small properties; on four all debts had been paid off, and on some a substantial balance had accrued to the proprietor. The land revenue and local rates due upon all the wards' estates came to 41 per cent. upon the gross rental or Rx. 301,000 in all. Rx. 4,500 were spent on the education and training of the wards, and, as far as possible, of their brothers and sisters. Against the estates under the Court there had been, when superintendence was first assumed, debts amounting to Rx. 1,749,000, which were reduced by September 1897 to Rx. 1,360,000. In some few cases, where the debts were very heavy, part of the estate had to be sold in order to secure solvency. The cost of management averaged 7 per cent. on the total receipts; and Rx. 74,600 were spent on works of improvement and advances to tenants for similar works, as compared with Rx. 35,500 in 1895-96. Of the current rental of the year 78 per cent. was collected, leaving the total arrears at Rx. 269,000. Rx. 326,000 were invested in public securities, or on mortgage, or in loans to other wards, or in the purchase of lands and houses. The number of notices for ejection of ryots rose from 283 to 490, of which less than 3 per cent. were successfully contested by the tenants. There was only one unimportant suit for enhancement, the circumstances of the year not having been favourable for such applications.

Punjab

At the end of September 1896 there were 72 estates under the management of the Punjab Court of Wards. Three fresh estates came under the jurisdiction of the Court, and 31 were put under the management of the Deputy Commissioner under section 18 of Act VIII. of 1890. Six estates and one share of a seventh were surrendered to their owners during the year. Thus the total number is 100; but the 31 mentioned above, which are all small estates, are not, properly speaking, under the Court of Wards. Of these estates, 48 belonged to minors or idiots, three to persons declared by the Government to be incapable of managing their estates, 11 to persons who applied to have themselves declared unfit to manage their property, and 38 were managed under other laws. Only five of these estates have an income of over Rx. 5,000 a year. In 1896-97

the total income of the wards was Rx. 90,300 ; and the expenditure, including repayments of debt, was Rx. 70,900. The cost of management was 11 per cent., against 10½ per cent. in the previous year, on the total income of the estates. Rx. 21,200 were spent out of income on paying off debts ; the debts of all the wards, which had been Rx. 67,000, were reduced to Rx. 64,000 by the end of the year. Investments made in behalf of wards during 1896-97 amounted to Rx. 34,800. The expenditure on works of improvement was Rx. 9,700 ; on the personal expenses and education of wards, Rx. 13,000 ; and on the payment of land revenue and local rates, Rx. 17,400, or 19 per cent. on the total income.

WARDS' ESTATES.

In the Central Provinces in the year ending September 1897 the Court of Wards relinquished the management of four estates, with a rental of Rx. 1,500, and received charge of 20 estates. At the end of the year 173 estates, with a gross income of Rx. 160,000, were under management. Out of the 20 estates newly undertaken, management was in 16 cases assumed at the request of indebted proprietors who have been declared, at their own wish, incapable of managing their own property ; four were taken over because the proprietors were minors. Of the relinquished estates one was handed over to the chief creditor, with the consent of the ward, and three were restored on the proprietors coming of age. The Court of Wards collected only 42 per cent. of the rental of the year, very large remissions and suspensions having been made on account of the famine ; in the previous year the collections had been 58 per cent. of the demand. Advances of cash and grain were made freely by the Court to tenants out of estate funds during the year, with good results. Of the debts due by embarrassed estates Rx. 26,000 were paid off during the year, but additional debt had to be incurred, and Rx. 231,000 were still due at the end of the year. About Rx. 34,000 were spent on the permanent improvement of, and in advances to ryots in, solvent estates ; and Rx. 1,200 were invested in Government securities or in land.

Central Provinces.

The Court of Wards in Madras during the year 1897-98 handed five estates back to their proprietors, and took charge of two estates ; there were thus 42 estates under the Court at the end of the year, as compared with 45 at the beginning. The season was favourable on most of the estates ; 692,000 acres, or 91 per cent. of the total area of all holdings on these estates was cultivated, as compared with 90 per cent. in the previous year. The rent collections on account of the current year amounted to Rx. 215,000, or 82 per cent. on the current demand ; the overdue balance was 12 per cent. against 19 per cent. in the previous year ; the demand on account of arrears amounted to Rx. 234,000, of which Rx. 52,000 was collected during the year. The cost of management and of State assistance came to 11½ per cent. on the total receipts of the year, which amounted to Rx. 306,000, besides the opening balance of Rx. 90,000. The balance at the credit of all estates, invested and uninvested, at the end of the year was Rx. 444,000. The debts due by the estates at the end of the year were Rx. 116,000, debts amounting to Rx. 11,000 having been paid off during the year. The expenditure on works of irrigation and other improvements was Rx. 21,300. The progress in education of the 49 wards, 46 male and 3 female, was said to have been satisfactory, save in the case of seven lads.

Madras.

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

Bombay.

	No.
(1.) Estates under the Court of Wards, outside Guzerat	82
(2.) Encumbered estates in Guzerat, &c., managed under Acts of 1862, 1881, 1888 and 1890, and under the Civil Procedure Code ; and talukdari villages	479
(3.) Encumbered estates in Sind	2

Outside Guzerat the estates were of small area.

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WARDS' ESTATES.

The estates of the second category are all in Guzerat, and are under the care of a special revenue officer. The total collections of these Guzerat estates, and of certain other estates under the same management, were Rx. 77,000. Payments to creditors were Rx. 13,000; Rx. 19,400 were paid as Government land revenue; maintenance of the owners and their families cost Rx. 14,200; and Rx. 11,400 was the amount of uncollected balance at the close of the year. Each minor talukdar was receiving education at school. Under the Guzerat Talukdars' Act of 1888, loans to the amount of Rx. 2,297 were sanctioned, and applications for a total of Rx. 16,100 were under consideration at the end of the year. Of the two encumbered estates in Sind, both were in the Karachi district, and of small value, and one was released.

Burma, &c.

There were no wards' estates under the management of public officers in—

Burma,	Berar,
Assam,	Ajmere,

 during the year.



VIII.
FORESTS.

THE subjoined tables give the forest receipts, expenditure, and net revenue for each province during the year 1897-98:—

	Bengal.	North Western Provinces and Oudh.	Punjab.	Burma.	Central Provinces.	Assam.	India, General.	Madras.	Bombay.	TOTAL.
REVENUE.										
Receipts	Rx. 118,928	Rx. 138,667	Rx. 106,847	Rx. 721,526	Rx. 78,005	Rx. 88,482	Rx. 61,744	Rx. 215,649	Rx. 261,666	Rx. 1,730,514
EXPENDITURE.										
General direction	—	—	—	—	—	—	8,147	—	—	8,147
Conservancy and Works	36,260	60,649	44,085	130,928	36,168	8,648	19,526	76,752	102,369	619,380
Establishments, &c.	30,094	41,186	38,109	88,833	55,988	20,240	17,680	81,533	98,950	467,761
Charges in England	—	—	—	—	—	—	6,521	—	—	6,521
TOTAL Expenditure	66,344	91,785	77,194	219,861	92,144	28,888	62,074	157,285	207,319	1,001,689
Net Revenue or Forest Surplus, 1897-98	52,584	46,883	29,652	501,665	— 24,139	9,599	— 320	56,364	54,847	757,926
Net Surplus of the previous Year, 1896-97	68,081	53,848	38,442	425,013	— 27,767	15,443	— 26,404	78,908	106,955	739,514

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, and was taken up systematically all over India when the Mutiny troubles were over. 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 year 1893-94 it was decided that 20 per cent. of the 210 superior posts in the Forest Department should eventually be filled by selected officers, chiefly Natives of India, 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 reproduction of timber of the more valuable kinds. At the present time the reserves cover an area of more than 80,000 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 over 30,000 square miles of State forests, some part of which will be eventually brought within the reserve area, and all of which are 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 no communal, forests have been successfully brought under conservancy.

FORESTS.

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 1897-98 the gross forest revenue of British India was Rx. 1,740,000; the expenditure was Rx. 1,002,000; and the net forest revenue was Rx. 738,000, as compared with Rx. 740,000 in the previous year. 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; Kashmir is now adopting the same policy. Mysore has more than trebled its forest revenue since the country was restored to the Native Rule, in the year 1881.

The following paragraphs treat of forest administration in each province. The figures of revenue and expenditure, being compiled from administrative returns for the year ending in June, do not agree precisely with the figures given in the table on the preceding page, which are taken from the finally corrected financial accounts for the year ending in March 1898.

Bengal.

In Bengal, at the end of the year, the areas of reserved and protected forests were 5,880 and 3,460 square miles, against 5,876 and 3,378 square miles respectively in the previous year. No forest surveys were made during the year; regular working plans were completed for 212 square miles of reserves; while working plans have up to the end of 1897-98 been framed for 4,448 square miles out of the forest area. The protection of forests from fire was, by reason of an unfavourable season, not very successful; attempt was made to exclude fire from 1,953 square miles, and the effort succeeded over 73 per cent. of that area, as compared with 97 per cent. and 70 per cent. in the two previous years. This low percentage is due to the large area destroyed by fire in the Singhbhum division. The area of plantations reached 6,103 acres by the end of the year, situated largely in the Darjeeling district. There was a decrease in the yield of timber, compared with the preceding year, from 5,397,000 to 4,905,000 cubic feet; a decrease in the yield of fuel from $30\frac{1}{4}$ to $30\frac{1}{8}$ million cubic feet; and an increase in the yield of bamboos from $18\frac{1}{2}$ millions to $18\frac{3}{4}$ millions. The gross and the net forest revenues were Rx. 118,928 and Rx. 53,585, a decrease as compared with the previous year, when the net surplus was Rx. 68,081, owing to the large number of timber sleepers sold. The Sunderbuns forests yielded Rx. 45,000 out of the gross revenues, those of Singhbhum Rx. 38,400. The cyclone which occurred in October 1897 in the Chittagong division practically destroyed the whole of Sitapahar forest, with an area of 11 square miles.

North-West
Provinces and
Oudh.

The forests of the North-West Provinces and Oudh are divided into three "circles," and the forest reserves cover an area of 3,851 square miles, or 29 square miles more than the area of the previous year; there are also 9,271 square miles of protected forests. Surveys have now been completed for all the reserves except 39 square miles; and working plans are in force or in preparation for all reserves except 366 square miles. But in many places the old working plans are coming under revision, so the business connected with framing these plans will continue to require attention. The area over which attempts were made to exclude fires was 3,021 square miles; and fires occurred over 84 square miles, or 3 per cent. of the protected area. The number of forest offences that were compounded was 411, and 255 persons were prosecuted, of whom 192 were convicted. The total yield of the forests during the year was returned at 3,827,000 cubic feet of timber and 7,490,000 cubic feet of firewood; the out-turn of timber was 7 per cent. below, and of firewood was 14 per cent. above the yield of the preceding year. The minor produce yield was returned at Rx. 28,000 worth of grass, bamboos, &c. The total forest revenue of the year was Rx. 145,000. The forest surplus of the year was Rx. 51,000, as in 1896-97.

At the end of 1897-98 the reserved forest area of the Panjab was 2,408 square miles, besides 5,282 square miles of protected and unclassified forests, a large area in Shabpur having been added to the reserves for administrative purposes. The survey of the reserved Himalayan and other forests was continued during the year, but little progress was made. Regular working plans for the Upper Ravee, and Simla Municipal forests were sanctioned; the working plan for the Kulu forest was practically settled; and working plans for seven more forests were in different stages of preparation. Forest fires were much more numerous than in the preceding year, occurring chiefly in hill tracts, where the spring rains were late; but in the plains they were few, and the total is not high; 366 fires were reported, against 146 in the year 1896-97; the area actually burnt was 48,000 acres, or 1 per cent. of the total forest area, as compared with 14,000 acres in the previous year. It is alleged that about half the fires were intentionally caused in order to obtain new grass. There was a decrease of 250 in the number of reported offences against the forest laws; the cases taken into court were 1,033, in 72 per cent. of which convictions were obtained. The total yield of the forests for the year was returned at 2,928,000 cubic feet of timber and 29,716,000 cubic feet of firewood, or 26 per cent. more timber, and nearly 2 per cent. more firewood than in 1896-97; over 27 millions of cubic feet were removed by free-grantees and right-holders without charge, 3½ millions were worked out by Government agency, and 1½ millions by purchasers.

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Panjab.

The total forest revenue of the year was Rx. 116,000, against an outlay of Rx. 78,000, yielding a surplus of Rx. 38,000, as compared with Rx. 32,000 in 1896-97.

An area of 123 square miles was added to the reserved forests of Lower Burma, while 526 square miles were added to the reserves in Upper Burma. The total reserve area at the end of the year was 14,707 square miles. Over 849 square miles of the reserves the privilege of cultivating hill gardens has been secured for the forest tribes. In Upper Burma there are still large areas of protected forests, out of which further reserves are being selected.

Burma.

Surveys were carried out over 780 square miles of forest in Lower, and 366 square miles in Upper Burma; while regular working plans were sanctioned for two forests in Lower Burma. In Lower Burma fire protection was attempted over 1,064 square miles of deciduous forest, and fire was excluded from 95 per cent. of that area, as compared with 93 per cent. in the preceding year. In the Upper Burma teak forests, where the rainfall is often less than in Lower Burma, efforts for the exclusion of fires were more successful than in previous years; from 74 per cent. of the area attempted (1,000 square miles) fire was excluded, as compared with 40 per cent. in 1896-97. In Lower Burma the plantations, chiefly teak, now cover about 81 square miles, 3,787 acres having been added during the year. The plantations in Upper Burma cover, as yet, only a comparatively small area. The teak worked out of the forests was 350,000 tons, showing a large increase in Upper and a small increase in Lower Burma, while the output of other timbers also increased. The increase was due to great activity on the part of lessees, aided by a favourable floating season. The forest revenue and forest surplus since the acquisition of Upper Burma, have stood thus:—

		Gross Forest Revenue.	Forest Surplus of Revenue over Expenditure.
		Rx.	Rx.
	1887-88	251,576	186,191
	1890-91	432,106	298,353
TOTAL for Upper and Lower Burma	1894-95	559,589	373,139
	1895-96	559,038	373,139
	1896-97	637,895	424,400
	1897-98	721,526	508,216

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The arrivals of teak by the Salween river at Moulmein were 83,349 tons, or 1,129 less than in the previous year. The export of teak from Burma by sea was 273,391 tons, as compared with 204,857 and 191,152 tons in the two preceding years. The average value of the teak exports was Rx. 8½ per ton as compared with Rx. 8½ in 1896-97 and Rx. 7½ in the two previous years.

Central Provinces.

The area of reserved forest in the Central Provinces was 19,498 square miles, of which 12,700 square miles were at the end of the year 1897-98 classed as A. or permanent reserves, and 6,506 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. An area of 208 square miles was disforested and made available for cultivation during the year. The demarcation of reserves is nearly finished; 343 miles of boundaries were demarcated during the year, bringing the total of completed boundaries to 22,382 miles, and leaving 955 miles still to be demarcated. Surveys preparatory to the formation of working plans have been completed in seven districts, and were nearly complete in seven more districts, but a great deal of forest survey has still to be done in the districts of Chanda and Mandla. Complete working plans had been sanctioned for 5,586 square miles, and were in hand for 9,536 square miles of forest. The total number of reported forest offences fell slightly to 4,756. Out of the reported offences against forest laws 4,126 were compounded under sanction of competent officers, and in 275 cases prosecutions were undertaken. Fire was excluded from 96 per cent. of the 5,941 square miles over which special fire protection was attempted, and from 94 per cent. of that partially protected; the cost averaged 4½ rupees per square mile over the whole operations; the special protection costs on the average 9½ rupees per square mile. No regular plantation work is attempted in the Central Provinces, but efforts are being made to induce villagers to plant groves, especially of sandal trees. Natural reproduction was good in the southern circle, but in the north teak has suffered considerably from the attacks of a caterpillar. The number of cattle grazed in the forests was 1,921,000, of which 187,000 were allowed into the forests without fee. Receipts from grazing dues show a decrease, as compared with the previous year, especially in the northern circle. The forest revenue of the year was Rx. 84,900, against an expenditure of Rx. 87,000, leaving a deficit of Rx. 2,100, a result which is due to the famine.

Assam.

The reserved forests in Assam were reduced mainly through correction of previous computations by 91 square miles, bringing the total area to 3,590 square miles; besides about 15,700 square miles of unclassed State forests. No forest survey was accomplished during the year; preliminary and permanent working plans were generally observed, save that, as in previous years, fellings of timber did not approach the prescribed total in the Goalpara Sâl forests; operations were in some cases hindered by the earthquake, which on the other hand, caused a good demand for timber. Complete fire protection was attempted over 1,008 square miles, and fires were actually excluded from 99½ per cent. of the protected area; partial protection was also attempted over 196 square miles, 35 per cent. of which area suffered from fire; the expenditure on fire protection per square mile over the whole area attempted was Rs. 8½, or rather more than in the previous year. 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 1,127 miles of artificial boundary line, 1,124 were cleared and properly maintained during the year at a cost of 2½ rupees per mile. The plantations of rubber, teak, sissoo and other trees, cover 2,362 acres, of which 45 acres were added during the year. Natural reproduction and growth of forest trees was on the whole unsatisfactory. The yield of the Assam forests shows a satisfactory increase, the total out-turn of timber and firewood being 16,717,000 cubic feet, as compared with 15,307,000 in the preceding year; about one-third of the yield was under the head of "free grants." The manufacture of tea boxes, which is carried on under a royalty system in the Assam Valley, was stationary during the year, and it seems that imported boxes are preferred to the locally made article. The export of rubber from Assam fell to 2,846 maunds, as compared with 4,047 maunds in 1896-97. The quantity of bamboos taken from the forests during

the year decreased from 24 to 21½ millions. The forest revenue was Rx. 37,100 FORESTS during the forest year ending on 30th June 1898, and the forest surplus was Rx. 8,500, or Rx. 7,400 less than in 1896-97.

The forest area of Berar is 4,175 square miles, or 23½ per cent. of the whole Berar. area of the province, of which 1,552 are reserved for timber and fuel, 92 for fodder and thatching grass, and 2,531 for pasture. The total forest area decreased by about four square miles during the year. Surveys and working plans for 725 square miles are complete. Short term working plans for 2,326 square miles have been completed, and similar plans for 819 square miles are in hand. Fires were excluded from 1,428 square miles, or over 99 per cent. of the area in which fire protection was attempted; the cost of protection rose from 9 to 9½ rupees per square mile. The number of convictions for causing fires was three. The forest laws were generally administered with leniency; and during the early part of the year, until the crops of 1897 were assured, forests were open to free grazing in most parts. Natural reproduction was very satisfactory in the areas of forest from which fire and injurious grazing are excluded. The yield of timber decreased from 503,000 to 354,000 cubic feet; while the sales of fuel were 19 per cent. higher, and there was a small decrease in the output of bamboos. The gross receipts were Rx. 40,900 and the net revenue was Rx. 17,400, compared with Rx. 49,700, and Rx. 24,200, respectively, in the previous year.

An area of 637 square miles was added to the reserved forests of Madras Madras. during the year 1897-98, bringing the total area of reserves up to 13,775 square miles, besides 5,478 square miles of "reserved lands." Permanent marks were placed along 1,964 miles of new boundaries of reserves, as compared with 1,376 in the preceding year; and 1,546 miles of preliminary demarcation work were also done. Surveys of the reserves were continued by the Survey of India in the Salem, Cuddapah, Coimbatore, South Arcot, and Kurnool forests. Further progress was made in the preparation of working plans: in Tinnevely three such plans were completed, and in four other districts plans for areas amounting to 204 square miles were taken in hand; and in most of the other forests temporary working plans are being carried out. Fire protection was attempted over 5,363 square miles, of which 93½ per cent. were successfully protected, not so good a result as in the previous year. The cost of fire protection averaged 6½ rupees per square mile, against 7½ and 7½ rupees per square mile for the two preceding years. The year was not unfavourable to natural reproduction, although, in consequence of the drought, some of the forests were thrown open to grazing, and suffered in consequence. The total area of plantations was returned at 19,802 acres, 3,945 acres being excluded during the year, in addition to the groves and other tree cultivation. The timber plantations consist of teak in Malabar, eucalypts on the Nilgiri and Palni hills, and casuarina on the eastern coast. The yield of the forests according to the returns was 2,620,000 cubic feet of timber, and 11,922,000 cubic feet of fuel, besides 29½ million bamboos and other minor produce; the timber and fuel out-turns, as well as the bamboo out-turn, were somewhat smaller than in 1896-97. The forest revenue was Rx. 215,000, against an expenditure of Rx. 159,000, leaving a surplus of Rx. 56,000, or Rx. 4,000 less than in the previous year. The decrease in the surplus was due entirely to the diminution of receipts, the expenditure being the same as last year. The number of breaches of forest laws reported during the year was 14,993; 69 per cent. of the cases were compounded or withdrawn; and in 85 per cent. of the 4,474 prosecutions conviction was obtained.

The area of reserved forests in Bombay was 12,616 square miles, or 410 Bombay. more than in the preceding year. The protected State forests outside the reserves were returned at 1,931 square miles, or 99 square miles less. Forest surveys were carried out over 783 square miles of reserves; in each of forest circles permanent working plans were being prepared; while further progress was made with the demarcation of the forest into compartments for working in rotation. The number of prosecutions for forest offences was 2,461, or about 9 per cent. higher than that of the previous year; the proportion of convictions was 79 per cent., while 4,772 offences were compounded by competent officers under the law, as compared with 3,237 cases compounded

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in 1896-97. The proportion of the area traversed by fire, as compared with that over which fire protection was attempted, was larger than in the previous year, owing to a dry season and high winds. Natural reproduction of timber was fairly good, save in the northern circle, where destructive fires killed the young seedlings. The regular plantations were extended during the year; and the afforestation of bare hillsides by cultural operations was continued in parts of the Deccan and the Konkan. The total receipts of the four forest circles of Bombay were Rx. 25,400, against an expenditure of Rx. 199,000, leaving a surplus of Rx. 56,000, or Rx. 46,000 less than in the previous year.

Coorg.

The area of reserved forests in Coorg was 238 square miles, as in 1896-97, besides 649 square miles of protected forests. One square mile was excluded from the protected forests during the year. Additions of 100 acres were made to the regular plantations of sandal and teak, which now cover 880 and 1,133 acres respectively. The greater part of the Coorg reserves is now under regular working plans, and working plans for two more reserves were under consideration; while a working plan for the sandal wood forests was under preparation during the year. Fire was excluded from 176 square miles out of 203 square miles over which protection was attempted; there were only 39 forest fires during the year. This unfavourable result was due to the dry and windy weather which prevailed early in 1898. The seeding of trees belonging to the more valuable species was satisfactory during the year; but until the forests can be more effectually protected from fire the growth of young teak and sandal trees must be unsatisfactory. There was some increase in the quantity of timber removed from the forests by purchasers, but the demand for timber was poor during the year. The quantity of sandal wood extracted from the forests fell to 83 tons, as compared with 137 tons in the previous year; the cost of extraction was slightly lower. Of the reserved area, 84 square miles, or 35 per cent., was open for grazing during the year. The forest receipts were Rx. 13,100, as compared with Rx. 9,300 in the previous year, and the charges were Rx. 8,700; the surplus rose from Rx. 2,100 to Rx. 4,400.

IX.
AGRICULTURE AND MINERAL RESOURCES.

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 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.

The second return of average yield per acre of staple crops in India, covering the five years 1892-93 to 1896-97, has now been issued. The figures are intended to give an idea of the "average out-turn on average soil in a year of average character," and not simply to state the average of the five years; the figures are therefore estimates. In addition to this, the system of crop experiments on which the returns are based has not been in operation long enough to give definite results; and no figures have been tabulated for Bengal or Madras, and few for Upper Burma. The figures must be regarded as subject to revision by the light of future experiments, but a short analysis of them is given:—

PROVINCE.	Yield in lbs. per Acre, exclusive of bye-products.						
	Rice (husked).	Wheat.	Barley.	Jowar.	Gram.	Sugar-cane.	Cotton.
Lower Burma, unirrigated land	1,054	—	—	—	—	—	—
North-Western Provinces: Irrigated land	1,018	980	989	—	719	3,239	169
Unirrigated land	619	803	736	474	639	—	128
Punjab: Irrigated land	1,167	917	917	595	755	1,652	100
Unirrigated land	268	576	562	374	522	962	57
Central Provinces: Irrigated land	670	925	—	—	—	2,540	—
Unirrigated land	670	670	—	570	550	—	75
Bombay: Irrigated land	—	1,250	—	1,550	1,200	6,950	—
Unirrigated land	1,230	610	—	670	410	—	100

The season of 1897-98 in Bengal was generally very favourable, both in the case of the autumn and of the spring crops. Abundant rain fell in June, July, and August, and again in October, and the average fall throughout the province for the year was practically normal. The area under autumn crops was 16½ millions of acres, or 3 per cent. higher than in the preceding year; and over 14½ millions were sown with spring crops, against 13½ in 1896-97; this included 969,000 acres under sugar-cane, against 833,000 in 1896-97. The out-turn at both seasons was a full crop, the only serious damage suffered having been caused in North Behar by floods in September. Prices in several divisions of the province still ruled high, but were below the high figures of 1896-97.

The Botanical Gardens at Calcutta had not yet fully recovered from the drought of the past two years, and delicate plants, orchids especially, were unsatisfactory. The chief work in connection with economic plants was (1) the initiation of a full study of pulses cultivated in Bengal; (2) experiments in the cultivation of rhea seed, which have been inconclusive; (3) culture of varieties of cotton; (4) determination of various bulbs, tubers, and seeds of economic interest. The herbarium received 9,475 specimens, including

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a collection of plants made in the Kachin Hills. Specimens to the number of 14,482 were sent to kindred institutions in various parts of the world. The chief publication work of the year has been the completion of an account of the "Orchids of Sikkim," by Sir George King and Mr. R. Pantling. The roof of the herbarium was damaged by the earthquake, and some of the contents were destroyed by rain water.

Agricultural experiments

At the experimental farms on the Burdwan and Doomraon estates, and at the Sibpur Government farm, experiments were continued with different kinds of manure, with selected and imported seed, and with different methods of cultivation. The Sibpur farm has now been converted into a demonstration farm for the agricultural classes started at Sibpur College; it was not suitable for an experimental farm. The only valuable result from the Sibpur manure experiments of the year was the proof that crude saltpetre forms a most valuable manure for leaf-producing plants and for market gardens. Ratooning of a certain variety of sugar-cane was again successfully carried on at the farm; and among new crops tried at the farm mulberry and cassava were most successful.

On the Maharaja's farm, near Burdwan, a manure of bone-meal mixed with saltpetre gave excellent results with winter rice. The best out-turn of sugar was given by land manured with cow-dung and bone-meal. The best manure for jute proved, as in the previous years, to be simple cow-dung. Experiments with varieties of rice, sugar-cane, and potatoes were also in progress.

On the new Doomraon farm simple cow-dung gave the best results with wheat. The same 10 varieties of wheat were grown on experimental plots as in the previous year; and the local white and red varieties gave the heaviest yields (1,840 to 875 lbs. to the acre); the four Central Provinces varieties gave the lowest yields (465 lbs. to 255 lbs. per acre).

The arrangements for raising silk seed, which should be free from pebrino and other diseases, were continued under the supervision of Mr. Mukherji, the Cirencester graduate, who had studied at Paris and Lyons and in Lombardy. Fifteen seed-rearing nurseries were established under silk growers in the silk districts, and were supplied with the necessary scientific appliances. About 32,700 ounces of eggs were raised; and about 8,500 ounces were bought by the silk rearers, as compared with 3,200 ounces in the previous year.

North-Western Provinces and Oudh.

The report on the Cawnpore experimental farm for 1897-98 shows that the rainfall was 17 per cent. below the average, and was specially deficient in the cold weather; but owing to irrigation facilities the crops did not suffer, and the year is described as a good one on the whole. The trials of manures and of deep ploughing, with wheat, maize, and other staples, were continued, under the programme that has been in force for several years, on the many plots into which the farm has been divided. Among the more notable results of the year were the following: sheep-dung and poudrette gave the best yield from maize, while saltpetre manure gave the smallest yield. The best yield of maize gave 62 bushels per acre against 34 bushels from unmanured lands, the figures being much higher than those of previous years; the best yield of wheat gave 46 bushels per acre, against 38 bushels from unmanured land. For potatoes, poudrette was found to give the best yield. Out of different varieties of green manuring, old indigo refuse gave, as in previous years, the best yield, though it was only 34 bushels of wheat in 1898, as compared with 45 bushels in 1897. Experiments with sugar-cane were also carried out during the year.

In experiments with deep and shallow ploughing the plot ploughed with country ploughs gave about the same out-turn of wheat as that ploughed lightly with the improved plough. Contrary to general experience, the plot ploughed deepest gave much the poorest out-turn. The great advantage of the improved plough, which was perfected during the year, lies in the comparative facility and quickness with which it can be used. The results attained with varieties of cotton were not so good as in 1896-97, owing to frost and floods. The question of the comparative merits of foreign, native, or hybrid cottons is being studied. The experiments with Canadian oats resulted in a good yield of grain, whereas the crops in previous years have yielded a

poor grain harvest, and longer, though not heavier, straw. Experiments with American wheat, varieties of sugar-cane and carrots, also formed part of the year's work. The distribution of seed increased largely. AGRICULTURE.

Among private experimental farms, during 1896-97, the Meerut farm has demonstrated the manurial value of silt from a sewage drain in the neighbourhood of the farm, especially for root crops, and this silt is now widely used by the people around. This farm has now been taken over by the district board. The Jatau farm, belonging to and worked by a Rajput landholder, made experiments with manures and wheat. Experiments are being carried out at three farms where the soil is damaged by saline efflorescence, with a view to discover the possibilities of similar tracts. It is found that good crops can be obtained after thorough tillage, and that the admixture of sand with the soil is beneficial. Gypsum is also being applied, but the results of this have not been ascertained.

The length of avenues planted along roadsides during the year ending in September 1897 was 170 miles, and the total length of avenues in the provinces, after careful revision in some districts, came to 8,589 miles. The number of trees planted was greater than in the previous year. Efforts are being made to contract the area of operations in many districts; in 14 districts no addition whatever was made to the length of avenues. The net cost of maintaining and planting avenues and groves during the year was Rx. 1,000.

The Saharanpore Botanical Gardens had a fairly favourable season; the total rainfall was 35 per cent. below the average of the last 10 years, but there was a sufficient fall in the latter part of the year. The gardens were kept in good order. Experiments of economic value were continued in regard to the beggar weed, which cattle would not eat, the Arabian date palm, canaigre, sisal hemp, rhea, and eucalyptus. Both here and in the Lucknow Gardens varieties of the brinjal or egg-plant have been cultivated with success. An evaporating machine is being tried, with a view to the drying and preservation of vegetables and fruits; the results so far have not been altogether discouraging, and with larger experience it is hoped that the products will be improved.

A considerable number of ploughs, pumps, and other agricultural machines was sold, let on hire, or otherwise distributed by the Agricultural Department, chain pumps being especially in demand for irrigation. A new and improved plough was invented at the Cawnpore farm workshops during the year. Eight well-sinkers, provided with boring apparatus, were hired out by landholders, and made 105 borings in six districts, all expenses being borne by the landowners; the demand for these men's services was more brisk than in the previous year, when they made 50 borings, and their number had to be increased from three to eight. At all the large cantonments there are now private dairies managed on scientific principles. The Aligarh dairy was worked by Mr. Keventer, the Swedish expert, who had been previously employed to establish well-managed pattern dairies at the public expense. At the agricultural school, opened at Cawnpore in 1892, 13 students competed in, and 12 passed, the final examination, most of whom have secured suitable appointments under the Government. Both educational and agricultural inspecting officers report well of the school. Each student cultivated a quarter of an acre with his own hands throughout the year.

The rainfall of the autumn of 1897 was very good in the Punjab, but the winter rains were deficient; the fall in February was good, and the year as a whole was favourable. This resulted in a great extension of cultivation and a great fall in the price of food as compared with 1896-97. During the first quarter of the year the province was suffering from famine, and famine relief was in full operation until the breaking of the monsoon in July. The area harvested during the year was 39 per cent. above that of the previous year, 13 per cent. above that of the previous 10 years, and only 7 per cent. below the record year 1892-93. The yield was good generally. The area under irrigation showed a large increase, especially in the district supplied by the Chenab Canal, where colonisation progressed rapidly. Colonisation was also in progress on the Sidhnaï Canal, and in an area in Lahore irrigated by the Bari Doab Canal. Over 40 per cent. of the total area under crops was irrigated. Punjab.

The village accountant surveyors (*patwaris*) continue to improve in efficiency; their books and returns are becoming more and more correct.

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These results are attributed to better education, more careful supervision, and more favourable prospects of promotion. Experiments with crop out-turns continue to be made. Among more important agricultural experiments were trials of four kinds of Egyptian cotton, which yielded only 417 lbs. of seed-cotton on an average per acre, as against 731 lbs. in the preceding year; and trials of American corn, which gave also a low out-turn for the year.

During 1897-98 the length of roadside and canal avenues increased by 336 miles, amounting at the end of the year to 11,834 miles. The gross cost of the avenues and plantations during the year was Rx. 39,900, while the receipts from sale of produce were Rx. 29,400.

Central Provinces.

The monsoon of 1897 opened feebly in the Central Provinces, and the early sown crops, including rice, suffered considerably; but the loss was more than counter-balanced by excellent autumn rainfall, and the autumn crop was one of the best that has been reaped for years; millets gave a bumper out-turn. The spring crops suffered to some extent from deficiency in the winter rains, but are reported to have been generally fairly good. There was acute famine in the earlier part of the year, until the autumn crops had been harvested, when prices fell rapidly.

At the Nagpur Farm experiments were conducted with manures and a great many varieties of cotton and wheat. The Egyptian cottons showed themselves unable to grow without irrigation. Various kinds of wheat were received from New South Wales, and will be tested; but a series of years is needed before any conclusive result can be attained.

In 12 districts, where the settlements have been concluded, the land records system is now in fair order; the circles allotted to the accountant surveyors (*patwaris*) have been arranged; each village officer of this rank has to reside and hold an office in his circle; the inspectors (*kanungos*) have also been organised and have been made to reside within their charges. The staff of *patwaris* consisted, during the agricultural year ending in September 1897, of 4,687 men, of whom 182 were dismissed or degraded within the year, while 1,175 were fined or otherwise punished for neglect of duty. Notwithstanding this heavy list of punishments, the village officers are said to be discharging their duties well, and the work of the land records staff is said to be improving. The assistance of the *patwari* staff was most valuable in dealing with the famine. The percentage of entries in the village records checked by the inspectors ranged from 6 to 19 per cent.; and a fair proportion of the entries was further checked by three successive grades of superior officers, belonging to the Land Records Establishment and to the district revenue staff.

Burma

The rainfall was both sufficient and seasonable, yielding a large rice crop in Lower Burma; it was light, but favourably distributed, in the upper province. The total area under rice in 1897-98 was, in Lower Burma, 5,913,000 acres, which was 91 per cent. of the total area under all crops, 6,478,000 acres. The increase in the cultivated area was nearly $7\frac{1}{2}$ per cent. above the figures of the previous year. The exports of rice and rice-bran by sea to places outside Burma was 1,521,000 tons, as compared with 1,299,000 tons in the year 1896-97; the large increase being due to the famine demand in India during 1897, coupled with the full crop of winter rice in 1896-97. The prices of rice at seaports, in consequence of the large demand caused by the Indian famine, were still favourable to Burma producers, though not so high as in the previous year.

The area of occupied land in Lower Burma that was sold during the year was 395,000 acres, compared with 339,000 in the previous year. The total land under mortgage at the end of the year is returned at 340,000 acres, or 5 per cent. on the area under cultivation. The average price in the districts of largest transfers (Hanthawaddy and Thongwa) was 16 rupees and 15 rupees per acre. The return of the areas sublet in Lower Burma was 1,343,000 acres. Rents paid by sub-tenants averaged from $4\frac{2}{3}$ rupees per acre in the lowest district to $9\frac{2}{3}$ rupees per acre in the highest district. In Hanthawaddy and Thongwa, where the areas sublet were 359,000 acres and 253,000 acres respectively, the average rent rates were 9 rupees per acre. In only three other districts (Hepzada, Pegu, and Bassein) was as much as 100,000 acres held by tenants. For the whole of Lower Burma the rents paid all over the province averaged 8 rupees an acre, as compared with an average land revenue rate of about 2 rupees an acre.

The rainfall of Assam was sufficient in most districts; very heavy rains fell in the summer months, but the weather was unusually dry in December. The rice harvest was a good one; the season was not favourable for tea; the yield of oil-seeds was poor. Crops suffered considerably from floods caused by the earthquake. Prices of food rose generally.

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ASSAM.

A system of continuous inquiry into agricultural conditions and statistics was inaugurated in the province during the year, and an experimental farm was started at Shillong. Crop experiments have been carried on as in preceding years. An effort is being made to encourage the growth of a superior kind of rice in the Khasi Hills, instead of the coarse rice now cultivated there. The cultivation of jute and of new sorts of potatoes also formed the subject of special inquiry and experiment during the year.

The training of village officials in surveying and in the maintenance of the village records in a correct state is carried on in three survey schools. During the year 90 candidates obtained certificates at the schools, as compared with 127 in the preceding year. The number of village revenue officers who have obtained certificates of qualification is returned at 951, as compared with 936 in the previous year, out of 1,065 of these officials on the rolls of the surveyed tracts. The testing of village maps and records by superior inspecting officers was less complete and satisfactory than is desirable. Out of 136,967 survey marks on the ground, 89,203 were found to be in good order, and 30,726 were repaired; 5,159 marks were lost or left unvisited.

The rainfall in Madras during 1897-98 was above the normal average, but was not well distributed; the south-west monsoon began late, and the north-east monsoon (or latter rains) failed generally. On the whole the season was not altogether favourable to agriculture, save on the west coast and in Ganjam, Vizagapatam, and the Nilgiris. The crop area was 2 per cent. above that of the preceding year, and the harvests were on the whole not much below the normal. The price of food grains rose 27 per cent. in the case of rice, and 40 per cent. in the case of millets, as compared with the previous year; but in the beginning of 1898 they began to fall again.

MADRAS.

The advances to ryots for improving their lands amounted to Rx. 109,000 in 1896-97, as compared with Rx. 18,000 in 1895-96, Rx. 27,000 in 1894-95, and Rx. 195,000 during the two previous years of partial scarcity, 1891-93. The Land Records Department maintained survey schools in 116 subdivisions of 19 districts of Madras, and 12,430 village accountants were instructed in the surveying and demarcation of fields; while 601 out of the 634 revenue inspectors in the province have also been trained to survey lands and correct land records; schools were not held, for various reasons, in the Cuddapah, Trichinopoly, and Madras districts. The provincial veterinary officer, by visiting the district stock inspectors, by attending or organising cattle fairs, and by lecturing to classes at the Agricultural College of Saidapet, carried out part of the programme of the recently-established Civil Veterinary Department. The famine relief operations interfered with the work of agricultural experiment and inquiry. The Government dispensed for part of the year with the services of seven out of the 13 stock inspectors. The land records staff was also employed on famine duties.

The rainfall in Bombay was generally below the average, but it was well distributed, and the season was on the whole a good one. In Sind an exceptionally good inundation resulted in a bounteous harvest. Prices were high in July 1897, but fell about 50 per cent. by January.

BOMBAY.

At the Poona demonstration farm the season was not altogether favourable, as the October rains were exceptionally heavy and proved disastrous to the crops, while the rabi sowings were hindered by want of rain in November and December. The fodder crops, however, were up to the average; and there was considerable recovery from the scarcity of the previous season. Great damage was done to crops by a pest of caterpillars. On the Surat farm the season was not favourable, and the experiments therefore proved disappointing. Still a good deal was done which may have permanent interest and value. The *Nitwa* variety of millet (*jowari*) proved to be the best fodder-yielding variety for the uncertain climate of the Deccan. Both the *Nitwa* and

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the *Sundhia* varieties fared better in the Deccan than the American millets. A trial of the value of lucerne and of lucerne mixed with guinea grass failed to give definite results, owing to the season. Guinea grass continues to be the best of the exotic fodder plants. Experience at the Poona farm more and more confirms the view that Indian staples will be improved, not by introducing and acclimatising foreign varieties, but by a continued process of seed selection for propagation of indigenous varieties; each approved local variety should be improved in its own locality, where it has attained success, as the survival of the fittest. The experience of the Poona farm superintendent, after careful trial of Egyptian cotton in several localities, leads him to the opinion that the best local varieties of cotton are better suited to the soil and climate than the Egyptian variety, which Mr. Jansetjee Tata is making much effort to establish in Western India. Trials with various sugar mills showed the superiority of the Poona iron mill. The Surat farm is to be primarily devoted to ascertaining, establishing, and improving the best local varieties of millet (*jowari*), which is the staple food grain of Guzerat. The dairy farm supplied milk and butter to the value of Rx. 1,524 during the year; the profit on the farm was largely reduced by reason of an outbreak of foot-and-mouth-disease; and the income was less than the expenditure by Rx. 83 for the year. As yet the dairy farm cannot claim to have produced a local breed of improved milch cattle, which was one of the main objects in view.

Government loans to cultivators for permanent improvements and the purchase of seed and cattle amounted to Rx. 231,000, or Rx. 135,000 less than in 1896-97. The large decrease in these advances was due to the shorter duration of famine. Of this total Rx. 84,000 were spent on irrigational and protective improvements and wells, while Rx. 147,000 were taken for the purchase of cattle and seed. A special staff was organised for dealing promptly with applications for advances. The Government report that the advances were generally found to have been utilised for the purposes for which they were granted.

Berar.

The rainfall of the year in Berar was 19 per cent. below normal, but it was sufficient during the early part of the year, and the yield of staple food crops was excellent. Cotton, which covered last year 32.3 per cent. of the Berar cultivated area, gave more than double the yield of the previous year; millet, the chief food staple, linseed and wheat, all gave excellent results. The prices of millet (*jowari*) fell satisfactorily, and rice was cheaper than in the preceding year. The total occupied area rose from 7,890,000 acres in the previous year to 7,929,000 acres. Of the latter total, 84 per cent. was under crop in 1897-98, as compared with 79 per cent. in the year 1896-97. The area under cotton was 2,150,000 acres, which is 2 per cent. less than the average of the last ten years. A monograph on cotton cultivation in the province was included in the Berar Agricultural Ledger Series during 1898.

HORSE-BREEDING, AND VETERINARY COLLEGES.

HORSE-BREEDING.

In 1891 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 not only supervise horse-breeding and mule-breeding, but, in conjunction with the district authorities and local boards, they organise and control operations for combating cattle disease, and help to instruct Indian students at veterinary colleges. The returns of agricultural stock are not complete for all provinces, and are altogether wanting for Bengal; but the total number of horses and ponies in British India, outside Bengal, is returned at 1,120,000, while the number of mules and donkeys is given at 1,116,000. The North-West Provinces and Oudh return 494,000 horses and ponies, and 312,000 mules and donkeys; while the Punjab returns 577,000 mules and donkeys, and 277,000 horses and ponies; the Bombay returns show 130,000 horses and ponies, and 59,000 mules and donkeys. The totals in nearly every case show some falling off from the corresponding figures for the previous year. The

number of stallions kept by Government for horse-breeding, at the end of the year 1897-98, was 383, or three less than in the previous year; 41 new stallions were bought, and 44 were struck off the register, mostly because they were old and worn out. Among the new stallions were 16 English and 11 Australian thoroughbreds and 14 Arabs. At the end of the year there were 125 Arabs, 67 Norfolk trotters, 91 English and 36 Australian thoroughbreds. The number of donkey sires bought during the year was 43, while 33 died, or were sold. The number of donkey stallions kept by Government for mule-breeding was 392 at the end of the year. Of the total, 199 were Italian donkeys, but these animals are very expensive; 30 donkey sires were imported during the year, and a gradually increasing number of large donkey sires will, it is hoped, be obtainable from donkey breeders in the Punjab and Baluchistan. The donkey sires imported during the year were from Italy and Cyprus, and were of good stamp. Besides the Government stallions, 192 horse and donkey stallions were maintained by provincial governments, district boards, &c., and a considerable number by Native States. The officers of the Veterinary Department give every assistance to chiefs and to local bodies in obtaining good sires.

At the end of the year 23,467 branded or certificated mares were on the list as available for horse-breeding, and 5,045 for pony-breeding, from sires kept by Government; these numbers are above the totals of 1896-97, and include some mares branded for mule-breeding. Of this number, 14,041 mares were covered by Government horse stallions during the year; and 4,269 foals were reported to have resulted from the coverings of the previous year, by horse and pony stallions, apart from 2,312 cases in which the results were unknown; 8,571 coverings are known to have yielded no foals. The average number of foals thrown to each horse stallion employed in the previous year ranged from 11.3 in the Deccan to 23.6 in Baluchistan; and for all India the average was $13\frac{3}{4}$ for horses and nearly $13\frac{1}{2}$ for ponies. It is said, however, that the statistics are not trustworthy, though more accurate than they were; and are probably below the truth. By the Government donkey stallions 17,159 horse and pony mares, besides 1,148 donkey mares, were covered; and 3,637 mule foals, besides 199 donkey foals, are reported to have been born from the coverings of the previous year. The veterinary officers believe that the produce of the mares served by Government sires is greater than these figures would show. The stallions kept by district boards, local bodies, and private individuals covered 8,420 mares during the year; 2,204 foals are reported to have been born during the year. The average yearly cost of keeping stallions was higher than in previous years by reason of the drought and dearness of grain; it ranged from Rs. 289 to Rs. 662 for horses, and from Rs. 165 to Rs. 490 for donkey stallions, in the several provinces. Baluchistan and the Deccan are the provinces where the cost of keeping stallions is highest. The number of remounts purchased for the army at the different horse fairs was 1,959; while 15,861 mules were bought and 8,410 hired for army purposes, chiefly in connection with the Frontier expedition.

The previous year was very disastrous for horse fairs; there was a satisfactory recovery in 1897-98, but four important fairs were not held at all owing to the plague. Thirty-two horse fairs were attended by officers of the Veterinary Department. Particulars have not been received as to two of these fairs, but at the remainder 46,406 horses and mules were shown, sales were effected of 11,695 animals, and Rx. 4,607 were distributed in prizes from public funds. The highest average price, Rs. 337, was paid for remounts at the Lahore fair; while the highest individual price, Rs. 560, and the lowest average price, Rs. 76, was paid at the Amritsar autumn fair. The highest average price paid for mules for army service was Rs. 181, at the Rawal Pindi show. The largest fairs were the two held at Amritsar in the Punjab, to which 5,049 and 5,188 animals were brought, and at which 367 Government remounts were purchased. The large fair at Batesar in the North-West Provinces is rapidly declining, and showed this year a decrease of 6,574 animals, partly owing to special causes.

The Bacteriological Department was principally engaged in studying the symptoms and etiology of cattle disease, and experiments carried out by Dr. Koch in the North-Western Provinces demonstrated the identity of the

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disease in India with the South African rinderpest. Some hundreds of cattle were immunised there and in Bengal by his methods with bile and with blood from diseased animals, with good results. The danger of importing the tick disease from Queensland through horses has been under consideration. The Imperial Bacteriological Laboratory has been moved to Muktesar in the Himalayas, near Almora, where investigations will be pursued and remedies devised and tried in a clear, cool atmosphere. The year was marked by severe rinderpest in Sind and many districts of the North-West Provinces. Other kinds of cattle disease prevailed in many provinces; and generally inquiries appear to show that the prevalence of remediable and perhaps preventable cattle disease is much greater throughout India than has been commonly reported or believed. The employment of veterinary assistants made great progress in Bengal during the year under review; the assistants are trained in the Bengal Veterinary Institution, and their work is reported to have been generally satisfactory. In Bombay 17 cattle dispensaries are open, besides those in the city of Bombay; of these five are itinerant and 12 are stationary. All of these institutions were said to be doing either "satisfactorily" or "very satisfactorily"; at each is stationed a trained native veterinary surgeon. The number of animals treated at these institutions during the year was 19,975. Three cattle dispensaries were open in the Central Provinces, at which 6,177 animals were treated, and there was one cattle dispensary in Bengal, and two in Berar. In the Punjab there are now nine stationary and eight itinerant cattle dispensaries, at which 1,096 in-patients and 14,885 out-patients were treated; these dispensaries cost Rs. 1,958 during the year. A veterinary hospital exists at Calcutta; the Darjeeling municipality employs a veterinary assistant; and three more cattle dispensaries have been opened in Bengal by estate owners, while several more such institutions are contemplated. Sixty-four veterinary assistants were employed in the Punjab, besides nine dispensaries; and in the North-West Provinces there were 20 assistants. The advance that has been made of recent years in the organisation to treat diseases of cattle is shown by the number of cattle treated by assistants, which was, in 1895-96, 111,723 for all India; in 1896-97, 118,517; and in 1897-98, 157,214.

Cattle fairs and cattle-breeding.

Veterinary officers attended and reported upon the cattle fairs in different provinces. It is generally found that the breed of cattle is in need of improvement, and that for this purpose it will be necessary to secure more and better bulls, and to stimulate an interest in the question among the people; but the funds and organisation for providing and keeping such animals have not yet been provided. The young calves, which are released in the name of religion to become brahmani bulls, are generally sorry animals. The number of such bulls is everywhere extremely small compared with the number of cows to be served. Male calves are rarely castrated till they are three or four years old; the operation is postponed in order to let the young animals grow up strong and sturdy. Most of the stock-getting all over India is done by these young bulls, which are pastured with the cows. Everywhere some, and in a few districts a good many, landholders keep stud bulls of good breed; a few district councils also keep stud bulls for the use of the people. In some regions, such as Lower Burma, where good fodder is always abundant, and in dry districts, such as Salern, Hansi, and Gujrat, excellent local breeds are maintained.

Veterinary colleges and schools.

The Bombay Veterinary College had 69 students, as in the previous year; of these only seven obtained diplomas at their final examination, and 21 passed other minor examinations. The demand for qualified veterinary assistants is in excess of the supply from all sources. The Lahore College had its full complement of students, and the results of the year were very satisfactory; out of 43 men presenting themselves, 38 gained diplomas at the final examination. The applications for admission are too many for the teaching power, the number of candidates for 15 vacancies having been 150. Qualified students from this college continue to obtain lucrative work in the army and in the Civil Department, and also abroad. At Calcutta and Ajmere the veterinary schools have now completed their third year; out of 15 Calcutta students who appeared for their final diploma, 14 passed successfully, while at

Ajmere 17 out of 19 were declared to be qualified as veterinary assistants. HORSE-BREEDING.
At the Burma school, out of 100 candidates for veterinary studentships, 24 were selected, but of these only 16 completed the course of instructor

AGRICULTURAL PRODUCE.

Though there is still much room for improved accuracy, agricultural statistics are now available for all British India, except that for Bengal the returns of crops are approximate only, while stock statistics and returns of the irrigated area are for that province wholly wanting. Assigning to Bengal an irrigated area, and a supply of cattle proportionate to the corresponding totals in similarly situated provinces, we get the following totals for British India, during 1896-97 :—

AGRICULTURAL
PRODUCE.
Agricultural
Statistics.

	Acres.
Total area according to Survey	733,000,000
Deduct feudatory and tributary States	128,000,000
Deduct area for which no returns exist	68,000,000
Net area	537,000,000
Forest areas	64,000,000
Area not available for cultivation	154,000,000
Culturable waste other than fallow	95,000,000
Current fallows	47,000,000
Net area yielding crops during year 1896-97	177,000,000
of which bore two or more crops during the year	23,000,000
Total crop area	200,000,000
Total irrigated area (including 6,000,000 acres estimated for Bengal)	36,000,000
Area of rice crop	66,000,000
Area of millet crops	40,000,000
Area of wheat crop	16,000,000
Area of gram crops	8,000,000
Area of barley	6,000,000
Area of pulses and other food crops	25,000,000
Area of orchard and garden crops (chiefly food)	3,000,000
Total food crops	164,000,000
Area of sugar	3,000,000
Area of tea, coffee, spices, and condiments	1,500,000
Area of oil-seeds	11,000,000
Area of cotton	10,000,000
Area of jute and other fibres	3,000,000
Area of indigo	1,600,000
Area of poppy (opium)	600,000
Area of tobacco	1,100,000
Area of fodder crops	2,000,000
Area of other non-food crops	1,700,000
Total of non-food crops	36,000,000
Number of cattle (including 25 millions estimated for Bengal)	101,000,000
Number of sheep and goats (including 6 millions estimated for Bengal)	38,000,000
Number of horses, ponies, mules, and donkeys (including 300,000 estimated for Bengal)	2,500,000

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AGRICULTURAL PRODUCE.

The total area on which crops were sown, and the area cropped more than once, is returned for the last five years thus :—

	Millions of Acres.					
	1891-92.	1892-93.	1893-94.	1894-95.	1895-96.	1896-97.
Total area of crops sown - - - -	211	221	225	224	214	209*
Including area cropped more than once -	23	25	28	27	25	23

* The figures for 1896-97 exceed those given on the preceding page, because they include the area on which crops failed to come to maturity.

Regarding some of the more important staples of Indian agriculture, the following detailed account of the crops of 1897-98 is subjoined.

WHEAT.

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

	Average Wheat Area for preceding Five Years.	Areas Cultivated with Wheat in	
		1896-97.	1897-98.
	Acres.	Acres.	Acres.
Punjab - - - - -	7,290,700	6,584,300	8,013,800
North-Western Provinces and Oudh -	4,536,700	3,772,800	4,552,100
Central Provinces - - - - -	3,033,300	1,969,600	2,162,200
Bombay - - - - -	2,416,000	1,446,700	1,860,600
Sind - - - - -	521,500	406,800	571,400
Berar - - - - -	887,500	381,400	390,400
Bengal - - - - -	1,522,100*	1,341,700	1,573,400
Rajputana† - - - - -	1,461,100	1,219,100	1,152,000
Central India† - - - - -	1,382,200	1,045,200	1,129,900
Hyderabad and Mysore - - - - -	1,155,800	856,600	1,095,800
TOTAL - - -	24,806,000	19,024,200	22,501,600

* Four years.

† Excluding some Native States from which no forecasts have been received.

The wheat area of 1898 was below that of ordinary years, by reason of an unfavourable season in Western and Central India, though much above that of the preceding year. The total yield of wheat for all India was estimated at 6,506,800 tons, compared with 4,892,900 tons in the year 1896-97, and with 6,926,000 tons in years of normal harvest. Wheat prices were everywhere at famine rates, being especially high in Bombay and the Central Provinces, but a decline began to show itself at the beginning of 1898. The wheat exports of India were lower than in any year except the last; but with the decline in prices in India the export began to revive at the end of the financial year. The wheat export figures for the past few years have been—

1,053,000 tons in - - - 1885-86	345,000 tons in - - - 1894-95
689,000 " - - - 1889-90	500,000 " - - - 1895-96
1,515,000 " - - - 1891-92	95,000 " - - - 1896-97
608,000 " - - - 1893-94	120,000 " - - - 1897-98

During the last nine months of the year 1898 the Indian wheat exports amounted to 867,000 tons. In addition to this, some thousands of tons of wheat flour are annually exported. The prospects of the wheat harvest of 1899 are decidedly good in the Punjab and the North-West Provinces, but not so

good in the Central Provinces, especially in the southern districts, or in the Bombay Deccan. But on the whole they are favourable.

AGRICULTURAL
PRODUCE.

The area under, and the yield of, the main oil-seeds crops, namely, linseed, rapeseed, and mustard, for all India, may be approximately given thus:—

		Average for preceding Five Years.	1896-97.	1897-98.
Area in acres	{ Linseed, rapeseed, and mustard.	20,000,000	14,920,000	18,330,000
	{ Sesamum oil-seeds	3,500,000	3,371,000	3,309,000
TOTAL . . .		23,500,000	18,291,000	21,639,000
Yield in tons estimated for all seeds*		1,463,000	1,177,000	1,752,000

* Exclusive of Bengal, where the crop of 1897-98 gave seven-eighths of an average yield; and of Nizam's territory.

The area sown decreased in 1896-97 by reason of the drought and famine, but rape, mustard, and linseed occupied a large area in 1897-98, and the yield was excellent, especially in the Punjab. The exports of oil-seeds in 1893-94 had been the largest on record, and amounted to 1,211,000 tons, valued at Rx. 16,753,000; since then they have fallen year after year, and were 570,000 tons, valued at Rx. 8,012,000, in 1896-97; and 628,000 tons, valued at Rx. 8,594,000, in the year under report.

The rice harvest in 1897-98 gave an exceptionally good yield in Bengal and Burma, and more than an average yield in Madras. The total normal area under rice in British provinces is said to be about 68,000,000 acres, of which 40,000,000 belong to Bengal, 6,400,000 to Madras, and 6,400,000 to Burma. The total yield of British India in an average year may amount to 28,000,000 tons of cleaned rice; but in 1897-98 the estimated out-turn in the above-named provinces alone equalled that amount. The quantity of rice exported from India and Burma beyond the sea was 1,337,000 tons, or 5 per cent. below the total of the preceding year; while the value of the rice exports fell from Rx. 11,947,000 to Rx. 11,587,000. More than two-thirds of the exports went from Burma, which also exported 585,000 tons of cleaned rice to India. The rice crop of 1898-99 for Bengal, Madras, and Burma is estimated to cover 52½ million acres, as compared with 52½ millions in 1897-98, and with 52¾ millions in ordinary years. The harvest of 1898-99 in these three provinces is estimated at 26½ million tons, against 25 million tons in 1897-98.

RICE.

The Indian export duty of three annas per maund on rice yielded to the Indian Treasury Rx. 724,000, against Rx. 752,000 in the previous year. Siam and Saigon, which with Japan constitute the only other considerable rice-exporting countries of the world, levy the same or a slightly higher rate of duty on rice exports. The total exports of rice from Siam, Saigon, Java, and Japan to Europe during 1898 were 231,000 tons, as compared with India's exports of 892,000 tons to Europe in the same year; for the year 1897 India's total had been 684,000 tons, and for 1896 it was 762,000, compared with 412,000 and 189,000 tons from the four other countries in the two years. The decrease in India's exports to Europe in 1897 was due to the famine, which deflected Burma's rice surplus to Bengal and Northern India; and the plentiful crop of 1897 enabled Indian rice to recover its position in the markets of Europe. This year (1899) Burma has an exportable surplus of 1,259,000 tons of rice.

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AGRICULTURAL
PRODUCE.
COTTON.

The area under cotton in India is returned and estimated as follows:—

	Average Cotton Area for preceding Five Years.	1897-98.	1898-99.
	Acres.	Acres.	Acres.
Madras - - - - -	1,518,000	1,509,000	1,295,000
Bombay, Sindh, and Bombay Native States (estimated) - - - - -	5,472,000	4,859,000	4,014,000
North-Western Provinces and Oudh - - - - -	1,317,000	1,140,000	1,130,000
Punjab - - - - -	997,000	1,128,000	780,000
Central Provinces - - - - -	636,000	669,000	674,000
Berar - - - - -	2,165,000	2,150,000	2,476,000
Nizam's Dominions (estimated) - - - - -	1,587,000	1,654,000	1,738,000
Central India (estimated) - - - - -	458,000	418,000	456,000
Rajputana (estimated) - - - - -	576,000	543,000	479,000
Bengal - - - - -	172,000	174,000	168,000
TOTAL - - -	14,898,000	14,244,000	14,119,000

The shrinkage of the cotton area in 1898-99 was, as in the previous year, mainly due to the desire of the people to replenish as soon as possible their food stocks, depleted by the famine. The yield of 1898-99 was well above the average per acre.

The exports of raw cotton from India were—

1884-85 - - -	5,060,000 cwts., valued at Rx. 13,286,000
1889-90 - - -	6,325,000 " " " 18,669,000
1892-93 - - -	4,789,000 " " " 12,743,000
1894-95 - - -	3,387,000 " " " 8,708,000
1895-96 - - -	5,246,000 " " " 14,108,000
1896-97 - - -	5,216,000 " " " 12,970,000
1897-98 - - -	3,723,000 " " " 8,871,000
1898-99 (9 months only)	3,558,000 " " " 7,613,000

TEA.

The following is an estimate of the cultivation and the production of tea in India for the last three years:—

	Area growing Tea, in Acres (Mature and Immature Plants).			Production of Tea in Lbs.		
	1895.	1896.	1897.	1895.	1896.	1897.
Bengal - - - - -	104,197	105,707	128,067	34,832,000	36,652,000	38,951,000
Assam - - - - -	276,290	291,909	310,550	99,618,000	109,727,000	107,266,000
Madras - - - - -	6,797	5,270	6,335	655,000	642,000	898,000
North-Western Provinces - - - - -	8,514	7,919	7,965	2,293,000	1,774,000	2,043,000
Punjab - - - - -	9,243	9,830	9,970	1,993,000	2,147,000	2,302,000
Native States - - - - -	9,180	11,444	30,076*	3,739,000	5,182,000	2,546,000*
Burma - - - - -	1,196	1,201	747	283,000	302,000	276,000
TOTAL - - -	414,988	433,280	493,710	143,408,000	156,426,000	153,782,000

* Figures doubtful.

The yield of tea per acre during the year is reported to have averaged 408 lbs. in Assam, where the season was, on the whole, unfavourable, and 381 lbs. per acre of mature plants in Bengal; elsewhere the yield was lower. The tea crop of 1897-98 was not up to the average. Prices in 1897 ranged

about 9 or 10 per cent. lower than in the previous year. The consumption of Indian tea in India is about $4\frac{1}{2}$ million lbs., besides 3 million lbs. of China and Ceylon teas. The tea gardens of India employ about 560,000 labourers permanently and 102,000 temporarily, or 662,000 labourers in all. The total exports of Indian tea by sea are returned at—

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PRODUCE.

78½ million lbs. in 1886-87	129 million lbs. in 1894-95
107 " " 1890-91	148½ " " 1896-97
126½ " " 1893-94	151½ " " 1897-98

During the year 870,000 lbs. of tea were also exported from India by land into neighbouring countries. The value of India's tea exports in 1897-98 was Rx. 8,059,000, or Rx. 66,000 less than in 1896-97. Australia took $4\frac{1}{2}$ per cent. of India's tea exports, against 4 per cent. in 1896-97; less than 1 per cent. was sent to Persia, and about the same amount to Turkey in Asia; and $2\frac{2}{3}$ per cent. to other countries; while the rest ($137\frac{2}{3}$ million lbs.) went to the United Kingdom. The quantity of Indian tea sent direct to the United States was 930,000 lbs., or $18\frac{1}{2}$ per cent. above the consignments of the previous year.

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.	98 per cent.	2 per cent.	0 per cent.
1875	86 "	13 "	0 "
1885	66 "	30 "	2 "
1896	16 "	46 "	32 "
1896	13 "	48 "	36 "
1897	11 "	50 "	38 "
1898	10 "	52 "	36 "

In 1898 tea from China was imported at an average price of about 7d. per lb., while Indian tea fetched at the auction sales in London an average price of about 8½d. per lb., and Ceylon tea similarly fetched an average of 7½d. per lb. In 1897 the auction averages were, Indian tea, 9d., and Ceylon tea, 7½d. per lb.

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

COFFEE.

	1895.	1896.	1897.
	Acres.	Acres.	Acres.
Coorg	73,828	84,820	86,155
Madras	63,953	56,851	55,895
Burma	267	319	308
Mysore	138,670	141,528	125,876
Travancore, Cochin, &c.	7,033	5,748	7,840
Total	283,751	289,266	276,074

The coffee industry is said to employ 37,819 persons permanently and 95,820 temporarily, or 133,639 in all. The normal yield of coffee per acre may be taken at from $2\frac{1}{2}$ cwts. for the best European plantations in full bearing to 1 cwt. for Native plantations; much larger yields are sometimes reported. The coffee crop of 1897-98 in Southern India was poor, and the yield was 7.8 per cent. below the estimated out-turn of the preceding year. Prices of inferior grades of coffee fell considerably in the London market during 1898. The total coffee exports from India were 225,000 cwts. in 1897-98, as compared with 236,000 cwts. in the previous year, and 312,000 cwts. in the year 1891-92.

AGRICULTURAL
PRODUCE.
CINCHONA.
Bengal.

The Government cinchona plantations of the Darjeeling district in Bengal suffered during the two preceding years from drought; but in 1897-98 they received an amount of rainfall almost equal to the average. The number of trees uprooted for bark was 245,000, and 40,000 young trees of the quinine-producing kinds were planted out. The total of plants at the close of the year was 2,479,000 (exclusive of 213,000, nursery stock), as against 2,683,000 at the end of last year. All the existing trees are of the quinine-yielding variety, except 178,000, which belong to the cinchonine-yielding kinds. The harvest of dry bark was 319,000 lbs., besides 418,000 lbs. purchased from private plantations. The factory produced during the year 4,075 lbs. of cinchona febrifuge and 10,148 lbs. of sulphate of quinine, the quantity of the latter being less than last year, but with that exception being the largest on record. Quinine is now sold to public institutions and Government offices at 13 annas per ounce, while the febrifuge is sold at 8 annas per ounce. The issues from the factory were 3,398 lbs. of febrifuge, and 10,939 lbs. of quinine. These issues yielded a profit of Rx. 1,163, after meeting all charges for maintaining the plantations, renewing plant, and working the factory. The capital cost of the plantation had been repaid by the sale of cinchona drugs in previous years. During the year 2,200 lbs. of quinine, as compared with 3,300 lbs. in the previous year, were put up in 5-grain doses; each dose is carefully packed, and bears simple instructions in one of the vernacular languages of Bengal. This decline is disappointing, and will be made the subject of further inquiry. The total issues of quinine and febrifuge were 25 per cent. above those of the previous year, the ground lost in 1896-97 being thus regained, in spite of the decrease in the sale of packets noted above. The stock of drugs in hand fell slightly, to 5,640 lbs.

Madras.

In the Government plantations on the Nilgiri Hills, in Madras, the cinchona trees are mostly of the quinine-yielding varieties; and the Nilgiri barks are richer in quinine than corresponding species on the Darjeeling plantations. The rainfall on the Nilgiri Hills was very deficient, and the season was unfavourable; there was also severe frost during the cold season. The number of trees that were cut down was 119,000, while 123,000 died and were replaced. The plantations and nurseries continued in good order. The stock of dry bark in hand at the beginning of the year was 247,000 lbs.; the harvest of the year was 128,000 lbs.; the consumption of the factory was 241,000 lbs. The produce of the factory during the year was 5,092 lbs. of quinine, and 6,389 lbs. of cinchona febrifuge; 6,336 lbs. of the former, and 1,956 lbs. of the latter, were sold or issued to Government and municipal or local departments. The quantity of 5-grain quinine powders issued for sale to the public in the interior was 1,017 lbs., as compared with 727 lbs. in the previous year. The expenditure of the year was Rx. 9,530, and the value of drugs sold and issued was Rx. 9,552; the quinine was sold to the public at 18 rupees per lb., and the cinchona febrifuge at 10 rupees per lb.

The area under cinchona for all India is returned at 4,346 acres, compared with 5,916 last year. Of this area 2,178 acres are on Government plantations; the private plantations are mainly in the Madras presidency, where the total area under cinchona is returned at 1,486 acres, against 1,741 acres in 1896-97; but the yield of bark from the reduced acreage was much higher, being 1,144,000 lbs., as compared with 251,000 lbs. last year. The total yield from private plantations was 1,245,000 lbs. in 1897-98. The industry has declined of late, in consequence of the low price of quinine and of bark; the area under cinchona has fallen from 14,491 acres in 1886-87 to 4,346 acres in 1897-98; but this year there was a considerable rise in prices. The exportation of cinchona bark from India by sea, which was 3,074,000 lbs. in 1888-89, fell to 321,478 lbs. in 1896-97, and rose again in the year under review to 3,056,769 lbs.

JUTE.

Bengal continues to be, as heretofore, the only province that produces jute to any considerable extent. The season of 1896 was unfavourable to the jute crop, but the crop of 1897 was a good average yield. The normal jute area of Bengal is given at 2,243,000 acres; and the area under jute in 1897 was returned at 2,152,000 acres; but in 1898 only 1,624,000 acres, or 24½ per cent. less, were cultivated, owing to low prices of jute and high prices of food grains. The total yield, in bales of 400 lbs., is estimated at 4,600,000 bales

in 1898, against 6,189,000 bales in 1897. The fluctuations of the jute trade during recent years have been as follows :—

AGRICULTURAL
PRODUCT.

YEAR.	Exports of					TOTAL.
	Raw Jute.		Jute Manufactures.			
	Quantity.	Value.	Gunny Bags.	Gunny Cloth.	All Jute Manufactures, Value.	
	Cwts.	Rx.	No.	Yds.	Rx.	Value. Rx.
1888-84	7,018,000	4,592,000	68,648,000	7,049,000	1,334,000	5,926,000
1887-88	9,643,000	6,040,000	74,368,000	13,683,000	1,746,000	7,786,000
1891-92	8,532,000	6,848,000	106,251,000	37,289,000	2,513,000	9,361,000
1892-93	10,537,000	7,944,000	123,975,000	40,060,000	3,298,000	11,122,000
1894-95	12,976,000	10,576,000	143,444,000	109,117,000	4,211,000	14,787,000
1895-96	12,287,000	9,993,000	168,247,000	114,181,000	4,747,000	14,740,000
1896-97	11,464,000	10,550,000	165,946,000	169,410,000	5,314,000	15,784,000
1897-98	15,023,000	10,130,000	197,620,000	242,814,000	5,930,000	16,069,000

Of the raw jute exports, 61 per cent. went to the United Kingdom, 18 per cent. to Germany, and 14 per cent. to the United States; of the manufactured jute, 16 per cent. went to the United Kingdom, 34 per cent. to the United States, and 13 per cent. to Australia.

The normal area under indigo in India is about 1,500,000 acres, of which about one-third belongs to Lower Bengal, about one-quarter to the North-West Provinces, and the remainder to Madras and the Punjab. The indigo area of 1897-98 in all provinces was 27 per cent. less than in the previous year, and 35 per cent. below the average; the yield was 17 per cent. less than that of 1897, and 35 per cent. below the average. The total exports of recent years have been :—

INDIGO.

	Cwts.	Rx.	
1888-89	142,000	valued at 3,949,000	Exports by sea, besides about 2,500 cwts. annually exported across the land frontiers of India during the last three years.
1890-91	118,000	" 3,073,000	
1893-94	131,000	" 4,182,000	
1894-95	166,000	" 4,746,000	
1895-96	187,000	" 5,355,000	
1896-97	170,000	" 4,371,000	
1897-98	134,000	" 3,057,000	

The area under sugar in India during the years 1893-97 is given as follows :—

SUGAR.

	1893-94.	1894-95.	1895-96.	1896-97.
	Acres.	Acres.	Acres.	Acres.
Bengal	1,030,600	967,300	944,600	839,800
North-Western Provinces	1,061,500	978,300	1,099,200	967,700
Oudh	60,900	255,700	289,800	246,500
Punjab	327,600	339,900	385,900	398,200
Other Provinces	216,400	223,500	211,100	199,500
Total	2,897,000	2,764,700	2,930,600	2,651,700

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AGRICULTURAL
PRODUCE.

The amount produced is estimated at about three millions of tons per annum.

The imports of sugar during the last three years are given as follows :—

	1895-96.	1896-97.	1897-98.
	Tons.	Tons.	Tons.
From Austria-Hungary - - - - -	246	5,775	47,287
„ Germany - - - - -	35,910	37,940	60,105
„ Mauritius - - - - -	68,336	74,442	70,302
„ China - - - - -	10,302	6,065	14,558
„ other Countries - - - - -	11,450	8,998	19,444
TOTAL - - -	126,244	134,120	211,756

The great increase in the imports from Austria and Germany in 1897-98 is ascribed to the closing of the United States markets to bounty-fed sugar by the imposition of countervailing duties. Inquiries as to the degree to which the Indian industry is affected by the competition of this sugar have been instituted.

MINES AND MINERAL RESOURCES.

MINERAL
RESOURCES.
COAL.

There was again an increase in the production of coal in India. The total yield was 3,537,000 tons in 1895, 3,848,000 tons in 1896, and 4,063,000 tons in 1897. The output in recent years from the principal coalfields has been—

	Coal produced in		
	Average of Three Years 1894-96.	1896.	1897.
	Tons.	Tons.	Tons.
Bengal - - - - -	2,597,000	3,036,000	3,142,000
Central Provinces - - - - -	135,000	142,000	132,000
Assam - - - - -	173,000	177,000	166,000
Punjab - - - - -	73,000	79,000	93,000
Baluchistan - - - - -	18,000	11,000	9,000
Burma - - - - -	18,000	23,000	11,000
Rewah State - - - - -	122,000	115,000	125,000
Nizam's Dominions - - - - -	265,000	263,000	365,000
TOTAL - - -	3,401,000	3,848,000	4,063,000

The total yield of Indian coal 12 years ago, in 1886, was 1,389,000 tons. The importations of coal by sea fell from 747,000 tons in 1895-96 to 481,000 tons in 1896-97, and 248,000 tons in 1897-98; of this 88 per cent. came from the United Kingdom. During the year 1897-98 Bengal exported 210,000 tons of coal to foreign countries, besides 500,000 tons sent by sea to other Indian provinces. Burma now consumes Indian coal, almost exclusively, on her railways. The total number of persons employed in the coal mines was returned at 60,000. On all Indian railways 1,372,000 tons of coal were used in 1897, of which 1,324,000 tons, or nearly 97 per cent., were Indian coal.

IRON.

The Barrakur Ironworks in Bengal are the only works in India at which pig-iron is produced. In a previous statement it was said that the Barrakur

Company had agreed to supply the Indian Government with 10,000 tons of castings and pig-iron yearly for 10 years; 12,000 tons of pig-iron were supplied to the East Indian Railway during 1898. The total production of pig-iron was 19,719 tons; 8,515 tons were consumed in the Barrakur foundries and 15,779 tons were sold. The value of the iron sold by the Company during the last three years has been—

		Rx.
For the year ending 30th September	1896 - - -	43,657
"	" " " 1897 - - -	75,500
"	" " " 1898 - - -	123,408

At present the Company are aiming at putting 30,000 tons of pig-iron annually on the market; but when they see an outlet for 50,000 tons they will be in a position to increase the output to that amount. The quality of the iron is uniform, and it is reported to be as good as Middlesborough iron.

No change is reported in the condition of the small indigenous smelting furnaces which are found in many parts of India. As was explained in a previous statement, the product of these furnaces is undersold by imported iron and steel. The production of iron ores during 1897 is returned at 43,000 tons, as compared with an average for the three years 1894-96 of 33,000 tons.

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

Produced in	Average of Three Years 1894—1896.	1896.	1897.
	Gallons.	Gallons.	Gallons.
Burma - - - - -	12,904,000	14,816,000	18,906,000
Punjab - - - - -	2,000	2,000	2,000
Assam - - - - -	148,000	239,000	222,000
TOTAL - - - - -	13,054,000	15,057,000	19,129,000

In Upper Burma a further increase of yield was obtained from the Yenangyaung field by the Burma Oil Company, which has been at work in the Upper Burma field for over 20 years, and which possesses a refinery in Rangoon, and has a staff of skilled American oil workers. The northern section of the Upper Burma oil-field, known as the Yenangyat field, was successfully worked during the year. The output in Assam increased in 1896, as the Assam Oil Syndicate again began to raise oil; when sufficient refining apparatus is available, a further increase is expected. In Baluchistan the attempt to work the oil sources was not renewed.

The importations of earth-oil into India by sea increased considerably during the year, exceeding even the high figure of 1893-94.

IMPORTATIONS of Mineral Oils into India.

	1883-84.	1893-94.	1895-96.	1896-97.	1897-98.
	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.
From United States -	12,714,697	49,326,000	22,494,000	19,812,000	25,967,000
" Russia - - - -	—	34,045,000	39,876,000	45,484,000	50,672,000
" elsewhere - - -	1,169,141	395,000	943,000	3,625,000	10,657,000
TOTAL - - - - -	13,883,838	83,666,000	63,313,000	68,421,000	87,326,000

The import duty on petroleum was doubled in March 1894, and is now one anna (about one penny) per gallon, but the increased duty does not appear to have permanently or seriously affected consumption. The value of the oil imported during 1897-98 was Rx. 3,652,000, and that of the locally-produced oil is estimated at Rx. 226,000 for the year 1897.

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MINERAL
RESOURCES.
GOLD.

The gold industry of Mysore is chiefly represented by the Mysore and the Champion Reef Companies, which between them produce fully two-thirds of gold extracted. The outturn in 1888 was 35,034 oz. ; for the last three years it has been as follows :

	1896.	1897.	1898. (Approximate).
	Oz.	Oz.	Oz.
Mysore Mine - - -	114,789	127,573	160,165
Champion Reef - - -	85,995	124,347	135,412
Ooregum - - - -	65,588	55,831	50,478
Nundydroog - - -	44,925	56,377	40,080
Coromandel - - - -	6,303	12,989	11,400
Other mines - - - -	9,798	12,591	figures not available
TOTAL - - - -	327,393	389,707	397,535

There is an increase of 20,000 oz. in the outturn for 1898 of the five companies named, in spite of the fact that three of them produced less gold than in 1897.

RUBIES.

The Burma ruby mines were worked by the company and by native licensed miners under the company; but the ruby industry was seriously affected by the war, plague, and famine in India, which for the time almost spoilt the ruby market, and native mining has shown a decrease. A remission of rent amounting to two lakhs of rupees was granted to the company.

X.
PUBLIC WORKS.

DURING the year under review the Public Works Department was represented in the Council of the Governor General by Sir A. C. Trevor, K.C.S.I. The post of Public Works Secretary was held by Colonel Sir W. S. S. Bisset, R.E., K.C.I.E., until November 1897, when he relinquished the post for that of Government Director of the Indian Railway Companies in England. Col. T. Gracey, R.E., succeeded Sir Wm. Bisset as Public Works Secretary until January 1898, when he retired and Mr. F. R. Upcott was appointed to the vacancy.

The engineer establishment of the Department, including Bombay and Madras, but excluding the now separate Military Works Department, was maintained at a strength below that of the preceding year.

The following statement shows the composition of the superior engineer establishment, as it stood on the 30th June in 1897 and 1896 :—

	Government of India List.	Government of Madras List.	Government of Bombay List.	TOTAL.
Royal Engineer officers - - -	57	7	3	67
Other military officers - - -	6	—	—	6
<i>Civil Engineers :</i>				
Appointed from Europe - - -	300	58	51	404
Europeans appointed in India - - -	163	4	7	174
Natives appointed in India - - -	62	17	26	105
TOTAL for 1897 - - -	588	81	87	756
TOTAL for 1896 - - -	611	80	85	776

The upper subordinate engineering staff is largely composed of natives. The numbers of this establishment in the three presidencies were as follows:—

	India.	Madras.	Bombay.	TOTAL.
Europeans - - - - -	226	69	22	317
Natives - - - - -	344	109	170	623
TOTAL - - -	570	178	192	940

The engineering branch of the Department is divided into two services, imperial and provincial, the former of which is recruited in England and the latter in India. The pay, and leave and pension rules, of the two services are different, but in other respects there is no distinction between the members of the two divisions, and the highest posts in the Department are open to both. The civilian element of the imperial service is recruited from the Royal Indian Engineering College at Cooper's Hill; the provincial service draws its recruits from students of the Indian colleges who are natives of India, and from upper subordinates of the Public Works 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. The class of works on which borrowed money is expended comprises the railway and large irrigation works, which are expected to yield sufficient net revenue to cover the interest on the capital expended on them. For the railways and more important irrigation systems, distinct capital and revenue accounts are kept,

PUBLIC WORKS.

but for the smaller works of irrigation, and 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 1897-98 is compiled from the Finance and Revenue Accounts of the year:—

RECEIPTS.		Rx.
Railways	-	21,260,886
Irrigation	-	3,660,864
Buildings and Roads	-	667,823
TOTAL	-	25,498,573

EXPENDITURE (exclusive of Rx. 23,708 charged under Special Defence Works).

	Charged to Revenue.	Not Charged to Revenue.
<i>Railways:</i>	Rx.	Rx.
Construction	3,792	3,632,006
On Revenue Account	22,693,503	—
<i>Irrigation:</i>		
Construction	141,414	692,431
Ditto - from Famine Relief Grant	34,517	—
On Revenue Account	3,002,871	—
<i>Buildings and Roads:</i>		
Military Works	1,168,385	—
Civil Works	4,250,551	—
Miscellaneous Public Improvements	—	4,105
TOTAL	31,297,832	4,328,541

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

	Rx.
Railways	5,509,138
Irrigation	1,284,249

On the 31st of March 1898 Rx. 131,030,304 of permanent public debt had been incurred on account of railways, and Rx. 32,639,803 on account of irrigation.

The amount paid under the head of "Annuities in purchase of railways," which is included in the Railway Revenue Account, is Rx. 2,676,715.

RAILWAYS.

RAILWAYS.

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 the chief facts. As the accounts of the several railways had not been finally closed when the following statistics for the year 1896 were prepared, the figures must be accepted as only approximately correct.

The railways of India 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 fell below the amount of guaranteed interest the Government made up the deficiency. If they exceeded this amount the surplus was equally divided between the Government and the company. Moreover, the Government had 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 Rohilkund 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. Special terms have been offered by the Government to attract private enterprise to the construction of branches and feeder lines to the larger systems. Those terms include the concession by the parent line of favourable working rates, and sometimes a rebate on traffic interchanged between the two lines or a guarantee. 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 1897-98, show the financial result of the working of the railways in India for the year ending 31st March 1898 :—

	Imperial.	Provincial.	England, including Exchange.	TOTAL
REVENUE.				
(Railways.)				
	Rx.	Rx.	Rx.	Rx.
State Railways—(Gross traffic receipts) - - - - -	18,985,869	58,296	860	19,044,525
Guaranteed Companies—(Net traffic receipts) - - - - -	2,201,392	-	-	2,201,392
Subsidised Companies—(Repayment of advances of interest) - - - - -	12,990	-	1,979	14,969
TOTAL - - - - -	21,200,251	58,296	2,839	21,260,886
EXPENDITURE.				
(Railway Revenue Account.)				
State Railway:				
Working expenses - - - - -	9,166,546	44,656	-	9,201,202
Interest on debt - - - - -	6,991,278	-	1,517,860	5,509,188
Annuities in purchase of railways - - - - -	-	-	2,676,715	2,676,715
Interest chargeable against companies on advances - - - - -	87,731	-	342,142	429,873
Interest on capital deposited by companies - - - - -	16,584	-	1,226,704	1,243,288
Guaranteed Companies:				
Surplus profits, land and supervision - - - - -	126,213	-	-	126,213
Interest - - - - -	8,690	-	3,368,185	3,377,084
Subsidised Companies:				
Land, &c. - - - - -	103,577	10,189	-	113,766
Miscellaneous railway expenditure - - - - -	15,476	754	-	16,229
TOTAL - - - - -	13,506,303	55,599	9,191,666	22,693,568

In the figures for expenditure are included all charges falling on the Government for management and working expenses of railways, for interest 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 Scinde, Punjab, and Delhi Railways, through the agency of sinking funds

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RAILWAYS.

and annuities, and of that portion of the Oudh and Rohilkhand Railway debt incurred in excess of the money raised through agency of the "discount" sinking fund; the figures also include charges for land required by the companies, for control, and for miscellaneous items, such as headquarters establishment and surveys. After meeting all these expenses, the total charge to the State in 1897-98 was Rx. 1,432,616.

The statistical results of the working of the various classes of railways during 1898 are given in the following table. The aggregate net earnings of all Indian railways amounted to 5·30* per cent. on the total capital outlay on open lines, including steamboat service and suspense items, but excluding other indirect charges, against 5·08*† per cent. in the previous year :—

RAILWAY STATISTICS, 1898.

CLASS.	Length of Line open on the 31st December 1898.	Total Capital Outlay on Open Lines to the 31st December 1898, including Steamboat and Suspense.	Total Number of Passengers carried.	Total Weight of Goods carried.	Gross Earnings, including Steamboat service.	Working Expenses, including Steamboat Service.	Net Earnings, including Steamboat Service.	Percentage of Net Earnings on Capital Outlay on Open Lines.
<i>Standard Gauge.</i>								
State lines worked by companies - - -	Miles. 4,005·78	Rx. 66,896,385	No. 25,155,694	Tons. 11,174,733	Rx. 7,488,014	Rx. 2,740,380	Rx. 4,747,625	
State lines worked by the State - - -	4,815·47	72,741,148	29,712,049	17,782,054	5,042,999	2,977,960	2,905,039	
Lines worked by guaranteed companies - - -	2,588·13	51,186,379	34,737,220	5,254,620	6,018,920	3,300,121	2,700,199	
Assisted companies - - -	620·68	4,116,661	3,128,708	373,881	327,380	150,298	168,082	
Lines owned by Native States and worked by companies -	632·52	6,327,342	2,635,366	1,078,395	498,117	211,550	286,567	
Lines owned by Native States and worked by State Railway Agency - - -	123·86	767,400	1,039,435	156,470	69,500	38,300	31,200	
Total for 1898 - - -	12,786·44	201,975,315	96,398,470	25,820,158	20,344,330	9,436,618	10,907,719	5·40
Total for 1897 † - -	12,162·14	195,487,554	94,987,070	25,323,367	18,907,790	9,061,339	9,846,451	5·03
<i>Metre Gauge.</i>								
State lines worked by companies - - -	6,625·12	51,915,587	44,450,892	7,630,730	5,393,118	2,877,152	2,515,966	
State line worked by the State - - -	643·99	5,065,850	4,793,603	608,626	634,652	268,470	366,182	
Assisted companies - - -	270·20	1,662,102	1,045,111	439,777	173,855	101,250	72,605	
Lines owned by Native States and worked by companies -	188·30	877,310	1,013,341	216,141	62,781	35,000	27,781	
Lines owned and worked by Native States - - -	921·74	3,295,733	2,603,220	472,273	347,426	176,525	170,901	
Total for 1898 - - -	8,649·35	62,816,582	63,906,077	9,367,547	6,611,892	3,458,397	3,153,435	5·02
Total for 1897 † - -	8,400·61	61,433,070	55,294,451	8,368,058	6,513,137	3,324,250	3,168,867	5·21
<i>Special Gauges.</i>								
State lines worked by the State - - -	28·25	91,027	57,589	16,381	9,211	7,008	2,113	
Assisted companies ‡ - -	123·97	614,624	690,253	312,927	102,660	64,648	38,012	
Lines owned by Native States and worked by companies	97·83	291,460	298,501	64,741	20,600	24,930	-4,390	
Lines owned by Native States and worked by State railway agency - - -	25·37	102,602	71,337	13,018	6,545	5,774	771	
Lines owned and worked by Native States - - -	94·36	249,000	277,000	31,900	37,550	20,800	16,750	
Total for 1898 § - -	369·78	1,348,713	1,294,680	438,967	176,566	123,250	53,316	3·95
Total for 1897 † - -	315·15	1,161,589	946,328	203,172	166,657	100,670	65,987	5·68
TOTAL of all Railways for 1898 § - - -	21,805·57	266,140,610	151,599,227	35,626,607	27,132,728	13,018,265	14,114,463	5·30
TOTAL of all railways for 1897 † - - -	20,877·90	258,132,214	151,137,849	33,894,597	25,587,584	12,486,259	13,101,325	5·08

* Excluding the West of India Portuguese, Pondicherry and Karaikkal-Perslam Railways. † As corrected from later information
 ‡ Excluding the Calcutta Port Commissioners' railway for which information is not available.
 § Excluding the Howrah-Armita and Howrah-Shoakhalla Tramways which were constituted railway from the 7th October 1898, as particulars have not been furnished.

It will be observed that, with an increase of 927·67* miles, or 4·44 per cent., in the open mileage as compared with 1897, the gross earnings and working expenses show increases of Rx. 1,545,146, or 6·03 per cent., and of Rx. 532,006, or 4·26 per cent., respectively, resulting in an increase of Rx. 1,013,139, or 7·73 per cent., in the net earnings.

The total number of passengers carried show an increase of 461,378, and the quantity of goods handled of 1,732,070 tons as compared with the previous year.

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

STANDARD GAUGE.	Miles	Miles.	Miles.
East Indian—			
Háthras Junction to Háthras City - - - -		5·61	
Bengal-Nágpur—			
Sini Junction to Khargpur - - - -	99·50		
Khargpur to Balasore - - - -	71·75		
Khargpur to Kolaghat - - - -	35·50		
		206·75	
Indian Midland—Saugor to Datuoh - - - -		47·83	
Oudh and Rohilkhand State—Rue Bareli to Benares Cantonment - - - -		138·69	
Eastern Bengal State—Panchooria Junction to Sivarampur—		7·00	
East Coast State—Puri (temporary station) to Puri (new station)		1·84	
Bezwada-Madras (Ennúr-Bezwada section)—			
Tadepalli (Kistna Canal Junction) to Nellore -	154·12		
Nellore to Gudur - - - -	24·00		
		†178·12	
Tápti Valley—Kankarakhari Junction to Vyára - - - -		35·50	
			621·34
METRE GAUGE.			
Bengal and North-Western—			
Mohinpurwa to Katarajan ghát - - - -	27·08		
Balrámpur to Tulsipur - - - -	19·00		
Turtipur ghát to Azamgarh - - - -	51·35		
Bridge (Elgin) over the Gogra at Bahrámpur and approaches - - - -	3·27		
		100·70	
South Indian—			
Nellore to Gudur - - - -	‡24·00		
Tanjore Junction to Pulliarpatti - - - -	4·60		
		‡— 19·40	
Assam-Bengal—Badapur Junction to Silchar - - - -		18·62	
Burma—			
Mogaung to Myitkyina - - - -	37·00		
Mychaung to Sedaw - - - -	13·00		
		50·00	
Ledo and Tikak-Margherita Colliery—Dehing Bridge to Ledo		§ 3·00	
Mymensingh - Jamalpur - Jagannathganj — Mymensingh to Singhjani - - - -		33·00	
Jodhpore-Bickaneer, Bickaneer Section—Pickaneer to Dalmera - - - -		42·00	
Jámnagar—In Bedi Bandar Dock Estates - - - -		§ 3·99	
Dhrángadrá—Wadhwan Junction to Dhrángadrá - - - -		21·00	
			252·31
SPECIAL (2 FT. 6 IN.) GAUGE.			
Cooch-Bihar—Right bank of Torsa river to Town of Cooch Bihar - - - -		3·25	
Tárákeshwar-Magra—Tárákeshwar (terminus of Tárákessur railway) to Magra, a station on the East Indian Railway) -		31·12	
Tezpur-Balipara—Tezpur ghát to Balipara - - - -		20·10	
Carried forward - - -			

* For difference between this figure and the total length shown as opened during 1898 in paragraph 3, see foot-note on page

† Including 24 miles, Nellore to Gudur, of the South Indian Railway, converted to standard gauge and transferred to the Bezwada-Madras Railway.

‡ See foot-note † above.

§ Opened previously but omitted.

|| Constituted a railway with effect from the 19th May 1896 (Tárákeshwar-Magra, previously omitted) 3rd May 1896 (Tezpur-Balipara) and 7th October 1898 (Howrah-Amta and Howrah-Sheakhbaila).

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		Miles.	Miles.
Brought forward - - -			
SPECIAL (2FT.) GAUGE.			
Howrah-Amta—			
Telkulghat (Howrah) to Amta	- - -	27.25	
Bárgachi to Jagatbalspur (Branch)	- - -	1.50	
		* 28.75	
Howrah-Sheakhalla—			
Kadamtolla (junction with the Howrah-Amta) to Sheakhalla	- - -	17.25	
Chanditollah to Jonai (Branch)	- - -	2.00	
		* 19.25	
			102.47
TOTAL - - -			† 976.72

* Constituted a railway with effect from the 19th May 1896 (Tarakeshwar-Magra, previously omitted), 3rd May 1898 (Tezpur-Balipara) and 7th October 1898 (Howrah-Amta and Howrah-Sheakhalla).

† For difference between this figure and the total length shown as opened during 1893 in paragraph 3, see footnote on pages.

The additional lengths sanctioned for construction were—

		Miles.	Miles.	Miles.
STANDARD GAUGE.				
East Indian—				
Skikohabad to Farukhabad	- - -	* 66.00		
Agra to Delhi (chord line)	- - -	* 121.16		
			187.16	
Mári-Attock—Lawrencepur to Campbellpur Cantonment	- - -		6.75	
Kotri-Rohri—Hyderabad to Rahoki	- - -		6.25	
Southern Punjab—Narwana to Kaithal	- - -		25.00	
Hardwar-Dehra—Hardwar to Dehra	- - -		† 2.01	
				227.17
METRE GAUGE.				
South Indian—				
Negapatam to Nagore	- - -	4.49		
Tanjore Junction to Pulliarpatti	- - -	† 4.80		
			9.09	
Burma—				
Meiktila to Myingyan	- - -	57.70		
Sagaing to Alon	- - -	74.50		
			132.20	
Bengal Dooars—				
Malbazar to Hantupara	- - -	45.66		
Dam Dim to Bagrakote	- - -	6.76		
Deomoni Hat to Lalmoni Hat	- - -	69.13		
			121.55	
Ledo and Tikak-Margherita Colliery—Dihing Bridge to Ledo	- - -		† 3.00	
Jodhpore-Bickaneer, Bickaneer Section—Lankansar to Suratgarh	- - -		63.00	
Oodeypore-Chitor—Debari to Oodeypore	- - -		6.44	
Jámnnagar—In Bedi Bandar Dock Estates	- - -		† 8.99	
				339.27
SPECIAL (2FT. 6IN.) GAUGE.				
Barsi Light—Barsi Road to Pandharpur	- - -		33.00	
Rajpipra—Rajpipra to Nankod	- - -		17.80	
Tarakeshwar-Magra—Tarakeshwar (terminus of Tarakesur Railway) to Magra, station on the East Indian Railway	- - -		31.12	
Tezpur-Balipara—Tezpur ghát to Balipara	- - -		20.10	
SPECIAL (2FT.) GAUGE.				
Kalka-Simla—Kalka to Simla	- - -		68.00	
Gwalior-Sipri—Gwalior to Bind	- - -		45.79	
Howrah-Amta—				
Telkul ghát (Howrah) to Amta	- - -	27.25		
Bárgachi to Jagatbalabpur (Branch)	- - -	1.50		
			28.75	
Howrah-Sheakhalla—				
Kadamtolla (junction with the Howrah-Amta) to Sheakhalla	- - -	17.25		
Chanditollah to Jonai (Branch)	- - -	2.00		
			19.25	
				263.79
TOTAL - - -				880.80

* Commencement of work not yet authorised.

† Sanctioned previously, but omitted.

The total mileage under construction or sanctioned for commencement at the close of the year, *i.e.*, on the 31st December 1898, was as follows;—

	<i>Miles.</i>	<i>Miles.</i>
STANDARD GAUGE.		
State lines worked by companies - - - - -	61.5	
State lines worked by the State - - - - -	379.58	
Lines worked by guaranteed companies - - - - -	134.70	
Assisted companies - - - - -	266.84	
Lines owned by Native States and worked by companies - - - - -	74.12	
Lines owned by Native States and worked by State railway agency - - - - -	80.32	
		1,541.32
METRE GAUGE.		
State lines worked by companies - - - - -	1,130.82	
State lines worked by the State - - - - -	71.26	
Assisted companies - - - - -	237.61	
Lines owned by Native States and worked by companies - - - - -	428.29	
Lines owned and worked by Native States - - - - -	286.06	
		2,163.04
SPECIAL (2FT. 6IN.) GAUGE.		
State lines worked by companies - - - - -	56.67	
State lines worked by the State - - - - -	20.08	
Assisted companies - - - - -	64.00	
Lines owned by Native States and worked by companies - - - - -	17.80	
Lines owned by Native States and worked by State railway agency - - - - -	11.01	
SPECIAL (2FT.) GAUGE.		
Assisted companies - - - - -	68.00	
Lines owned and worked by Native States - - - - -	118.75	
		356.31
TOTAL - - -		4,060.67

The following gives a brief abstract of the important works completed and in progress during 1898:—

East Indian Railway.—The Háthras city branch, 5.61 miles, from Háthras Junction to Háthras city, was opened for goods traffic on the 1st November 1898. The Moghal Sarai-Gya extension is likely to be opened for traffic at the end of 1899.

South Behar (Luckeeserai-Gya) Railway.—This line will probably be opened for traffic on the 31st March 1899.

Bengal-Nágpur Railway.—The Sini-Khargpur section, 99.50 miles, of the extensions of this railway was opened for goods traffic on the 1st June and for passenger traffic on the 20th September 1898. The Khargpur-Kolaghat, 35.50 miles, and Khargpur-Balasore, 71.75 miles, sections were opened for goods traffic on the 17th December 1898, and will probably be opened for passenger traffic, together with the Balasore-Cuttack section, 118.50 miles, early in 1899. The section from Bowrah to Howrah was sanctioned during the year, and the question of the railway's entrance to Calcutta finally decided.

Work was started on the Raipur-Dhamtari feeder line in October 1898.

Indian Midland Railway.—Of the Saugor-Katni extension, the section from Saugor to Damoh, 47.83 miles, was opened for traffic on the 26th March 1898 and from Damoh to Katni, 56.27 miles, on the 1st January 1899.

Bána-Goona Railway.—On the Goona-Bara extension, rails were laid throughout just before the monsoon. The formation is practically complete, and the girder erection at the Parbatti Bridge (11 spans of 100-foot girders) is expected to be finished in February 1899. Several stations are finished and others approaching completion. The extension is likely to be opened for traffic in April 1899.

North-Western (State) Railway.—The down main line from Pipri to Kotri, 82 miles, and that from Kiamári to Kurrachee city, 3 miles, were opened on 3rd and 30th May 1898. This completed the opening of the whole of the double line between Kiamári and Kotri.

Very good progress was made at Samásta in connection with the junction arrangements with the Southern Punjab Railway.

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On the Mâri-Attock Railway, platelaying has been completed, and watering arrangements and work on the Campbellpur Junction Station are in hand. It is expected that the line will be ready for opening in March 1899.

On the Lyallpur-Khânewal extension, platelaying is in hand as far as Toba Tek Singh, and station buildings are nearly completed along the whole line. Land between Khânewal and the Ravi has been acquired, and jungle clearing and earthwork are in hand. All the piers of the Ravi Bridge are well in hand.

All the piers for the Indus Bridge at Kotri (one span of 100 feet and five spans of 350 feet) have been completed and girder erection has been commenced.

Southern Punjab (Delhi-Samâsata) Railway.—During the year, the ballasting of the main line was completed throughout. The branch line from Narwana to Kaithal, the construction of which was sanctioned in March 1898, will probably be ready for inspection prior to its opening early in February 1899.

Oudh and Rohilkhand State Railway.—A project for the remodelling of the Benares Cantonment Station to serve both the Oudh and Rohilkhand and Bengal and North-Western Railways have been submitted for sanction.

The Rae Bareli-Benares Railway, 138·69 miles, was opened for traffic on the 4th April 1898, and has since the 1st November 1898 become the main line between Benares and Lucknow, reducing the distance between these two places by about 12 miles.

The construction of the Ghâziabad-Moradabad Railway was commenced by State agency during the last quarter of 1898. Earthwork has been started and arrangements are being made for the collection of materials for bridges and other works. The most important work is the Ganges Bridge at Gurmukhteswar, 11 spans of 200 feet.

Hardwar-Dehra Railway.—Construction has been commenced along the whole length. Notwithstanding the difficulty experienced in getting requisite labour, earthwork has progressed fairly well. Tunnel No. 1 was completed and No. 2 nearly so by the 31st December 1898. Except erection of girders which are awaited, seven out of the ten large bridges have been completed and work on the other three is in progress. Dehra station building is in hand and arrangements are being made for commencement of work on the other station buildings, &c. Unless delayed on account of the non-arrival of girders, the railway will probably be ready for opening by the 31st December 1899.

Eastern Bengal State Railway.—Seven miles of the Rajbâri-Faridpur branch from Panchooria to Shivarampur were opened to traffic on the 20th October 1898, and the remaining length will be ready for opening about the end of March 1899. On the Northern section, work is in progress on the bridge over the Teesta River at Kaunia.

Brahmaputra-Sultanpur Railway.—The construction of this line is in progress. The section up to Bogra will probably be opened about the middle of March 1899 and the remainder a year later.

Mymensingh-Jamalpur-Jagannathganj Railway.—The length from Mymensingh to Singhjani, 33 miles, was opened for goods traffic on the 15th October 1898 and for coaching traffic on the 1st November 1898. The remaining portion is well in hand, and will probably be opened for traffic in July 1899.

Cooch Behar State Railway.—The extension from the Torsa River to the town of Cooch Behar, 3·25 miles, was opened for traffic on the 15th December 1898, and that from Cooch Behar to Santrabari is in progress. The remaining portion in the Native State from Cooch Behar town to the right bank of the Kaljani River is expected to be opened shortly.

East Coast State Railway.—On the 1st June 1898, the extension from old Puri Station to the new Puri terminus, 1·84 miles, was opened for traffic.

The low level ferry sidings at the Gôdâvari River crossing were opened on the 22nd November 1898, enabling waggons to be slipped without goods breaking bulk.

The Gudur-Nellore section of the South Indian Railway, converted to the standard gauge, was opened as a portion of the Bezwada-Madras Railway on the 1st November 1898. The section of the East Coast State Railway, Kistna Canal Junction to Bezwada, 2·66 miles, which was closed for traffic on the 1st January 1898, and the Nellore-Kistna Canal Junction section, 154·12 miles, of the Bezwada-Madras Railway were opened for all descriptions of traffic on the 20th December 1898. The remaining length of the Bezwada-Madras Railway from Ennúr to Gudur, 76 miles, will probably be opened on the 1st February 1899.

The left approach of the Gódvári Bridge is practically finished and the right approach is in progress. Both abutments and 10 piers have been completed, the superstructure of 12 piers is in progress, and the wells of 20 piers are in process of being sunk. Girders, caisson tubings, are awaited.

Bombay, Baroda, and Central India Railway.—Good progress has been made in doubling the line between Bombay and Baroda. During 1898 the second line on the Palghar-Dáhánu, Amroli-Sáyan and Sáyan-Kim sections were opened, and that on the Broach-Pálej, Pálej-Miyágám and Kim Broach sections are practically ready for opening. The work of renewing Warren girders by plate girders is well in hand and will probably be completed by June 1899. The administrative offices of the railway at Bombay were practically completed on 1st January 1899. Extensive protective measures have been found necessary for the safety of the Nerbudda Bridge, which it is hoped will be ensured before next rainy season.

Tápti Valley Railway.—The first section of this line from Kankra Khari to Vyára, 35·50 miles, was opened for goods traffic on the 1st December 1898 and for passenger traffic on the 3rd January 1899. The whole length is expected to be open for public traffic by March 1900.

Bhátinda-Ferozepore Standard Gauge Connection.—Work is in progress on this project.

Rajpipla Railway.—Sanction was given in February 1898 to the construction of the second section of this line from Raj Pardi to Nandod, 17·80 miles. The first five miles of the section was ready for opening at the close of the year, and work on the remaining portion is well in hand. The whole line will probably be opened for traffic by June 1899.

Madras Railway.—Construction of the first 26 miles of the Calicut-Cananore Railway and the Arcot-Ranipet line is in progress.

Nilgiri Railway.—The line was opened for goods traffic on the 1st October 1898, and was about to be opened for passenger traffic in November 1898. The district through which the line runs was unfortunately, however, visited by a very severe storm, during which several slips occurred, which caused so much damage that the line will not be ready for opening before March 1899.

Hyderabad-Gódvári Valley Railway.—Platelaying on the northern section will probably be completed to Jalna, mile 109, during February 1899, and the section will be opened to traffic as soon as rolling stock is available.

On the southern section it is expected that before the end of 1899 platelaying will be completed up to Nander, 168 miles from Secunderabad. This, however, depends on the Gódvári bridge, which is likely to be completed in October 1899.

Bengal and North-Western Railway.—On the Tirhoot section, owing to labour difficulties, progress with the Hajeepore-Katihar extension has been backward.

The necessary additions to the existing Segowlie junction station have been completed to admit of the running of the Segowlie-Raxaul Railway trains.

On the Company's section, the line from Mohiupurwa to Katarnian Ghát, 27·08 miles, was opened for traffic on the 25th March 1898, and the Balrámpur-Tulsipur section, 19 miles, on the 1st June 1898. The Gogra bridge at Bahránghat, named the "Elgin" bridge, was opened on the 24th December 1898. Of the Ganges-Gogra Doab lines, the section from Turtipur to Azamgarh, 51·35 miles, was opened on the 8th June 1898, and the other sections, except the portion from Azamgarh to Sháhganj, are likely to be practically com-

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pleted and opened by the end of February 1899. The temporary pile bridge over the Gogra river at Turtipur was opened for material trains from January to June 1898, when it was removed on account of annual floods. It has again been erected and was opened for daylight running of passenger trains in January 1899.

Segowlie-Raxaul Railway.—The first 9 miles of this railway were inspected for opening in May 1898, but as certain necessary works had still to be completed, and in many places the earthwork was soft and new, the opening has been postponed.

Karaikkal-Peralam Railway.—This railway, 14.45 miles, was opened for public traffic on the 14th March 1898, and is being worked by the South Indian Railway Company under a provisional agreement on behalf of the French Government.

Assam-Bengal Railway.—On the Chittagong-Bardapur section, 304.52 miles, the earthquake repairs were completed, and the portions which were closed reopened during the year. Good progress was made with the erection of the head-office buildings, station buildings, and staff quarters at Chittagong. The jetty at Chittagong has also been commenced. The Silchar branch from Badarpur to Káttákhál, 6.27 miles, and from Káttákhál to Silchar, 12.35 miles, was opened for goods traffic on the 13th June and 8th November 1898 respectively.

On the Badarpur-Lumding section, 113.14 miles, earthwork and tunnelling have progressed satisfactorily on all the divisions, the tunnels on the 8th division being practically complete. The girders of the Barak bridge have been erected, and all the bridgework on the 8th division is in hand. The rails are laid up to mile 273½ from Chittagong and have been laid for 17 miles southwards from Lumding.

On the Badarpur-Makum section (including the Gáuháti branch), 318.10 miles, the earthquake repairs on the Gáuháti branch have been completed, and good progress has been made on divisions 16 and 17. Progress on the 15th division is slow, owing to labour difficulties in the dense and unhealthy jungle.

The Gáuháti branch from Gáuháti to Lanka, 93 miles, a portion of which (from Gáuháti to Jamuna Mukh) was closed owing to damages done by the earthquake of 1897, will probably be reopened early in January 1899.

Burma Railways.—The section between Mogaung and Myitkyina, 37 miles, on the Mu Valley extension, was opened for goods traffic in January 1898, and will probably be opened for passenger traffic in February 1899. Work is in hand on the branch lines from Ywataung station, on the Mu Valley Railway, to the town of Alón and from Meiktila to Myingyan, construction on both of which was sanctioned in August 1898.

On the Mandalay-Kunlon extension, the length from Myohaung to Sédaw, 13 miles, was opened for traffic on the 1st January 1898. Good progress has been made with the heavy work on the Zibingyi Ghat, and it is expected to open for goods traffic to Maymyo by April 1899. The Gokteik gorge alignment and height of viaduct is now under final consideration, good progress being made on the divisions up to and beyond this point as far as Lashio.

Debru-Sadiya Railway.—The construction of the Borbil bridge has been completed, and the new Dibing bridge is in hand.

Birur-Shimoga Railway.—Works on this line are nearly completed, and it is expected that the line will be opened for traffic early in 1899.

Jodhpore-Bikaner Railway.—On the Jodhpore section, the construction of the line from Bálotra to the Jodhpore frontier is in progress. Platelaying has been completed up to Barmer, 60 miles from Bálotra; and from Barmer to the Jodhpore frontier the line is practically ready for rails.

On the Bikaner section, the extension from Bikaner to Dulmera (Khari), 42 miles, was opened for traffic on the 2nd June 1898, and about half the earthwork has been done on the portion from Dulmera (Khari) to Suratgarh.

Shadipalli-Bálotra Railway (British Section).—The work on the Hyderabad-Rahoki section, 6.25 miles, has been commenced. On the Shadipalli-Jodhpore Frontier section earthwork is nearly completed. The conversion

of the present Rahoki-Shadipalli section to metre gauge will be undertaken after the construction of the Shadipalli-Jodhpore Frontier section is completed. RAILWAYS.

Oodeypore-Chitor Railway.—The construction of the extension from Debari to Ahr (near Oodeypore), was commenced early in 1898, and was about three-fourths completed at the close of the year.

Jeypore Railway.—This railway from Sanganer to Siwai Madhopur, 73 miles, was sanctioned in February 1898, and construction is in progress.

Dhrángadhra Railway.—This line, 21 miles in length, was opened for public traffic on the 26th June 1898, and is being worked by the Bhavnagar-Gondal-Junágad-Porbandar Railway.

Gwalior-Sipri and Gwalior-Bhind Railways.—The formation on both the lines is practically complete; rails have been laid on the former for some 16 miles and on the latter for 28 miles. Both the lines are likely to be opened in 1889.

Cherra-Companyganj State Railway.—The repairs to the damages caused by the earthquake of 1897 and subsequent floods were nearly completed in March 1898, and the line was re-opened for goods traffic from the 8th of the month; but it was again badly damaged by heavy floods and closed from the 28th April 1898. Arrangements were made for repairing the line when it was again badly damaged by subsequent floods which lasted till October 1898. A surface line was opened on the 23rd December 1898 for goods traffic from Komora quarries to Bholáganj, about 4 miles, from which point to Companyganj the line is in good condition. An estimate is under preparation for repairing the damaged line.

The following were the principal events during 1898 :—

The maintenance of the Bezwada Extension Railway was taken over by the East Coast State Railway from His Highness the Nizam's Guaranteed State Railways Company, Limited, from the 1st January 1898.

On the 1st January 1898 the working of the Oodeypore-Chitor Railway was taken over by the Oodeypore Durbar from the Bombay, Baroda, and Central India Railway Company.

A memorandum of the revised terms for working the Jammu and Kashmir Railway (Native State Section) was sanctioned by the Government of India in April 1898.

The question of the rearrangement of the Delhi Station to admit of the traffic of the several railways being dealt with at that place was discussed at a meeting of the representatives of the Railways held at Delhi on the 19th April 1898. The matter is still under the consideration of the Government of India.

The Conference of 1898, which met at Simla in August 1898, considered, as before, the recommendations of the several Local Governments and Administrations and Chambers of Commerce in regard to the railways projected. With the view of perfecting railway communication between areas liable to famine and the ports and granaries of the country, the views of Local Governments in regard to the construction of additional famine protective railways were also considered by the Conference.

No new railways were sanctioned during the year under the "branch line terms" resolution of 1896, but negotiations in regard to the following branches are in progress :—

	Miles,
Gogri (Mansi) Bháptiáhi - - - - -	85
Bhágalpud-Bausir-Baidyanúth - - - - -	90
Ahmadpur-Baidyanúth - - - - -	68
Amritsar-Tarn Taran-Sarhali - - - - -	30
Kurnool Road branch - - - - -	36
Sábarmati-Dholka - - - - -	38
Nadiád-Kapadvanj - - - - -	28
Chandipur-Taki - - - - -	30

As regards the lines which appeared in the above list in Part I. of the Railway Administration Report for 1897-98, and which do not now appear, it may be stated that negotiations under branch line terms for the construction

RAILWAYS.

of the Jullundur-Hoshiarpur Railway have for the present fallen through. The Madura-Pámban Railway is now to be constructed as an integral part of the South Indian Railway, while the Láksam-Noakhali-Ichakhali and the Bezwada-Masulipatam Railways have been offered for construction at the sole risk of the promoters. The Mutupet-Avadayárkövil Railway will be built from funds raised by the District Board of Tanjore, and negotiations are in progress for the construction of the Coonoor-Ootacamund extension of the Nilgiri Railway on the basis of a revised contract for the entire line with a guarantee of gross earnings. The contract for the construction of the Kalka-Simla Railway has been executed, but commencement of work has not yet been authorised.

The terms proposed by the Government of India for working a portion of the East Coast State Railway, south of Vizianagram, including the Bezwada-Madras State Railway, by the agency of the Madras Railway Company, not having been accepted by the latter, it has been decided on economical grounds to continue to work the line by State agency until the connection of the East Coast State Railway with Calcutta is established.

The maintenance of the Southern Punjab Railway was taken over by the North Western State Railway on the 1st January 1899.

Guaranteed Railway Transactions.

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

	Half-year ended the 30th June 1898.					
	Total Capital Outlay.	Net Revenue.	Guaranteed Interest.	Interest in Excess of Revenue.	Net Revenue in Excess of Interest.	Surplus Profits.
	£.	£.	£.	£.	£.	£.
Great Indian Peninsula	25,667,924	868,130*	594,212	—	273,924	240,771
Bombay, Baroda, and Central India	9,788,922†	493,243	220,397	—	272,846	272,846
Madras	11,185,814	284,902	267,752	—	17,150	15,249
TOTAL	£. 46,642,660	1,646,275	1,082,361	—	563,920	537,866
	Half-year ended the 31st December 1898.					
Great Indian Peninsula	25,672,615	861,021	594,212	233,191	—	—
Bombay, Baroda, and Central India	9,984,938†	269,057	223,364	—	45,693	45,693
Madras	11,193,600	202,594	267,752	65,158	—	—
TOTAL	£. 46,851,153	832,672	1,085,328	298,349	—	45,693
TOTAL for the Year 1898	£. 46,851,153	2,478,953	2,167,689	—	311,264	583,559
TOTAL for the Year 1897†	£. 46,482,453	2,001,072	2,163,465	161,793	—	191,158

* Including 24,163l. paid to Government as rent for the State lines leased to the Great Indian Peninsula Railway Company.

† Excluding the State outlay on the Pátri branch, Rs. 8,08,405.

‡ As corrected from later information.

IRRIGATION.

IRRIGATION.

The nature of the climate and the inequalities of the rainfall will account for the great antiquity of the practice of irrigation in India. 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. IRRIGATION.

The storage of water in tanks for the purpose of irrigation is very common in Southern India. In the Madras Presidency alone there are some 60,000 tanks. 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.

In size the tanks vary from the small works formed by earthen embankments thrown across local drainages, often of only two or three square miles in area, to the costly reservoirs constructed by the Imperial Government, such as the Periyar and Rushikulya Works, the reservoirs of which have surface areas of 6,395 acres and 7,900 acres respectively.

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 Upper Ganges Canal, which has been in operation since 1854, and has cost Rx. 2,994,303, comprises 459 miles of main canal, and 4,297 miles of distributaries, and in the year under review supplied water to 914,022 acres. The Sirhind Canal in the Punjab, which was completed in 1887, has cost Rx. 3,810,317, and consists of 542 miles of main channels and 4,653 miles of distributaries. In Madras the great deltaic irrigation systems of the Godaveri, Kistna, and Cauvery have respective lengths of main channel of 506, 372, 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 irrigation from them is, however, to some extent precarious. If the annual flood from the melting of the snows of the Himalayas does not sufficiently raise the level of the water in the river, it is impossible to pass the necessary volume of water on to the fields or even to give any water at all to many of them.

The works to which the preceding paragraph applies, in most cases, take off from the larger rivers, which, drawing their water from lofty mountain ranges, can, even in times of drought, be depended upon for an unfailing supply. In tank irrigation, on the other hand, 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. This is the common system of irrigation in the Bombay Presidency, where irrigation is largely dependent on storage works.

In parts of Biluchistan, where the rainfall is scanty and very capricious, a method is practised of drawing the water from underground springs by means of tunnels driven into the hill sides. 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

IRRIGATION.

cover the interest charges on the sums spent on their construction. It also includes the works classed as famine protective, which are constructed not from borrowed funds, but out of the annual grant from revenue 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 1897-98 and the two previous years:—

	Capital Outlay (Direct and Indirect) to End of Year.	Gross Receipts.	Working Expenses.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area Irrigated.
	Rx.	Rx.	Rx.	Rx.	Rx.	Acres.
Major Works - - -	34,127,386	3,382,685	908,254	2,389,431	7.00	10,245,424
Minor Works - - -	5,298,056	610,769	245,533	365,236	6.89	2,782,869
TOTAL for 1897-98	39,425,442	3,993,454	1,238,787	2,754,667	6.99	13,028,293
TOTAL for 1896-97	38,660,668	3,613,765	1,261,479	2,352,286	6.08	12,740,545
TOTAL for 1895-96	37,474,751	2,706,413	1,155,750	1,550,663	4.1	10,308,900

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 contribution from the land revenue is the amount considered due to irrigation when an enhancement of land revenue is levied at the periodical revision of the land settlement. Like the owner's rate, which is directly levied, it falls upon the owner of the land.

The following table gives the mileage of the irrigation 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.	Balu-chistan.	Rajputana.	TOTAL.
MAJOR WORKS :	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Main Canals	700	1,447	1,493	2,061	1,156	NIL.	NIL.	6,857
Distributaries	2,515	9,739	7,569	5,770	332	NIL.	NIL.	26,016
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Area irrigated	701,838	2,345,486	3,652,478	2,705,915	889,907	NIL.	NIL.	10,245,424
MINOR WORKS :	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Main Canals	47	—	2,715	1,327	2,074	4	Tank irrigation.	6,167
Distributaries	—	604	812	1,196	228	33		
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Area irrigated	1,552	167,204	1,153,333	535,813	881,125	5,552	38,303	*2,782,382
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Estimated value of crops raised by Major and Minor Works.	2,825,757	8,784,624	14,905,960	9,639,843	543,107	17,401	—	—

* In addition to these figures, 19,131 acres were under irrigation in Upper Burma.

Besides the works to which the preceding paragraphs apply, there is a large class of works, especially in Sind and Madras, for which capital accounts are not kept.

Individually these works are insignificant, but collectively they supply the means of irrigation to a considerable area. In 1896-97, the latest date for which the figures are available, the net revenue from these works amounted to Rx. 730,223, and the area irrigated by them was 4,467,174 acres, or 34.7 per cent. of that irrigated by the major and minor works.

The immense systems of large artificial water channels with which some parts of India are covered would appear at first sight to offer unrivalled opportunities for water carriage. But though efforts have been made to organise navigation services on the larger irrigation canals, it cannot be said that, on the whole, they have met with a large measure of success. In many cases the receipts from the traffic have failed to cover the working expenses. It is, indeed, obvious that the canals, being designed primarily for irrigation purposes, must often be unsuitable from their alignment and level for navigation.

The following statement gives the mileage of canals open to navigation during the year under review :—

PROVINCE.	Irrigation Canals open to Navigation.	Canals designed for Navigation only.	TOTAL.	Number of Passengers Carried.	Estimated Value of Cargoes.
	Miles.	Miles.	Miles.	No.	Rx.
Bengal	495	1,330*	1,824	588,518	12,057,183
Punjab	432	—	432	9,880†	—
North-West Provinces and Oudh	535	—	535	1,747	432,886
Madras	990	262	1,252	419,876	5,876,623

* Includes Nudda rivers and Calcutta and Eastern Canals.

† Sirhind Canal only.

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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.

The general results for 1897-98 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.
1892-93	7,417,261	259,544	196,152	63,392	0.8	662,930
1893-94	7,474,377	235,964	207,920	28,038	0.3	656,065
1894-95	7,528,530	216,978	200,911	16,067	0.2	509,811
1895-96	7,560,584	205,275	174,744	30,531	0.4	579,933
1896-97	7,612,381	252,651	182,868	69,783	0.9	809,467
1897-98	7,655,603	278,064	182,543	95,521	1.29	703,190

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 during 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	2,630,212	1,201	0.05	195,987
Midnapore	846,542	3,379	0.39	72,206
Tidal Canal	261,523	5,205	1.99	—
Sone Canals	2,879,155	63,064	2.18	433,445
Total Major Works	6,417,432	73,449	1.14	701,638
<i>Minor Works:</i>				
Calcutta and Eastern Canal	689,498	22,480	3.51	—
Orissa Coast Canal	451,746	2,441	—	—
Sarun Project	70,657	—1,319	—	1,552
Total Minor Works	1,161,901	23,602	2.03	1,552

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. IRRIGATION.

Besides the Minor Works mentioned in the foregoing statement, there are four works of this class for which capital accounts are not kept, viz., the Nuddea rivers system, the Gaighatta and Buxi Khal, and the Eden and Madhuban Canals. The first-named, which comprises about 455 miles of channel, is used for navigation purposes only. The decline of traffic on these rivers unfortunately continues, and was this year aggravated by the unusually low level of the Ganges.

In the following statement the traffic on the canals in Bengal in 1897-98 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.	Estimated Value of Cargoes.	Number of Passengers.
	Miles.	Rx.	Rx.	Rx.	Rx.	
1896-97	1,128	111,952	50,965	54,987	11,576,301	551,295
1897-98	1,834	111,728	50,855	60,873	12,057,163	588,518

The capital expenditure for the year amounted to Rx. 41,852. There was very little capital outlay on the major works. Among the minor works the outlay was chiefly on the Calcutta and Eastern Canals.

In the North-West Provinces, the results of the irrigation operations during 1897-98 were very satisfactory. North-West Provinces.

The rains of 1897 were fairly normal in amount and distribution, but there was a break at the end of June and the first 10 days of July, this combined with high prices of food grains led to the irrigation of a very large number of autumn crops, and in consequence the receipts for the financial year reach an exceptionally high figure.

Taking the revenue actually realised, 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 Revenue.	Percentage of Net Revenue to Capital.	Area Irrigated during the Year.
	Rx.	Rx.		Acres.
1892-93	8,230,083	424,786	5.16	1,709,846
1893-94	8,286,659	439,928	5.31	1,645,197
1894-95	8,360,083	428,117	5.12	929,461
1895-96	8,491,515	267,987	3.16	2,010,021
1896-97	8,655,803	628,778	7.21	3,028,884
1897-98	8,794,196	761,590	8.66	2,511,173

Excluding the Betwa Canal, which is a protective work, the major works earned a profit of 9.5 per cent. on their capital outlay. The individual returns from the four works were as under:—

IRRIGATION.

CANAL.	Percentage of Net Revenue (actually realised) on Capital.
Upper Ganges -	10.69
Lower Ganges -	6.25
Agra -	7.07
Eastern Jumna -	34.

For the first time since its opening in 1885 the Betwa Canal, the only "protective" work in these provinces, has returned a revenue which is more than sufficient to cover the working charges of the year.

The minor works comprise the Dun, Rohilkhand, and Bijnor Canals, and the Bundelkhand Lakes. The net revenue from these works amounted to Rx. 16,699, which gave a percentage of 6.0 on the capital outlay of Rx. 275,881.

The area irrigated by all the canals was approximately 2,633,569 acres. This is greatly in excess of that for any previous year excepting 1896-97, a year of great drought.

The water was distributed from 40,518 outlets to 11,400 villages. Of the total area irrigated, 871,590 acres were under wheat, 279,512 under indigo, 246,732 under sugar cane, and 185,339 under rice.

The value of the crops irrigated is estimated at 8½ crores, a sum almost exactly equal to the amount of capital invested in canals in these provinces. The average value of the crop per acre is Rs. 35. The average rate paid by the occupiers for the use of the water is Rs. 2.96 per acre, or one-twelfth of the value of the crop.

The capital expenditure of the year amounted to Rx. 138,392. Of this, over 10 lakhs was incurred on the Fatehpur extension of the Lower Ganges Canal, and the balance chiefly on improvements to the head works of the Upper and Lower Ganges Canals, on drainage works, and on the remodelling and extension of distributary channels.

Of the 1,616 miles of main and branch canals of the North-West Provinces and Oudh, 537 miles on the Upper and Lower Ganges, and Agra Canals, were open to navigation during the year.

The navigation operations on the irrigation canals are not profitable. The figures for the last five years are given in the following statement:—

YEAR.	Excess of Working Expenses over Receipts.
1893-94 -	Rx. 1,148
1894-95 -	275
1895-96 -	127
1896-97 -	707
1897-98 -	788

In addition to the area irrigated by the canals under the direct control of the Irrigation Department, there were 122,396 acres irrigated during the year by the Tarai and Bhábar Canals under the Commissioner of Kumaon.

Panjab.

In the Punjab the year was, from the point of view of irrigation, one of remarkable financial prosperity. The famine which had prevailed in some parts of the Province during the previous year was over; but the demand for water continued to be very strong throughout all the earlier Kharif months, and this demand, with the coincidence of unusually favourable river supplies

at the same time, resulted in an unprecedented summer harvest. The late Kharif rains checked the demand on the perennial canals, but the floods at this season were of the greatest service for the inundation series. During the Rabi, the demand was not so strong as in 1896-97—a year of great drought—and the rivers fell rapidly towards the close of the crop when the demand was highest; the spring harvest was nevertheless a very large one. These circumstances of the year, especially the exceptionally favourable early summer conditions, combined with recent extensions of old, and development of new, canal systems resulted in an irrigated area of nearly five-and-a-quarter millions of acres, and revenue assessments of over one-and-a-half crores of rupees.

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.
1893-94 - - - - -	7,555,941	2,725,209	720,558
1894-95 - - - - -	7,858,628	2,781,663	770,084
1895-96 - - - - -	8,203,560	3,458,544	1,105,875
1896-97 - - - - -	8,617,852	4,164,920	1,353,968
1897-98 - - - - -	8,935,333	4,805,811	1,506,850

* Includes Muzaffargarh Canals.

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

Taking the actual revenue collected during the year, 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.	Distributaries.			
Major Works:	Miles.	Miles.	Rx.	Rx.	
Perennial Canals:					
Swat River	22	182	399,739	29,492	7.38
Western Jumna (including Sirsa Branch).	401	2,193	1,619,949	167,573	10.34
Bari Doab - - - - -	353	1,167	1,808,890	247,101	13.66
Sirhind (British portion)	319	2,714	2,415,994	261,679	10.83
Chenab	272	1,373	2,269,347	166,563	7.34
Sidhni	63	117	116,441	23,671	20.33
Jhelum	—	—	20,428	—	—
Inundation Canals:					
Lower Sohag and Para	98	48	71,625	4,240	5.92
Minor Works:					
Upper Sutlej	216	182	82,802	9,528	11.51
Lower Sutlej and Chenab	797	19	12,173	20,765	170.58
Indus	703	—	70,763	13,237	25.77
Shahpur (Imperial)	79	94	21,183	4,164	19.65
TOTAL	3,323	8,089	8,909,339	952,913	10.70

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IRRIGATION.

On the Native States branches of the Sirhind Canal the area irrigated was 345,431 acres against 394,291 acres in the preceding year.

The estimated value of the crops raised on land irrigated by the Imperial canals (including the branches in Native States) was Rx. 14,905,960, giving a rate of Rx. 3.31 per acre. The principal crop was, as usual, wheat, of which there were 1,723,140 acres under irrigation.

The capital outlay on Imperial works for the year amounted to Rx. 317,482, of which Rx. 226,233 was expended upon the Chenab Canal. This canal is now approaching completion. On the Western Jumna Canal there was an expenditure of Rx. 42,299.

On the Jhelum and Ghaggar Canals, which were started during the previous year as famine relief works, Rx. 9,636 and Rx. 11,608 respectively were expended during the year.

The navigation operations on the Western Jumna and Sirhind Canals resulted in a profit of Rx. 4,990. The profit realised on the Western Jumna Canal was Rx. 4,923. The Sirhind Canal yielded a profit for the first time of Rx. 67.

The following figures show the rapid development of irrigation since the Chenab Canal was first opened in 1892-93, when 157,197 acres were irrigated:—

Year.	Capital Outlay to end of Year.	Area Irrigated during the Year.	Net Revenue during the Year.	Return on Capital Outlay.
	Rx.	Acres.	Rx.	Per Cent.
1892-93	1,081,850	157,107	6,127	0.57
1893-94	1,317,051	270,405	5,828	0.40
1894-95	1,492,548	269,357	14,267	0.96
1895-96	1,762,172	369,925	77,448	4.40
1896-97	2,043,113	520,279	137,044	6.75
1897-98	2,269,374	810,000	166,562	7.34

This rapid development of irrigation has occurred in a tract the greater part of which was absolutely unpopulated in 1892, but this has all been changed by the highly successful operations by which colonies of settlers have been established in these crown wastes *pari passu* with the construction of the Canal.

Burma.

In Lower Burma there are no large irrigation works. The expenditure recorded under the head of "Irrigation and Navigation" has reference to the river embankment and drainage works, and navigation channels.

In Upper Burma there is only one major irrigation work, namely, the Mandalay Canal, which was sanctioned in 1896. The project provides for a canal to take off from the Madaya river, 39 miles long, with 86 miles of distributaries, and is expected to irrigate 72,000 acres of land. The total capital outlay on the Mandalay Canal amounted at the end of 1897-98 to Rx. 66,553.

Much was done in improving and maintaining existing minor irrigation works in the Meiktila, Yamethin, Myingyan, and Kyaukse districts. The canals in the Kyaukse district are the most important. The restoring of the Kanna Tank, an old Burman work, was taken up as a relief work. It is being completed as an ordinary work, and is estimated to cost Rx. 268,046.

AJMERE-MERWARA.

The irrigation in Ajmere-Merwara is from tanks, none of which are classed as major works,

The rainfall of the year was below the average, and the tanks were consequently not sufficiently filled. The results for the present and preceding years are compared in the following statement:—

Year.	Capital Outlay.	Revenue Collected.	Working Expenses.	Net Revenue.	Percentage of Net Revenue on Capital.
	Rx.	Rx.	Rx.	Rx.	Rx.
1896-97	245,228	13,330	4,853	8,477	3.45
1897-98	245,522	12,840	5,334	7,505	3.06

The revenue is derived partly from water rates directly paid, but chiefly 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 area irrigated or protected by the tanks was 38,321 acres, and the value of the crops raised during the year is estimated at Rx. 66,084.

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. Madras.

The number of tanks directly or indirectly dependent on the local rainfall is very large, and, speaking generally, the success of the irrigation operations is more affected by local climatic conditions than in Northern India, where the irrigation works draw their supply from large rivers fed by the melting of the snows on distant mountain ranges.

In the year under review the rainfall was more abundant than in the preceding year, and the season was on the whole favourable.

There are at present 10 "major" works and 26 "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 26 minor works for which full accounts are kept, 22 are irrigation systems, and four are tidal canals intended for purely navigation purposes.

Of the works for which full accounts are kept the length of completed main canal was 3,693 miles, and of distributary channels 6,966 miles. The area irrigated during the year by these works was 3,150,007 acres, the crops grown being valued at Rx. 9,639,843.

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

YEAR.	Capital Outlay.	Area Irrigated.	Net Actual Revenue.	Percentage of Net Revenue on Capital.
	Rx.	Acres.	Rx.	
1893-94	8,084,636	2,836,427	515,896	6.3
1894-95	8,307,160	2,866,483	520,058	6.2
1895-96	8,534,471	2,940,317	547,137	6.4
1896-97	8,723,253	3,129,859	535,352	6.1
1897-98	8,879,507	3,241,728	632,403	7.1

IRRIGATION.

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. 1,099,217.

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 - - - -	804,089	1,297,807	248,516	19.15
Kistna Delta - - - -	518,459	1,319,166	173,827	13.18
Pennér Anicut - - - -	67,448	189,919	14,422	7.60
Sangam Anicut - - - -	72,634	385,600	14,190	3.68
Kurnool-Cuddapah Canal - -	46,004	2,171,773	3,217	0.15
Barar Tank - - - -	3,619	42,594	592	1.39
Cauvery Delta - - - -	954,519	994,57	89,488	44.87
Srivaikuntham Anicut - - -	38,077	147,192	8,019	5.45
Periyar Project - - - -	85,144	852,918	2,831	0.27
Rushikulya (Protective Work) - -	69,286	464,442	2,521	0.54
TOTAL - - - -	2,660,189	7,070,773	557,123	7.88

The minor works irrigated an area of 535,813 acres, and earned a net revenue of Rx. 75,277, equivalent to a percentage of 4.16 on the capital expended on them. The purely navigation works, with the exception of the Buckingham Canal, were in each case worked at a small loss.

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 net revenue derived from these works in 1896-97 was Rx. 636,880, and the area irrigated by them was 3,131,009 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 55 lakhs had been incurred under this scheme, 36,014 square miles had been investigated, and estimates for 5,158 works had been prepared.

The capital expenditure for the year on the major works amounted to Rx. 94,157. This expenditure was incurred chiefly on the Kistna, Cauvery, Periyár, and Rushikulya works. On the latter project over Rs. 46 lakhs has now been expended, against an estimate of Rs. 47,56,000.

Bombay, excluding Sind.

There are 36 irrigation works in operation in the Bombay Presidency, of which nine are classed as Major Works. The canals in this Presidency are generally small, and the water being, in most cases, drawn from small rivers and local streams, more or less dependent on rainfall, a constant supply cannot be maintained without the aid of storage reservoirs. In fact, the reservoir projects, of which there are 27, include the more important works, such as the Bhátghar reservoir, the Lake Fife Works, and the Mhasvad and Ekruk tanks.

The area irrigated in 1897-98 showed an increase over the area irrigated in the previous year. The increase was distributed over nearly all the canals, but occurred chiefly on the Nira and Mutha canals. The total area irrigated by the Nira Canal was the largest that has yet been irrigated in any one year.

A comparative statement of the results from those works, for which full accounts are kept, for 1897-98, and the preceding four years, is given in the following table:—

IRRIGATION.

YEAR.	Capital Expenditure to End of Year.	Area Irrigated.	Revenue Realised.	Working Expenses.	Net Revenue.
	Rx.	Acres.	Rx.	Rx.	Rx.
1893-94	2,574,279	79,950	57,374	28,741	28,633
1894-95	2,611,751	84,237	56,848	35,092	21,756
1895-96	2,626,124	74,923	59,883	29,429	30,454
1896-97	2,635,987	118,004	55,839	35,994	19,845
1897-98	2,658,104	126,516	63,580	40,389	23,191

The net revenue realised for the year represents a return of 0·87 on the capital expenditure, as compared with 0·75 in the preceding year. The major works in operation produced a net revenue equivalent to 1·03 per cent. on the capital of Rx. 1,895,406 expended on them.

The most important of the major works, judged by the amount of capital expenditure, is the Mutha Canal system with the Lake Fife Reservoir, which in 1897-98 irrigated an area of 12,691 acres, besides supplying the cantonment and civil station of Poona with water. The total expenditure on this work is Rx. 660,098, and in the year under review the net revenue was equivalent to a return of 2·34 on the capital outlay. The most remunerative work in the "major" class was the Krishna Canal, which produced a return of net revenue equivalent to 5·24 per cent. on the capital expenditure. The works known as the Nira Canal and Bhatghar Reservoir, which are classed as protective, are estimated to cost Rx. 610,443 when complete, and will be capable of irrigating 56,640 acres. The return on capital outlay yielded by these works in 1897-98 was 1·30 per cent.

The minor works, for which full accounts are kept, earned a net revenue during the year of Rx. 3,706, equivalent to a return of 0·35 on the capital outlay.

The capital outlay during the year on all works amounted to Rx. 22,117, which was incurred principally on the Stretphal, Chankapur, and Maladevi Tanks.

The total value of the crops irrigated is estimated at Rx. 543,107, against Rx. 916,058 in the previous year.

In the minor class of works, for which distinct capital and revenue accounts are not kept, the expenditure for the year amounted to Rx. 17,501, and the revenue realised was Rx. 56,479, giving a net revenue of Rx. 38,978. The area irrigated by the works of this class was 146,767 acres.

In Sind the success of the irrigation operations is dependent upon the regular rise of the River Indus. The inundation of 1897 was an exceptionally favourable one, and was the highest on record; but the river and other bunds, which had been put up after the high inundation of 1894, proved of great service in controlling the flood waters, and these, with the prompt measures taken by the engineers, minimised the effect of the flood, which would otherwise have probably been disastrous.

Sind.

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IRRIGATION,

Taking the works for which full accounts are kept, the general results for 1897-98 and the four 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.
1893-94 - - - -	1,293,990	145,466	11.2	1,366,193
1894-95 - - - -	1,358,654	142,486	10.5	1,449,784
1895-96 - - - -	1,456,704	97,712	6.7	1,205,038
1896-97 - - - -	1,627,643	156,026	9.6	1,435,740
1897-98 - - - -	1,805,111	195,691	10.8	1,593,252

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 operation in Sind, viz., the Desert, Unharwah, and Begari Canals, and the Eastern Nara Works. These four works earned profits at the respective rates of 6.30, 17.47, 17.78, and 7.18 on the sums expended on their construction.

The capital expenditure of the year was incurred chiefly on the Jamrao Canal. There was also expenditure on the Dad Canal and Eastern Nara Works, and, among minor works, on the Fuleli Canal.

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. 67,723, and the latter Rx. 93,555.

In the year under review the net revenue from the Shebo Canal was Rx. 1,352, or 2.0 per cent. on the capital outlay.

The net revenue from the Khushdil Khan Reservoir was Rx. 1,455, or 1.56 on the capital expenditure.

The area irrigated by these two works was 5,552 acres, as compared with 3,355 acres in the preceding year. The value of the crops raised was Rx. 17,401.

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 1897-98 under the heads referred to is shown in the following table:—

BUILDINGS AND ROADS.

	Imperial.	Provincial.	Local.	Total in India.	Expenditure in England.	Exchange.	GRAND TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Military Works - - - -	1,059,540	- - - -	- - - -	1,059,540	69,633	39,212	1,168,385
Civil Works - - - -	302,120	2,258,018	1,504,010	4,124,148	80,860	45,507	4,250,551
TOTAL, 1897-98 - - -	1,361,660	2,258,018	1,504,010	5,189,688	150,499	84,749	5,418,936
TOTAL, 1896-97 - - -	1,773,573	2,131,781	1,685,125	5,590,479	110,096	76,720	5,783,295
TOTAL, 1895-96 - - -	1,762,936	2,063,159	1,777,957	5,604,052	117,322	80,138	5,810,512

This statement does not include the outlay from imperial revenues recorded under the head of Special Defence Works, which amounted to Rx. 101,349 in 1895-96, Rx. 94,610 in 1896-97, and Rx. 23,708 in 1897-98.

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 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. 1,193,589 in 1897-98, against Rx. 1,254,587 in 1896-97. The cost of Special Defence Works amounted to Rx. 25,204, against Rx. 97,581 in the previous year.

MILITARY WORKS.

The expenditure of Rx. 1,168,385 on ordinary military works included an outlay of Rx. 430,561 on new works, of Rx. 346,261 on repairs, and of Rx. 291,477 on establishment. Under the head of New Works, additions to the barrack and hospital accommodation for British and Native troops cost about Rx. 200,000, while General Cantonment Works figured at Rx. 91,314.

The expenditure on Special Defence Works was altogether for armaments of coast defences at Aden and Bombay.

The total amount expended on Special Defence Works up to the close of 1897-98 (exclusive of contributions from imperial revenues) was Rx. 4,577,972. These works are now almost complete.

CIVIL WORKS.

CIVIL WORKS.

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

EXPENDITURE in India on CIVIL WORKS in 1897-98.

	India, General and Political).	Bengal.	North-West Provinces and Oudh.	Punjab.	Burma.	Central Provinces.	Assam.	Madras.	Bombay.	TOTAL.
<i>Expenditure by Public Works Department:</i>	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Civil Buildings - - - -	34,428	215,484	120,919	89,129	193,990	28,614	62,672	78,426	110,757	934,414
Communications - - - -	41,951	70,116	186,078	155,669	206,333	78,374	193,347	25,959	165,825	1,128,572
Miscellaneous Public Improvements.	67,592	7,527	10,482	11,409	21,006	3,543	9,751	7,589	14,370	143,269
TOTAL Works and Repairs -	143,971	293,127	317,479	256,127	421,329	110,531	265,770	111,974	290,952	2,201,255
Establishment - - - -	27,058	82,205	127,697	81,328	121,782	47,486	51,070	53,292	95,649	687,517
Tools and Plant - - - -	1,402	3,144	916	5,076	5,762	560	3,716	17,667	4,086	42,331
Profit and Loss, Suspense, &c. -	-6,790	-4,354	-11,324	-3,145	412	-353	6,702	4,482	-1,065	-15,455
TOTAL Expenditure by Public Works Department -	155,686	374,122	434,768	399,386	549,285	158,174	327,258	187,415	399,804	2,915,648
<i>Expenditure by Civil Department -</i>	8,600	421,187	76,648	23,108	68,389	18,303	11,301	460,981	124,931	1,208,500
TOTAL Expenditure in India -	164,286	795,309	511,416	362,494	617,674	171,479	338,559	648,396	514,735	4,124,148

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 - - - - -	931,414	103,913	1,038,327
Communications - - - - -	1,123,572	708,907	1,832,479
Miscellaneous Works - - - - -	143,269	136,532	279,801
Total Works and Repairs - - -	2,201,255	949,402	3,150,657
Establishment - - - - -	687,517	192,489	880,006
Tools and Plant - - - - -	42,331	9,288	51,619
Profit and Loss, Suspense, &c. - - -	-15,455	57,321	41,866
TOTAL - - -	2,915,648	1,208,500	4,124,148

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 1897-98 to 26,157. The revenue of this institution for the year was 28,911.

The following more detailed account of the operations of this branch of the Public Works Department for the year under review is given under the heads of the different provinces in which the expenditure was incurred.

In Bengal the expenditure for the year on civil works was as follows :—

Bengal.

	Rx.
Imperial—Civil - - - - -	62,451
Provincial - - - - -	321,951
Local - - - - -	410,907
TOTAL - - -	795,309

The building in Kollaghat Street, Calcutta, for the office of the Comptroller of the Post Office, was nearly completed during the year, at a cost of Rx. 46,155.

The greater part of the expenditure from provincial funds was upon the construction and repair of buildings; the maintenance of the road system in Bengal being very largely in the hands of the district boards.

Among collectorate offices may be mentioned the provision of additional accommodation at Patna. The reconstruction of the Deputy Commissioner's cutcherry at Darjeeling, which had been destroyed by fire, was completed during the year.

The extensions of the central jails at Bhagulpur and Buxar made good progress, and the construction of surface drains in the Burdwan Jail was taken in hand, and a scheme for improving the drainage of the jail at Dumka was sanctioned.

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There was considerable expenditure under the heads of Colleges and Hospitals. The chemical laboratory in the Medical College, Calcutta, was in progress, and the improvements to the physical laboratory of the Presidency College, with the exception of the steel dome for the observatory, were completed.

The reconstruction of the Presidency General Hospital, at a cost of 22 lakhs, was commenced. Extensions to the Campbell Hospital, Sealdah, were in progress, and the improvements in the dispensary building of the Medical College Hospital were completed.

The new secretariat building at Darjeeling was completed, with the exception of some petty works, and the enlargement of St. Andrew's Church at the same station was likewise completed.

The total length of road communication in Bengal maintained by public authorities during 1897-98 was :—

	Metalled Road.	Unmetalled Road.	TOTAL.
	Miles.	Miles.	Miles.
Maintained by Public Works Department -	1,214	519	1,733
Local Authorities - - -	3,279	33,454	36,733
TOTAL - - -	4,493	33,973	38,466

In view of the preparation of a well-considered programme of road extension and improvement, detailed schemes have been called for from the various districts, and most of them have been received.

Famine relief works on an extensive scale were taken in hand by the Public Works Department in North Behar and elsewhere. During the year five feeder roads to the Eastern Bengal Railway were put in hand as famine relief works in the Nadia district.

North-West Provinces and Oudh.

The expenditure on buildings and roads in the North-West Provinces and Oudh for 1897-98 was smaller than in the two previous years.

The outlay under the different heads of service was as follows :—

	Rx.
Imperial—Civil - - - - -	13,257
Provincial - - - - -	295,002
Local - - - - -	203,157
TOTAL - - - - -	511,416

During the year the building for a bacteriological laboratory at Mukhtesar was completed, with the exception of certain additional works required in connection with the laboratory. The works at Naini Tal, which include the erection of a new Government House on the site formerly occupied by the Diocesan Boys' School, and the building of a new school on another site were well advanced.

The year was characterized by abnormal floods in the Naini Tal and Almora districts of the Kumaun Division, which caused enormous damage to the roads

and bridges in the outer range of hills. The cost of repairing these damages to the roads and bridges under the control of the Public Works Department is estimated at Rs. 193,440. CIVIL WORKS.

In the Punjab the expenditure was considerably smaller than in the preceding year. The outlay on civil works was as follows:—

	Rs.
Imperial - - - - -	40,777
Provincial - - - - -	233,803
Local - - - - -	87,914
Total - - - - -	362,494

The Public Works establishments maintained by the district boards and municipalities are distinct from the Provincial Government staff. Efforts are being made towards unification of these different establishments, economy sometimes resulting from the employment of district board officers to carry out provincial works, and *vice versa*, of officers of the provincial establishment to supervise or carry out works executed from district or municipal funds. In pursuance of this policy various buildings and roads were this year transferred from the control of the Public Works Department to local boards or municipalities, or *vice versa*, to the Public Works Department.

The most important works under the head of Imperial were the construction of civil buildings at Para Chenar, re-roofing the militia lines at Para Chenar; reconstructing the Imperial Public Works Secretariat buildings at Simla; and a new serai for civil offices at Wana.

The provincial works included the construction of tahsils at Khangah, Dogran, and Lyallpur; a bridge over the Bungril nullah, mile 10, Rawalpindi-Murree Road; improving the Charsadda and Murdan Road; metalling and improving Moga Bhagapurana Road; rebuilding the spans of the Lyall Viaduct washed away in 1896; metalling and improving the roads from Amritsar to Ajnala and Multan to Bunderghat; and additional defence works at Dera Ghazi Khan.

The district works included metalling the Jagraon-Bassian Road and constructing the Sarsuti Canal and the Kaithal Rajbaha. The more important works carried out from municipal funds were, new schoolhouse at Kaithal; a town hall at Hoshiarpur; Delhi intramural drainage scheme, Part II.; additional reservoir at the Charot nullah pumps, Simla water works, drains in the town of Faridabad; and a water supply to the town of Pind Dider Khan.

Under the head of Famine Relief the most important works in hand were the raising of the road from Phalia to Ramnal, and constructing the Kaithal branch extension of the Sarsuti Canal.

The comparative expenditure on civil buildings and communications was as follows:—

	Original Works.	Repairs.	TOTAL.
	Rs.	Rs.	Rs.
Civil Buildings - - - - -	48,167	40,961	89,128
Communications - - - - -	30,208	125,379	155,587

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CIVIL WORKS.

Excluding station roads, the total road mileage at the end of the year was 25,986 miles, viz., 2,283½ miles metalled, and 23,702½ unmetalled. Boat bridges and ferries were maintained at various points on the Indus and its tributaries. At Dera Ismail Khan and Dera Ghazi Khan steam ferry services are worked in connection with the North-West Railway. The capital cost of all boat bridges and major ferries amounted to Rx. 54,993, and the cost of maintenance during the year was Rx. 15,101.

Burma.

Only one administration report for the Public Works Department has been prepared for 1897-98, instead of separate reports for Upper and Lower Burma as hitherto; and the funds in Upper Burma have been provincialized with effect from 1st April 1897.

The total expenditure for the year was Rx. 562,989.

No large civil buildings were undertaken during the year, but various new court houses and record rooms were either completed or commenced, and the large extensions of the Bassein and Toungoo jails were well advanced. Prome jail is also being extended and the necessary works were commenced during the year.

The wants of other departments also received attention, but no works of any unusual importance were undertaken.

The total length of roads maintained by the Public Works Department at the end of 1897-98 was 6,021.67 miles. New roads to the extent of 102 miles were opened out. Other roads were completed by building bridges where required, or by improving them to meet increasing traffic.

There was considerable expenditure on navigation works. Improvements to the Pegu-Sittang and Sittang-Kyaikto canals were in hand, and the connection of the Kyaikto-Bilin canal with the old boat track to the Thabyu by means of a boat cutting was completed, and a temporary well constructed at Ayethama.

The outlay on famine relief works was Rx. 58,456, which was almost entirely spent on the Meiktila-Myingyan Branch Railway.

Central Provinces.

The cost of works undertaken for the purpose of affording famine relief, which amounted to over 91 lakhs, largely increased the expenditure in the Central Provinces from imperial funds during the year under review.

The amount of the normal expenditure for the year was :—

	Rx.
Imperial - - - - -	1,325
Provincial - - - - -	150,718
Local - - - - -	19,436
TOTAL - - -	171,479

Outside of the famine relief operations there was no outlay from imperial funds on civil works of any importance.

The provincial buildings under construction were of the usual kind required for the different branches of the administration, such as tahsils, godowns, court houses, jails, police quarters, educational buildings, &c.

The famine relief works helped to swell the amount of roads under construction or improvement during the year. Many important roads were in hand, and surveys were carried out for further extensions amounting to 114½ miles.

The total length of roads maintained in the province during the year from public funds was :—

	Miles.
Metalled roads - - - - -	1,428½
Unmetalled roads - - - - -	5,117½
TOTAL - - -	6,545½

The important water-supply schemes, the cost of which is met from local loans, at Khandwa and Wardha, have been completed. CIVIL WORKS

There are two collieries managed by the Provincial Administration, viz., at Warora, in the Chanda District, and at Umaria, in the Rewah State. The total output from the Warora Mines was 115,682 tons, against 113,454½ tons in the previous year, showing an increase of 2,227½ tons. The net profit from the working of the colliery was Rx. 14,287, or 7·70 per cent. on the total capital outlay. The working of the Umaria Colliery resulted in a profit of Rx. 783, or 0·66 per cent. on the capital outlay. The output from this colliery was 119,200 tons, against 116,571 tons in 1896-97.

The total expenditure in Assam for the year was as follows :—

Assam.

	Rx.
Imperial—Civil	18,899
Provincial	247,469
Local	72,191
TOTAL	338,559

The expenditure on public works in Assam is mainly devoted to the maintenance and improvement of the road system, the outlay on buildings being comparatively small.

Compared with the previous year, the expenditure under Provincial shows a large increase. This was owing to the earthquake of June 1897, which destroyed nearly every masonry building in the Sylhet, Khasi, and Jantia Hills, Garo Hills, and Lower Assam Divisions, and severely damaged the roads, which in many places were rendered impassable.

The expenditure in Madras was as follows :—

Madras.

	Rx.
Imperial	4,920
Provincial	212,389
Local	431,087
TOTAL	648,396

In the classes of buildings and roads there were no imperial works of importance in progress, and the year's expenditure came almost entirely under the heads of Provincial and Local Civil Works.

The new Law College in Madras is now completed, and also the Connemara Library and connected buildings. The tower, which was condemned, has been demolished, and the carriage porch and covered ways to take its place have been put in hand.

In the districts the buildings under construction were of the usual type of taluk offices and cutcherries, court houses, and other buildings required by the different branches of the Administration. The outlay up to date on the public offices at Tanjore has been Rx. 10,200; a revised design for the tower is under preparation. Good progress was made with the extension of the Normal and Unions Schools at Rajahmundry.

Under the head of Communications a few important roads are in the hands of the Provincial Public Works Department, and there was some expenditure during the year on the maintenance and improvement of the Ootacamund-Kullar and Chundale-Mysore roads. The greater portion of the road system in Madras is, however, in the hands of the local boards, whose expenditure is not under the control of the Public Works Department. They maintain their own engineering establishments, though in some cases they employ the agency of

CIVIL WORKS.

the Public Works Department for particular works. In the year under review 22,681 miles were maintained.

An important feature in the Public Works of the Madras Presidency, owing to the length of its coast line, is the maintenance of its harbours and light-houses.

Progress was made with the extension of the Northern and Southern jetties at Cocanada, and the works in connection with the new pier and reclamation of the foreshore at Tuticorin were completed.

In the districts of Bellary, Cuddapah, and Kurnool there was considerable distress from the failure of the crops. During 1897-98 the situation became grave, and the ordinary operations of the department were brought almost to a standstill, in order that the majority of the staff might be employed on famine relief works. The officers in charge of divisions and subdivisions were all employed in inspecting and organising famine works.

At the close of the official year 1896-97 there were 71,750 persons on relief works throughout the circle. The number gradually rose till it reached the total of 478,160 in July 1897. It then commenced to fall week by week, and by the middle of November the coolies had all left the works.

The following statement shows the number of works started in each district and the number of labourers employed on them:—

Division.	Number of Relief Works.	Number of Relief Workers.	Remarks.
Bellary - - - -	29	155,854	Most of these were road works, there being very little work available under irrigation.
Anantapur - - - -	42	62,027	
Kurnool - - - -	43	162,095	
Cuddapah - - - -	29	98,184	
TOTAL - - - -	143	478,160	

Bombay.

The expenditure on civil works in the Buildings and Roads Branch in the Bombay Presidency for 1896-97 was as follows:—

	Rx.
Imperial - - - - -	12,892
Provincial - - - - -	268,464
Local - - - - -	233,229
TOTAL - - - - -	514,585

The whole of the imperial expenditure was devoted to civil buildings. No new work of importance was undertaken during the year, the greater part of the outlay being spent in constructing offices and residential quarters for subordinate officers of the Salt, Customs, Post Office, and Telegraph Departments. On the Somali coast the construction of a residency and court-house was still in progress, the police lines were improved, and several minor works carried out.

The expenditure from provincial and local funds under the head of Civil Buildings included the construction or improvement of a number of mamlatdar's offices, record rooms, bungalows, and distilleries.

The construction of a Rájasthanik hall at Sádra was practically completed.

As in previous years, buildings and remains of archæological interest were kept in repair. Several high schools were completed during the year, and the construction of a campanile for the Church of the Holy Name at Poona was completed.

The total outlay on communications during the year was about 21 lakhs of rupees. The total mileage of road extension and improvements carried out

by Public Works Agency was about 239 miles. The planting and preservation of roadside trees continued to receive careful attention. CIVIL WORKS.

Under miscellaneous public improvements, the Surat and Ránder water supply works were practically completed, with the exception of the Ránder portion. Substantial progress was made with drainage and sewerage works. Under this head the works on the Chanpáti estate at Bombay, and at Nadiad, Násik, and Ahmedabad may be mentioned. The works for protecting the city of Surat from the Tapti river floods were finally completed at a total cost of Rx. 17,545.

The expenditure on public works in the Hyderabad Assigned Districts was as follows:—

	Rx.
Imperial - - - - -	1,391
Provincial - - - - -	94,836
Local - - - - -	30,386
TOTAL - - -	126,613

The greater part of the year's outlay was upon the extension and repair of the road system. Considerable expenditure was incurred on tree planting on roadsides.

The length of roads maintained by the Provincial Public Works Department was 1,041½ miles.

In Coorg there were no works in progress of sufficient importance to call for individual notice. The expenditure for the year on civil works amounted to Rx. 16,048. Coorg.

The length of road maintained by the Public Works Department was 178 miles from imperial funds, and 119 miles from local funds.

NATIVE STATES.

A full account of the public works in the districts under Native administration in India cannot be given, owing to the want of information in the case of some of the States. In the minor States the works are for the most part insignificant; but in the larger States there are works of importance, and some of considerable size, in many cases carried out by European engineers lent by the British Government. NATIVE STATES.

The total expenditure by the Public Works Department of the Central India Agency in 1897-98 amounted to Rx. 26,357, the greater part of which was upon the extension and maintenance of roads. The total length of road communication maintained by the Department was 780 miles. Central India.

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 has 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.

Railways form the chief feature in the Native public works, and there is a growing tendency among the rulers of Native States to promote railway extensions within their borders. The Guna-Bina, Ujjain-Bhopal, and Ujjain-

NATIVE STATES. Nagda lines are now complete, and good progress has been made on the Guna-Bara extension, and also on the line on the 2-foot gauge from Gwalior to Sipri.

About 864 miles of metalled road were maintained.

Rajputana. The total outlay in 1897-98 on public works in Rajputana was Rx. 564,370, of which Rx. 531,039 was incurred in the Native States. The expenditure was larger than in the previous year, and the increase is mainly due to the large expenditure on the Shadipalli-Balotra metre-gauge line, Jodhpore section.

The metre-gauge line from Bikanir northwards is practically complete for 41.67 miles as far as Khari. Work is in progress for the nine miles beyond Khari to Lankaransar, and surveys northwards towards Bhatinda are in hand.

The metre-gauge line between Sanganer on the Rajputana-Malwa Railway and Siwai-Madhopore, 73 miles in length, in the Jeypore State, has been sanctioned by the Secretary of State, and work has been commenced.

From 1st January 1898 the Meywar Darbar took over the management of their line, Chittorgurh to Debari, from the Bombay, Baroda, and Central India Railway Company, and are now working it by their own railway engineer. The extension of the line on the same gauge (metre) to Oodeypore has been staked out, and work is in good progress, with the hope that it will be open for traffic before the end of the year 1898.

Considerable progress has been made on irrigation works, notably in Jeypore (the Ramgarh project), in Bikanir (the Ghaggar Canal scheme), and in Bhurt-pore (Bareta Bund and Banganga River Channel). Major irrigation works in the Marwar State have been temporarily deferred owing to the heavy expenditure on railways.

The complete construction within the year of the Ghaggar Canal scheme, comprising dam and head-works, and also canals on both banks in British and Bikanir territory, is a matter for great satisfaction. The works were ready in working order before the rains of 1897, and have been well tested by the water-supply of a normal year of rain-fall. Water was freely available throughout the entire length of the canals, but the bulk of it was unavoidably sent down the bed of the Ghaggar, as preparations are not yet complete for utilising all the water from the canals.

The works have been completed at the estimated cost and in a most satisfactory manner. The problem of partitioning the water between British and Bikanir land has been solved. Water may now be considered as laid on to Bikanir, and only awaits the development of a suitable irrigation system to be fully utilised to the benefit of the State.

Coal of a useful kind has been discovered in the Bikanir State, and the sanction of the Government of India has been asked for to the employment of a mining engineer who will locate the coal-field and determine the value of the coal.

The total length of roads maintained by the Native States in Rajputana during 1897-98 was 1,663 miles, in addition to about 722 miles maintained by the Imperial Government.

Madras. In the Native States under the control of the Madras Government there was no event of importance to notice during the year in connection with public works.

In Travancore the total expenditure was Rx. 112,071, of which Rx. 42,496 was upon communications, Rx. 20,550 upon buildings, and Rx. 20,540 on irrigation. The total length of cart roads was increased to 1,994 miles.

In Cochin the expenditure was Rx. 52,528, of which Rx. 18,927 was upon buildings. The miles of roads maintained amounted to 422.

Bombay. The Government of Bombay exercises political control over some 350 Native States, presenting numerous gradations of size, wealth, and civilisation.

Leaving out of account the railways, the amounts expended by the Native States under the control of the Government on public works during the year were generally small, and, excepting the Lalpuri waterworks, 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. 15,659; Palanpur, Rx. 4,867; Radhanpur, Rx. 4,867; and Mahi Kantha, NATIVE STATES. Rx. 8,219. In the Káthiáwár States the outlay on public works amounted to Rx. 337,534, Bhávnagar heading the list with an expenditure of Rx. 92,280.

The largest amount expended in South Gujarát and North and South Konkim was in Dharampore, where there was an outlay of Rx. 8,795, and in Janjira, Rx. 6,470. In the Deccan and South Máhrátha country the largest items were an expenditure of Rx. 59,255 in Kolhapur, and of Rx. 22,007 in the Sangli State.

XI.

POST OFFICE AND TELEGRAPHS.

POST OFFICE.

POST OFFICE.

THE receipts and charges of the Post Office for the last three 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.
1895-96	1,712,962	1,648,317	69,645	—
1896-97	1,783,474	1,698,156	85,318	—
1897-98	1,878,466	1,729,580	148,880	—

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 (except Baluchistan), which are provided for by local cesses, the net financial results of the three years would be surpluses of Rx. 108,974, Rx. 132,768, and Rx. 195,267 respectively.

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.
1895-96	9,588	15,927	4,269	85,323
1896-97	9,948	16,250	4,388	86,019
1897-98	10,268	17,721	4,588	88,720
Increase in 1897-98 over 1896-97	315	771	200	2,701

ment during the last three years, are shown in the tables in the margin. These figures are exclusive of the District Post, of which the post offices decreased from 1,483 in 1896-97 to 1,479 in 1897-98, the letter boxes increased from 3,688 to 3,827, and the staff of village postmen decreased from 3,090 to 3,000.

YEAR.	Letters (including Postcards).	Newspapers.	Parcels.	Book and Pattern Packets.	TOTAL.
	No.	No.	No.	No.	No.
1895-96	364,168,006	23,922,622	2,577,083	18,196,529	413,870,240
1896-97	388,050,269	19,778,291	2,702,789	18,341,398	438,776,727
1897-98	402,707,236	21,391,484	2,968,990	21,364,415	468,019,195
Increase in 1897-98 over 1896-97	21,846,967	2,113,193	267,221	2,028,017	26,240,398

In addition to the 88,720 miles of Imperial Postal lines shown in the statement, there were 36,295 miles of District Post lines, and 1,336 miles of political and military lines administered by the Imperial Post Office, so that the total length of the lines over which mails were conveyed was

126,351 miles at the close of 1897-98, as compared with 123,243 miles at the close of the previous year. There was a slight increase under all heads except mail cart lines, but the increase was greatest under the heads of "runners and boats" (chiefly in the Madras circle), and of steamer lines in Burma. The use of light hand-carts, or "Rickshaws," for carrying mails was further extended, and continues to be well reported on in the matter both of economy and speed. The use of bicycles has been tried in parts of the Madras Presidency and in Lahore, and there seems to be every reason to anticipate the success of this form of conveyance in suitable localities.

The general correspondence returns, of which a summary is given above, show an increase of over 26 millions of articles (excluding money orders)

carried by post in 1897-98, as compared with 1896-97. Of this increase, over 9 millions were due to letters, and over 12½ millions to postcards, which, in Bengal, Bombay, the Punjab, and Eastern Bengal, exceeded the total number of paid letters. POST OFFICE.

The total number of articles received for delivery, including money orders, was over 466½ millions, of which 99·03 per cent. were delivered. The net receipts of postal articles (other than money orders) at the Dead Letter Offices for disposal were 4,210,664; of this number, 818,859 articles were disposed of by being re-directed, and then delivered to the persons to whom they were addressed, while 2,299,081 were returned to the senders, and 1,092,724 could not be disposed of. This last figure is only 0·2 per cent. of the total number of articles given out for delivery, and a large proportion of the articles were from their nature not capable of delivery.

A large amount of valuable property was, as usual, found in letters, and other articles posted without address, or with addresses so incorrect or incomplete, that the covers had to be opened in order that the senders might be traced. In articles opened in some of the Dead Letter Offices were found hundis, cheques, bills of exchange, currency notes, and other property amounting in value to Rs. 255,435, 610/-. 18s. 1d., 5 dollars, and 28 francs. The greater part of this property was successfully delivered to the owners.

The number of postal articles, excluding money orders, issued per head of population for the whole of India was 1·63, against 1·54 in 1896-97. Per head of literate population, the percentage was 38·58 against 36·39 in the preceding year.

The letters and postcards despatched from India to the United Kingdom in 1897-98 are estimated at 3,068,417, against 3,037,334 in 1896-97, or an increase of 1·02 per cent. Those received in India from the United Kingdom are estimated at 3,598,444, against 3,174,487 in the previous year, or an increase of 13·36 per cent.

The newspapers and packets despatched home from India show an increase of 2·69 per cent., and the number of such articles received in India from the United Kingdom an increase of 21·73 per cent. The estimates of correspondence received from the United Kingdom are, however, founded on a record of weight taken only twice a year, and it is possible that the figures may not be fairly representative of the whole year's traffic.

The statistics of correspondence exchanged between India and foreign countries and colonial administrations are taken only once in three years, alternately in May and November, and were last recorded in May 1896.

The parcels exchanged with the United Kingdom formed more than 71 per cent. of the whole foreign parcel traffic. The parcels received from, and despatched to, the United Kingdom through the British Post Office, *via* Gibraltar, taken together, increased from 162,433 to 169,379. A new parcel service by the overland route across the Continent of Europe was established from the 1st of February 1898, in addition to the service *via* Gibraltar; and, up to the 31st of March, 1,244 parcels were sent to, and 583 parcels received from, the United Kingdom, by the new route. There was a small falling off in the number of parcels, both sent and received, through the Peninsular and Oriental Steam Navigation Company, without the agency of the British Post Office, and this service has now practically ceased to be of any importance.

In the exchanges with Continental Europe, the number of parcels despatched from India shows a slight decrease, while the number received in India was about the same as in 1896, 97. The new direct services established with France and Germany towards the end of 1897-98 do not appear, therefore, to have had any effect, so far, on the parcel post traffic with the Continent of Europe. In the exchanges with other countries there was a satisfactory development of the traffic in both directions. The increase in the number of parcels sent to non-European countries is again to be attributed mainly to the steady growth of the parcel post with Ceylon.

The receipts from the insurance of letters and parcels were Rx. 26,550, as compared with Rx. 23,495 in the preceding year. The number of insured articles was greater by 9·53 per cent., and the value by 13·47 per cent. The number of parcels insured exceeded the figures of the preceding year by 27,834. Of this increase the larger part (17,554) occurred in Bombay, and

POST OFFICE.

was due in a great measure to the panic caused by the plague, which drove many of the Marwari and other foreign traders to their homes. They made large use of postal insurance, considering it the cheapest and safest method of having their valuables despatched from Bombay to their native places.

The average value for which each article was insured was, in the case of letters, Rs. 258, as compared with Rs. 259 in the previous year, and in that of parcels, Rs. 327, against Rs. 314 in 1896-97.

The number of claims for compensation preferred in respect of insured articles was 34, as compared with 54 in the preceding year. Twenty-four claims were admitted, which involved the payment of Rx. 705, or 2.65 per cent. of the total amount realised from insurance fees, against a percentage of 4.57 in the preceding year. Of these claims, the loss was due in 12 cases to fraud or negligence on the part of the servants of the Post Office; in six cases to losses by highway robbery of mails in British territory; and in six cases to the sinking of a river steamer with all the mails on board. In the case of one claim which was rejected, the sender was prosecuted and convicted for making a false declaration that the enclosures, consisting of a few old letters, were currency notes.

The business of the value-payable post has practically doubled since 1890-91. The number of articles sent was 2,180,465, and the amount declared for recovery by the Post Office from the addressees was Rx. 2,566,283, the commission on which was Rx. 45,661. There was an increase of 8.53 per cent. in the number of articles, of 11.38 per cent. in the value specified for recovery, and 10.87 in the commission realised. Nearly two-fifths of the entire business of the year was, as in previous years, transacted in the Bengal circle, which practically means Calcutta. Under the arrangement with Ceylon for the transaction of value-payable business, which was introduced in 1891, 23,697 articles, of the aggregate value of Rx. 20,700, were despatched from India to Ceylon, as compared with 21,713 articles and Rx. 19,807 of value in the preceding year. The value-payable system has not yet been introduced between India and any other foreign country.

The number and value of inland money orders issued in India, including telegraphic money orders, but excluding transactions with Native States, increased respectively from 10,947,571 and Rx. 21,972,821 in 1896-97, to 11,664,350 and Rx. 24,233,710 in 1897-98; and the commission realised, from Rx. 279,212 to Rx. 305,720. The average value of an inland money order was Rs. 20. 12. 4., against Rs. 20. 1. 1. in the previous year.

In the North Western Provinces and Oudh the number of revenue money orders, which fell off in 1896-97 owing to the prevalence of famine, showed a considerable improvement; but in the Central Provinces famine continued, during the year under review, to interfere with the progress of the scheme. In the Lower Provinces of Bengal, including Eastern Bengal and Bihar, and in the Punjab, there was an increase in the number and value of these orders. The system of remitting miscellaneous Government dues through the agency of the Post Office continued to make progress in the Lower Provinces of Bengal, and in the North Western Provinces and Oudh. It was introduced in August 1896 into Burma at the request of the Forest Department, and official money orders were issued only from three offices, and numbered 119 of a total value of Rx. 667.

The rent money-order business, which, during the last three years, has been falling off in the North Western Provinces and Oudh, considerably improved during 1897-98. In the Central Provinces there was again a decrease, attributed to causes connected with the late famine, and the progress in the Lower Provinces of Bengal reported last year was not sustained.

In the money-order transactions with Native States the number and value of the issues in those States were respectively 76,043 and Rx. 226,752, against 80,935 and Rx. 192,853 in the previous year; and the number and value of payments in the States were 47,709 and Rx. 136,018, as compared with 44,630 and Rx. 126,606 in 1896-97.

The number of telegraphic money orders issued in 1897-98 was 156,075, for Rx. 1,885,297, as compared with 145,849 orders for Rx. 1,732,736 in the preceding year. The average value of a telegraphic money order was Rs. 120. 12. 8., against Rs. 118. 12. 10. in 1896-97. The chief increase occurred

in Bombay, and is attributed, to some extent, to grain dealers sending telegraphic remittances for the purchase of stocks of grain for the famine-stricken districts in the Deccan. Similar causes doubtless affected other parts of India in the same way, while emigrant labourers and others in distant places, such as Burma, used this mode of remittance more than usual in order to alleviate urgent distress in their homes. The postal commission amounted to Rx. 19,527, in addition to Rx. 15,608 charged for the telegrams, and credited to the Telegraph Department.

The foreign money orders for and from the United Kingdom, most of the British colonies and possessions, foreign European countries and most of their colonies and possessions, and Egypt, are issued in sterling, payments being made by the remitters and to the payees in India at the rates of exchange fixed by the Post Office from time to time for this purpose. The number of such orders issued rose from 59,654 in 1896-97 to 63,350 in 1897-98, and the value from 206,507*l.* to 224,346*l.*, while the drawings upon India increased in amount from 186,896*l.* to 221,024*l.* In 1896-97, of the total sterling money-order transactions, viz., 393,403*l.*, no less an amount than 263,557*l.* was with the United Kingdom and British colonies, and in 1897-98 the proportion was 404,219*l.*, out of 445,369*l.*

The average value of a sterling money order issued by India was 3*l.* 10*s.* 10*d.*, as compared with 3*l.* 9*s.* 3*d.* in 1896-97, and that of such a money order paid in India was 5*l.* 11*s.* 3*d.*, as compared with 5*l.* 6*s.* 8*d.* in the preceding year.

The average of the rates of exchange for sterling money orders in force in 1897-98 was 1*s.* 3½*d.* per rupee, as compared with 1*s.* 2½*d.* in the previous year.

The money-order transactions between India and China, Japan, Ceylon, and some British and foreign colonies in Africa and the East, are advised in Indian currency. The amount of such orders issued by India rose from Rx. 63,393 in 1896-97 to Rx. 74,128 in 1897-98, and the orders paid by India, from Rx. 418,326 to Rx. 465,984.

The average value of a foreign rupee money order issued by India in 1897-98 was Rs. 37. 12. 2., as compared with Rs. 37. 9. 2. in 1896-97, and that of an order paid in India was Rs. 42. 14. 3., as compared with Rs. 42. 1. 1. in the preceding year.

Including inland and foreign money orders, both ordinary and telegraphic, and converting the foreign sterling orders into Indian currency at the rates of exchange in force when the transactions took place, the entire money-order business of the Indian Post Office amounted to Rx. 50,063,361 in 1897-98, against Rx. 45,341,616 in 1896-97.

At the close of the year there were 6,290 offices performing savings bank business, against 6,420 in the preceding year, thus showing a decrease of 130 offices during the year. The number of accounts in the Post Office savings banks rose from 713,320 in 1896-97 to 730,387 in 1897-98; the deposits fell from Rx. 5,661,098 to Rx. 4,365,245; the withdrawals from Rx. 5,365,463 to Rx. 4,997,557; and the interest from Rx. 301,299 to Rx. 280,369. The balance at the credit of depositors at the close of 1897-98 stood at Rx. 9,287,298, against Rx. 9,639,241 at the close of 1896-97. The average balance at the credit of each depositor was Rs. 127. 15., as compared with Rs. 135. 13. in the previous year. The late famine has, no doubt, been the chief factor in these results. Of the total number of accounts, 91.14 per cent. were held by natives.

During 1897-98 the total amount invested in Government securities by savings bank depositors through the agency of the Post Office was Rx. 74,260, against Rx. 83,430 in the preceding year; and the balance of securities in the hands of the Comptroller General at the close of the year was Rx. 73,120, compared with Rx. 60,560 on the 31st March 1897. Of this balance, Rx. 66,570 represented the nominal value of securities of the 3½ per cent. loan, the remainder being in the 3 per cent. loan.

As in previous years, the transactions connected with the receipt of salt revenue through the agency of the Post Office were of small importance.

The arrangements for the sale of quinine through the agency of the Post Office are now in force throughout India, with the exception of the Punjab, and in every postal circle but Bengal the sales show a satisfactory increase. In Madras and some other circles the experiment has been tried of entrusting to

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village postmen packets of quinine for sale. The total amount supplied for sale in 1897-98 exceeded by nearly 393 lbs. the amount supplied in the previous year.

The system of paying the pensions of Native Army pensioners through the agency of the Post Office, in the Punjab, continued to work satisfactorily. The total number of pensioners paid during the year was 24,713, and the amount paid to them was Rx. 178,215.

Arrangements have been in force for some years past for the issue by the Post Office of life insurance policies and contracts for monthly allowances in favour of servants of the Postal and Telegraph Departments. The scheme for monthly allowances has hitherto been practically inoperative; but there was a decided increase in 1897-98 in the number of contracts taken out. The benefits of the life insurance scheme were extended generally to all Government servants, who are subject to civil rules, with effect from the 1st of February 1898, and, from the same date, a system of Endowment assurance was added to the scheme. During the year under review, 291 new policies for the aggregate amount of Rx. 43,825 were issued, of which 82 were endowment assurance policies issued in February and March. Forty-two claims, amounting in all to Rx. 5,590, were paid on the death of insured persons. Since the fund was started on the 1st of February 1884, 2,966 lives have been insured; and, at the close of 1897-98, there were 2,455 active policies in existence (1,861 held by Post Office servants and 594 by servants of other Departments), and the aggregate sum insured was Rx. 346,965. During 1897-98 and the two preceding years no advantage was taken by women of the extension to them of the benefits of the scheme.

During the year under review there were 37 cases in which the mails were plundered by highway robbers, of which 27 were in Native States and 10 in British territories. The figures for the preceding year were 28 and 8 respectively.

The number of cases in which the servants of the Post Office were found guilty of offences punishable by the law were 306, of which 161 were departmentally punished, while legal convictions were obtained in the remaining 145 cases.

The number of complaints made by the public was 19,055, against 18,827 in the previous year. In only 35.02 per cent. of the whole number were the complaints ascertained to be well-founded; 38.58 per cent. were entirely groundless; and in the remaining cases, either the investigation of the complaints had not been completed at the end of the year or no definite conclusion had been arrived at.

Among the principal events of the year, from a postal point of view, were:—

(1) The meeting of the International Postal Congress at Washington, at which the Indian Post Office declared its intention to become a party to the Union Parcel Post Convention.

(2) The conclusion of a new contract with the Peninsular and Oriental Steam Navigation Company, with effect from the 1st of February 1898, for a combined Eastern and Australian Mail Service, under which the time of transit from London to Bombay has been reduced from 16 days 11 hours and 35 minutes to 14 days 15 hours and 35 minutes.

(3) Improvements in the Mail Service between Bombay and Calcutta, *via* Nagpore and Jubbulpore, the result being that the weekly special train now brings the foreign mails into Calcutta about 45 hours after the steamer is signalled at Bombay, an improvement in which all the most important places in Northern India share.

(4) The introduction into all parts of Calcutta served by postmen of the General Post Office of a novel scheme of "continuous delivery" throughout the day, the result of which has been a very large increase of local correspondence, which did not formerly pass through the post at all.

(5) The extension of the foreign parcel post to Peru, Honduras, Western Australia, New Zealand, and German South-West Africa, and the introduction of weekly, instead of fortnightly, exchanges of postal parcels with several British colonies.

(6) The reopening of the parcel post with Egypt, Gibraltar, Tangiers, and some other places, which had been temporarily interrupted by quarantine restrictions.

TELEGRAPHS.

The following statement refers to the whole of the telegraph system under the direct control of the Government of India, but excludes the Indo-European Department, extending from Karachi to Teheran, for which, as usual, a separate account is given. The system now consists of 50,306 miles of line, 154,824 miles of wire, and 264 miles of cable. TELEGRAPHS.

During the year Rx. 243,704 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 1,722 miles of line and 6,688 miles of wire. The total capital outlay at the close of the year stood at Rx. 6,293,643.

The number of telegraph offices open to the public at the end of the year, including railway and canal offices, was 4,422, of which 3,302 were maintained by the Department. The net addition to the number of offices during the year was 170.

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.
	Rx.						
Up to beginning of 1893-94	5,434,661	41,030	126,251	274	1,100	1,453	2,553
During 1893-94	225,497	1,677	8,004	-	194	58	182
" 1894-95	78,310	1,941	4,001	-3	138	10	148
" 1895-96	138,428	1,727	4,670	-8	99	12	111
" 1896-97	173,081	2,209	5,210	6	102	73	175
" 1897-98	243,704	1,722	6,688	-5	71	62	133
To end of 1897-98	6,293,643	50,306	154,824	264	1,634	1,668	3,302

A general view of the operations of the Department in 1897-98, in comparison with the results of the four previous years' working, will be gained from the following statement:—

YEAR.	Number of Messages during Year.	Gross Receipts, including State but excluding <i>pro forma</i> Revenue.	Charges.	Net Receipts.	Percentage of Net to Gross Receipts.	Return on Capital.
		Rx.	Rx.	Rx.		
1893-94	4,184,790	791,852	530,476	261,376	33.0	4.61
1894-95	4,391,226	792,510	569,321	223,188	28.2	3.89
1895-96	4,736,734	886,072	578,373	307,699	34.7	5.24
1896-97	5,077,584	884,049	621,500	262,542	29.7	4.34
1897-98	5,713,227	1,079,295	626,657	452,638	41.94	7.19

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 1897-98 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 total number of telegrams sent in 1897-98 amounted to 5,713,227, as compared with 5,077,584 in 1896-97, showing an increase of 635,643, or 12½ per cent. The corresponding increase in value was Rx. 203,517, or nearly 29 per cent. Of this sum, Rx. 178,466 was contributed by the increased

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volume of inland State messages, their number being nearly $43\frac{1}{2}$ per cent. in excess of the number sent in the previous year, while their value increased by no less than $158\frac{3}{4}$ per cent. The unprecedented dimensions of the State traffic of 1897-98 is attributed in a great measure to the military operations on the North-West Frontier, and to illustrate the development of the telegraph in connection with such operations the Director General of Telegraphs compared the traffic of the past year with that of 1880-81 and 1887-88, the years which witnessed the principal operations of the Afghan and Burmese wars respectively. The number and value of State telegrams in each of those years were as follows:—

	Number of State Telegrams.	Value.
1880-81 (Afghan war) - - - - -	313,048	Rx. 129,763
1887-88 (Burmese war) - - - - -	537,103	104,579
1897-98 (Tirah and other expeditions) - - - - -	860,382	290,817

The figures are instructive, but, as the Director General of Telegraphs points out, the large increase in the past year was not entirely caused by the frontier disturbances, and was probably due in no small measure to the famine, plague, and earthquake.

The following figures show, for the last two years, the division of the traffic between State and Private, and between Inland and Foreign, messages respectively:—

Class of Telegrams.	1896-97.		1897-98.	
	No.	Value.	No.	Value.
State, Inland - - - - -	599,890	Rx. 112,350	860,382	Rx. 290,817
„ Foreign - - - - -	8,722	6,752	9,896	8,530
Total State - - - - -	608,612	119,102	870,278	299,347
Private, Inland - - - - -	3,786,938	373,842	4,107,270	395,359
„ Foreign - - - - -	682,034	210,411	735,679	212,166
Total Private - - - - -	4,468,972	584,253	4,842,949	607,525
GRAND TOTAL - - - - -	5,077,584	703,356	5,713,227	906,873

The increasing use of telegraphy by the Indian public is measured 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 per cent. in number and 5.7 per cent. in value. The following statement shows the development of the revenue from the inland private traffic for the past 10 years:—

1888-89 - - - - -	Rx. 223,151
1889-90 - - - - -	227,830
1890-91 - - - - -	245,328
1891-92 - - - - -	269,542
1892-93 - - - - -	288,856
1893-94 - - - - -	305,229
1894-95 - - - - -	321,597
1895-96 - - - - -	347,531
1896-97 - - - - -	373,842
1897-98 - - - - -	395,359

In foreign private telegrams there is also an increase over the figures for the previous year of 7·86 per cent. in number, and an increase of 0·83 per cent. in value. TELEGRAPHS.

The revenue from trans-Indian traffic fell from Rx. 99,819 in 1896-97 to Rx. 94,364 in the year under review, but exceeded by Rx. 21,209 the figure of Rx. 73,155, at which the revenue stood in 1890-91, prior to the reduction in the transit rates.

The messages sent in the service of the State constituted 15·24 per cent. of the whole number, and the payments made by the Government on account of them made up 33 per cent. of the total message revenue of the Department.

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.	
	1896-97.	1897-98.	1896-97.	1897-98.	1896-97.	1897-98.
State	8·77	23·47	27·40	21·11	63·63	55·42
Private	5·80	6·19	40·38	33·06	53·62	59·85
Press	5·73	7·59	12·57	12·68	81·70	79·83

The average charge for an inland private telegram is 14 annas and 11·16 pies, and the average length may be taken as 10 words, with free address of at least eight words.

The speed of transmission was on the whole well maintained during the year. There was a falling-off in this respect between Calcutta and Rangoon, owing to damages caused by the earthquake of June 1897, and the disastrous cyclone near Chittagong on the 24th October, and some falling off, owing to temporary causes, on other main routes.

The number of complaints received relating to the Indian Telegraph Department was 2,600, equivalent to 0·032 per cent. of the total number of paid messages; 1,549 of these were admitted. Of those admitted, 361 applied to non-delivery, 524 to delay, and 424 to mistakes. The number of messages that for various causes could not be delivered amounted to 19,032, equivalent to 0·263 per cent. of the total number received for transmission.

The total number of interruptions to communications amounted to 2,462, which shows an increase over the previous year, there being an increase also in the total duration of the interruptions.

The number of telegraphic money orders rose to 156,513 from 145,833 in the previous year. In addition to the figures given above, the total number of orders sent to and received from Ceylon during the year under review amounted to 16,501, as compared with 12,112 during 1896-97, and 8,183 during 1895-96.

The inland press telegrams sent numbered 35,910, of the value of Rx. 13,869, against 26,462, valued at Rx. 10,093, in the previous year. The foreign press messages numbered 5,278, and the Indian share of the charges thereon amounted to Rx. 3,304.

As regards electrical improvements, experiments in simultaneous Morse and vibrator working were continued in many parts of the country, with but little success in the direction of the conversion of vibratory into Morse signals. Some good results have, however, been obtained in the simultaneous transmission of the two classes of signals, as many as 20 to 25 messages an hour being regularly disposed of by the vibrator apparatus, without in any way interfering with Morse working over the same wire.

Working on the quadruplex system has been extended during the year to meet the requirements of traffic, the necessary apparatus having been fitted between Bombay and Agra, and also a second set between Bombay and Bhusaval. During the North-West Frontier operations this system of working was carried on at first between Kohat, Lahore, and Simla, and afterwards between Peshawar, Lahore, and Simla, and greatly facilitated the transmission of the very heavy traffic between these stations.

On the 31st December 1897 there were 1,826 subscribers and 1,802 exchange connections to the telephone companies at Bombay, Calcutta, Karachi, Madras,

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Moulmein, Rangoon and Ahmedabad. There were also 41 exchanges and 357 exchange connections under the control of the Telegraph Department.

The land route to China *via* Bhamo was interrupted for about 150 days in the aggregate. The interruptions, which occur almost entirely in the Province of Yunan, have driven off what little traffic there was.

There was, however, a marked improvement in the working of the Indo-Siam routes, resulting in a material strengthening of the communication between India and the Far East.

From 1st August 1897 a new agreement was entered into with the Kashmir State for the interchange of telegrams between the British and Kashmir State telegraph systems. This is to continue in force for five years.

The revised rules for foreign telegrams, adopted by the International Telegraph Conference held at Budapest in June and July 1896, took effect from the 1st July 1897. Some of the reductions in the rates arranged at this Conference took effect from the 1st January 1897, but the reduced rates only came into force on the 1st July 1897 from India to Malacca, Singapore, Sumatra, the Celebes, &c., Egypt (except Suakim) *via* Suez, Persia *via* Bushire, Russia (European) and Russia (Asiatic) *via* Teheran, and finally to Japan, the last-named reduction being one in which the Bombay mercantile community was much interested.

From the same date the Eastern and Eastern Extension Telegraph Companies notified their acceptance of press telegrams at reduced rates to Egypt, Cyprus, Perim, Aden, Obock, India, Penang, Singapore, Labuan, Java, Cochin China, Tonkin, Annam, Manilla, and the cable offices in China and Australia at the ports of landing of the cables. The Eastern and South African Company and the African Direct Telegraph Company made a similar notification as regards their cables. From the 1st February 1898 reduced rates for press telegrams have also been introduced for certain places in Brazil, Uruguay, Argentina, Chili, and Peru.

A cable has been laid by the Direct West India Cable Company between Bermuda and Jamaica touching at Turk's Island, thus providing a direct cable route, with its stations entirely in British territory, for telegrams exchanged between the United Kingdom and Jamaica. The Eastern Telegraph Company has laid a cable of 708 miles between Vigo and Gibraltar.

With a view to establishing telegraphic connection between the island of Lucon and the islands of Negros, Panay, and Zebu, in the Philippine group, the Eastern Extension Company has laid cables for the Spanish Government, from Manilla (Lucon) to Capiz (Panay) from Iloilo (Panay) to Bacolod (Negros) and from Escalante (Negros) to Tuburan (Zebu). The cable offices on the islands of Panay and Negros respectively are connected by land lines belonging to the Spanish Government.

The Japanese Government has abolished its Tsushin Kyoku, or general office of correspondence, which comprised the postal and telegraph services, and has established in its stead two separate departments, namely, the Yumu Kyoku, or Direction-General of Post Offices, and the Denmu Kyoku, or Direction-General of Telegraphs.

The line connecting Mergui with Thayetchoung was completed on 30th April 1898. The question of its extension to Victoria Point is under consideration.

An arrangement was made with the Eastern Telegraph Company, under which, during the monsoon, daily messages were received from the Seychelles, and some long special messages from the Cape, Mauritius, and Zanzibar, giving information as to the progress of the monsoon and the meteorological conditions prevailing in the Indian Ocean.

INDO-EUROPEAN TELEGRAPH DEPARTMENT.

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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 1,719 knots of cable, 1,377 miles of line, and 3,424 miles of wire, exclusive of the Persian Government line from Teheran to Mashed, 568 miles, which is maintained by the Department.

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The administration of the Indo-European Department, which in 1888 was amalgamated with the general telegraph system of India, was re-transferred to London, with effect from 1st April 1893. It has been found convenient to maintain separate accounts for this Department, 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. 1,154,977 at the beginning of the year under review, amounted at its close to Rx. 1,153,581, a decrease of Rx. 1,396 which was due to deductions on suspense accounts.

The financial results of working the Department, as compared with the four preceding years, were as follows:—

YEAR.	Total Capital Outlay.	Gross Receipts.	Expenditure.	Net Receipts.	Percentages of	
					Net Receipts to Capital.	Expenditure to Gross Receipts.
	Rx.	Rx.	Rx.	Rx.		
1893-94	1,144,619	135,085	86,060	49,025	4.28	63.7
1894-95	1,144,288	157,042	82,680	74,353	0.50	52.6
1895-96	1,148,920	167,008	81,745	85,263	7.42	48.9
1896-97	1,154,977	148,450	77,147	71,303	6.17	51.9
1897-98	1,153,581	154,015	78,198	75,817	6.57	50.77

The total earnings of the Department show an increase of Rx. 5,565, as compared with the previous year. This is due to the fact that the traffic with India, which fell off considerably in 1896-97, more than recovered itself during the year under review. On the other hand, the traffic with places beyond India shows a slight decrease. The increase under miscellaneous revenue is due to larger sales of old cable core and other unserviceable stores.

Owing to the Joint Purse Arrangement which has existed since 1878-79 between the Department and the Eastern and Indo-European Telegraph Companies, the amount shown as gross receipts does not correspond with the actual traffic earnings of the Department, which in 1897-98 amounted to Rx. 184,944.

The Indo-European route actually carried more traffic than its fixed share under the Joint Purse Agreement, with the result that 12,314*l.* had to be refunded by the Department to the other partners, against 16,747*l.* in the previous year. There was also a further refund under the Australasian Message Fund Agreement.

From the 1st January 1894 a Supplemental Agreement came into force, which gave the Department a larger share in the receipts from Indian traffic. The proportions in which the total receipts are divided between the different parties to the Joint Purse Agreement are shown in the following statement:—

Administration.	Indian Receipts.		Trans-Indian Receipts.
	To 1894.	From 1894.	
Eastern Telegraph Company	60.39	59.82	80.53
Indo-European Telegraph Company	29.34	22.12	12.03
" " Department	17.27	18.06	7.44

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The general working of the Department continues to be very satisfactory. Only one total interruption to traffic between Teheran and Karachi occurred during the year, and only lasted 22 hours 56 minutes. The cables and land lines are, considering their age, in a sound condition. The speed and accuracy of transmission are also satisfactory.

The murder of Mr. Graves and the rising of the Baluchis on the Mekran Coast were fully reported at the time. Considerable damage was done to the land lines during the latter disturbance, but the cables fortunately worked well, and the through traffic was not interfered with. The lines have now been repaired, and the districts appear to be more settled.

CHAPTER XII.

EDUCATION, LITERATURE, AND THE PRESS.

EDUCATIONAL institutions in India are of two classes:—

- (1.) Those in which the course of study conforms to the standards prescribed by the Department of Public Instruction or by the University, and which either undergo inspection by the Department, or else regularly present pupils at the public examinations held by the Department or by the University. These institutions are called "public," but may be under either public or private management. To the latter class, for example, belong those "aided schools," receiving grants from Government or from local or municipal boards, which occupy so important a place in the primary system of Madras, Bengal, and other provinces. EDUCATION.
- (2.) Those which do not fulfil the above conditions, and are called "private."

The system of education operates, generally speaking, through three grades of institutions, viz. :—

- (1.) Primary schools, which aim at the teaching of reading, writing, and such elementary knowledge as will enable a peasant to look after his own interests.
- (2.) Secondary schools, which are divided into English and Vernacular. Those in which English forms part of the regular course of study of all the scholars, or at least of all the scholars in the higher classes, are counted as English schools; if English is an optional subject only, they are reckoned as Vernacular.
- (3.) Colleges, the students in which, having passed the matriculation examination of a University, are reading for the further examinations required for a degree.

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In Bengal the number of pupils in public institutions fell from 1,548,593 in 1896-97 to 1,504,892 in 1897-98, and the number of pupils in private institutions from 126,182 to 119,923; thus the total decrease in the number of pupils under instruction was 49,960. The number of public institutions fell from 55,640 to 53,100, and of private institutions from 12,207 to 11,413. While the number of colleges (56) remained stationary, the number of high English, middle English, and upper primary schools showed some increase, but there was a falling off in all other classes of schools. The total number of scholars (1,624,815) represents 14·8 per cent. of the total population of school-going age (as against 15·2 per cent. in 1896-97), the boys (1,520,000) representing 27·8 per cent. (as against 28·5 per cent.) of the male, and the girls (104,815) 1·9 per cent. (as against 2 per cent.) of the female population of school-going age. The decrease can hardly be accounted for by the scarcity which prevailed in some districts. Bengal.

During the year, effect was given to a scheme for the general reorganisation of the Calcutta School of Art, but negotiations for the amalgamation of the Doveton and La Martinière Colleges in Calcutta proved unsuccessful. The percentage of successful candidates throughout the province at the First Arts Examination rose from 38 to 46 per cent. (2,724 candidates entering), while 391 out of 1,588 candidates obtained the B.A. degree. The Presidency College has the best record alike for the First Arts, B.A., and M.A. examinations.

The number of girls' schools fell from 3,218 to 2,817, and the number of pupils attending them from 65,213 to 58,507. Besides these, there were 36,806 girls in boys' schools, as against 38,530.

The percentage of Muhammedan pupils to the total number under instruction fell from 28·4 to 27·4 per cent. (445,179). The number of pupils of aboriginal races fell from 37,848 to 33,708.

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EDUCATION.

The boarding-house system is being extended, and some improvement is reported in the progress of physical training. The authorities are fully alive to the grave difficulties caused by the low standard of efficiency amongst many of the masters.

The total expenditure on public instruction amounted to Rx. 1,094,249, showing a decrease of Rx. 2,614. This amount was contributed (roughly speaking) as follows:—From provincial revenues, 23 per cent.; district funds, 11·5 per cent.; municipal funds, under 1 per cent.; fees, 45 per cent.; all other sources, about 20 per cent. The expenditure was distributed as follows:—On University education, 20·7 per cent.; secondary schools, 21·5 per cent.; primary schools, 8·8 per cent.; special education, 7·9 per cent.; building and furniture, 8·3 per cent.; direction, inspection, and miscellaneous, 28·5 per cent.

North-Western Provinces and Oudh.

The total expenditure on education in the North-Western Provinces and Oudh amounted to Rx. 367,402, showing an increase of Rx. 3,412 on the expenditure of 1896–97. This sum was contributed in the following proportions: from provincial revenues, 18·9 per cent.; from local funds, 37·7 per cent.; municipal funds, 2·9 per cent.; fees, 20·8 per cent.; all other sources, 19·7 per cent. The outlay was distributed as follows:—Arts colleges, 14·4 per cent.; secondary schools, 37·3 per cent.; primary schools, 21·7 per cent.; special institutions, 2·9 per cent.; buildings and furniture, 8·9 per cent.; direction, inspection, and scholarships, 14·8 per cent. The expenditure from public funds, both provincial and district, rose, while the contributions from municipal funds and fees fell. The effects of the famine were noticeable throughout the year. Direct expenditure on education increased by nearly a lakh of rupees, but there was a considerable fall in indirect expenditure.

The number of public institutions in the provinces (6,758) showed a decrease of 110, while the number of private institutions rose by 524 to 6,154. This change is largely to be accounted for by the fact that the District Boards were unable to continue their grants-in-aid to a number of “aided primary schools” opened in 1896, which consequently are now classed as “private institutions.”

The total number of pupils under instruction in the provinces was 356,543, showing an increase of 3,702 on the numbers of 1896–97 and representing 5·07 per cent. (as against 5·02 per cent. in 1896–97) of the population of a school-going age. Of these pupils, 277,754 were in public, and 78,677 in private institutions. The 339,764 male scholars represent 9·32 per cent. of the boys of a school-going age, and the 16,779 female scholars form 0·49 per cent. of the girls. The proportions in the previous year were 9·26 per cent. of males, and 0·46 per cent. of females. As regards race and creed statistics, 74·51 per cent. of the pupils (as against 75·43 per cent.) were Hindus, and 22 per cent. (as against 21·42 per cent.) were Muhammedans. It is noticeable that among the Muhammedans the scholars represent 14·87 per cent. of boys of school-going age, and 0·74 per cent. of girls, while the corresponding percentages among Hindus were 8·05 and 0·21 per cent. respectively.

University education in these provinces sustained a heavy loss by the death of Sir Syed Ahmed Khan, Bahádur, K.C.S.I., LL.D., the founder of the Muhammedan Anglo-Oriental College at Aligarh. The statistics of the various arts colleges present no very striking feature. Out of 36 candidates for the M.A. and D.Sc. degrees, 22 were successful, while 122 out of 267 candidates obtained the B.A. It has been found that full advantage is not taken of the facilities for scientific teaching in the Muir Central College at Allahabad, which might with advantage become the centre of scientific education in the provinces. As it is, students prefer to resort to local institutions, where it is impossible to provide really efficient instruction in natural science. The number of candidates examined during the year in Sanskrit was 471 (including one woman). The average cost of each university student was Rx. 25.

As regards school education, the postponement of the English course until children have passed the “lower primary section” has led to a reduction in the number of classes and of examinations, and appears to have a beneficial result upon school-teaching. The great difficulty in the way of education is to be found in the inferiority of many of the teachers, more particularly those in Vernacular, and the lower classes of Anglo-Vernacular schools. It is stated that in the boys’ Vernacular schools “a large proportion of teachers are

hopelessly incompetent to teach the elements of their own Vernacular," while in some of the aided primary schools "some teachers are unable to write their own names." The district boards exercise, as a rule, either a very slight or a very unsatisfactory influence on education. They are reported to show an undue zeal for English education, while they insist upon retaining excessively long hours of attendance in Vernacular primary schools. One chairman of a district board considers that "control of schools by municipal boards is ruinous to all efficiency in matters of education." In Anglo-Vernacular schools some grave defects in teaching are noticed: thus it is stated that the lessons too often consist of learning by rote some passages from a text-book, while the use of unsatisfactory "keys" is common. At the same time, considerable efforts are being made to improve the efficiency of teachers.

The number of boys in Anglo-Vernacular schools is returned at 27,032 (as against 26,367 in the previous year). The income from fees in State schools has increased, and it is considered that the fees charged are not too high for the class of people which wants an English education for its children.

The Agricultural College at Cawnpore, and the Colvin School for sons of Taluqdars at Lucknow, are reported to be doing good work.

Female education continues to advance, the number of girls learning English at Anglo-Vernacular schools being now 2,650.

As regards moral and physical progress, the adoption of a system of drill in village schools is meeting with great success, and it is believed that the cultivation of games in higher schools is exercising a marked influence on the morale of the boys. The boarding-house system is being extended. The very low standard of truthfulness among both parents and teachers of many of the boys renders progress most difficult, as the children are often encouraged by them to give false excuses.

The total expenditure on education in the Punjab (Rs. 315,651) showed an increase of 2·8 per cent. on the figures of the previous year. This sum was contributed in the following proportions:—Imperial revenues, 4·2 per cent.; provincial revenues, 23·4; local funds, 19·6; municipal funds, 10·8; fees, 26·1; other sources, 15·9 per cent. The proportional expenditure was distributed as follows:—On arts colleges, 4·8 per cent.; on secondary schools, 38 per cent.; on primary schools, 19 per cent.; on special institutions, 1 per cent.; on expenses of building, &c., 0·8 per cent.; on direction and inspection, 33·5 per cent.

The number of public institutions (3,144) shows an increase of one, while the number of pupils (184,990) rose by rather more than 1,000. On the other hand, a decline of 312 is reported in the number of private institutions (5,051), and the pupils attending them (77,561) numbered 4,600 less than in 1896-97. This decline in the private institutions is attributed partly to the increasing popularity of public schools. The total number of scholars under instruction in the province is 262,551, showing a decrease of over 3,000, but the scarcity that prevailed during the year, and the frontier disturbances, explain the decrease. Of the total number of pupils, 240,522 are males and 22,029 females. The males form 14·24 per cent. of the boys of school-going age (as against 14·49 per cent. in the previous year), while the proportion of girls under instruction has risen from 1·47 per cent. to 1·52 per cent.

As regards the race and creed statistics, the Muhammedans appear to have suffered markedly from the conditions of the past year, a fall of 6,118 being reported in the number of Muhammedan pupils. The percentages of children of a school-going age stand as follows:—Muhammedans, 12·05 per cent. of boys and 1·24 per cent. of girls; Hindus, 16·41 per cent. and 1·36 per cent.; Sikhs, 18·14 per cent. and 2·39 per cent. respectively. Taking attendance at public institutions as the criterion, Muhammedans have one boy out of every 14 and one girl in 196 at school, whereas both Hindus and Sikhs have about one in every seven boys, and Hindus one girl in 87 and Sikhs one in 52 at school.

Secondary schools show an increase of 23 schools and 2,160 pupils, the numbers now standing at 325 and 59,706 respectively. Of these pupils, 57 per cent. belong to Anglo-Vernacular, and 43 per cent. to Vernacular, schools, while the pupils learning English represent 43 per cent. of the total number.

EDUCATION.

In the Entrance Examination 65·3 per cent. of the candidates passed, as compared with 55·9 per cent. in the previous year.

As regards university education, there are now 11 colleges (one of which, the Khalsa College at Amritsar, was opened during the year), with 1,364 students. The B.A. examination was passed by 142 out of 369 candidates, while nine out of 29 candidates secured the M.A. degree.

The primary schools show a fall in the number, both of institutions (2,452 to 2,420) and of pupils (108,286 to 106,713). The Zamindari Schools show a marked decline in popularity.

The report on training institutions is very satisfactory, while considerable progress has been made in technical education.

Although female education is still backward, the interest in the matter taken by the Arya Samaj and other societies is encouraging, and it appears that the number of girl pupils coming from villages is increasing. There are now 860 girls' schools with 22,029 pupils.

A most important feature in the report is the remarkable progress made in physical training, while the extension of the boarding-house system, and the increased attention paid to discipline and moral training in preference to mere examination results, are deserving of notice.

Burma.

The total expenditure, Rx. 134,379, showed an increase of Rx. 4,036 on that for the previous year, and was contributed in the following proportions:— Provincial funds, 43·2 per cent.; local funds, 11·1 per cent.; municipal funds, 12·7 per cent.; fees, 20·1 per cent.; other sources, 12·9 per cent. The outlay was distributed thus:—Arts colleges, 5·8 per cent.; secondary schools, 44·4 per cent.; primary schools, 21·4 per cent.; special institutions, 0·8 per cent.; buildings and furniture, 7·2 per cent.; direction and inspection, 20·4 per cent.

The number of public institutions fell from 4,996 to 5,235, while the private schools (which are all elementary) rose from 10,585 to 11,284. The total number of pupils under instruction (259,649) shows an increase of 4,512, but the number in public institutions (143,769) fell by about 6,000. The famine in Upper Burma necessitated the closing of many schools. The attendance of female pupils in Government schools is given as 26,578, 97 per cent. of whom were in the lower primary stage, as were 96 per cent. of the 116,086 boys who attended.

A steady improvement has been noted in secondary education, while the number of pupils attending secondary schools has risen by over 2,000 to 23,559.

As regards special classes, there are 55 Muhammedan schools, with 1,805 pupils; 501 Karen schools, with 15,338 pupils; and 51 Tamil schools, with 1,308 pupils. There are also nine Talaing schools, one Kachin school, and one Chin school.

Good work in elementary, industrial, and kindergarten teaching has been done by many of the missionary institutions. Many indigenous private schools are in the hands of the Buddhist monks, while the "Itinerant Teachers" are praised for their work.

Although the Rangoon College prospers, need of a local university is felt.

The total number of girls under instruction in the province is 32,875, showing practically no change.

Great efforts are being made in the preparation of suitable Burmese textbooks, which are urgently needed. One of the most interesting features in the report of the Director of Public Instruction is a report on the "Scheme for the Encouragement of Pali learning in Burma," which, since its inception in 1891, has made satisfactory progress.

Assam.

The total expenditure on education in Assam was Rx. 66,000, as compared with Rx. 65,086 in 1896-97. The direct expenditure fell from Rx. 49,761 to Rx. 48,453, but the indirect rose from Rx. 15,325 to Rx. 17,547. The expenditure was met from the following sources: provincial revenues, 31·58 per cent.; local funds, 30·96 per cent.; municipal funds, 1·06 per cent.; fees, 18·54 per cent.; miscellaneous, 17·86 per cent. The effects of the earthquake necessitated unusual expenditure on buildings and furniture, and have considerably hampered the progress of education in the province. The expenditure was distributed in the following proportions: arts colleges, 7 per cent.;

secondary schools, 30·3 per cent.; primary schools, 37·5 per cent.; special education, 5·4 per cent.; direction, inspection, and scholarships, 19·2 per cent.; building, furniture, &c., 6·9 per cent. EDUCATION.

The total number of scholars fell off from 103,541 in 1896-97 to 96,925, of whom 89,156 were boys and 7,769 girls. The male scholars represent 21·10 per cent. and the female scholars 1·96 per cent. of the respective populations of school-going age. The total number of institutions was 3,389 (as against 3,534 in the previous year), of which 3,107 (as against 3,225) were public and 282 (as against 309) private. Out of the total number of institutions 244 were devoted to female education.

The local boards showed little energy in educational efforts. The only arts college in the province had 24 pupils on its rolls at the end of the year, as against 27 in 1897. The total number of scholars learning English was 7,244, against 7,626 in the previous year, while 3,530 (as against 3,601) were learning a classical language. The usual defects are noticed in the teachers in primary schools. The schools under mission management continued to do good work. The number of Muhammedan pupils was 19,521 (as against 21,802). The progress of technical education is fairly satisfactory.

During the year which ended on the 31st March 1898 the Central Provinces Central Provinces suffered severely from famine, and the progress of education was seriously affected. Thus the number of schools in British territory (2,215) fell by a little over 2 per cent., and the number of pupils attending them (125,933) by about 6·5 per cent., while in the Native States, although the number of schools (277) rose by 6 per cent., the number of pupils (14,165) fell by 4 per cent. The decrease occurred almost exclusively in primary schools, and the English middle schools and colleges actually show an advance.

The total expenditure on education amounted to Rx. 101,633 (as against Rx. 105,280 in 1896-97), and of this sum Rx. 94,614 (as against Rx. 99,022 in the previous year) was expended in British territory. The decrease fell principally under the head of "buildings." As regards British territory, provincial revenues contributed 38·7 per cent. of the expenditure; local funds, 25·3 per cent.; municipal funds, 9·8 per cent.; and fees, 12·3 per cent. In British territory about 7 per cent. of the total direct expenditure was devoted to collegiate education, 36 per cent. to secondary schools, and 50·8 per cent. to primary schools. There were no "private" institutions in these provinces, and it is reported that the people are so indifferent to education that the primary schools would, without the encouragement given by Government, be deserted by most of the pupils. A separate primary course, however, has been prescribed for rural schools, and it is hoped that the objections to the education of their children felt by many of the agriculturists will thereby be met to some extent. The percentage of children under instruction to children of a school-going age is 7·04, the male scholars representing 13·27 per cent. and the female 1·13 per cent. of boys and girls respectively. In British territory 38·3 per cent. of Muhammedan boys and 1·8 per cent. of girls are at school, as compared with 15·05 per cent. of boys and 0·8 per cent. of girls among the Hindus, but the great mass of the Muhammedans are only receiving primary education. In spite of the famine and the raising of the fees by nearly 50 per cent., the strength of colleges has risen from 291 to 301. The Rajkumar college, Raipur, for the sons of feudatory chiefs and Zamindars, had 21 students (as against 23) on its rolls.

As regards female education, the work of the Zenana Missions has been excellent, but it is reported that, in the towns, female education appears to lose ground.

The Agricultural College at Nagpur has done good work. A native system of gymnastics is now taught in every Vernacular school in the Provinces.

During the year under report the Hyderabad Assigned Districts (Berar) Berar. suffered severely from famine. The number of schools fell by 72 to 1,289, and the number of pupils by 2,178 to 52,165. The decrease in the number of schools has occurred only in the case of "indigenous schools," while the decrease in pupils has affected all classes of institutions except municipal schools. The number of boys at school (48,500) represents 21·68 per cent. (as against 22·62 per cent. in 1897) of the male population of school-going

EDUCATION.

age, and the number of girls (3,665) 1·74 (as against 1·76) per cent. of the female. Of the schools, 1,284 (as against 1,356), with 51,997 pupils (as against 54,186), were "public," and five, with 168 pupils, were "private."

The total expenditure on public instruction rose from Rx. 42,457 in 1897 to Rx. 43,363, of which Rx. 34,378 was classed as "direct expenditure." Of this total sum about 17 per cent. was expended on secondary schools, and about 59 per cent. on primary schools. Provincial revenues supplied 52·6 per cent. of the total expenditure; local funds, 30·6 per cent.; municipal funds, 3·9 per cent.; and fees, 9·6 per cent. The fee receipts in primary schools show a decrease of Rx. 141. A complaint is made of irregularity in attendance on the part of many pupils. The record of female education calls for no remarks. The number of Muhammedan scholars fell from 7,461 to 7,143, and that of "aboriginal" pupils from 213 to 206. A new Protestant school for Europeans and Eurasians was opened at Amraoti.

Madras.

In Madras the total expenditure on public instruction rose from Rx. 647,869 to Rx. 689,765. This sum was expended in the following proportions:—On university education, 12·69 per cent.; on secondary schools, 30·62 per cent.; on primary schools, 30·49 per cent.; on special institutions, 7·35 per cent. (making an aggregate of 81·15 per cent. of the gross expenditure, or Rx. 559,750, on direct as opposed to indirect expenditure). The sum was contributed in the following proportions:—Provincial revenues, 28·01 per cent.; local funds, 12·04 per cent.; municipal funds, 3·33 per cent.; fees, 30·18 per cent.

The total number of pupils of both sexes under instruction rose by about 6,000 to 828,560. Of these, 719,579 were in public institutions (which numbered 21,850), and 108,981 in the 5,388 private institutions. The increase in the number of pupils occurred chiefly in the latter class. The 707,747 male scholars represent 26·78 per cent. of the male, and the 120,813 girls 4·47 per cent. of the female population, of school-going age.

As regards university education, 556 candidates were admitted to degrees in the several faculties, the number being unusually large. The "indifferent teaching throughout" the schools, and the "want of thoroughness in the lower classes and forms" are criticised in the report, which also dwells upon the "unhealthy rivalry" between schools, and the unfair promotions given to boys by masters who wish to make their schools popular.

Female education continues to make some progress, and two female candidates presented themselves for the last B.A. examination. The total number of Muhammedan students fell from 100,924 to 100,295 (or, in other words, from 29·9 to 29·7 per cent. of the Muhammedan population of school-going age), a marked decrease taking place in the number of girls at school. It is stated that missionaries have done, and are doing, very good educational work among pariahs. The number of children of "aboriginal" and hill tribes at school fell slightly to 1,830. Physical education is advancing, but much remains to be done in this respect.

Bombay.

The total expenditure in the Presidency (including Native States) on education rose very slightly to Rx. 737,686. Of this sum, provincial funds contributed 27·7 per cent.; local funds, 13·3 per cent.; municipal funds, 5·4 per cent.; fees, 19·8 per cent.; and revenues of Native States, 18·3 per cent. The expenditure was distributed as follows:—University education, 6·6 per cent.; secondary schools, 24·6 per cent.; primary schools, 45·7 per cent.

There were 9,917 public institutions (as against 10,102 in 1895–96) with 580,855 (as against 601,926) pupils, and 2,762 (as against 2,832) private institutions with 67,786 (as against 70,779). The decrease is due to the exceptional distress. The male scholars (566,171 in number) represent 27·12 per cent. of the male population of school-going age, and the 82,470 girls 4·21 per cent. of the female population.

The progress of education among Muhammedans is not satisfactory, but it is impossible to base inferences upon the statistics of a year of plague. The number of pupils on the rolls of the Ráj Kumár College rose to 42. The record of Special Education calls for no remarks.

Coorg

The year 1897–8 was from an educational, as well as an agricultural point of view, a disastrous season for Coorg. The total expenditure on education dropped from Rx. 4,152 to Rx. 3,905, while the total number of pupils fell

from 5,115 to 4,328, and the institutions from 120 (79 public with 4,696 pupils, and 41 private with 419 pupils) to 105 (77 public with 3,996 pupils and 28 private with 332 pupils). The 3,594 boys at school represent 25.98 of the male population of school-going age, and the 734 girls 6.34 of the female. The Pariahs continue to show a gratifying interest in the education of their children. EDUCATION.

LITERATURE AND THE PRESS.

The number of publications received in the Bengal Library was 2,282, showing a decrease of 2.72 per cent on 1896. This number, however, is believed to come very far short of the number of publications actually issued in the province, as there is reason to think that evasion of the registration laws has been habitual in the case of certain publishers. The question has engaged the attention of the Bengal Government, and measures will be taken to enforce the law. Of the publications registered, 675 are periodicals and 1,607 are books, 1,431 of the latter being original works. LITERATURE.
Bengal.

The 675 periodicals represent 114 distinct journals, of which 37 are in English, 13 are bi-lingual, and most of the remainder are in Bengali. Perhaps the most important of the Bengali journals are the "Sáhitya" and the "Bhárati," the latter being edited by two Hindu ladies. Two periodicals are in Sanskrit, while of the bi-lingual journals two are in English and Sanskrit, and nine in Bengali and Sanskrit. As regards books, 230 (as against 263 in 1896) were published in English, 784 (as against 752) in Bengali, 50 (against 54) in Sanskrit, 24 (against 13) in Urdu, 92 (against 106) in Hindi, 180 (against 156) in Uriya, while there have been a few bi-lingual and tri-lingual books, and the Arabic, Assamese, Garo, Khási, Manipuri, Musulmani-Bengali, Nepalese, Persian, Santali, and Tibetan languages are represented by a few works in each. The Bengal Librarian considers that Bengali literature is passing through a period of decline, since no worthy successors to such Bengali writers as Iswar Chandra Vidyásagar, Bhúdeb Mukherji, and Bankim Chandra Chatterji have as yet appeared, and the younger writers have, as a rule, little knowledge of the great Sanskrit models. At the same time, there is a great amount of literary activity, and the vernacular writers deal with all manner of subjects, and "desire to assimilate, and disseminate in a suitable garb among their countrymen," the knowledge gained from European sources. The Bengali books published during the year include 43 dramas (as against 34), 57 works of fiction (against 83), 34 books on history (against 37), 179 treatises on language (against 149), 132 volumes of poems (against 99), and 123 religious works (against 117). Of the last class, 54 belong to Hinduism and the same number to Christianity. A very large proportion of the lighter works are devoted to various forms of social satire.

The total number of publications received in 1897 was 1,466 (against 1,233 in 1896). These were in the following languages: English, 91 (against 105); Urdu, 508 (against 514); Hindi, 354 (against 230); Sanskrit, 43 (same number as previous year); Arabic, 16 (against 22); Persian, 63 (against 71); polyglot and bi-lingual, 333 (against 240), of which 109 were in Arabic and Urdu, 70 in Sanskrit and Hindi, 47 in Persian and Urdu, and 15 in Arabic and Persian; minor vernaculars (including Punjábí, Bengali, Nepali, Maráthi, &c.), 58. North-Western
Provinces and
Oudh.

As regards the subject-matter, 335 works were educational, many of which were mere "keys," while of the other publications 413 works were devoted to religion, 222 to poetry, 64 to fiction, 29 each to history and medicine, 21 to law, and there were 17 biographies and 20 dramas. A general improvement in tone is reported in the works of fiction. As regards religious works, the Arya Samaj has shown increased activity, and the Jains have for the first time issued religious works to the general public. Urdu poetry continues to be mainly erotic. Ten new periodicals were started during the year, and 13 old ones discontinued.

The number of publications registered during the year in the Punjab rose from 971 to 1,074, the increase taking place mainly under the heads of religion and poetry. The number of English publications was 101 (against 80); Urdu, 471 (against 411); Punjábí, 234 (against 208); Hindi, 77 (against 71); Punjab.

LITERATURE.

Arabic, 31 (against 21); Persian, 22 (against 29); Sanskrit, nine (against seven); minor vernaculars (including Sindi, Kashmiri, and Pashto), 31; bi-lingual and polyglot, 98.

Of the books, 280 (against 256) are devoted to poetry, 271 (against 194) to religion, 96 to language, 85 to law, 36 to fiction, and 22 to biography. The works of fiction are, as a rule, of a degraded type. Of the works on religion, 140 are Mohammedan, while in the Punjab, as well as in the North-West Provinces, the increased activity of the Arya Samaj and the Jains is a noticeable feature. Only 17 works deal with the Sikh religion. Amongst the miscellaneous works, the account of a tour in Europe and America, written in Urdu, by H.H. the Rajah of Kapurthala, calls for attention. There were 96 periodicals, of which 62 were religious.

Assam.

Only six works were registered in Assam in 1897, against 15 in the previous year. These were all written in the Assamese language. The literary depression is attributed to the effects of the terrible earthquake which occurred in June 1897.

Central Provinces.

In the Central Provinces 52 publications (as against 34 in 1896) were registered, of which 42 were in Hindi, one work (educational) in English and Hindi, five in English, and four in Maráthi. Fourteen of the Hindi publications were poetical.

Bihar.

In the Hyderabad Assigned Districts 11 publications were registered, as against 13 in 1896. These were all in the Maráthi language.

Mysora

In the station of Bangalore five books were published (three in Canarese and one each in Tamil and English). In the State of Mysore 113 (against 135) works appeared, of which 80 were in Canarese, six in Sanskrit, 18 in Sanskrit and Canarese, and three in English. There were no publications in Coorg.

Bombay.

The total number of works registered in the Bombay Presidency was 1,036 (as against 1,384 in 1896), the decrease being attributed to the prevalence of plague in Bombay and other towns. Of the 605 books, 178 were in Gujaráti, 147 in Maráthi, 53 in English, 43 in Hindi, 28 in Sanskrit, 15 in Canarese, 15 in Sindi, 10 in Urdu, five in Persian, three in Márwádi, two in Konkani, and two in Arabic, while 104 were bi-lingual or polyglot (Sanskrit-Hindi being the most general combination). The 431 periodicals included 117 English, 141 Gujaráti, 130 Maráthi, and 11 Sanskrit publications.

The Gujaráti books include several novels of Parsi life, and two translations of romances by Mr. Rider Haggard, while among the Maráthi books may be noticed a hand-book on shorthand, a guide to tailoring (each marking a new departure in Maráthi writings), translations of two volumes in the "Rulers of India" series, a noteworthy life of Raja Sir Dinkar Rao, the Gwalior statesman, and a translation of Professor Max Müller's Lectures on Religion, the theories of which, it is remarked, "must necessarily appear to orthodox Hindus to be grotesque."

Madras.

The total number of publications in the Madras Presidency was 951 (against 969 in 1896), of which 769 were books and 182 periodicals. The decrease is only apparent, as several periodicals which in 1896 were received *seriatim* were this year delivered in bound volumes. The comic stories in the Telegu "Chamatkarakathakallolini" are praised, while works on religion and philosophy form about one-fifth of the total number of publications. When classified according to language the various works stand as follows:—Telegu, 276; English, 223; Tamil, 200; Sanskrit, 57; Canarese, 42; Malayalam, 32; Urdu, two; Arabic, Latin, Italian, Maráthi, Tulu, Badaga, and Uriya, one each; bi-lingual and polyglot, 112 (Sanskrit-Tamil, with 29 works, occupying the first place).

Burma.

In Burma there were 59 publications (as against 73), of which 23 were religious and 16 educational. There were 24 books in Burmese, seven in English, three in Sgau-Karen, one each in Kachin, Tamil, Pwo-Karen, and 22 bi-lingual (15 of which were in Pali and Burmese). The only work of special interest is Captain Grant's "Orchids of Burma."

CHAPTER XIII.

EMIGRATION AND MIGRATION.

I. EMIGRATION.

EMIGRATION.

THE Port of Calcutta was opened in 1897 for Emigration to British East Africa. The British colonies of Demerara, Natal, Mauritius, Trinidad, and Fiji, and the Dutch colony of Surinam, continued to indent for labourers. The total number of adult labourers requisitioned by British colonies (7,024) was 1,752 less than last year, but the supply exceeded the demand by 155½* statute labourers. Surinam requisitioned 590 labourers, who were despatched in January 1898.

The number of emigrants registered was 12,315 (as against 16,439 in 1896), giving an average of 22 per recruiter. Of these, 7,151 were Hindus, and 56 per cent. were recruited in the North-Western Provinces, 24 per cent. in Oudh, and 19 per cent. in Bengal and Behar. The recruiters for Fiji secured the largest average of emigrants (48 souls each), while those of Demerara recruited the lowest number (only 10 each on an average). Of the 539 recruiters' licenses issued (as against 755 in 1896), only 3 (as against 12) were cancelled for misconduct.

The number of intending emigrants left over from last year was 176, which brought the number for disposal in 1897 up to 12,491. But of these, 2,677 were never sent to Calcutta. In addition to these, 1,442 (as against 2,611 in 1896) were rejected as unfit, 460 deserted, and two died. Of the remainder, 153 remained in the sub-depôts at the close of the year, and 239 were not accounted for. In the end, 9,411 (or 75 per cent. of those recruited) actually arrived in Calcutta.

The number accommodated in the depôts was 9,809 (as against 12,796), but among these the number of casualties and discharges amounted to 1,553 (or 15·83 per cent., as against 18·31 per cent. in 1896). Of the remaining 8,256 souls, 7,589 were shipped, and 667 left over in the depôts.

These emigrants were despatched to the various British colonies (the Surinam labourers not being shipped until 1898) in the following proportions:—To Natal, 38·23 per cent.; to Trinidad, 24·39 per cent.; to Fiji, 17·56 per cent.; to Demerara, 15·73 per cent.; to Mauritius, 3·99 per cent. These numbers included 149 returned emigrants, of whom 69 went to Demerara, 62 to Natal, and 18 to Fiji.

Adult men constituted 46·30 per cent. of the emigrants, and adult women 34·22 per cent. The number of ships employed was 16, of which nine were steamers (as against 19, of which six were steamers, in 1896), but steamers were employed only for the Mauritius and Natal voyages. The mortality on board amounted to 76 per cent., as against 1·26 per cent. in 1896.

The number of time-expired emigrants who returned during the year was 3,750, as against 3,926 in 1896. There were 95 deaths on the homeward voyage, and 30 of the returned emigrants were lepers, 19 of these coming from Trinidad. The aggregate of savings brought back was Rx. 45,186, the general average being Rx. 12 (as against Rx. 17), and the particular averages varying from Rx. 21, in the case of Trinidad, to Rx. 2 in that of Mauritius. One emigrant returned, with no savings, from the French colony of Réunion.

The number of British Indian emigrants resident in various colonies is stated (in round figures) as follows:—

Mauritius	-	-	-	-	-	113,000
Demerara	-	-	-	-	-	111,000
Trinidad	-	-	-	-	-	78,000
Natal	-	-	-	-	-	45,000
Jamaica	-	-	-	-	-	14,000
Fiji	-	-	-	-	-	10,000
Surinam (Dutch)	-	-	-	-	-	11,000
Réunion (French)	-	-	-	-	-	21,000

* For statute purposes each adult emigrant is considered equivalent to two children.

EMIGRATION.

Immigration to Réunion was suspended in 1882. This table takes no account of the considerable numbers of Indian emigrants resident in the Straits Settlements, the Protected Malay States, and Ceylon, and the smaller numbers in Borneo, East Africa, the French West Indies (to which immigration has ceased), and some of the smaller British West India Islands, such as St. Lucia.

Madras.

Agencies were maintained at Madras by the Mauritius and Natal Governments, and the condition of the depôts and health of the emigrants were satisfactory. The number of admissions to the Mauritius depôt was 189 (as against 378 in the previous year), and of this number 123 (against 242) were despatched to Mauritius, the percentage of women to men being 34·2. The number of emigrants to Natal rose from 1,151 in 1896 to 3,123, out of 5,657 recruited; the number medically rejected being 1,167. The percentage of women to men was 41·62.

The number of indentured emigrants that started from Negapatam for the Straits Settlements was 2,962, as against 2,861, while the number of free passengers from various Madras ports was 18,179 (as against 17,613).

For Ceylon 166,186 emigrants embarked (as against 119,912 in 1896). During the year under report 261,473 British subjects left the Presidency for countries outside British India.

Mauritius repatriated 418 emigrants, with aggregate savings of Rx. 497; Natal, 127, with savings of Rx. 2,770; and Réunion, 51, with savings of Rx. 202. Besides these, 118,046 emigrants returned from Ceylon.

Bombay.

The number of labourers that left Bombay and Karachi for Uganda during the year was 1,713.

A broker was fined Rs. 1,000 for unlawfully taking coolies to Beira for employment in Rhodesia, and a Parsee was punished for attempting to ship coolies to Delagoa Bay.

The spontaneous emigration from India to Africa continued unabated, and comprised labourers and artisans of every kind.

II. MIGRATION.

MIGRATION.

Assam.

The large number of 95,931 immigrants, including children, entered Assam in 1897, the figures showing an increase of 14,816, or 18·3 per cent., over those of 1896. These figures represent only the labourers who entered the province to work on tea-gardens and coal-mines, and do not include the "free labourers" who are employed upon the Assam-Bengal Railway. The increase in immigration took place almost entirely in the Assam Valley, and may be attributed to scarcity in India, as is shown by the fact that 31,486 women and 29,603 children were included amongst the immigrants.

The number of "free labourers" not under contract (the term includes all coolies not enlisted under the Emigration Act) was 53,064, more than half of whom went to the Assam Valley. Besides these, 14,992 coolies entered into contracts at Dhubri, after entering the Assam Valley, and 2,250 more did not contract until they arrived in the various labour districts; so that only 25,625 in all were originally enlisted under the Emigration Act.

A further development in recruiting took place in the Central Provinces, where 19,876 adults were engaged, as against 17,285 in 1896. When the Act was extended to these provinces in 1893, only 876 coolies were engaged. The number of immigrants from Bengal rose to 34,926, the chief increase occurring in Chota Nagpore, the division that provides the most suitable class of coolies for labour in Assam. A large fall is reported in recruitment in the North-Western Provinces. It is well-known that coolies from these provinces suffer to some extent from the climate of Assam, and certain gardens have recently been closed to them by Government. A few of the immigrants came from Madras and Bombay.

While the "contractors' recruits" are falling off in number, those enlisted by "garden sardars" were more than double last year's total. The sardari system is in several respects the more satisfactory, and its expense is diminishing. Thus, in 1897, each sardar recruited, on an average, 5·4 labourers, as against only two labourers in 1896.

As regards the medical statistics, the percentage of coolies rejected on physical grounds at Dhubri rose from 3·2 in 1896 to 8·1 (which approximates to the percentage for 1895, viz., 8·6). This was only to be expected from the character of the year, the chief recruiting grounds being affected with scarcity or famine, and the physique of the emigrants generally consequently impaired.

The outbreak of cholera amongst the immigrants, mentioned last year, was more severe than was then believed. It was ascribed in part to insanitary transport arrangements, and steps have been taken to improve these.

Only 70 contracts were cancelled on account of "fraudulent enlistment," but 99 were annulled on the ground of permanent incapacity to labour, and contracts cancelled by "mutual consent" increased from 1,250 to 2,250.

The number of "local contracts" made within Assam (not including those entered into by newly-arrived immigrants at Dhubri) amounted to 29,988, about one-half of these being for one year only. Almost all these contracts indicate the re-enlistment of time-expired coolies.

The question of wages has engaged the attention of Government, and efforts are being made to induce the planters to agree to an increase of the legal minimum rate of wage, which, by the Act of 1882, stands at a monthly wage, for a completed daily task, of five rupees for a man and four rupees for a woman during the first three years of contract, and six and five rupees respectively during the fourth and fifth years. Apart from the fact that in many cases labourers do not work for the fixed number of working-days, and therefore earn less than the sum which must be paid for a completed month of working days, prices have risen considerably in Assam since 1882.

The number of coolies convicted of rioting fell from 243 to 190. Excluding cases of desertion, which are treated separately, there were 129 breaches of the Act of 1882 on the part of employers or labourers. Many of these offences (which stand at the same figure as in 1896) were merely technical. Under the Fraudulent Breach of Contract by Labourers Act there were 156 convictions, as against 199 last year, but this figure represents only about 1 per cent. of the absconders. The increase in the number of desertions was considerable (from 17,595 to 23,670), the figures representing 4·4 per cent. of those engaged in healthy gardens, and 6·64 per cent. in unhealthy (as against 3·58 per cent. and 6·22 per cent., respectively). The number of desertions amongst contract-labourers reported under the Act of 1882 was 6,432 (as against 5,676 in 1896); the number of convictions, in cases brought into court, fell from 712 to 639. The number of gardens classed as unhealthy was 119, compared with 46 in 1896. The death-rate was 41·4 per 1,000, which, though high, compares favourably with the death-rate of 50·61 for the whole province. The year was a very unhealthy one, but the immigrants suffered less than might have been expected. The most prevalent complaints were dysentery, malarial fever, and anæmia. The birth-rate, though still low, increased slightly.

The number of immigrants decreased considerably, the figures at the various Burma ports standing as follows:—Akyab, 15,925 (against 16,527); Rangoon, 106,374 (against 114,625); Moulmein, 644 (against 733); Kyaukpyu, 468 (against 2,732).

At the same time the numbers leaving Burma increased, the figures for emigrants being: Akyab, 14,359 (against 17,894); Rangoon, 75,998 (against 66,469); Moulmein, 847 (against 1,256); Kyaukpyu, 437 (as against 1,309).

The number of free emigrants to Burma increased by nearly 17 per cent. to 71,170. The number of indentured emigrants to Assam rose from 967 to 1,044. The number of emigrants returned from Burma was 36,554 (as against 35,517), while 49,100 (as against 65,297 in 1896) returned from other parts of British India.

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 1898, was valued as follows:—

		Tens of Rupees.				
BY SEA.		1893-94.	1894-95.	1895-96.	1896-97.	1897-98.
		Rx.	Rx.	Rx.	Rx.	Rx.
Private Imports :						
Merchandise - - -		73,956,957	70,167,438	69,316,395	71,914,697	69,420,120
Treasure - - - - -		18,425,266	9,559,007	13,353,986	13,075,353	20,476,286
		92,382,213	79,726,445	82,675,381	84,990,050	89,896,406
Private Exports :						
Foreign Merchandise re-exported - - -		4,431,975	5,067,414	4,717,516	4,033,637	3,751,173
Indian Merchandise -		102,015,615	108,757,585	109,545,624	99,880,660	93,786,101
Treasure - - - - -		4,024,737	8,158,017	4,232,301	4,925,891	7,134,169
		110,472,327	116,973,016	118,496,441	108,840,188	104,671,442
Government Transactions :						
Imports { Stores - - -		3,064,475	3,361,555	3,620,358	4,189,251	4,240,340
{ Treasure - - -		36,000	22,200	9,000	9,210	54,331
Exports { Stores - - -		55,779	98,779	71,598	69,799	95,508
{ Treasure - - -		75,455	68,055	27,510	11,605	14,478
		3,231,709	3,550,589	3,728,466	4,279,865	4,404,657
TOTAL Trade by Sea -		206,086,249	200,250,050	204,899,288	198,110,103	198,972,505
BY LAND.						
Imports - - - - -		4,351,251	4,931,538	4,974,286	5,637,527	5,634,455
Exports - - - - -		3,698,321	4,254,198	4,280,297	4,937,071	4,918,021
GRAND TOTAL of Trade by Land and Sea -		214,135,821	209,435,786	214,103,871	208,684,701	209,514,981
Excess imports of treasure - - - - -		14,361,064	1,355,195	9,108,175	8,147,067	13,361,970
Net excess of exports over imports of merchandise, Government transactions, and treasure - - - - -		15,120,900	34,029,800	32,289,800	19,733,100	10,390,300
India Council Bills paid in India - - - - -		16,422,700*	28,884,100	33,080,900	25,227,900	15,561,900†

India's trade in 1897-98, as in 1896-97, was adversely affected by the drought of 1896, which caused failure of harvests and famine over a large part of India, and by the plague which hindered trade and business of all kinds in Bombay during the latter part of the year. During the first half of the year

* During 15 weeks of the year 1893-94 no Council Bills were sold.

† As in previous years, the Council Bills and Telegraphic Transfers actually paid during the year in India are given; the Bills actually drawn and the Telegraphic Transfers granted by the Secretary of State on India during the year 1897-98 amounted to Rx. 14,812,800, yielding 9,506,077½, at an average rate of 15·402 pence per rupee.

the export trade was still suffering the effects of the bad crops of 1896; and the excellent crops of 1897 were late, so that the increased exports of agricultural produce took place for the most part after the close of the financial year. TRADE.

The returns for the later part of the year were affected by the reappearance of the plague in Bombay; and the quarantine restrictions impeded trade operations. A further impediment was the stringency of the money market, the Bank of Bengal rate was 10 per cent. during the first 2½ months of 1897-98, and, after sinking to 5 per cent. in July, rose from 10 to 12 per cent. between January and the end of March. The fall in the value of exported merchandise was 6 millions of Rx., or about 6 per cent. There was a decrease of 2½ millions, or 3·8 per cent. in the value of merchandise imported. There was, however, so large an increase in the movements of treasure that the total of private trade, imports and exports included, shows an increase of 38 per cent. as compared with the previous year, and was only 3·28 per cent. less than the trade of 1895-96, which was a good year.

The trade across the land frontier of India was valued at Rx. 10,552,000, about the same figure as that of the [preceding year, which had shown the largest trade till then recorded. Trade by land to and through Afghanistan, Bajaur, Kashmir, and Western China, showed a decrease. Trade with Nepal, Siam, and the Shan States increased.

The coasting trade between Indian ports more than recovered the falling-off of the previous year, being valued at Rx. 75,859,000 in 1897-98, as compared with Rx. 74,605,000 in 1895-96. The increase was chiefly due to the supply of 614,000 tons of rice from Burma to the rest of India. Eighty per cent. of the coasting trade of India is now carried by steamers.

The value of the chief articles imported to, and exported from, India in the past four years, exclusive of re-exports, is as follows:—

VALUE OF CHIEF ARTICLES OF IMPORT BY SEA (exclusive of Treasure).

	Tens of Rupees.			
	1894-95.	1895-96.	1896-97.	1897-98.
Cotton woven goods - - -	29,822,000	22,784,000	26,424,000	22,902,000
Metals and hardware - - -	6,840,000	8,196,000	7,021,000	7,688,000
Oils, chiefly petroleum - - -	2,221,000	3,137,000	3,439,000	4,147,000
Silk, raw and manufactured - - -	2,314,000	2,937,000	2,242,000	1,819,000
Cotton yarns - - - - -	2,851,000	2,971,000	3,326,000	3,493,000
Sugar - - - - -	2,875,000	3,107,000	3,152,000	4,784,000
Machinery and mill work - - -	2,442,000	3,237,000	3,510,000	2,861,000
Provisions - - - - -	1,664,000	1,785,000	1,537,000	1,706,000
Chemicals, medicines, dyes - - -	1,866,000	2,161,000	1,890,000	2,061,000
Woollen goods - - - - -	1,542,000	1,446,000	1,693,000	1,148,000
Liquors (alcoholic, including beer) -	1,458,000	1,690,000	1,645,000	1,588,000
Apparel - - - - -	1,485,000	1,594,000	1,516,000	1,227,000
Railway material - - - - -	1,557,000	1,521,000	2,662,000	2,876,000

The chief feature of the figures of 1897-98 was the great falling-off in cotton fabrics, amounting to 13 per cent. The prices of cotton goods were low, dyed cottons especially low, and it is stated that the market had been overstocked in the previous year. The imports of silk, machinery, woollen goods, liquors, and apparel also declined. The most noticeable increase was in sugar imports, whose value increased over 50 per cent., while the quantity was 61 per cent. greater than in 1896-97; Mauritius sugar still holds first place but the market was flooded with beet sugar from Austria-Hungary and Germany, diverted from the United States by the tariff legislation in that country. In the year under report 45 per cent. of the total sugar imports came from those two countries, as against 27 per cent. in 1896-97.

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VALUE OF EXPORTS BY SEA (exclusive of re-exports of Imported Goods).

TRADE.

	Tens of Rupees.			
	1894-95.	1896-96.	1896-97.	1897-98.
Raw cotton	8,703,000	14,090,000	12,970,000	8,871,000
Rice	13,692,000	13,431,000	11,850,000	11,587,000
Oilseeds	14,202,000	9,717,000	8,612,000	8,594,000
Jute, raw and woven	14,788,000	14,740,000	15,765,000	16,060,000
Opium	9,065,000	8,459,000	8,023,000	6,098,000
Wheat	2,565,000	3,914,000	836,000	1,342,000
Cotton yarns	5,672,000	6,731,000	7,173,000	6,955,000
Tea	7,556,000	7,665,000	8,126,000	8,059,000
Hides and skins	6,560,000	7,639,000	7,001,000	8,318,000
Indigo	4,740,000	5,355,000	4,971,000	3,057,000
Coffee	2,122,000	2,198,000	1,585,000	1,519,000
Cotton woven goods	1,360,000	1,463,000	1,204,000	1,065,000
Wool, raw	1,877,000	1,953,000	1,241,000	1,359,000

The table shows a general decline, which is most marked in the case of cotton, opium, and indigo. To the causes already mentioned as obstructing trade can be added, in the case of these staples, the necessity of increasing the breadth sown with food grains. Of the cotton exported, Japan took 35 per cent., which is not so much as in 1896-97, but considerably more than in previous years. The good crops of grain which were obtained in 1898 hardly affect the returns of 1897-98, so that the wheat exports only very partially recover. The chief increases occurred in hides and skins and in jute manufactures. The prices of almost all staples declined considerably.

Lower Burma, the chief rice-exporting province of India, had a good rice harvest, and a full exportable surplus, so that though the amount sent to India was almost doubled, the exports to foreign countries only fell to a slight extent.

India's trade in merchandise with gold-standard countries was, in the year of the closing of the Mints 77 per cent. of her total trade; since then it has fallen to 75 per cent., but stood at 76.4 per cent. in the year under report, owing to the inclusion of Japan among gold-standard countries. The proportion of trade directly with European countries, was 65 per cent. as in the previous year, omitting the four crores trade with Egypt, much of which really goes to Europe. The trade with the United Kingdom was 70 per cent. of the trade with Europe, and 46 per cent. of the total trade, against 47.2 per cent. in 1896-97.

The value of India's trade with some of the chief countries has advanced or decreased thus:—

	Total Value.			
	1891-92.	1895-96.	1896-97.	1897-98.
	Rx.	Rx.	Rx.	Rx.
United Kingdom	82,812,000	83,904,000	83,094,000	76,818,000
France	12,009,000	9,657,000	7,288,000	6,526,000
China	16,701,000	16,755,000	15,968,000	13,918,000
Germany	5,254,000	10,413,000	9,855,000	9,623,000
Straits Settlements	7,608,000	8,285,000	7,172,000	6,973,000
Belgium	6,790,000	6,682,000	5,463,000	5,324,000
Italy	3,540,000	3,561,000	3,535,000	3,198,000
Ceylon	3,396,000	4,214,000	3,927,000	5,170,000
Japan	1,861,000	3,237,000	4,642,000	4,708,000
United States of America	5,079,000	7,053,000	6,286,000	7,307,000
Russia	1,370,000	2,269,000	2,446,000	2,290,000
Austria-Hungary	3,020,000	4,076,000	3,991,000	4,253,000

The five last-named countries alone show any increase in their trade with India, all others showing a greater or less decrease; but the chief feature of

the year is the fall in trade with the United Kingdom, amounting to $7\frac{1}{2}$ per cent., a large part of which is due to a weaker demand for cotton fabrics. TRADE.

Among the maritime provinces of India the Bombay Presidency had 31.13 per cent. of the foreign trade in merchandise, Bengal had 43.83 per cent., Madras had 10.67 per cent., Burma had 8.78 per cent., and Sindh had 5.53 per cent. Among the chief seaports Bombay had 38.14 per cent., Calcutta 39.29 per cent., Rangoon 6.44 per cent., Madras 5.27 per cent., and Karachi 4.95 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 Calcutta was considerably ahead of Bombay, the former showing 72 millions and the latter 52 millions as the total value of their export and import trade, the figure for Bombay having decreased eight millions as compared with the previous year.

The net imports of treasure were above those of the previous year. The statistics for 1897-98 show a net importation of Rx. 1,382,000 of treasure into India, as compared with a net import of Rx. 8,147,000 in 1896-97, Rx. 9,108,000 in 1895-96, Rx. 1,355,000 during 1894-95, and Rx. 14,361,000 during 1893-94. The 5 per cent. duty on silver imports yielded Rx. 434,000 of customs revenue, as compared with Rx. 326,000 in the previous year. The net gold importations were valued at Rx. 4,908,000, as compared with net gold imports of Rx. 2,292,000 in 1896-97, Rx. 2,526,000 in 1895-96, and Rx. 4,974,000 in 1894-95.

MANUFACTURES.

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 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. MANUFACTURES.
General.

At the end of the year 1897-98 there were 163 cotton mills worked by steam, of which nine were opened and three were not worked at all during the year; 114 of the mills were in the Bombay Presidency; and the whole represented a nominal capital of more than Rx. 15,000,000. Fourteen of the mills are situate in Feudatory States or in French territory. The cotton mills employed a daily average of over 148,000 hands. They contained 36,946 looms and 4,210,756 spindles. The cotton mills of India are said to have used during the year 4,646,000 cwts. of cotton. This industry dates from 1851, when the first mill was started. Eighteen years ago there were in India 58 cotton mills, employing 39,537 hands, working 13,307 looms, and 1,470,830 spindles, and representing a capital of Rx. 5,300,000. The industry has thus increased nearly threefold since the year 1879.

Information regarding the working of these mills is available only for the factories in British territory. The output of yarn, so far as reported, during the last three years was:—

	Counts above 20s.	Lower counts.	Total.
1895-96	41,858,000 lbs.	390,494,000 lbs.	432,352,000 lbs.
1896-97	55,361,000 „	367,884,000 „	425,185,000 „
1897-98	62,543,000 „	400,053,000 „	462,596,000 „

The Bombay Presidency produced 70 per cent. of all the yarn; Bengal, 9 per cent.; Madras, a little over 7 per cent.; the North-West Provinces, 6 per cent.; and the Central Provinces, 4 per cent. The proportion of higher-count yarns, $13\frac{1}{2}$ per cent. of the whole, was larger than in the previous year. The plague in Bombay city had seriously affected production at the end of 1896-97, but

MANUFACTURES.

with the abatement of the epidemic and the return of the mill-hands the industry recovered in the second quarter of 1897-98. The out-turn of the Bombay mills was $7\frac{1}{2}$ per cent. above that of 1896-97, and slightly in excess of that of 1895-96. The production of woven goods by mills in India was $91\frac{1}{2}$ million lbs., of which $73\frac{1}{2}$ million lbs. were from the Bombay Presidency. There is hardly any weaving done by factories in Bengal; Madras and the Central Provinces each contribute 6 per cent. of the woven goods. These goods are mainly unbleached grey fabrics; only in Madras did any material portion of the weaving consist of finer goods, and there these fabrics were 21 per cent. of the production.

The number of jute and hemp mills was 34, excluding one closed early in the year owing to damage by earthquake, as compared with 32 in the previous year; all but three (of which one is in the French settlement of Chandernagore) are in Bengal; of the other two, one is at Cawnpore, and the other—the only hemp mill—is at Vizagapatam. The capital employed by these mills is about Rx. 4,900,000. They employed 96,000 hands, on 13,615 looms and 274,907 spindles. In 1879-80 the corresponding figures were 22 mills, 27,000 hands, 4,946 looms, and 70,840 spindles. There were five woollen mills at work at the end of 1897, containing 19,856 spindles, and 548 looms, and producing goods valued at more than Rx. 250,000 a year. The fabrics consist chiefly of blankets, serges, and cloths worn by the Army and the police.

There are about 74 large rice mills for husking and cleaning rice, and about 65 large saw mills, most of which are in Burma, employing about 48,000 hands; the amount of white or fully-cleaned rice produced by the rice mills continues to increase. Of the ten paper mills in India, one at Gwalior and another at Bombay were not worked during the year. For seven out of the ten factories the nominal capital was Rx. 627,000. Most of the paper used in Government offices is now obtained from Indian mills; and the value of papers imported into India in 1897-98 was Rx. 322,000 as compared with Rx. 378,000 in 1896-97. The produce of the ten paper mills was 39 million lbs. in weight in the year 1897, against 41 million lbs. in 1896 and 18 million lbs. in 1887, and it was valued at Rx. 568,000. The paper factories employed 3,532 hands, and the materials they used were chiefly moonj grass, jute and hemp cuttings, straw and rags of different kinds. Small paper works, making common paper without machinery, exist in several provinces, but for these petty industries no statistics are available. In 1897 there were 26 breweries at work, which produced during the year 5,309,000 gallons of beer and porter, or 1,004,000 gallons less than they yielded in the previous year. The Commissariat Department bought 2,589,000 gallons of this malt-liquor, as compared with 3,385,000 gallons purchased in 1896, for the use of European soldiers. The largest brewery was at Murreo in the Panjab Himalayas, and the output of that concern was 747,000 gallons in 1897. The quantity of beer imported into India averaged 2,970,000 gallons a year during the past three years, or more than one-half the quantity produced in the country.

Among other "large industries," which are shown in the Indian Returns for 1896, may be mentioned:—

Silk mills - - - -	7	Oil mills and wells - - - -	174
Soap factories - - - -	23	Flour mills - - - -	72
Tanneries - - - -	151	Ice factories - - - -	41
Iron and brass foundries - -	86	Pottery and tile factories - -	109
Sugar factories (large and small)	96	Bone-crushing factories - -	16
Coffee works - - - -	56	Tobacco and cigar factories - -	42
Cotton ginning factories, cotton presses, and jute presses -	674	Silk filatures - - - -	68
Cotton and woollen spinning and weaving establishments, not classed as mills - - - -	20	Glass factories - - - -	4
Rope factories - - - -	18	Saltpetre refineries - - - -	1,745
Cutch and lac factories, large and small - - - -	134	Dye works - - - -	7
		Indigo factories, large and small - - - -	7,612
		Jute presses - - - -	91

In the ensuing paragraphs the figures given are, wherever it is possible, those for 1897-98; but in some cases the information has not been received, and the figures for 1896-97 are given. MANUFACTURES.
B

Bengal contains jute mills, cotton mills, paper mills, collieries, iron and brass foundries, including the only large ironworks in India, and the largest pottery factory in India, besides factories for lac, sugar, rope, indigo, and saltpetre, tanneries and foundries. The coal output of 1897 was larger than ever. The mica industry and the large pottery works at Raniganj continued to do well, and the Barrakur iron works made an important forward movement, the sales of pig-iron and castings having been valued at Rx. 123,000, against Rx. 75,000 in 1896-97 and Rx. 44,000 in 1895-96.

A "Monograph on the Cotton Fabrics of Bengal" was prepared under the orders of Government, from which the following facts are taken:—Hand-loom manufacture of cotton continues to decline, and exports are insignificant; only special cloths, of Dacca, Fareshdanga, or Santipur, or else very coarse cloths, are now woven to any extent. These are made in most cases from machine-made thread. In the census of 1891, over a million persons were found to be dependent on the cotton industry of Bengal, being far more than for any other industry. But it is reported that the numbers are steadily decreasing. A great number of the weaver class have taken to other pursuits, and the indigenous spinning industry has been all but annihilated.

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. The ordinary industries supply for the most part only local needs. There are six cotton mills, four of them at Cawnpore, which in 1897-98 contained 1,638 looms and 257,622 spindles, giving employment to 7,496 persons. North-West
Provinces.

In the Punjab there are few large industries apart from agriculture. As has been mentioned in previous Statements, the Punjab Government published during the four years 1889-92 monographs on some one of the principal indigenous industries of the Province, namely, upon the brass and copper industries, upon work in gold and silver, upon the fibrous plants of the Punjab other than cotton, and upon the leather industry. The large industries of the Punjab are, one woollen and four cotton mills, two breweries, 64 cotton pressing and ginning factories, seven flour mills, one large sugar concern, and five iron foundries. Punjab.

The large industries of Burma are 70 rice mills, 42 saw mills, one petroleum refinery, and three ironworks for working imported iron and steel, not for smelting iron ore, one cotton press, and one oil press. All these are worked by steam. There are also three shipbuilding yards and six catch factories. Among the more important local and indigenous industries are boat-building, weaving, gold and silver work, wood-carving, cigar-making, *ngapi* or fish-curing, pottery, lacquer-work, brass-work, and marble-work. Burma.

The large industries of the Central Provinces are six cotton mills, of which one is situate in the chiefship of Nandgaon, and another—the Empress of India Mill at Nagpore—is the most successful concern of its kind in India. They contain 1,708 looms, and 124,610 spindles, and employ 6,930 persons, of whom 4,830 are adult males; 18½ million lbs. of yarn and 5 million lbs. of woven goods were produced during 1897-98, 14 per cent. of the yarn being of counts above 20; the output, as compared with the previous year, showed a slight increase. Besides the cotton mills, 28 other steam factories, including two collieries, were at work during the year. The usual domestic industries are practised in the Central Provinces; but there has been no revival of the cottage industry in embroidered or fine cloths for which the Nagpur country used to be celebrated. Central Provinces.

The production of tea continues to be the first industry of Assam; the area under mature and immature tea plants increased in 1897 to 310,500 acres, or 0.185. Assam.

MANUFACTURES.

18,600 more than in the preceding year; the average out-turn of the year, according to the official return, fell from 443 to 408 lbs. per acre over the whole tea-producing area, the total out-turn being 107½ million lbs.; or 2 per cent. less than in 1896; prices of Assam tea in the Calcutta market ruled lower during 1896 than in the previous year; this was the third consecutive year in which prices fell. The number of persons, inclusive of children, working on tea-gardens in Assam is returned at 478,200 against 465,200 in the preceding year; the number of labourers who immigrated into Assam during the year 1897 was 95,900, as compared with 81,000 in 1896; the death-rate among all classes of labourers and their families rose from 32·0 per thousand in the previous year to 41½ in 1897; and the proportion of unhealthy gardens from 5·7 to 14·7 per cent., the year being a very unhealthy one throughout the province. The manufacture of tea-boxes is carried on to some extent under a royalty system; but there was no satisfactory growth of the industry in 1897-98. The output of Assam collieries decreased 3 per cent. to 171,000 tons, and the output of the Sylhet lime quarries, owing to the destruction of the railway by the great earthquake fell to 692,000 maunds in 1897-98.

Madras.

Weaving continues to be the most important domestic industry in Madras, though it has greatly declined under the competition of machine-made goods. A monograph on the woollen fabric industry, published in 1898, shows that though the demand is maintained, it is not for the best class of carpets and rugs. The chief seat of the industry is Ellore. Eleven cotton mills in the Presidency employed 12,000 hands during 1897-98, who worked 1,705 looms and 274,254 spindles. One mill for weaving hempen bags ran 98 looms and 2,084 spindles. The number of cotton presses in the Presidency was 48. Forty coffee-curing works turned out in 1896 cleaned coffee to the value of Rx. 1,586,000. The tanneries of Madras, Madura, Bellary, and Vizagapatam produced large quantities of good leather. Twenty-six factories in South Canara, Tinnevely, and Malabar made large quantities of tiles and cement, and employed about 4,000 hands. Forty-one cigar factories were at work in the Godavari and the southern districts, and turned out Rx. 74,000 worth of cigars. Indigo is made on a small scale and of inferior quality at some hundreds of vats, and was exported in 1897-98 to the value of Rx. 1,066,000 against Rx. 994,000 in the previous year and Rx. 1,402,000 in 1895-96. Sugar was made on a large scale at six factories, at some of which considerable quantities of rum were distilled.

Bombay.

In the Bombay Presidency there were 343 steam factories at work at the end of 1897, of which 130 were situated in the city of Bombay; at these factories 140,000 hands were employed. The spinning and weaving mills were 133 in number, 11 more than in 1896-97, besides 25 more that were projected. Allusion is made below to the exodus of factory hands in the winter of 1896 from Bombay owing to fear of the plague. In 1897 this happened again, though not to the same extent; and the exports of yarn and piece-goods from Bombay suffered, on this account and because of overstocking in the China market, a considerable fall. In addition to the workshops belonging to the railways and the great steamship companies, 14 factories in Bombay and Sind turn out ironwork of all kinds. Among other large factories using steam are dye-works; woollen-weaving mills and wool-cleaning mills; some hundreds of cotton ginning and cleaning mills; saw mills; paper mills; bone-crushing mills; rice-cleaning mills; flour mills; and 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 Sind workmen are specially renowned; the making of glass bangles or bracelets; wood-carving, the art speciality of 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 many parts oil for domestic use, for soap-making, for lubricating machinery, and for lamps is

expressed by labour of cattle and men from castor-beans, sesame, rape-seed, poppy-seed, mhowra (or mhowa) nuts, liuseed, ground-nuts, and cocoa-nuts. Cotton-seed oil and cake are made on a small scale and to a limited extent; but as yet no large factory for utilising surplus cotton seed in this way has been started.

MANUFACTURES.

The only large factory in Berar is the steam mill at Badnera, where yarn and cotton cloth are manufactured. It produced 5,796 bales of 400 lbs. of twist and yarn, and 2,442 of cloth, against 3,892 and 2,339 respectively in the preceding year. The number of persons employed in this factory was 1,172 as compared with 1,212 in the previous year. There are altogether 31 steam cotton presses and 80 cotton ginning factories in the province. The two oil presses at Amraoti produced 236,000 gallons of oil, or 22 per cent. more than in 1896-97. 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.

Berar.

FACTORY ACT.

The present Indian Factory Act came into force on the 1st January 1892. The changes introduced into the previous law were, briefly,—

FACTORY ACT.

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 work 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 1897.

PROVINCES.	Number of Factories working, and liable to be inspected.	Number of Inspections in the Year.	Average Number of Hands employed daily.				Number of Factories.					Number of Persons convicted of breach of Act.	Number of Accidents Reported.			
			Men.	Women.	Children.	Total.	With Sunday Holiday.	With other Weekly Holiday.	Exempted from Sunday Stoppage.	Worked otherwise.	Fatal.		Serious.	Minor.	Total.	
Bengal	170	646	181,784	21,170	13,834	166,818	117	4	28	18	1	18	320	813	651	
North-Western Provinces.	60	349	29,974	1,278	1,287	25,540	41	9	5	2	-	6	27	84	117	
Punjab	107	298	10,339	1,750	677	12,766	73	13	7	15	2	2	4	37	43	
Burma	123	485	23,755	521	95	24,301	117	3	8	-	3	0	31	28	60	
Central Provinces.	85	140	7,321	2,029	809	10,359	14	18	-	3	-	3	18	20	41	
Madras	71	316	26,089	2,893	2,216	31,108	63	7	1	-	1	2	25	155	162	
Bombay	323	1,884	106,780	26,930	6,680	140,370	251	69	2	-	6	17	103	1,079	1,199	
Assam	11	17	1,224	586	128	1,738	11	-	-	-	-	-	-	-	-	
Ajmer	8	19	662	318	19	898	1	2	-	-	-	7	1	12	20	
Berar	73	683	4,404	2,984	149	7,547	82	47	-	-	1	-	-	1	1	
TOTAL, 1897	981	4,832	335,702	60,271	25,672	421,645	722	173	46	38	14	61	529	1,724	2,314	
TOTAL, 1898	917	3,448	315,426	68,820	23,988	398,243	687	163	48	28	13	66	446	1,681	2,189	

The largest number of factories is in the Bombay Presidency, and 130 are in Bombay city alone. In Bombay all working factories, except one, were inspected during the year, and nearly all were inspected once a quarter. The sanitary condition of factories is said to be mostly fair or satisfactory; the supply of drinking water and the conservancy arrangements were sufficient; ventilation in some of the Bombay city mills requires improvement,

and arrangements for removal of cotton dust in weaving and spinning rooms are inadequate. In the early part of the year 1896-97 there was a great exodus from Bombay, caused by fear of the plague, and the factories, though for the most part they continued to work, were kept shorthanded. A system of daily wages was temporarily introduced, and a bonus given, to attract labour; but it was not until April that the mills filled again, and the conditions of the labour market were unsettled for the greater part of the year. As a result of this, the average number of men employed in Bombay city fell 6 per cent., and of women 18.5 per cent., as compared with the previous year. Elsewhere, however, there was improvement, and the total daily average of operatives employed in factories throughout the Presidency is above that of 1895, though about 4 per cent. below that of 1896. The normal wages earned in factories throughout the Presidency are said to be 4 annas for a man per diem, 3 annas for a woman, and 2 annas for a child. One anna is equal to a penny. The wages are punctually paid. As stated above, there was some increase above ordinary rates for some part of the year in Bombay city. Factory labour is said to be attractive, and the condition of the hands is reported to be a little better than that of an ordinary cultivator. An interesting experiment is being made by certain mills in Bombay of housing the workmen employed by them. There was an increase in the number of fatal accidents, as compared with the previous year; the number of all accidents was about the same: the fencing of machinery and other precautions against accidents are reported to be satisfactory.

From Bengal it is reported that, during the year 1897, all factories were inspected, and that 105 were inspected three or more times. The rules were found to be generally observed; water-supply, sanitary arrangements, ventilation, fencing of machinery, and employment of children were generally satisfactory. Suggestions made by inspecting officers received prompt attention. In some cases children under age were found to be employed contrary to law, and the necessary action was taken to stop the practice. The housing of operatives and the sanitation of their quarters are being improved. Wages are regularly paid, and average per diem $2\frac{3}{4}$ annas for men, $1\frac{1}{2}$ annas for women, and 1 anna for children, which is generally higher than agricultural wages in the provinces. The question of early closing on Saturday in jute mills, so as to secure a rest on Sunday for European employes, has not yet been settled. Nearly all the jute mills have now electric light installations.

In Madras medical inspection and professional inspection of factories were satisfactorily performed; no factory was left uninspected. In almost all cases the sanitary arrangements, the condition of the factories, and the health of the operatives were found to be good. Machinery was generally fenced, and there was a satisfactory decrease in the number of accidents.

From the North-West Provinces it is reported that all factories except one were duly inspected, and that the sanitary condition of factories was found satisfactory generally. The health of operatives was good, and did not suffer from the prevailing high prices of food grains. The law and rules for the prevention of abuses were observed.

From the Central Provinces it is reported that all factories were duly inspected; only seven factories employ children at all. The law about holidays and rest is observed. The health of the hands was good and sanitation received due attention. Factory hands are said to be better off than ordinary labourers, and the employment is eagerly sought after.

In Burma the number of operatives increased 33 per cent. as compared with 1896, the increase occurring in Rangoon. All but two of the factories were inspected during the year. The health of the operatives was good, and their condition was prosperous. Reasonable progress was made in improving the sanitary condition of factory premises. Of the accidents six were fatal; and the majority occurred in saw-mills at Moulmein.

In the Punjab all but seven of the factories were inspected, and defects in sanitary arrangements were remedied. Generally, the sanitary conditions were reported satisfactory, and the health of the operatives good. The machinery was properly fenced, except in one instance, in which suitable orders have been issued.

CHAPTER XV.

FRONTIERS, NATIVE STATES, TRANSMARINE INTERESTS,
ARMY AND MILITARY OPERATIONS.

THE year 1897-98 was one of widespread disturbance on the North West border, the tribes combining in a more formidable coalition against the British Government than any that had been known since the annexation of the Punjab. In his despatch (see page 172 of Volume II. of the Parliamentary Papers, C. 8,714 of 1898), reviewing the events of the frontier, the Secretary of State pointed to religious excitement and fanaticism as the main cause of the outbreak, while he was inclined to attribute in some measure to the recent delimitation of the Afghan frontier the alarm and jealousy of the tribesmen on which this fanaticism was able to work.

FRONTIERS.
The Punjab
Frontier.

But whatever the causes, the disturbances began with the treacherous attack by the Madda Khels on the Political Officer's escort at Maizar, in the Tochi valley, on 10th June 1897. The next outbreak occurred on the 26th July in the Swat valley, where the Yusufzai clans, aided by contingents from Boner on the east and the Utman Khel on the west, made a desperate attack on the British position at Malakand and the Chakdarra post on the road to Chitral; after several days' severe fighting the tribesmen were beaten off with a loss estimated at 3,700 men. Next the hostilities spread west and southwards, as the Mohmands, Afridis, and Orakzais joined in the war with the Government of India. Their punishment was not long delayed; before the end of the year, the British forces had visited and traversed their country from the Boner valley to the Utman Khel and Mohmand hills and the high mountain glens of Tirah, while the Madda Khels had been similarly dealt with by the Tochi Field Force. The military operations are described in a later section of this chapter, and fuller particulars are to be found in the Parliamentary Papers above quoted.

On the tribes who joined in the hostilities the terms enforced consisted mainly of the surrender of arms and the payment of fines. In addition, it must be remembered that they lost on many occasions very heavily in fighting, and that many of their villages and forts were destroyed by the British expeditions, and their local supplies of food and grain were largely consumed by the troops passing through or encamping in their country.

The magnitude of the outbreak caused the Government of India to consider generally their policy towards the whole extent of tribal country included within the Durand line. Suggestions for annexation to be followed by direct administration and for the imposition of tribute as a visible mark of subjection were alike rejected; it was decided that no new responsibility should be undertaken unless required by actual strategical necessities or essential to the protection of the British Indian border. Extension of administrative control over independent tribal territory was avoided; while for purposes of protection and defence attention was confined to the concentration as far as possible of military garrisons and to the organisation of local militia and tribal levies. The most important change contemplated was in the arrangements for the Khaibar Pass, but on this and other kindred matters decisions were not arrived at before the close of the year under review.

Almost the only tribes within the area of disturbance whose conduct was loyal and satisfactory were those of the Kurrum valley, who for a few years past had been under British administration. East of the Indus also, the Hazara border, which had been the scene of the Black Mountain expeditions of 1888 and 1890, remained undisturbed throughout the year.

In regard to the disturbed tracts, it may further be mentioned that the Afghan soldiers who had been stationed at Mitai in the Mohmand country east of the Durand line were withdrawn by the Amir of Afghanistan early in the year under review. The Khaibar pass was closed during a great part of the year owing to the outbreak of the tribesmen, and the trade in consequence suffered. But on the Malakhand-Dir-Chitral road the trade showed a large increase, both before the outbreak, and to an even greater extent when the road was reopened after the hostilities were ended. The passage of the reliefs for the Chitral

FRONTIERS.

garrison, both in 1897 before the attack on the Malakhand occurred, and in 1898 after the close of the year under review, were carried out without any difficulty or opposition. After the disturbances, the levy posts along this road were restored, and the levies worked satisfactorily. There have since been rumours of fresh outbreaks in contemplation by the tribes, but the rumours have passed away without a breach of the peace. Occasional local fighting occurred owing to disputes between the Khan of Nawagai and Pashat Khan, and between the former and the Nawab of Dir, but the relative positions of parties in Bajour and Swat was not much changed in consequence.

Chitral.

In Chitral the year was peaceful. Cultivation was extended, and the efforts of the Political Agent were exerted in favour of the cultivators to secure for them some fixity of tenure and some protection from the oppressive treatment of which they complained.

Gilgit.

In the Gilgit Agency the situation was undisturbed. Some distress was caused by the deficiency of harvests in Ashkuman, Ghizar, Koh, and Yasin, and by the reappearance of foot and mouth disease. Chilas was more prosperous, cultivation increased, and contentment prevailed. The amount of the Chilas tribute to Kashmir was fixed, and the settlement willingly accepted by the population. The Chilas road to the Babuzar pass was completed. The principal reform carried through in the Gilgit Agency during the year was the institution of the police levy scheme. The regular troops of the Kashmir State were concentrated, and the outlying posts from which the scattered detachments were withdrawn were handed over to tribal levies. The scheme is working satisfactorily.

Hunza and Nagar enjoyed good harvests. During the year an arrangement was arrived at between the Kanjutis and the local Chinese officials, under which the cultivation of part of the Raskam valley within the Chinese frontier by inhabitants of Hunza was permitted.

Chinese Turkestan.

In Chinese Turkestan the efforts of the British Government in favour of the abolition of slavery, were brought to a successful conclusion. A proclamation was issued by the Governor prohibiting the keeping or selling of slaves within the province. Upwards of 2,000 slaves, of whom 500 were of Indian origin, have, during the past four years, been set at liberty in Chinese Turkestan.

Baluchistan.

The principal event in the Baluchistan Agency during the year, was an outbreak in Mekran, where a survey party under British officers was attacked in January 1898. Before the end of the month a small punitive expedition had landed at Ormara, and defeated the rebels, most of whose leaders were killed. The country was rapidly pacified, and on the return of the British force, Kalat State troops remained to ensure order. Some outrages also occurred in the neighbourhood of Quetta, which were apparently prompted by the Raisanis, to express their dislike of the decision given by the Political Agent, in the matter of their dispute with the Rustomzai Sirdars. The chief perpetrator of the outrages escaped to Afghan territory. The local unrest was only allayed after the arrest and temporary confinement of two of the Raisani leaders. They were subsequently released on furnishing security for their loyalty; and the year ended in tranquility. Other unfortunate incidents during the year, were outrages by the Largha Sheranis and the murder of Lieut. Col. Gaisford by a fanatic. There was also some unrest among the Marris and Bugtis. On the former a fine was imposed for the outrage at the Sunari railway station, referred to in last year's report. Migration to Afghan territory was resorted to by many of the malcontents of the Agency, but a large proportion of these returned after a brief period, having failed to get the grants of land in Afghanistan which they had anticipated.

The revenue of Baluchistan in 1897-98 amounted to nearly 10 lakhs, and the expenditure exceeded 20 lakhs. Under the quasi-provincial contract the Governor-General's Agent received a yearly grant from the Government of India of nearly 12½ lakhs. The balance at his disposal was thus increased during the year by two lakhs. The year was not a prosperous one for the people, owing to poor harvests and high prices. Some relief had to be given.

Reference was made in last year's report to the opening of the new trade route between India and Persia, through Quetta and Nushki to Seistan.

...ments were made during the year by a change in the line of road, by better arrangements for the levy posts, by organising a postal service, and by making new wells or deepening old ones. In consequence trade increased very largely, notwithstanding the hindrance imposed upon it by quarantine arrangements in Persia. FRONTIERS.

The Financial position of the Kashmir State is indicated by the following figures:— Kashmir.

	Receipts.	Expenditure.	Surplus.
	Rx.	Rx.	Rx.
1896-97 (Accounts)	651,105	611,349	39,756
1897-98 (Revised Estimate)	630,300	586,500	43,800
1898-99 (Budget Estimate)	674,500	599,000	75,500

In addition as stated in last year's report, there is a large sum belonging to the Darbar held as a cash balance and in Government securities. To these it was intended to add in 1898-99 by the sale of State jewels to the value of 5½ lakhs, and the investment of the proceeds. Particular features that are to be noticed in the estimates for 1898-99 are the large increase in the Customs revenue, due to the assumption by the Darbar of the Customs administration, which was formerly farmed, and an assignment of 2½ lakhs of expenditure to the silk industry, an outlay which is expected to prove highly profitable to the State in the future. With the completion of the Gilgit road and of the Srinagar waterworks, the reduction and reorganisation of the military forces of the State, and more economical commissariat arrangements, the heavy military and public works outlay has been much reduced in recent years.

The great confusion caused by the condition of the local Kashmiri currencies and their instability relatively to British rupees, which were also legal tender in the State, was got rid of in 1897 by the decision to withdraw the local currencies and to adopt the British coinage. The State agreed to suspend for 50 years its right to coin rupees, and the Government of India agreed to give the Darbar British rupees in exchange for the old Kashmiri coins, which were accepted at a value much above their bullion value. The arrangement was one advantageous to the trade of the country. The required coinage for Kashmir was completed by the Indian mints in the year 1898-99.

A considerable charge was imposed on the State in addition to the Budget estimate of 1898-99 by a destructive fire in Jammu, in which many of the public offices were destroyed. Of the political situation and of the condition of the people in Kashmir during the year under review, no report has been received.

No change is reported for the year 1897-98 in regard to the condition of Nepal. Relations with the Government of India were friendly and satisfactory as usual.

The Chinese Amban arrived at Lhasa in February 1898, deputed to deal with the question of the Tibet-Sikkim boundary; but no progress was made during the year 1897-98 towards the settlement contemplated by the Convention of 1890. Notwithstanding the obstruction of the Tibetans trade across the frontier shows some advance:— Tibet and Sikkim.

	1894-95. (For 11 Months.)	1895-96.	1896-97.	1897-98.
	Rs.	Rs.	Rs.	Rs.
Imports into British territory	6,38,954	7,07,068	7,90,634	8,79,720
Exports from British territory	6,16,756	8,61,087	8,88,017	8,28,340

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FRONTIERS.

The general administration of Sikkim is creditable. There was peace, contentment, and financial stability, and practically no crime. The Raja's palace and many of the Buddhist monasteries in the country suffered damage from the earthquake of June 1897. The receipts and expenditure of the State were as follows:—

	1892-93.	1893-94.	1894-95.	1895-96.	1896-97.	1897-98.
Receipts	Rx. 5,702	Rx. 7,885	Rx. 7,434	Rx. 9,075	Rx. 10,981	Rx. 9,985
Expenditure	5,749	6,026	7,089	11,288	11,839	7,697

Bhutan.

As regards Bhutan there is nothing to report, except a border raid in which a Bhutia lost his life.

Assam Frontier and Manipur.

The tribes on the Assam border generally behaved well, and there was no military expedition. The blockade of the Abors for past offences continued during the year. In the Naga country a raid of one village on another occurred in which 17 lives were lost. A fine was imposed on the offending village, and in default of payment the village was burnt.

The minor Raja of Manipur and his half brother remained during the year at Mayo College for their education. Meanwhile the State was prosperously administered. The harvest was good, and prices were low. The revenue realised Rx. 34,671, of which Rx. 29,813 were spent. The Kohima-Manipur cart road was opened during the year. No serious damage was suffered in the State from the great earthquake of June 1897.

Lushai Hills.

On 1st April 1898, not October 1897, as stated in last year's report, the North and South Lushai Hills were combined in one charge under the Assam Government. The expenditure on the two areas in 1897-98 and in the two previous years was as follows:—

	1895-96.	1896-97.	1897-98.
North Lushai Hills	Rx. 53,706	Rx. 50,549	Rx. 47,425
South Lushai Hills	50,475	41,245	28,979

The large diminution of expenditure is due to a reduction of the police force and the abandonment of the Fort Tregear post. The principal requirement of the tract is the opening up of communications by new roads and tracks. Trade shows signs of increase. In the Southern Hills the year was marked by an outbreak of savagery in the shape of witch murder, three men and one woman being killed. The principal offenders were duly tried and punished.

Chin Hills.

By the introduction of the Chin Hills Regulation on 1st June 1897, a judicial procedure of a simple kind, based on the principle of collective responsibility suited to the ideas and condition of the people, was substituted for the administration of justice by executive order. The change marked an epoch in the government of the tract. Otherwise the year was uneventful, there were no disturbances.

Kachin Hills (N.E. Frontier of Burma).

The record of administration in the Kachin Hills during the year 1897-98 has been more eventful than in recent years. The most important event of the year was the meeting for the first time of the Burma-China Boundary Commission. The demarcation of the boundary north of the Taping river was satisfactorily carried out. But south of the Taping, owing to differences of opinion between the British and the Chinese Commissioners, matters came to a deadlock and no progress whatever was made in delimitation. The Shan Chief on the Chinese side took advantage of the unsettled state of affairs. Matters culminated in the action of the Kangai and Mōngwan *Saubwas* who

sent armed parties across the Manting stream and erected stockades at Sadon, Sengmyè, and Maipat, in territory under British administration. It was necessary to take decisive action to resist this aggression; two of the stockades were attacked and captured, the third being evacuated. Four of the defenders were killed and 19 taken prisoners. In view of these incidents two military police posts were established at Pansè and Lwèlôn on the frontier. FRONTIERS.

An *émouate* of a somewhat serious nature also occurred in the north of the Katba district, which is addicted to the harbouring of outlaws. A small detachment sent to enforce a demand for the surrender of arms was treacherously attacked, and the tribe rose in revolt. The rising was promptly suppressed.

A change in the method of administering the frontier tribes was inaugurated in 1897-98. Instead of relying solely on the annual tours of civil officers during the open season, officers were for the first time permanently stationed at Sinlungaba in the Bhamo district, and at Sadon and Kamang. The change is said to work well.

Throughout the Kachin Hills the policy of exacting a light tribute, of disarming the tribes, and of making roads for the improvement of communications and trade was continued.

The Northern Shan States consist of five large States, the Southern group of 40, mostly petty States. Except for a small outbreak in the Mongsha State of the southern division the year was one of tranquillity, general prosperity and steady progress. Harvests were good and with the continued improvement of the roads, trade expanded. There was little crime. The tribute was easily paid. Forest administration was placed on a better footing; the cultivation of wheat has been successfully introduced, and there is promise that it will become a staple product of the country. A great Darbar at Lashio disposed of many disputes in the Northern States and led to various reforms. In Kengtung, the largest of the Southern States, a first census was taken, showing a total of 23,000 houses, and the budget system was introduced, as it has been in most of these States. The State of Manglun which is on the extreme frontier still remains the least affected by British control. Its eastern borders were troubled by invasion of Was, a wild tribe beyond its limits. Shan States.

In an earlier paragraph reference was made to the proceedings of the Burma-China Boundary Commission. The only other matter of interest in regard to the relations between Burma and China was the institution of a British Consulate at Ssumao, at which place the trade has, however, proved to be of less importance than was anticipated.

Relations with French territory beyond the Mekong or with Siam during 1897-98 call for no comment. France and Siam.

NATIVE STATES.

The population of the Native States, based on the census of 1891, may be taken at 66½ millions, and their aggregate revenue at 21½ crores of rupees, their aggregate tribute to the Government of India amounting to Rx. 884,000. The number of their military forces, excluding Nepal, is now returned at 92,000, mostly ill armed and ill trained men. The larger totals given in previous returns included bodies of men with practically no military character or organisation. NATIVE STATES.

Of the military forces of these states, a portion consists of Imperial Service troops organised to take part in military operations in line with those of the Indian army. The strength of these specially organised corps was on 1st August 1898, 17,782, as shown in the margin, the total in the previous year being 18,463. The maintenance of these troops costs the States concerned about Rx. 600,000, the outlay of the Indian Government on their organisation and inspection being about Rx. 20,000. The Imperial Service troops employed during the recent operations on the frontier were the infantry battalions of Patiala, Jind, Nabha, and Kapurthala, the Imperial service troops.

Cavalry	7,857
Artillery	803
Snipers and Miners	324
Infantry	7,784
Camel Corps	690
Transport Corps (men)	1,064
Total	17,782

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NATIVE STATES.

sapper corps of Sirmur and Maler Kotla, and the transport trains of Jaipur and Gwalior. Moving out of their States with commendable celerity, they joined the field army with transport and equipment complete, and all corps were excellently reported on by the general officers under whom they served. On the whole, the scheme of the Imperial Service troops is held to have attained a fair measure of success. Most of the corps, whether those employed on the frontier or not, are favourably reported on. Some changes are being introduced, such as the increase of the number of transport corps. In the year under review Mysore undertook to establish a transport corps, to be balanced by a reduction in the strength of her mounted corps. The reorganisation of the Kashmir troops has been completed.

Dacoity.

The suppression of dacoity in the Native States is a matter of imperial concern, and at times necessitates interference on the part of the paramount Power, particularly in those tracts of Native States' territory where the jurisdictions of the Chiefs are 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 an organisation connected with the Government of India, charged with the duty of suppressing thuggee and dacoity. The agencies of this Department worked during 1897-98 in complete harmony with the durbars and the political officers. There was no interference on their part with the internal administration of the States in criminal matters. The number of cases reported by the Department has very largely increased, the totals in the four years ending with 1897 being respectively 389, 448, 684, and 1,152. But it is stated that a considerable proportion of the cases are not really dacoities, but petty robberies committed by persons in want of food, and 1897 was a year of great scarcity. The quantity of serious crime is said to be diminishing everywhere.

Hyderabad and the Assigned Districts.

The following are the principal figures of the finance of the Hyderabad Assigned Districts for the last eight years :—

YEAR.	Gross Land Revenue.	Total Revenue.	Expenditure.				Total Expenditure.	Surplus of Revenue over Expenditure.	Payments to His Highness the Nizam.
			Public Works.	Civil Administration.	Military.	State Railways.			
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	
1890-91	852,374	1,009,505	118,530	394,531	337,606	8,906	859,277	150,323	146,472
1891-92	639,976	1,027,632	110,532	410,737	378,424	9,489	909,202	118,430	130,697
1892-93	825,944	986,448	121,177	416,095	361,597	9,123	907,992	77,456	85,704
1893-94	837,390	1,017,475	109,988	432,531	392,319	8,667	943,883	73,592	65,900
1894-95	643,312	1,011,949	110,698	446,493	397,472	10,381	965,043	46,907	116,205
1895-96	680,905	1,044,825	102,131	433,458	384,708	12,059	932,480	112,388	29,172
1896-97	667,662	1,007,556	81,189	456,046	404,306	9,794	951,336	56,221	72,481
1897-98	885,152	992,340	71,614	463,272	439,142	10,680	1,004,708	-12,363	-

For the first time since 1861 there was no surplus, and consequently no payment was made to the Nizam. A large portion of the increase of military expenditure was due to the famine prices prevailing, and under other heads also scarcity and distress added to the cost of administration. The land revenue, however, showed no diminution.

The finances of the Nizam's Government suffered during the year both from the absence of any surplus in Berar and from famine expenditure in the State itself. The necessity of reforming his financial administration was pressed upon His Highness. For a time he relied upon a special committee of nobles appointed for the purpose; but finally he decided to accept the services of a European adviser as Comptroller-General for a period of three years. The Nawab, Sir Vikar-ul-Umra, continued to be the Nizam's Minister, and his powers in the administration were, after the close of the year under review, rendered more definite by certain rules laid down by the Nizam for the improvement of

the administration of his dominions. The expenditure of the year was about **NATIVE STATES** four crores.

The following statistics of the revenue and expenditure in Mysore are taken **Mysore.** from the Dewan's Memorandum of Moral and Material Progress and Condition of the State for the year 1897-98 :—

RECEIPTS.			EXPENDITURE.		
		Rx.			Rx.
Land Revenue		979,413	Interest		121,668
Mining Leases		131,456	Land Revenue		173,716
Forests		111,574	Forests		44,088
Excise		337,176	Excise		24,784
Assessed Taxes and Sayer		54,385	Administration		81,088
Stamps and Registration		94,166	Palace		140,000
Interest on Investments		52,218	Law and Justice		98,168
Mysore State Railway Earnings		90,087	Police		91,002
Other Receipts		65,492	Education		54,343
			Tribute and Assignments		375,413
			Military		108,022
			Public Works and Sanitation		265,500
			Railways, Guaranteed Interest		79,311
			Railway Construction and Surveys		91,768
			Other Expenditure		208,321
TOTAL	Rx.	1,915,972	TOTAL	Rx.	1,855,090

The amount of gold produced by the Mysore mines continues to increase ; in 1897-98 it exceeded 389,700 oz., valued at Rs. 2,32,14,000. A new Mysore Mines Regulation was passed during the year and rules issued in connection with it. Three other regulations were passed, of which the most important dealt with village sanitation. The season was not favourable to the cultivators, and prices were high, but the State was not afflicted with famine. There was some increase of crime. The assembly of Representative Raiyats and Merchants held its usual brief session from the 8th to the 18th October 1897. It consisted of 275 persons, of whom 252 were Hindus. The Dewan, as usual, addressed the assembly, and 529 subjects are reported to have been subsequently brought forward and discussed in that period. No laws are passed and no funds voted by this Assembly. An Administration Report for the five years ending 1894-95 was issued by the State in 1898. In the yearly published statements of the Dewan figures for later years are given in a summarised form.

The last Report on the administration of the Baroda State, published by **Baroda.** order of H.H. the Maharaja Gaekwar, is for the year ended 31st July 1895. For that year the revenue was Rx. 1,681,461 and the expenditure Rx. 1,623,623.

In 1897-98 Baroda shared the fortunes, and adopted the policy, of the Bombay Presidency in regard to the plague. The Agent to the Governor-General's attention was drawn mainly to matters of plague administration and to questions in dispute between the Durbar and the subordinate land- and tenure-owners, many of whom enjoy a British guarantee.

A considerable amount of silver (14 lakhs of rupees) was coined in Baroda in 1897-98.

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NATIVE STATES.
Rajputana.

The following is a Table of the Rajputana States, with their revenues, viz. :—

STATE.	Area in Square Miles.	Population in 1891.	Actual or Estimated Revenue for last Two Years.	
			Previous Year.	Last Year.
			Rx.	Rx.
Udaipur (Mewar) - - - -	12,861	1,862,478	(375,000)	(375,000)
Dungarpur - - - - -	1,440	165,400	20,351	22,130
Banswara, &c. - - - -	1,937	212,269	24,148	25,379
Pratapgarh - - - - -	959	87,975	42,507	40,139
Jaipur - - - - -	15,349	2,832,276	665,564	669,812
Kishangarh - - - - -	874	125,516	42,662	56,810
Lawa - - - - -	19	3,360	(450)	(450)
Jodhpur (Marwar) - - - -	37,445	2,521,727	507,976	582,387
Jesalmer - - - - -	16,089	115,701	14,133	16,061
Sirohi - - - - -	1,966	188,977	38,283	42,159
Bikaner - - - - -	23,090	831,955	238,257	214,606
Bundi - - - - -	2,225	296,675	72,330	70,000
Tonk - - - - -	1,415*	199,934*	161,890	170,124
Shabpura - - - - -	406	63,646	35,183	(35,000)
Bharatpur - - - - -	1,961	840,303	(270,000)	(270,000)
Dholpur - - - - -	1,156	279,890	(125,000)	(125,000)
Karauli - - - - -	1,220	156,587	47,747	49,330
Alwar, &c. - - - - -	3,051	767,786	274,900	278,841
Kotah - - - - -	3,803	526,267	241,168	278,807
Jhalawar - - - - -	3,043	343,601	153,978	165,841
TOTAL - - - - -	180,268	12,220,343	3,411,382	3,486,876

* Excluding the Tonk pergunnas in Central India.

Most of these States are in a sound financial position; among them Jodhpur, Jaipur, Udaipur, Bikanir, Alwar, and Kotah, are believed to have very large balances to their credit. So far as the figures are given, the expenditure on public works in Rajputana during the year amounted to Rx. 564,371, of which Rx. 531,040 came from the revenue of the above States. There was considerable outlay on railway construction, particularly on the Jodhpur section of the Shadipalli-Balotra line, and on irrigation principally in Jeypore, Bikanir, and Bharatpur. The railways and irrigation works already constructed have proved very profitable investments to the Durbars concerned.

The decision of Government in regard to Jhallawar was publicly announced in June 1897, and Kuar Bhawani Singh was selected by the Government of India as the Chief of the new State of Jhallawar. He was not, however, installed in his new position, nor was the surrender of the portion of the old State, which is to pass to Kotah, carried out till after the close of the year under review. In Marwar the year was marked by the investiture of the Maharaja with full powers, and by the restoration to the Darbar of the complete administration of the District of Mailani, in which the criminal jurisdiction had for very many years been exercised under the control of the Resident. Death removed the Maharawal of Dungarpur, who was succeeded by his grandson, Bijey Singh, and the Chiefs of Alwar, Kotah, and Bikanir married during the year.

Administration is generally favourably reported on. Currency difficulties appear to have arisen in Pertabgarh, from over-coinage in past years, and in Bundi. About 30 lakhs of rupees were coined in the Rajputana States during the year.

There were several cases of plague in Sirohi territory, the deaths numbering 138. Preventive measures were taken, the outbreak was localised, and shortly before the close of the year disappeared from the province. The sixtieth anniversary of the Queen-Empress's reign was celebrated with enthusiasm. On the occasion the salute of the Maharana of Udaipur was increased by two guns, the Maharaja of Karauli was appointed a G.C.I.E., and Maharaja Dhiraj

Sir Partab Singh of Jodhpur was invested by Her Majesty with the insignia of a Knight Grand Commander of the Order of the Star of India. NATIVE STATES.

In large areas of Central India the people had suffered severely from the effects of famine in 1896-97; but in the year under review it was found that the favourable rainfall of 1897 had produced a bountiful harvest, which obliterated the visible effects of the recent distress. All relief works were closed in October, everywhere grain was plentiful and cheap, and the area of cultivation was up to the average. All the States of the Agency remained free from plague during the year; cholera appeared in the tracks of the famine, but generally the public health was good. Central India

In last year's Report it was stated that the adoption of the British Indian currency in Bhopal was expected to be the prelude to its adoption in other States. This forecast has been fulfilled. Narsingarh, Rajgarh, Kilchipur, and others followed the example of Bhopal in 1897-98; and after the close of that year the important State of Gwalior took steps to abolish the various local currencies in the Maharaja Sindia's dominion, and to make British rupees the sole legal tender. This was done without abandoning the Maharaja's rights to coin rupees. Steps were at the same time taken to reassess the revenue in British rupees at a rate corresponding to the rate at which the local currencies were accustomed to exchange with British rupees. In Bhopal, the rate adopted for the enforcement of revenue was fixed at 100 British rupees for each 110 rupees of the assessment which used to be paid in Bhopali currency. This was the rate of exchange prevailing when the assessments were originally made.

In Rutlam, Jaora, and certain other States of the Central India Agency, to assist the introduction of the British Indian currency, a tax of 25 per cent. was imposed on the import of all silver other than Government rupees.

The expenditure of the Gwalior State for the year ended 5th June 1897 amounted to Rx. 1,208,295, the revenue falling short of this sum by 3 lakhs. In the year 1897-98, the revenue demands amounted to Rx. 1,665,176, of which, however, owing to the scarcity, only Rx. 1,212,310 could be collected. Seventy-two lakhs of arrears of land revenue were remitted on the occasion of the Queen's Diamond Jubilee. Twenty-nine lakhs were allotted for famine relief and 12 lakhs were lent to other States in Bundelkhand and Bagelkhand for a like purpose. The numbers relieved at unskilled labour and relieved gratuitously in Gwalior were respectively, in units of a day, 10,706,938 and 2,535,420.

The value of the State balances, reserve, and Government securities at the end of the year was nearly 10 crores. The revenue survey and settlement in the State is approaching completion, and, it is said, has secured great benefits not only to the State revenues, but also the zamindars and ryots. The whole administration of the State is creditably conducted under the direct supervision of the Maharaja.

Rai Nanak Chand continued to be Minister of the Indore State, and carried out his duties with care and ability. Under his administration order was maintained, the revenue was collected without difficulty, and the condition of the people were fairly prosperous. In the outlying tracts, where the scarcity has been chiefly felt, the Maharaja sanctioned grants of grain and money, which were of great benefit to the people. The Indore Mint coined nearly 13 lakhs of rupees.

Bhopal currency matters have already been alluded to. The old Minister of the State, Imtiaz Ali, died during the year 1896-97, and was succeeded by Khan Bahadur Maulvi Jabbar, C.I.E. A considerable improvement in the administration of the State is reported. The land revenues of the State amount to about 30 lakhs. An important regulation adopted in Bhopal and the neighbouring States prohibits any jagirdar or large landowner from legally incumbering his estate beyond the term of his own life. The only important Chief in Central India that died during the year was the Maharaja Lokpal Singh of Panna. The question of the succession was not decided at the close of the year. The Maharaja of Dhar died in 1898-99.

In Cooch Behar the expenditure for the year 1897-98 (Rx. 241,210) exceeded the revenue (Rx. 223,967), but the former included sums of over Rx. 10,000 for the extension of the Cooch Behar Railway, and of Rx. 15,000 Bengal.

NATIVE STATES.

in repayment of the loan from the Government of India. The system of administration in the State is essentially that of the adjoining British districts, and has been for some time under the superintendency of a retired British district officer. The short crops and high prices of the previous year were followed by a very favourable season, owing to which the condition of the people was much improved. The earthquake of 12th June 1897, however, caused widespread damage, particularly to public buildings, roads, bridges, and railway works. The consequent loss to the State is calculated at Rs. 15,26,457. The Maharaja took part in the military operations on the frontier, in connection with which he was decorated with a Companionship of the Bath, and he paid a visit to England, where his sons are being educated.

The State of Hill Tipperah also suffered from the earthquake. Otherwise it enjoyed a prosperous year, the revenue of Rs. 87,25,2 providing a considerable surplus.

In the tributary States of Orissa and Chota Nagpur the crops were good, but the season was particularly unhealthy. Cholera and small-pox were very prevalent. From the ravages of the latter disease the Raja of the small State of Korea and his whole family died. The consequent difficulty of finding a successor had not been solved at the end of the year. The Chiefs of Daspalla and Nayagarh also died during the year. The produce of the forests of these Hill States is becoming more valuable with the opening of railways and roads. Their conservancy becomes more important, and difficulties are increasing with the hill cultivators, whose traditional mode of cultivation by burning patches of forest require to be restricted. In the Chota Nagpur States the inquiry into the outbreak in Gangpur was concluded, and the principal offenders were punished. The inquiry, at the same time, indicated genuine grievances against the Raja's government; steps are being taken to ensure a better administration. The management of the Moherbhanj State, the largest of the Orissa group, is very favourably reported on.

North-West Provinces.

The year reported on (1st October 1896 to 30th September 1897) was the first complete year in which the Nawab of Rampur exercised full powers of government in his State. Notwithstanding the unfavourable season the revenue increased to Rs. 318,339. The balance of the State is very large, consisting of 221 lakhs in Government securities, a reserve of 10 lakhs in coin, and a working balance of nearly two lakhs. Measures for the alleviation of distress were undertaken by the State. The land revenue is farmed, but during the year under review arrangements were made to check the high-bidding at the auction sales. A farmer who has bid far beyond the prices indicated by the rent rolls of the village cannot but rackrent the tenants. A change in the excise system was decided on, to replace outstills by the Central Distillery. Complaint is made of continued depression in the indigo trade.

The administration of the Tehri (Garwhal) State is satisfactory. After the close of the year, 1897-98, the Council of Regency, constituted in 1891 to assist the Raja in the administration, was abolished, leaving the Raja with the full responsibility of government. The reserve balance of the State exceeded eight lakhs of rupees, the year's income of Rs. 32,129 providing a small surplus. Litigation in the State is increasing.

Punjab.

The following are the principal Punjab States and their areas, populations in 1891, and approximate revenues in 1897-98:—

STATE	Area in Square Miles.	Population in 1891.	Approximate Revenue in 1897-98.
			Rs.
Patiala	5,419	1,583,521	685,400
Bahawalpur	15,000	656,042	160,000
Jind	1,259	284,560	62,800
Nabha	928	282,750	70,000
Kapurthala	620	252,617	200,000
Mandi	1,000	166,923	43,000
Nahan (Sirmur)	1,096	124,134	51,200
Maler Kotla	167	75,755	30,200
Faridkot	643	115,040	35,600
Chamba	3,216	124,032	35,000

Offers were freely made by the Punjab States of the service of their troops and of aid in other respects for the frontier expeditions. During the year under review these were in many instances accepted, and the behaviour of the Imperial Services contingents that were employed was warmly recognised by the Government of India. NATIVE STATES.

In regard to administration, particularly in matters of finance and land revenue, several of the Punjab States, including Patiala, Kapurthala, Mandi, Suket, Pataudi, Bashahr, and Keonthal, are causing more or less serious anxiety. In the last-named State, grievances festered into revolt which the Raja's forces were unable to repress, and the intervention of Government to ensure a more satisfactory management of the State became necessary. A similar condition of affairs in Bashahr also led to intervention and the appointment of a British official as chief minister. In Patiala, Chamba, and other States there are indications of considerable friction between the landed classes and the State authorities; and in at least one State complaint is made of undue prejudice against the Mahomedan population on the part of the Chief. The administration of Nabha, as usual, is warmly commended. The Nawab of Loharu also receives praise for the administration not only of his own State, but also of Maler Kotla. Since the close of the year three of the Punjab chiefs have died, namely, those of Bahawalpur, Faridkot, and Sirmur (Nahan). The chief of the last-named State had ruled his State with remarkable ability and success, and in his last years of infirmity the administration had been carried on with equal ability by his eldest son, who has now succeeded to the Chiefship with full powers. The young Raja of Jind is not yet entrusted with the administration of this State, and the question of his proper education for his future duties has been a matter of careful consideration.

The year 1897 was a year of calamity in the Central Provinces, and the Administration Reports of the Feudatory States show that most of them had their full share of trouble. In eight of them, including the small State of Makral in the Hoshangabad District, there was acute famine. The southern and eastern States of Chhattisgarh were outside the zone of draught, and escaped any serious failure of crops. But, save in Bamra, where the prohibition of export of food-grains appears to have secured the immediate object with which it was issued by the Chief, the pressure of high prices was everywhere felt by the poorer classes, and few States were free from the incursions of wanderers from the famine-stricken areas of Chhattisgarh. Many of the chiefs exerted themselves to the full for the relief of distress, but in one at least, viz., Kanker, the failure of the chief to carry out his promises in this respect led to grievous mortality and to a quarter of the land going out of cultivation. The horrors of famine were intensified by an epidemic of cholera more severe and widespread than had been known for many years past. Only Bamra and Rehrakhol appear to have been entirely free from it. The murder of the Raja of Kalahandi, and the death of the Raja Bahadur of Nandgaon, were events deeply deplored both by the people of their respective States and by the Administration. In both cases there is the prospect of a long minority. There are now five of the 14 Chhattisgarh States under Government management, and two more where restrictions have had to be placed on the exercise of power by the chiefs. The title of Raja, which had been two years previously conferred as a personal distinction on the chief Khairagarh was during the year under review made hereditary; the management of the State continues to be very satisfactory. The aggregate income of the 15 States of the Central Provinces is nearly 19 lakhs, of which about 2½ are due as tribute to the Government. Notwithstanding the unfavourable circumstances of the year, the number of pupils at school showed little decline, and the expenditure on education and on public works was larger than before. A great deal has been done in these States towards the improvement of roads and communications; but in some cases, to obtain the full benefit of the roads already made, it is necessary that their continuations through British territory should be carried out so as to connect them with the railways and centres of trade. The want of means has hitherto prevented the completion of these necessary links. The forests of the States have been largely indented on for the supply of railway sleepers, and careful management is required to prevent the undue exhaustion of their resources; the matter is receiving attention. Central Provinces.

NATIVE STATES.
Madras.

The two important States of this presidency are Travancore and Cochin, the reports of which are drawn up for the Malayalam year, August 1896—August 1897. The following are the figures for the trade and revenue of the two States for the two last years :—

	Trade.		Revenue.		Balance at end of Year.	
	1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Travancore - - -	2,431,759	2,479,810	895,899	885,556	976,332	970,215
Cochin - - -	375,069	249,855	192,829	206,531	443,057	446,128

In both Travancore and Cochin Regulations were passed for preventing the outbreak or spread of epidemic diseases. In Travancore there was also a General Clauses Regulation and a Regulation dealing with irrigation. In Cochin Regulations dealing chiefly with Civil Courts and their procedure were under preparation. In both States the finances are prosperous, the people contented and in the enjoyment of agricultural prosperity. There are no complaints in regard to general administration, which, in the States, and more particularly in Travancore, follows the lines of British administration. Education in Travancore is more widespread than generally in British India, and showed a satisfactory advance in 1897-98; in Cochin, however, a decline of about 4 per cent. is recorded in the number of pupils at school, the explanation of which is not given. The road communications of Cochin are said to be maintained in better condition than those of Travancore; the outlay on public works was 16½ lakhs in the latter State and 5½ in the former, a proportion of the whole revenue which shows in both States a satisfactory regard for public interests.

In the other three States of the Madras Government, viz., Pudukkottai, Banganapalle, and Sanduru, the season was unfavourable; in the two latter States relief works were required. In Pudukkottai an Arms Regulation and an Epidemic Diseases Regulation were passed. In Banganapalle an increase of 20 per cent. in the rate of mortality is ascribed to an outbreak of cholera.

In the Vizagapatam and Godavari Agencies the season was generally more prosperous, but public health suffered from the prevalence of smallpox and cholera. There was some crime, particularly the looting of villages arising out of distress in the Godavari Agency; and boundary disputes caused anxiety in the Vizagapatam Agency.

Bombay.

The Bombay Government exercises control over some 350 Native States, many of which possess but few attributes of sovereignty. Their total area exceeds 64,600 square miles; their population in 1891 was 8,085,433, and their revenues in 1897-98 aggregated Rx. 4,601,983. Some financial figures regarding the more important States are given below :—

STATE.	Revenue in 1897-98.	Expenditure on Public Works.
	Rx.	Rx.
Cutch - - - - -	252,167	15,659
Palanpur - - - - -	65,063	4,868
Radhanpur - - - - -	67,124	9,165
Idar - - - - -	62,867	2,706
Junagad - - - - -	260,250	39,935
Navanagar - - - - -	308,391	24,485
Bhavnagar - - - - -	382,774	92,281

STATE.	Revenue in 1897-98.	Expenditure on Public Works.
	Rx.	Rx.
Porbandar	65,000	26,256
Dhrangadhra	57,511	2,579
Morvi	112,539	33,653
Gondal	150,000	32,676
Cambay	61,814	6,820
Rajpipla	28,995	7,185
Janjira	50,975	6,470
Savantvadi	43,187	4,681
Kolhapur and feudatories	456,996	59,256
Sangli	117,580	8,631
Khairpur	113,800	12,469

Owing to the continued strain of high prices, relief works at a considerable cost were maintained in Bhavnagar, Kolhapur, the Satara Jaghirs, and Southern Maratha States. Plague also prevailed in Cutch, Palanpur, and in some of the Deccan and Southern Maratha Country States. Trade generally receded. Crime increased everywhere except in the States of Cutch, Palanpur, Satara Jaghirs, and Khairpur. Serious offences, however, declined, especially in Kathiawar, where dacoities fell from 20 to 5 and robberies from 67 to 12, and where the police succeeded in putting an end to bands of outlaws in Junagad, Jetpur, Gondal, and Porbandar. The volume of civil litigation increased except in the State of Khairpur, the most noticeable increase being in Sunth, in the Rewa Kantha Agency, where it was due to the revision of the law of limitation. All the States showed orderly progress in the different branches of administration. A large outlay was incurred, especially in Kathiawar on water-works, educational buildings, and dispensaries. The Rajkot-Jamnagar and the Rajpipla State Railways were opened for traffic during the year, and even the Dhrangadra-Wadhwan Railway, of which the first sod was cut by His Excellency only in December 1897, was finished and opened for traffic in June 1898.

In recognition of their efficient and liberal administration, the Mir of Khairpur, the Divan of Palanpur, the Thakor Sahebs of Morvi and Gondal were nominated Knights Grand Commanders of the Most Eminent Order of the Indian Empire. A Companionship of the Most Exalted Order of the Star of India was conferred on the Chief of Jasdan. The Raja of Rajpipla was installed on the *gadi*, and the lengthened British administration of the State terminated. The question of the Akalkot succession was not finally decided during the year under review.

Progress was made, but no settlement was arrived at, in the matter of the Cutch-Morvi disputes; a long-standing difference between Morvi and Malia was settled; and steps were taken towards the settlement of disputes between Porbandar and Navanagar and between Navanagar and Baroda. The future arrangements for the Rajasthanik Court were under consideration throughout the year. The ruling chiefs of Kathiawar showed themselves generally progressive in regard to education, medical science and administration, horse-breeding, agricultural experiments, water-supply, and other matters. The exports from Kathiawar ports declined during the year from 313 lakhs to 201 lakhs; imports were 239 lakhs. The greatest contrast between the enlightened and efficient administration of the present time and the backward and unsatisfactory condition of affairs a few years ago is to be found in Cambay and Khairpur.

TRANSMARINE DEPENDENCIES AND INTERESTS.

TRANSMARINE
DEPENDENCIES
AND INTERESTS,
Aden and Somali
Coast.

The progress of trade at Aden and on the Somali Coast is indicated by the following figures, which take no account of Government stores and treasure. In 1897-98 there was a heavy falling off in trade, chiefly under the heads of coal, coffee, and treasure.

ADEN TRADE.

	1893-94.	1894-95.	1895-96.	1896-97.	1897-98.
Imports:	Rx.	Rx.	Rx.	Rx.	Rx.
By Sea - - -	3,400,881	3,778,326	3,934,012	4,103,001	3,634,798
By Land - - -	318,103	363,275	393,989	302,770	331,048
Treasure - - -	642,024	610,560	744,836	821,628	440,841
Total - - -	4,451,008	4,752,161	5,072,837	5,227,499	4,406,687
Exports:					
By Sea - - -	2,937,790	3,058,994	3,414,920	3,260,327	3,182,976
By Land - - -	168,045	188,358	187,548	208,412	127,243
Treasure - - -	581,537	680,710	792,225	685,756	487,810
Total - - -	3,687,372	3,928,062	4,394,693	4,154,495	3,798,038
GRAND TOTAL - - -	8,138,380	8,680,223	9,467,530	9,381,994	8,154,725

SOMALI COAST TRADE.

	1893-94.	1894-95.	1895-96.	1896-97.	1897-98.
Berbera and Bulhar:	Rx.	Rx.	Rx.	Rx.	Rx.
Imports - - -	227,741	215,134	257,104	235,517	279,575
Exports - - -	236,536	209,374	208,481	214,266	214,777
Zaila:					
Imports - - -	132,367	280,631	365,644	351,287	242,670
Exports - - -	154,623	284,837	415,337	406,531	280,764
Total - - -	751,267	989,926	1,246,566	1,267,601	1,047,786

In October 1898 the Somali Coast Protectorate was transferred from the charge of the India Office to that of the Foreign Office. In consequence its affairs will not be reviewed in future numbers of this statement. During the year 1897 the receipts on the Coast amounted to Rx. 31,231, against an expenditure of Rx. 20,842. The last year's administration was one of success and of undisturbed peace, except for the usual inter-tribal raids and feuds. At Aden intercourse with the tribes was friendly throughout the year. The Abdali Sultan during 1897-98 interfered with some of the adjoining tribes, and the

peace of the caravan routes was consequently disturbed, but peace and the old relations were re-established shortly after the close of the year, when the Abdali Sultan died. The general administration of the Settlement of Aden was satisfactory and uneventful. A new hospital was opened, and new police lines were under construction.

TRANSMARINE
DEPENDENCIES
AND INTERESTS.

Consular reports laid before Parliament contain information regarding trade and the affairs of Muscat and of the littoral of the Persian Gulf.

Oman and Persian
Gulf.

ARMY.

The sanctioned establishment for 1897-98 was as follows :—

ARMY

British Troops	- - - - -	73,050
Miscellaneous Officers	- - - - -	892
Native Troops (including European Officers)	- - - - -	145,624
		219,566
Total	- - - - -	219,566
Corresponding Total for 1896-97	- - - - -	219,601

The actual strength of the Army on the 1st April 1898 was as follows* :—

PUNJAB COMMAND.				
<i>British.</i>				
Cavalry (3 regiments)	- - - - -	1,887		
Artillery (22 batteries and companies)	- - - - -	3,227		
Infantry (15 battalions)	- - - - -	15,223		
			20,337	
<i>Native.</i>				
Cavalry (15 regiments)	- - - - -	9,217		
Artillery (5 batteries)	- - - - -	1,118		
Infantry (40 battalions)	- - - - -	35,897		
			46,232	
				66,569
BENGAL COMMAND.				
<i>British.</i>				
Cavalry (2 regiments)	- - - - -	1,379		
Artillery (27 batteries and companies)	- - - - -	4,225		
Engineers	- - - - -	43		
Infantry (17 battalions)	- - - - -	17,605		
			23,252	
<i>Native.</i>				
Cavalry (11 regiments)	- - - - -	6,908		
Artillery (2 batteries)	- - - - -	494		
Sappers and Miners (8 companies)	- - - - -	1,312		
Infantry (25 battalions)	- - - - -	23,108		
			31,822	
				55,074
Carried forward		- - - - -		121,643

* The establishment was short by one regiment of British cavalry and two battalions of British infantry not arrived.

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ARMY.

	Brought forward - - -	121,643
MADRAS COMMAND.		
<i>British.</i>		
Cavalry (2 regiments) - - - -	1,261	
Artillery (15 batteries and companies) - - - -	2,356	
Engineers - - - - -	52	
Infantry (8 battalions) - - - - -	8,778	
		12,447
<i>Native.</i>		
Cavalry (3 regiments) - - - - -	1,773	
Sappers and Miners (9 companies) - - - - -	1,480	
Infantry (32 battalions) - - - - -	26,157	
		29,410
BOMBAY COMMAND.		
<i>British.</i>		
Cavalry (1 regiment) - - - - -	622	
Artillery (24 batteries and companies) - - - - -	3,855	
Engineers - - - - -	54	
Infantry (10 battalions) - - - - -	10,105	
		14,636
<i>Native.</i>		
Cavalry (7½ regiments) - - - - -	4,708	
Artillery (2 batteries) - - - - -	575	
Sappers and Miners (5 companies) - - - - -	824	
Infantry (31 battalions) - - - - -	23,996	
		30,103
TROOPS NOT UNDER THE ORDERS OF THE COMMANDER-IN-CHIEF IN INDIA.		
<i>Hyderabad Contingent.*</i>		
Cavalry (6 regiments) - - - - -	2,293	
Artillery (4 batteries) - - - - -	512	
Infantry (6 battalions) - - - - -	4,856	
		7,661
Body guards (Governor General's and Governors) - - - - -	268	
Resident's escort, Nepal - - - - -	95	
		363
		8,024
	TOTAL - - -	216,263

* The Hyderabad Contingent is not included in the "Sanctioned Establishment" shown above.

The total of the Native Army Reserves in India on 1st April 1898 was 16,978.

The net expenditure on the Army in 1897-98 was—

In India - - - - -	Rx.	19,553,207
In England - - - - -	£.	4,197,825
Exchange - - - - -	Rx.	2,363,878
Total - - - - -	Rx.	26,114,910

Total in 1896-97 - - - Rx. 23,301,988

The number of Volunteers in the whole of India on 1st April 1898 was as under :—

Command.	Enrolled Strength.	Efficient.
Punjab	2,020	1,818
Bengal	13,085	12,486
Madras	9,788	8,260
Bombay	5,710	5,552
	30,603	28,116

On the 1st of April 1897 the number of enrolled Volunteers was 29,466, of whom 27,384 were efficient. The number of Volunteers enrolled in the Reserve at the end of 1897-98 was 1,079.

There were no changes of great importance in the organisation of the army during the year 1897-98.

The British cavalry regiments were organised in three service squadrons and one reserve squadron, in lieu of the former organisation of four service squadrons and a depôt, but the total strength remained unchanged. Regiments serving in India ceased to have depôts after the trooping season of 1897-98, the drafts being supplied from home by regiments of the same corps (dragoons, hussars, or lancers) on the lower establishment.

The pay of the Army Medical Staff (now Royal Army Medical Corps) was increased, and corresponding changes were made in the pay of certain ranks of the Indian Medical Service.

The cavalry and infantry regiments of the Hyderabad Contingent were reorganised on the class squadron and class company system.

A scale of pensions for the Indian Nursing Service was sanctioned.

The increasing prevalence of enteric fever among the British troops in India led the Government of India to submit proposals for the employment in cantonments of specially qualified sanitary officers, whose sole duty should be fully to investigate the causes of disease, and to give practical advice in sanitary matters. The appointment of three officers, at Lucknow, Umballa, and Rawal Pindi, was accordingly sanctioned as an experimental measure.

In the Ordnance Department the direct control of the Ordnance Factories, which had hitherto been controlled by the Inspectors General of the Command in which the factories were situated, was transferred to the Director-General of Ordnance in India.

In last year's report a brief account was given of the increase of venereal disease in the army, and of the measures to be taken to diminish its prevalence. In pursuance of the instructions issued by the Secretary of State, the Government of India published a new set of rules, issued under the Cantonments Act, 1889, which made further provision for dealing with contagious and infectious diseases, and for the enforcement of public order and decency in cantonments. Copies of the rules and of the letter in which the Government of India stated explicitly their policy with respect to the future treatment of venereal disease in cantonments are subjoined. A General Order was also issued by the Commander-in-Chief in India, warning soldiers of the great virulence of this disease in tropical climates, and inviting the co-operation of all officers and men, from the highest to the lowest, to use their best personal efforts in their several spheres of duty to lessen the evil.

CANTONMENT REGULATIONS.

General Order of the Government of India, No. 1,148, Judicial, dated 15th October, 1897.

CANTONMENT REGULATIONS.

In continuation of the notification of the Government of India in the Military Department, No. 750, dated the 9th July 1897, and in supersession of the rules published in G. G. O. No. 460, dated the 3rd May 1895, and of any rules hitherto issued which are inconsistent with the rules hereby published, the Governor-General in Council is pleased to make the following rules, under sections 26 and 27 of the Cantonments Act, 1889 (XIII. of 1889), and to direct that they be put in force in all cantonments in British India :

Definitions.

1. In these rules :—

- (a) the expression "bazar" means any land set apart for occupation by natives of India, except the lines of native troops ;
- (b) the expression "regimental bazar" means any bazar under the management of regimental authorities ;
- (c) the expression "infectious or contagious disorder" includes cholera, leprosy, enteric fever, venereal disease and every infectious or contagious disorder ; and
- (d) the expression "street" includes any way, road, lane, square, court, alley, passage or open space, whether a thoroughfare or not and whether built upon or not, over which the public have a right of way, and also the roadway and footway over any public bridge or causeway.

Hospitals or Dispensaries.

2. (1) So far as the funds at its disposal permit, the Cantonment Authority may—

- (a) provide and maintain, either within or without the cantonment, as many hospitals or dispensaries as may be necessary ; or
- (b) make, upon such terms as it thinks fit to impose, a grant-in-aid to any hospital or dispensary, whether within or without the cantonment, not maintained by it.

(2) Every hospital or dispensary maintained or aided under this rule shall have attached to it a ward or wards for the treatment of persons suffering from infectious or contagious disorders.

Medical Officer to be in charge of hospital or dispensary.

3. A medical officer, to be appointed in such manner as the Local Government may direct, shall be in charge of every hospital or dispensary maintained or aided under rule 2.

Subordinate establishments for hospitals or dispensaries.

4. Subject to the control over the Cantonment Fund, which is vested in the Local Government by section 23 of the Cantonments Act, 1889, there shall be appointed, for every hospital or dispensary maintained or aided under rule 2, such subordinate establishment as may be necessary.

Medical supplies, appliances &c.

5. So far as the funds at its disposal permit, the Cantonment Authority shall cause every hospital or dispensary maintained or aided under rule 2 to be provided with—

- (a) all necessary drugs, instruments, apparatus, furniture and appliances ;
- (b) sufficient cots, bedding and clothing for in-patients ; and
- (c) such further requisites as may be necessary.

Application of civil hospital rules.

6. Every hospital or dispensary maintained or aided under rule 2 shall be maintained in accordance with the rules made generally or specially by the Governor-General in Council, or the Local Government for the conduct of hospitals and dispensaries, or in accordance with the said rules modified in such manner as the Governor-General in Council or the Local Government may think proper.

Free patients.

7. At every hospital or dispensary maintained or aided under rule 2 the sick poor of the cantonment, persons in the cantonment suffering from infectious

or contagious disorders and, with the sanction of the Cantonment Authority, any other sick persons may receive medical treatment free of cost and, if treated as in-patients, shall be either dieted gratuitously, or, should the medical officer in charge so direct, granted subsistence allowance on a scale to be determined by the Cantonment Authority :

CANTONMENT REGULATIONS.

Provided that the subsistence allowance granted as aforesaid shall not be less than the lowest allowance for the time being fixed for the subsistence of judgment-debtors by the Local Government under section 338 of the Code of Civil Procedure. XIV of 1882.

8. Any sick person who is ineligible under the last foregoing rule to receive medical treatment free of cost in any hospital or dispensary maintained or aided under rule 2, may, upon such terms as the Cantonment Authority thinks fit to impose, be admitted to treatment in such hospital or dispensary. Paying patients.

9. If the medical officer in charge of a hospital or dispensary maintained or aided under rule 2 has *prima facie* grounds for believing that any person living in the cantonment is suffering from an infectious or contagious disorder, he may, by notice in writing in the form set forth in the schedule or in any similar form, call upon such person to attend at the hospital or dispensary at a time to be specified in the notice and not to quit it without the permission of the medical officer in charge, unless and until such medical officer is satisfied, by examination if necessary, that such person is not in fact suffering, or is no longer suffering from such disorder : Power to call upon person suffering from infectious or contagious disorder to attend and remain in the hospital or dispensary.

Provided that if, having regard to the nature of the disorder or the condition of the person suffering therefrom, or the general environment and circumstances of such person, the medical officer considers the attendance of such person at the hospital or dispensary inexpedient, he may dispense with such attendance, and take such measures or give such directions as to him seem fit and proper.

10. If the medical officer in charge of a hospital or dispensary maintained or aided under Rule 2 reports in writing to the Commanding Officer of the cantonment that any person having received a notice, as provided in Rule 9, has refused or omitted to attend at the hospital or dispensary, or that such person having attended at the hospital or dispensary, has quitted it without the permission of such medical officer, the Commanding Officer may, if he thinks it expedient, by order in writing, direct such person to remove from the cantonment within 24 hours and prohibit such person from remaining longer in, or re-entering, it without his written permission. Power to exclude from cantonment.

11. The Cantonment Authority may, by notice in writing, prohibit— Removal of brothels or prostitutes.
 (a) the keeping of a brothel, or
 (b) the residence of a public prostitute in the cantonment, or any specified part thereof.

12. No public prostitute shall be permitted to reside within the limits of any regimental bazar situate in the cantonment. Exclusion of public prostitutes from regimental bazars.

13. No person shall, in any street or public place within the limits of the cantonment, loiter for the purpose of prostitution, or importune any person to the commission of sexual immorality : Loitering or importuning for sexual immorality prohibited.

Provided that no person shall be charged with a breach of this rule except on the complaint of the person importuned, or of a member of the British military police force employed in the cantonment, and specially authorised in this behalf by the Commanding Officer of the cantonment, or of an officer as defined in the Cantonments Act, 1889.

Penalties.

14. Whoever— Penalties.
 (a) having, under Rule 10, been prohibited from remaining in, or re-entering, the cantonment, remains in, or re-enters, it without the written permission of the Commanding Officer ; or
 (b) fails to comply with a notice under Rule 11 ; or
 (c) commits a breach of Rule 13 ;

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shall be punishable with fine, which may extend to 50 rupees, or with imprisonment for a term which may extend to eight days.

Arrest without
warrant.

15. Any member of the police force employed in the cantonment may arrest without a warrant any person committing, or charged with having committed, an offence punishable under clause (a) or clause (c) of the last foregoing rule:

Provided as follows:—

- (i.) No person shall be so arrested whose name and address are known to either the complainant or the arresting officer;
- (ii.) No person shall be so arrested who consents to give his or her name and address, unless there is reasonable ground for doubting the accuracy of the name or address so given, the burden or proof of which shall be on the arresting officer.
- (iii.) No person so arrested shall be detained after his or her name and address have been ascertained.
- (iv.) No person so arrested shall, except under the order of a magistrate, be detained longer than may be necessary for bringing him or her before a magistrate; and
- (v.) No person shall be so arrested for a breach of Rule 13 except—
 - (a) at the request of the person importuned or of an officer, as defined in the Cantonments Act, 1889, in whose presence the breach was committed; or
 - (b) by, or at the request of, a member of the British military police force employed in the cantonment and specially authorised in this behalf by the Commanding Officer of the cantonment, in whose presence the breach was committed.

SCHEDULE.

(See Rule 9.)

To

Take notice that under Rule 9 of the Rules under the Cantonments Act, 1889 (XIII. of 1889), published in the *Gazette of India*, 1897, Part I., page , you are hereby called upon to attend at the

on day, the 189 , at o'clock M.,
and not to quit the said hospital without the permission of the medical
dispensary
officer in charge, unless and until such officer is satisfied that you are not in fact suffering, or are no longer suffering, from an infectious or contagious disorder, that is to say, from

Medical officer in charge of the

Dated

, the

, 189

Letter from Major General P. J. Maitland, C.B., Secretary to the Government of India. Military Department, to the Quartermaster General in India.—(No. 5465—D., "Sanitary—Cantonment Hospitals,"—dated Simla, the 20th November 1897).

In the Despatch No. 25, dated 26th March 1897, from the Secretary of State, regarding the prevalence of venereal disease in the British Army in India, it is stated that Her Majesty's Government cannot acquiesce in the continuance of the present state of things which has led to a disastrous increase in venereal disease among the British troops in India, and requires the immediate adoption of remedial measures.

2. In pursuance of the recommendations of the Secretary of State, a new set of rules has been issued under the Cantonments Act, 1889, superseding the rules issued in G. G. O. No. 460, dated 3rd May 1895, and making further

provision for dealing with contagious and infectious diseases, and for the enforcement of public order and decency in cantonments.

3. To give full effect to these Rules, Act V. of 1895 has been repealed by Act XV. of 1897, and it therefore becomes desirable to state explicitly the policy of the Government of India with respect to the future treatment of venereal disease in cantonments.

4. The Governor-General in Council is of opinion that venereal diseases should, as far as possible, be dealt with on the same lines as other infectious and contagious diseases. It must be expressly understood that the new rules do not in any way revive the system which was in force up to 1888. They do not authorise the provision of prostitutes for the troops, or the compulsory examination of prostitutes, or any scheme of registration and licensing for the purpose of prostitution. If a prostitute is suspected of being diseased and of being a source of danger to other persons, she may be required to be examined, and if she refuses to be examined, she may be required to quit the cantonment. Her refusal to be examined will entail no other penalty, and no prostitute, therefore, will be examined against her will. If she is found to be diseased, and submits to treatment, any further examination that may be necessary will be determined by the medical requirement of the case, and will depend on considerations similar to those which would apply in the case of any other infectious or contagious disease.

Although there is to be no compulsory examination of women, medical officers may make arrangements to carry out from time to time the examination of women who voluntarily present themselves.

5. The Governor-General in Council desires to impress on those concerned that the success of the measures now adopted will depend very much on the manner in which the new rules are put in force.

Rule 9 empowers the medical officer in charge of a Cantonment Hospital, if he has *prima facie* grounds for believing that any person living in the cantonment is suffering from an infectious or contagious disorder, to require, by notice in writing, that such person shall attend at the hospital or dispensary at a time to be specified in the notice and not to quit it without his permission; unless and until he is satisfied, by examination if necessary, that such person is not in fact suffering, or is no longer suffering, from such disorder.

Rule 10 empowers the Commanding Officer of a cantonment, if the medical officer in charge of a hospital or dispensary reports in writing that any person having received a notice as provided for in rule 9 has refused or omitted to attend at the hospital or dispensary, or that such person having attended at the hospital or dispensary, has quitted it without his permission, to direct by order in writing, if he thinks it expedient, such person to remove from the cantonment within 24 hours and prohibit such person from remaining longer in, or re-entering, it without his written permission.

6. It should be carefully borne in mind by those concerned that the powers conferred by these rules are *permissive*, and that if a medical officer should have *prima facie* grounds for believing that any person living in the cantonment is suffering from an infectious or contagious disorder, he should, in order to prevent, as far as possible, the infliction of hardships on the more respectable inhabitants of the cantonment, personally satisfy himself regarding the condition and general environment and circumstances of the sick person, in order to ascertain whether the case does not admit of the exercise of the discretion conferred on him by rule 9 to give such other directions in the matter, apart from attendance at, or detention in, the hospital or dispensary, as may seem to him most expedient for the purpose of preventing the spread of the disorder. The powers conferred must be exercised with discretion. It is not the intention of the Government that they should be exercised in the cases of respectable persons, who can arrange for private medical attendance, and who are willing to take any necessary precautions to prevent the spread of the disease. It is the danger of the spread of the disease to others that justifies the interference of the medical officer.

7. His Excellency in Council trusts that the measures which will now come into force may alike tend to remove temptation from young soldiers, and to diminish the prevalence of this terrible disease. These measures will also alleviate the sufferings of the women who have contracted venereal disorders,

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by providing them with medical care and treatment which would not be denied to them in the case of any other infectious or contagious disease.

8. In conclusion I am to ask that, under the orders of His Excellency the Commander-in-Chief, the necessary steps may be taken for making known the views of the Government of India on this question to all military officers concerned.

MILITARY OPERATIONS.

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OPERATIONS.

The year 1897-98 was remarkable for the number of outbreaks among the tribes on the North West Frontier and for the extensive military operations which became necessary for their suppression.

Tochi.

On the 10th June 1897 the escort of the Political Officer in the Tochi Valley, consisting of about 300 men, was suddenly and treacherously attacked by a body of the Madda Khel section of the Darwesh Khel Waziris. The troops behaved with the greatest gallantry. The British officers were all wounded (most of them mortally) early in the engagement, but continued to carry out their duties until absolutely incapacitated. The force retired to Sheranna, carrying on a running fight for about four hours, when reinforcements arrived and the enemy were beaten off. Lieut. Colonel A. Bunny, commanding the escort, and two other British officers died during the retreat. The three other British officers were also wounded, and two of them subsequently died.

Orders were immediately issued for the formation of a force to exact reparation. It was designated the "Tochi Field Force," and was placed under the command of Major General G. C. Bird, C.B. It was divided into two brigades, commanded by Brigadier Generals C. C. Egerton, C.B., D.S.O., and W. P. Symons, C.B., respectively, and numbered rather over 7,000 men in all. General Bird assumed command on the 21st June, and early in July arrived in the valley. There was no organised resistance, but the tribesmen adopted their usual tactics of fringing into camp, attacking outposts, and interfering with the line of communications. Troops were incessantly moved up all their valleys and into their remotest villages; their fortified buildings were destroyed, and their flocks and herds were captured. At last, homeless and destitute, they relinquished the contest, and, at the end of October, submitted to the terms imposed upon them. The military operations now practically terminated, but the field force, reduced in strength from time to time, was not broken up until January 1898.

Malakand.

On the night of the 26th July 1897, the camp at the Malakand and the outpost of Chakdara were attacked by a miscellaneous gathering of tribesmen from the surrounding country, led by a mad fakir, who had announced that our troops would be driven out. The garrisons were not altogether unprepared. After heavy fighting the attacks were repulsed; but they were renewed each successive night up to that of the 30th of July, desultory firing going on during the day. Chakdara was also twice attacked in the day time. With hardly any rest or sleep, the troops behaved admirably, and each attack was met and repulsed with steadiness and success. The strength of the Malakand garrison was about 2,700, and of that of Chakdara a little over 300. Some reinforcements arrived at the Malakand on the 29th July, and more on the 1st August, when Sir B. Blood arrived and assumed command. A small body of cavalry were got through to Chakdara, and the post was relieved on the 2nd August, as related below.

As soon as intelligence of the rising was received in India, reinforcements were hurried up, and orders were issued for the formation of a force to be called the "Malakand Field Force." Major General Sir B. Blood, K.C.B., was appointed to command, and the force (which included the troops already on the Malakand and was about 8,000 strong) was divided into two brigades under Brigadier Generals, W. H. Meiklejohn, C.B., C.M.G., who had been in command at the Malakand, and P. D. Jeffreys, C.B. A reserve brigade was also concentrated near the frontier. This, though with some considerable change in its composition, afterwards became the 3rd Brigade of the Malakand Field Force under Brigadier General J. H. Wodehouse, C.B., C.M.G.

Sir B. Blood assumed command on the 31st July, and, as stated above, arrived at the Malakand on the 1st August, in advance of the greater part of the force. On the 2nd, a column under Brigadier General Meiklejohn was sent to the relief of Chakdara, which was successfully accomplished, though not without some hard fighting. At the same time there was fighting near the Malakand itself. The enemy now cleared out of the neighbourhood.

Having organised the field force and its communications Sir B. Blood advanced with his 1st brigade and some other troops into Upper Swat. On the 17th August he encountered the enemy near Landikai, and dispersed them without much difficulty, though with some loss. Several tribes now submitted and the column returned to the Malakand on the 27th August.

In the beginning of September Sir B. Blood disposed his forces with a view to the movement of two of his brigades into the Mohmand country in order to cooperate with the Mohmand Field Force (*see* below). Circumstances, however, somewhat altered his plans for, on the night of the 14th September, the camp of the 2nd brigade, near Markhanai, was assailed by a gathering of Mamunds and Salarzais, who inflicted some loss upon our troops. General Jeffreys now discontinued his advance towards the Mohmand country and spent the next few days in punishing the Mamunds and Salarzais. On the 16th there was very heavy fighting in the Wadelai valley in which our losses were considerable. Between that date and the 22nd General Jeffreys took and destroyed several fortified villages. Meanwhile the 3rd brigade, with which was Sir B. Blood himself, was halted at Nawagai. Here it was attacked on the nights of the 19th and 20th September by the Adda Mulla's gathering from the Mohmand country. After the failure of the second attack the Mulla drew off. Among our wounded was General Wodehouse, who was compelled in consequence to hand over the command of the 3rd brigade to Lieut.-Colonel B. C. Graves. This brigade now joined the Mohmand Field Force.

The Mamunds now commenced negotiations which, however, came to nothing, and operations against their villages were resumed on the 29th September. There was some very hard fighting at Inayat Killa on the 30th September and more at Badalai on the 3rd October. On the 11th of that month the Mamunds finally submitted. The second brigade then returned to the Malakand.

In November a column under Colonel A. J. F. Reid was sent into the Cis-Swat Utman Khel district. There was no opposition and the column returned in the beginning of December.

In January 1898 a force, which was designated the "Buner Field Force" was detailed to coerce the Buners and Chamlawals who had failed to comply with the terms imposed upon them. It consisted of the greater part of the Malakand Field Force and was commanded by Sir B. Blood, who had with him Generals Meiklejohn and Jeffreys as Brigadiers. There was slight opposition at the Tanga Pass, but the tribes almost immediately submitted. On the 19th January the field force moved to British Territory. A considerable force was maintained at the Malakand and in the Swat Valley.

On the 7th August a large gathering of tribesmen, principally Mohmands, led by the Adda Mulla raided into British territory and, after burning the village of Shankargarh, attacked the fort of Shabkadr, retiring in the morning. On the 8th, Major-General Elles, the officer commanding the Peshawar District, sent out a column of about 730 men with orders to attack the tribesmen. This they did on the morning of the 9th. A sharp engagement ensued. General Elles arrived while it was in progress, and the enemy were driven back into the hills with heavy loss. No pursuit was attempted.

Mohmand.

No immediate steps were taken for an invasion of the Mohmand country, but two additional reserve brigades were concentrated at Rawal Pindi with a view to use as might be required. This was partly in consequence of the unsettled state of the Afridis.

Early in September, however, it was decided to send an expedition against the Mohmands, and a force nearly 7,000 strong, styled the "Mohmand Field Force," was formed for this purpose. Major-General E. R. Elles, C.B., was appointed to command, with Brigadier-Generals R. Westmacott, C.B., and C. R. Macgregor, D.S.O. in command of brigades. The advance across the border commenced on the 15th September, the second brigade was halted on

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the road to secure communications, and on the 21st September, General Elles effected a junction with the 3rd brigade of the Malakand Field Force which was placed under his orders by Sir B. Blood (*see above*).

The physical difficulties of the country were very great but the opposition was not very determined. On the 23rd September, General Elles attacked the Adda Mulla on the Bedmanai Pass and dispersed his gathering, and on the 25th visited the Mulla's headquarters at Jarobi. Many village towers were destroyed.

By the 30th September the tribes had submitted, and the country was evacuated by the 7th October.

Tirah.

Towards the middle of August 1897 signs of unrest began to manifest themselves among the powerful Orakzai and Afridi tribes, and the Government of India commenced to take precautions. The 2nd and 3rd reserve brigades were concentrated at Rawal Pindi, as stated above.

On the 23rd August the Afridis attacked the posts in the Khyber held by the Khyber Rifles, men of their own tribe. Fort Maude was captured on that day and Ali Musjid on the next, and on the 25th Lundi Kotal was taken after some hard fighting. The Orakzais moved about the same time, menacing the posts on the Samana and attacking several of our smaller outlying posts and frontier villages.

It was now decided that it would be necessary to undertake operations on a large scale against these tribes, and instructions were issued for the formation of a considerable force. Meanwhile the Government of India prepared to check any aggressive movement on the part of the tribesmen, and moveable columns were accordingly detailed to watch the threatened points. Brigadier-General A. G. Yeatman Biggs, C.B., assumed command of the troops on the Kohat-Kurram Frontier. Some desultory fighting occurred along this line.

On the 28th August, the Orakzais, who had been joined by a contingent of Afridis, attacked the Samana Ridge blocking up the road to it. On the 12th September they succeeded in taking Saragarhi by assault. The garrison (21 men of the 36th Sikhs) died at their post, after inflicting considerable loss on the enemy. On the 14th, General Yeatman-Biggs relieved Gulistan and Fort Lockhart.

The final orders for the despatch of the "Tirah Expeditionary Force" were issued on the 8th October. General Sir W. S. Lockhart, K.C.B., K.C.S.I., was appointed to its command, with Brigadier-General W. G. Nicholson, C.B., as Chief of Staff, and it was divided into four bodies:—

- I. A main column, about 18,700 strong, sub-divided into two divisions, each consisting of two brigades, to advance on Tirah from the Samana.
 - 1st Division, Major-General W. P. Symons, C.B.
 - 1st Brigade, Brigadier-General R. C. Hart, C.B., V.C.*
 - 2nd Brigade, Brigadier-General A. Gaselee, C.B.
 - 2nd Division, Major-General A. G. Yeatman-Biggs, C.B.
 - 3rd Brigade, Brigadier-General F. J. Kempster, D.S.O.
 - 4th Brigade, Brigadier-General R. Westmacott, C.B., D.S.O.
- II. The line of communications of the main column, 5,000 strong, under Lieut-General Sir A. P. Palmer, K.C.B.
- III. A mixed brigade styled the Peshawar column, numbering about 4,500, and under the command of Brigadier-General A. G. Hammond, V.C., C.B., D.S.O., A.D.C.
- IV. A force, designated the Kurram Moveable column, 2,600 strong, commanded by Colonel W. Hill.

A mixed brigade was also constituted at Rawal Pindi, as a reserve.

Sir W. Lockhart left Kohat for the Samana on the 9th October, and the force was concentrated for advance as rapidly as difficulties of transport would admit. On the 18th, the 2nd Division under Sir A. P. Palmer (General Yeatman-Biggs being ill) captured and destroyed the village of Dargai. The heights were evacuated in the evening, and the withdrawal was attended with some loss on our part. On the 20th the Dargai heights were again captured by the 2nd Division, this time under its own commander. The position was

* Brigadier-General I. S. M. Hamilton, C.B., D.S.O., was originally appointed to command the 1st Brigade, but was disabled by an accident early in October. Subsequently, in February 1898, he assumed command of the 3rd Brigade in place of Brigadier-General Kempster.

strong and well defended, and our loss was severe—over 200 killed and wounded. MILITARY
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The force halted at Karappa for a week in consequence of difficulties of the road and transport. Some loss was sustained owing to the camp being fired into by day and by night.

The advance having been resumed, the Sampāgha Pass was captured on the 29th October, and the Arhanga Pass on the 31st, with slight loss on each occasion. The force now descended into the Tirah and encamped at Maidan. Here the main body remained until the 18th November. Reconnaissances were made, village defences were destroyed, and there was some heavy fighting. Between the 18th and the 20th November the camp was moved to Bagh. Expeditions were sent out from here also, and more village defences were destroyed.

On the 26th November Sir W. Lockhart proceeded with a force under General Gaselee to cooperate with the Kurram Moveable column in coercing the Orakzais, and the sections of the Chamkannis which had thrown in their lot with them. The operations were successfully carried out, though with some loss. A number of fortified villages were destroyed and the Orakzais submitted to the terms of the Government. The detached force returned to Bagh on the 6th December.

On the 7th December the expeditionary force commenced its march through the Afridi territory down to the neighbourhood of Peshawar. The first Division marched down the Mastura Valley, and the 2nd, with which went Sir W. Lockhart, down the Bara Valley. The latter division was almost unceasingly engaged during the march, and inflicted great loss upon the enemy; the former division only met with slight opposition. The defences of a large number of villages were destroyed by both divisions. On the 13th December the 2nd Division came into touch with the Peshawar column, and on the 14th arrived at Mamanai. On the 17th the 3rd Brigade moved on to Bara Fort. The 1st Division crossed the Sapri Pass on the 12th and 13th and, passing through Mamanai, concentrated near Bara Fort on the 17th.

Measures were now taken for reopening the road through the Khyber; for reconstructing the fortified posts destroyed by the Afridis; and for destroying the defences of the villages in the Khyber and the Bazar Valley. Fighting went on every day from the 25th December to the 1st January 1898. The Peshawar column now became the 5th Brigade of the Tirah Expeditionary Force. General Yeatman-Biggs quitted the force on account of ill-health, and died at Peshawar on the 5th January.

During the month of January the Afridis maintained a guerilla warfare. The only operation of importance undertaken by our troops was an expedition sent out to disperse a gathering in the Kajuri Plain. Our loss was somewhat severe. Five officers were killed, among them being Colonel J. Haughton, of the 36th Sikhs, who had distinguished himself throughout the operations.

On the 1st February, hostilities practically ceased, although on a few subsequent occasions piquets and parties of soldiers were attacked by marauders.

In no campaign on the Indian frontier had the operations ever been carried out in such arduous circumstances. The extreme and exceptional difficulties of the country traversed were aggravated by the inclemency of the season. The enemy, active, brave, and in great part skilled marksmen, availed themselves to the utmost of the configuration of the country. The operations were, however, carried through as originally planned, and were completely successful in their result. A most exemplary punishment was inflicted upon the tribes, and their submission was complete.

Subsequently, though not in the year under review, the India Medal, 1895, with various clasps, was granted to the troops which took part in the above operations. A gratuity was also given to every officer, soldier, and follower. Sir W. Lockhart was created a G.C.B., and General Elles a K.C.B., and Colonel Sir B. Blood (who had served as a temporary Major-General), was promoted to the permanent rank of Major-General. Many other officers were suitably rewarded.

A statement of the casualties during the different operations will be found on the next page.

The following STATEMENT shows the NUMBER of CASUALTIES during the OPERATIONS on the NORTH-WEST FRONTIER from the 10th June 1897, to the close of the TIRAH EXPEDITION.

FORCE.]	STAFF AND DEPARTMENTAL OFFICERS.				BRITISH TROOPS.								NATIVE TROOPS.																	
	Killed.	Died of Wounds.	Died of Disease.	Wounded.	Officers.				Warrant and Non-Commissioned Officers and Men.				British Officers.				Native Officers.				Rank and File.				Followers.					
					Killed.	Died of Wounds.	Died of Disease.	Wounded.	Killed.	Died of Wounds.	Died of Disease.	Wounded.	Killed.	Died of Wounds.	Died of Disease.	Wounded.	Killed.	Died of Wounds.	Died of Disease.	Wounded.	Missing.	Killed.	Died of Wounds.	Died of Disease.	Wounded.	Missing.				
Tochi Field Force (includes attack on escort at Maizar).	—	—	—	—	—	—	2	—	—	—	127	2	3	1	1	3	1	—	2	3	21	3	61	33	—	2	—	—	1	—
Malakand Field Force	(c) 1	—	—	(e) 4	2	—	—	8	6	(a) 3	16	36	9	2	—	18	—	—	—	14	71	5	(b) 32	305	—	1	—	—	7	—
Peshawar	—	—	—	—	1	—	—	3	7	—	—	11	—	—	—	1	—	—	—	—	9	—	—	55	—	—	—	—	—	—
Mohmand Field Force	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	1	2	—	2	29	—	1	—	—	1	—
Kohat-Kurram	—	—	—	—	—	—	—	—	—	—	6	—	—	—	1	3	—	—	—	4	36	6	5	74	—	1	—	—	5	—
Tirah Expeditionary Force	(e) 1	(d) 1	{(c) 1 (e) 1	(e) 4	12	—	7	31	111	15	121	369	10	1	1	19	5	—	2	14	149	12	148	385	9	22	—	—	18	120
TOTAL	2	1	2	8	15	—	9	42	124	18	271	418	22	4	3	43	6	—	4	36	288	26	248	881	9	27	—	—	32	120

(a) Includes one man of Buner Field Force.
 (b) Includes three men of Buner Field Force.
 (c) Indicates Indian Service Officers.

(d) Indicates British Service Officers.
 (e) " 3 British Service and 1 Indian Service Officers.

SUMMARY.

	Killed.*	Died of Disease.	Wounded.	Missing.
Staff and Departmental Officers	3	2	—	—
Regimental Officers	41	12	85	—
British Non-Commissioned Officers and Men	142	271	418	—
Native Officers	6	4	36	—
Native Non-Commissioned Officers and Men	314	248	881	9
Followers	27	—	32	120
Total	533	537	1,460	129

* Includes those who died of wounds.

STATEMENT EXHIBITING THE MORAL AND MATERIAL Casualties during Operations on the North-West Frontier, 1897-98

In January, 1898, Baluch Khan, Chief of Kolwa, in Mekran, treacherously attacked a survey party at Hor Kalat, looted its camp and killed some of the survey party. A force rather over 500 strong was despatched from Sind under Lieut.-Colonel R. C. G. Mayne. Other chiefs had joined the Chief of Kolwa, but their forces were completely defeated at Gok Parosh on the 31st January. Baluch Khan and several others were killed. Our loss was three killed and 12 wounded—all natives. Some further operations were unattended with loss on our part and in February the various chiefs submitted.

MILITARY
OPERATIONS.
Mekran.

APPENDIX.

FINANCE.

TABLES showing the NET REVENUE and EXPENDITURE in the several Provinces of INDIA, and in ENGLAND.

Bengal.

BENGAL.

	1896-97.				1897-98.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
NET REVENUE:	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue - - -	2,997,356	846,497	—	3,843,753	3,022,987	922,964	—	3,945,951
Forest - - - - -	68,539	68,541	—	137,080	59,406	59,407	—	118,813
Opium - - - - -	2,441,730	—	—	2,441,730	1,682,359	—	—	1,682,359
Salt - - - - -	2,468,553	13,424	—	2,481,977	2,443,364	—	—	2,443,364
Stamps - - - - -	435,378	1,306,134	—	1,741,512	439,821	1,319,464	—	1,759,285
Excise - - - - -	1,004,184	334,728	—	1,338,912	636,883	636,883	—	1,273,766
Provincial Rates - - -	—	443,651	466,480	910,131	—	457,715	480,748	938,463
Customs - - - - -	1,444,226	9,342	—	1,453,568	1,435,455	9,464	—	1,444,919
Assessed Taxes - - -	251,891	244,306	—	496,197	255,326	246,389	—	501,715
Registration - - - -	77,088	77,087	—	154,175	78,837	78,837	—	157,674
Other Heads - - - -	1,201	67,180	15,849	84,230	—2,466	52,327	24,196	74,067
TOTAL - - -	11,190,046	3,410,890	482,329	15,083,265	10,051,972	3,783,460	504,944	14,340,376
NET EXPENDITURE:								
Interest - - - - -	—155,477	—1,716	—2,435	—159,628	—150,555	—8,592	—1,818	—166,965
Collection of Revenue - -	303,482	614,889	35,134	953,505	212,017	692,013	35,408	939,438
Railways - - - - -	—590,769	—443,271	—	—979,040	—979,206	—	—	—979,206
Irrigation - - - - -	—	281,229	—1,148	280,081	—	254,283	—1,329	252,954
General Administration - -	33,081	175,692	30,746	239,519	29,654	173,735	25,349	228,738
Law and Justice - - - -	—	975,238	—	975,238	—	979,892	—	979,892
Police - - - - -	—	603,064	—49,306	553,758	—	620,747	—43,954	576,793
Education - - - - -	—	217,637	114,711	332,348	—	217,793	113,633	331,426
Medical - - - - -	—	174,155	19,717	193,872	—	185,040	25,851	210,891
Territorial and Political Pensions - - -	100,502	—	—	100,502	114,680	—	—	114,680
Civil Superannuation - -	—5,757	186,418	1,033	181,694	—11,017	201,148	2,177	192,308
Stationery and Printing -	184,863	97,066	5,727	287,656	205,183	102,673	5,062	312,918
Civil Works - - - - -	67,359	331,151	375,619	774,129	62,451	275,717	356,330	694,498
Famine Relief and Insurance -	—	215,626	28,682	244,208	576,821	273,924	35,819	866,564
Other Heads - - - - -	30,492	20,084	34,082	84,658	33,556	5,598	41,051	80,205
Provincial and Local Balances	—	—186,558	45,053	—141,505	—	—303,250	24,104	—279,146
TOTAL - - -	27,776	3,255,604	637,615	3,920,995	87,534	3,670,721	617,683	4,375,938
Surplus - -	11,162,270	155,286	—155,286	11,162,270	9,964,388	112,739	—112,739	9,964,388

NORTH-WEST PROVINCES AND OUDH.

North-West
Provinces
and Oudh.

	1896-97.				1897-98.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
NET REVENUE:	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	3,749,566	1,189,507	3,274	4,942,347	4,275,231	1,288,934	3,206	5,567,371
Forest	72,029	72,029	—	144,058	68,517	68,516	—	137,033
Opium	48,535	—	—	48,535	47,235	—	—	47,235
Stamps	175,301	525,904	—	701,205	179,209	545,907	—	724,516
Excise	333,787	111,545	—	445,332	336,715	111,804	—	448,519
Provincial Rates	—	157,999	716,482	874,481	—	119,454	810,829	930,283
Assessed Taxes	126,122	119,528	—	245,650	127,245	120,292	—	247,537
Other Heads	21,404	38,856	11,478	71,738	34,007	37,104	10,376	81,487
TOTAL	4,526,744	2,215,368	731,234	7,473,346	5,068,159	2,291,411	824,411	8,183,981
NET EXPENDITURE:								
Interest	73,043	9,566	—1,713	80,896	72,882	—3,090	—1,817	67,975
Collection of Revenue	63,976	501,429	353,092	918,497	66,318	508,206	359,945	934,469
Railways	—546,475	—	—	—546,475	—667,188	—	—	—667,188
Irrigation	—116,839	—200,515	—	—317,354	—120,525	—330,910	—	—451,435
General Administration	23,154	136,670	8,068	167,892	23,990	138,154	7,893	170,037
Law and Justice	—	638,137	—	638,137	—	668,001	—	668,001
Police	—	418,977	264,363	683,340	—	437,208	271,095	708,303
Education	—	53,518	128,992	182,510	—	70,535	113,674	184,209
Medical	—	71,774	41,849	113,623	—	89,201	41,842	131,043
Territorial and Political Pensions	96,735	—	—	96,735	93,758	—	—	93,758
Civil Superannuation	—10,504	199,193	1,301	190,590	—10,571	209,117	1,883	200,429
Stationery and Printing	—1,294	56,283	1,024	55,963	—1,011	57,378	1,069	57,936
Civil Works	17,959	224,417	200,574	451,950	13,257	226,490	193,524	433,271
Famine Relief and Insurance	997,691	—	—	997,691	1,072,635	—	—	1,072,635
Other Heads	45,700	7,268	32,125	75,093	43,137	7,749	22,453	73,339
Provincial and Local Balances	—	—164,740	—35,100	—199,840	—	—	25,722	25,722
TOTAL	643,146	1,956,927	989,675	3,589,748	586,682	2,078,539	1,037,283	3,702,504
Surplus	3,883,598	258,441	—258,441	3,583,598	4,481,477	212,872	—212,872	4,481,477

STATEMENT EXHIBITING THE MORAL AND MATERIAL

FINANCE.

Punjab.

PUNJAB.

	1896-97.				1897-98.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
NET REVENUE:	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue - - -	1,308,192	946,352	4,267	2,258,811	1,397,249	1,037,086	4,336	2,438,671
Forest - - - - -	55,363	55,363	—	110,726	53,287	53,287	—	106,574
Stamps - - - - -	113,765	341,298	—	455,063	107,945	323,120	—	436,065
Excise - - - - -	163,674	54,741	—	218,415	174,772	58,169	—	232,941
Provincial Rates - - -	—	57,749	351,034	408,783	—	62,650	381,028	443,678
Assessed Taxes - - -	80,015	65,831	—	145,846	83,546	69,314	—	152,860
Registration - - - -	20,945	20,945	—	41,890	21,006	21,007	—	42,013
Other Heads - - - -	40,184	7,364	1,196	48,744	54,405	8,006	818	63,229
TOTAL - - - -	1,782,138	1,549,643	356,497	3,688,278	1,892,210	1,637,639	386,182	3,916,031
NET EXPENDITURE:								
Military Works - - -	61,319	—	—	61,319	79,441	—	—	79,441
Collection of Revenue - -	52,393	326,206	193,557	512,156	54,848	329,262	135,842	519,952
Railways - - - - -	1,155,681	—	—	1,155,681	1,562,489	—	—	1,662,489
Irrigation - - - - -	744,779	6,144	3,931	743,989	866,424	9,301	3,964	879,689
General Administration -	17,689	105,672	14,306	137,667	18,631	98,898	14,221	131,750
Law and Justice - - -	—	383,300	113	383,388	—	392,956	46	392,910
Police - - - - -	—	341,075	3,477	337,598	—	323,362	3,574	324,788
Education - - - - -	—	70,771	55,713	126,484	—	70,689	56,645	127,334
Medical - - - - -	—	60,091	32,340	92,431	—	64,455	37,831	102,286
Political - - - - -	201,602	—	—	201,602	216,567	—	—	216,567
Territorial and Political Pen- sions.	30,019	—	—	30,019	31,469	—	—	31,469
Civil Superannuation - -	6,733	97,532	328	91,127	6,295	104,200	1,159	99,061
Stationery and Printing -	2,418	39,861	2,694	40,137	2,524	41,318	3,236	42,030
Famine Relief - - - -	24,300	31,072	30,777	86,149	3,202	88,918	7,153	99,273
Civil Works - - - - -	69,178	202,491	64,551	336,220	36,207	185,594	58,036	279,896
Other Heads - - - - -	64,547	20,544	9,510	94,601	43,624	15,989	8,054	67,667
Provincial and Local Balances	—	64,073	46,579	110,652	—	2,273	167	2,111
TOTAL - - - -	1,385,564	1,608,601	297,539	520,576	2,053,194	1,709,062	314,759	29,670
Surplus - - - -	8,167,702	58,958	58,958	8,167,702	3,945,701	71,423	71,423	3,945,701

BURMA.

Burma.

	1896-97.				1897-98.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
NET REVENUE :	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue - - - -	1,524,504	862,743	565	2,387,812	488,429	2,149,592	839	2,638,860
Forest - - - - -	446,789	190,851	—	637,640	360,602	360,602	—	721,204
Salt - - - - -	140,207	—	—	140,207	156,058	— 68%	—	155,372
Stamps - - - - -	66,766	95,632	—	162,398	41,886	125,656	—	167,542
Excise - - - - -	334,389	86,651	—	421,040	208,898	208,898	—	417,796
Provincial Rates - - -	—	—	114,661	114,661	—	—	124,550	124,550
Customs - - - - -	752,984	2,599	—	755,583	754,213	6,934	—	761,147
Assessed Taxes - - -	50,559	34,420	—	84,988	52,585	45,181	—	97,766
Other Heads - - - - -	61,565	1,420	31,945	94,930	60,919	2,605	32,586	96,110
TOTAL - - - - -	3,377,763	1,274,325	147,171	4,799,259	2,123,500	2,696,782	157,975	5,130,347
NET EXPENDITURE :								
Military Works - - -	90,483	—	—	90,483	77,002	—	—	77,002
Collection of Revenue -	351,674	342,738	5,005	699,417	124,583	610,199	6,569	741,351
Railways - - - - -	— 306	— 121,189	—	— 121,495	— 338,665	505	—	— 338,160
Irrigation - - - - -	75,403	50,380	— 877	124,906	—	116,953	937	116,890
General Administration	45,270	77,172	1,478	123,920	24,483	96,480	1,759	122,722
Law and Justice - - -	98,130	203,474	—	301,604	—	262,850	—	262,850
Police - - - - -	567,731	299,783	— 3,786	868,728	—	853,031	— 5,923	847,106
Marine - - - - -	45,148	11,303	7,293	63,744	—	36,468	4,114	40,582
Education - - - - -	14,817	39,660	15,585	70,062	—	59,934	17,218	77,152
Medical - - - - -	17,829	26,234	7,695	51,758	—	42,664	7,420	50,084
Political - - - - -	35,346	—	—	35,346	40,229	—	—	40,229
Stationery and Printing	— 1,991	50,814	—	48,823	— 351	53,461	—	53,110
Famine Relief - - - -	54,975	—	549	55,524	—	62,733	54	62,787
Civil Works - - - - -	290,642	268,973	88,539	648,154	— 10,847	509,090	83,125	581,368
Other Heads - - - - -	31,250	39,957	12,411	83,627	24,731	47,352	13,256	85,339
Provincial and Local Balances	—	780	— 2,475	— 1,695	—	169,435	8,075	177,510
TOTAL - - - - -	1,716,410	1,290,079	131,417	3,137,906	— 58,855	2,920,155	136,602	2,997,902
Surplus - - - - -	1,661,353	— 15,754	15,754	1,661,353	2,182,445	— 21,373	21,373	2,182,445

STATEMENT EXHIBITING THE MORAL AND MATERIAL

FINANCE.

Central
Provinces.

CENTRAL PROVINCES.

	1896-97.				1897-98.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
NET REVENUE:	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue - - -	219,756	437,350	—	657,106	90,082	574,774	—	664,856
Forest - - - - -	38,616	38,616	—	77,232	38,849	38,850	—	77,699
Stamps - - - - -	42,731	128,193	—	170,924	39,594	118,820	—	158,414
Excise - - - - -	156,591	52,670	—	209,261	129,609	43,559	—	173,168
Provincial Rates - - -	—	19,939	85,014	104,953	—	21,488	75,079	96,567
Assessed Taxes - - -	25,872	24,730	—	50,402	24,945	23,710	—	48,655
Other Heads - - - -	64,474	6,280	923	71,677	54,424	14,009	476	68,909
TOTAL - - -	547,840	707,778	85,937	1,341,555	377,503	835,210	75,555	1,288,268
NET EXPENDITURE:								
Collection of Revenue - -	55,248	174,213	50,437	279,898	53,335	192,525	56,671	303,031
Railways - - - - -	248,629	—	—	248,629	244,508	—	—	244,508
General Administration - -	7,574	50,194	3,176	60,944	7,578	51,216	4,011	62,805
Law and Justice - - - -	—	115,871	—	115,871	—	142,401	—	142,401
Police - - - - -	—	147,644	10,925	136,659	—	154,887	12,488	142,399
Education - - - - -	—	33,920	27,193	61,113	—	30,926	28,362	59,288
Medical - - - - -	—	30,403	8,417	38,820	—	36,585	8,625	45,210
Territorial and Political Pen- sions.	24,768	—	—	24,768	24,581	—	—	24,581
Famine Relief and Insurance- Civil Works - - - - -	295,268	—	8,003	303,271	1,344,977	—	817	1,345,794
Other Heads - - - - -	851	123,483	22,873	147,207	1,325	145,101	13,600	160,026
Provincial and Local Balances	2,682	56,007	728	59,417	4,859	64,281	859	69,999
TOTAL - - -	137,762	694,327	99,388	931,477	1,189,376	821,193	89,572	2,100,141
Surplus - - -	410,078	13,451	13,451	410,078	811,873	14,017	14,017	811,873

Assam.

ASSAM.

	1896-97.				1897-98.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
NET REVENUE:	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue - - - -	184,807	418,727	—	603,534	101,355	492,052	—	593,407
Opium - - - - -	45,220	—	—	45,229	45,303	—	—	45,303
Stamps - - - - -	22,360	67,076	—	89,436	21,531	65,057	—	86,588
Excise - - - - -	208,564	69,522	—	278,086	207,353	68,958	—	276,311
Provincial Rates - - - -	—	—	63,953	63,953	—	—	64,450	64,450
Other Heads - - - - -	42,468	35,623	610	77,481	41,084	34,033	497	74,620
TOTAL - - -	503,428	590,948	63,343	1,157,719	416,626	660,100	68,953	1,140,679
NET EXPENDITURE:								
Collection of Revenue - -	17,028	116,283	251	133,562	17,253	118,492	251	135,996
General Administration - -	5,310	30,542	277	36,138	5,420	29,177	282	34,879
Law and Justice - - - -	—	54,996	—	54,996	—	60,544	—	60,544
Police - - - - -	—	137,187	6,958	130,229	—	132,432	7,773	124,659
Education - - - - -	—	15,199	20,469	35,668	—	16,297	20,405	36,702
Medical - - - - -	—	22,167	10,996	33,163	—	22,846	13,331	36,177
Civil Works - - - - -	31,624	160,282	63,442	255,348	18,899	238,664	62,242	319,805
Other Heads - - - - -	26,446	57,648	699	83,395	20,945	58,596	2,096	77,445
Provincial and Local Balances	—	25,421	2,370	27,791	—	45,560	5,943	39,657
TOTAL - - -	80,417	568,883	85,408	734,708	62,517	631,468	92,585	786,570
Surplus - - -	423,011	22,065	22,065	423,011	354,109	28,632	28,632	354,109

INDIA, GENERAL, *i.e.*, the Departments and Districts not administered directly by the Lieutenant Governors and Chief Commissioners of the Provinces previously enumerated.

	1896-97.				1897-98.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
NET REVENUE:	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	141,316	—	80	141,376	144,353	—	48	144,401
Forest	49,046	—	—	49,046	61,620	—	—	61,620
Tributes from Native States	214,940	—	—	214,940	209,318	—	—	209,318
Salt	1,544,457	—	—	1,544,457	1,641,908	—	—	1,641,908
Stamps	57,147	—	—	57,147	48,978	—	—	48,978
Excise	107,093	—	345	107,438	98,285	—	371	98,656
Assessed Taxes	143,158	—	—	143,158	144,636	—	—	144,636
Mint	139,598	—	—	139,598	28,117	—	—	28,117
Exchange on Remittance Transactions	144,233	—	—	144,233	43,970	—	—	43,970
Other Heads	-6,673	—	8,429	1,756	40,717	—	8,094	48,811
TOTAL	2,534,315	—	8,834	2,543,149	2,461,902	—	8,518	2,470,415
NET EXPENDITURE:								
Interest	-1,612,890	—	-30	-1,612,920	-1,628,291	—	-138	-1,628,429
Army	9,758,170	—	—	9,758,170	9,326,697	—	—	9,326,697
„ Military Operations	—	—	—	—	3,419,004	—	—	3,419,004
Military Works	848,556	—	—	848,556	782,780	—	—	782,780
Special Defence Works	21,753	—	—	21,753	-4,020	—	—	-4,020
Collection of Revenue	150,802	—	3,348	154,150	124,787	—	3,409	128,196
Post Office	-382,074	—	75	-381,999	-439,894	—	72	-439,822
Telegraph	-315,777	—	—	-315,777	-534,852	—	—	-534,852
Railways	-3,175,369	—	—	-3,175,369	-3,049,404	—	—	-3,049,404
Irrigation	705,093	—	—	705,093	729,365	—	—	729,365
General Administration	457,350	—	202	457,552	473,216	—	137	473,353
Law and Justice	119,559	—	-57	119,502	140,483	—	36	140,519
Police	58,976	—	583	59,559	57,758	—	697	58,455
Marine	131,612	—	—	131,612	116,978	—	—	116,978
Political	577,628	—	24	577,652	485,344	—	24	485,368
Scientific and other Minor Departments	263,095	—	182	263,277	274,089	—	115	274,204
Stationery and Printing	-155,619	—	23	-155,596	-189,343	—	26	-189,317
Civil Works	138,492	—	3,562	142,044	152,516	—	3,256	155,772
Other Heads	55,038	—	2,948	57,981	68,864	—	2,286	66,150
Local Balances	—	—	-2,011	-2,011	—	—	-1,407	-1,407
TOTAL	7,644,395	—	8,834	7,653,229	10,301,077	—	8,518	10,309,590
Surplus	-5,110,080	—	—	-5,110,080	-7,839,175	—	—	-7,839,175

FINANCES.

Madras.

MADRAS.

	1896-97.				1897-98.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
NET REVENUE:	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue - - -	2,768,754	1,580,477	233,886	4,583,117	3,150,471	1,497,470	228,734	4,876,675
Forest - - - - -	113,080	113,079	—	226,159	106,401	106,401	—	212,802
Tributes from Native States -	449,202	—	—	449,202	449,061	—	—	449,061
Salt - - - - -	1,630,619	18,358	—	1,648,977	1,673,651	1,098	—	1,681,349
Stamps - - - - -	196,019	588,060	—	784,079	205,295	626,807	—	831,002
Excise - - - - -	1,115,689	372,017	—	1,487,706	1,094,935	364,355	—	1,459,290
Provincial Rates - - -	—	—	741,263	741,263	—	—	788,639	788,639
Customs - - - - -	368,023	6,825	—	374,848	409,143	7,008	—	416,151
Assessed Taxes - - -	141,719	121,867	—	263,586	141,879	122,779	—	264,658
Registration - - - -	60,427	60,429	—	120,856	76,360	76,361	—	152,721
Miscellaneous - - - -	427	1,594	29,669	31,690	—2,595	3,107	31,695	32,207
TOTAL - - - - -	6,843,959	2,857,706	1,004,818	10,706,483	7,304,601	2,811,486	1,049,068	11,165,155
NET EXPENDITURE:								
Army - - - - -	3,300,583	—	—	3,300,583	3,154,451	—	—	3,154,451
„ Military Operations -	—	—	—	—	105,211	—	—	105,211
Collection of Revenue - -	349,385	768,497	454,058	1,571,940	345,906	781,041	459,341	1,586,288
Railways - - - - -	—517,118	—10,529	—	—527,647	—564,214	—10,834	—	—575,068
Irrigation - - - - -	—476,137	405,328	1,036	—69,773	—565,306	305,585	647	—259,074
General Administration -	31,786	99,202	33,234	164,222	26,895	100,719	33,634	161,248
Law and Justice - - -	—	453,477	—	453,477	—	452,861	—2,400	450,461
Police - - - - -	—	419,769	—	419,769	—	422,362	—	422,362
Education - - - - -	—	147,698	89,993	237,691	—	166,777	86,960	243,137
Medical - - - - -	—	120,937	140,113	261,050	—	117,768	145,739	263,507
Territorial and Political Pen- sions. - - - - -	65,350	—	—	65,350	62,620	—	—	62,620
Civil Superannuation - -	—7,158	152,087	1,185	146,114	—3,538	153,711	1,538	149,711
Stationery and Printing -	35,315	80,399	—	115,714	40,774	92,433	—	133,207
Famine Relief - - - -	—	47,078	9,207	56,285	732,995	159,738	12,578	905,311
Construction of Protective Works. - - - - -	20,406	—	—	20,406	14,401	—	—	14,401
Civil Works - - - - -	4,663	302,536	332,316	639,515	4,920	193,163	328,878	626,961
Other Heads - - - - -	23,093	47,765	—4,019	66,839	18,755	44,087	—4,719	58,123
Provincial and Local Balances	—	—200,579	—28,264	—228,843	—	—157,707	—12,726	—170,433
TOTAL - - - - -	2,830,168	2,833,665	1,028,869	6,692,692	3,371,870	2,811,684	1,048,870	7,232,424
Surplus - - - - -	4,018,791	24,041	—2,041	4,018,791	3,932,731	—198	198	3,932,731

BOMBAY.

Bombay.

	1896-97.				1897-98.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
NET REVENUE :	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	1,784,791	1,645,993	16,045	3,396,829	1,738,961	1,921,726	17,395	3,678,082
Forest	151,158	151,157	—	302,315	130,425	130,426	—	260,851
Tributes from Native States	133,624	-17,476	—	116,148	126,506	-17,863	—	109,253
Opium	1,335,682	-4,582	—	1,331,100	967,127	-4,599	—	962,528
Salt	2,222,134	2,791	—	2,224,925	2,286,493	752	—	2,287,245
Stamps	139,828	419,497	—	559,325	140,451	430,436	—	570,887
Excise	772,808	257,603	—	1,030,411	780,344	253,293	—	1,033,637
Provincial Rates	—	—	298,656	298,656	—	—	319,702	319,702
Customs	1,749,451	8,762	—	1,758,213	1,896,327	8,021	—	1,904,348
Assessed Taxes	216,474	183,111	—	399,585	207,672	184,100	—	391,772
Registration	33,076	33,074	—	66,150	30,726	30,726	—	61,452
Mint	-7,428	—	—	-7,428	73,654	—	—	73,654
Other Heads	26,224	-11,273	-7,553	22,254	35,853	-6,166	-4,349	25,318
TOTAL	8,522,678	2,668,657	307,148	11,498,483	8,414,539	2,931,442	332,748	11,678,729
NET EXPENDITURE :								
Interest	-117,279	1,458	-45	-115,866	-118,079	-379	-20	-118,738
Army	3,378,467	—	—	3,378,467	3,297,690	—	—	3,297,690
Military Operations	—	—	—	—	250,154	—	—	250,154
Collection of Revenue	400,495	781,309	46,001	1,227,805	406,868	795,654	45,479	1,248,001
Railways	-213,623	-5,642	—	-219,265	-177,636	-6,276	—	-183,912
Irrigation	116,014	2,744	—	118,758	65,685	-2,221	—	63,464
General Administration	43,642	150,981	4,801	199,424	42,222	146,032	14,230	202,484
Law and Justice	—	468,427	—	468,427	—	490,413	—	490,413
Police	—	548,570	-15,049	533,521	—	589,968	-10,308	579,660
Education	—	151,562	139,139	290,701	—	146,018	139,269	285,287
Ecclesiastical	38,345	—	—	38,345	33,594	—	—	33,594
Medical	—	154,820	8,780	163,600	—	339,379	32,048	371,427
Political	65,120	36,174	—	101,294	71,216	32,521	—	103,737
Territorial and Political Pensions.	66,988	—	—	66,988	70,474	—	—	70,474
Civil Superannuation	-6,267	162,134	399	156,266	-6,407	162,454	554	156,601
Stationery and Printing	31,046	73,568	949	105,563	33,200	81,971	1,773	116,944
Civil Works	20,880	238,560	229,188	488,578	12,892	205,637	183,951	402,480
Famine Relief	300,152	23,971	1,536	325,659	942,608	—	2,380	944,988
Other Heads	24,458	29,875	5,083	59,416	41,985	24,944	6,270	73,199
Provincial and Local Balances	—	-221,149	-42,349	-263,498	—	-129,663	-27,628	-157,291
TOTAL	4,148,438	2,597,392	378,413	7,124,243	4,966,446	2,876,452	387,738	8,230,636
Surplus	4,374,240	71,265	-71,265	4,374,240	3,448,093	54,990	-54,990	3,448,093

FINANCE.

NET EXPENDITURE in *England*, with the EXCHANGE thereon.

NET EXPENDITURE.	1896-97.			1897-98.		
	Sterling.	Exchange.	TOTAL.	Sterling.	Exchange.	TOTAL.
	£.	Rx.	Rx.	£.	Rx.	Rx.
Interest - - - - -	2,528,609	1,670,990	4,199,599	2,859,076	1,610,002	4,469,078
Army: Effective - - - - -	1,777,419	1,174,579	2,951,998	1,797,428	1,012,164	2,809,587
„ Non-effective - - - - -	2,355,919	1,556,871	3,912,790	2,400,402	1,351,714	3,752,116
Military Works - - - - -	24,725	16,339	41,064	69,632	39,212	108,845
Special Defence Works - - - - -	43,868	28,989	72,857	17,739	9,989	27,728
Collection of Revenue (Stamps, &c.) - - - - -	50,526	33,389	83,915	43,861	24,417	67,778
Post Office - - - - -	111,452	73,651	185,103	107,165	60,347	167,512
Telegraph - - - - -	115,010	76,002	191,012	177,220	99,796	277,016
Railways - - - - -	5,790,337	3,826,449	9,616,786	5,840,415	3,288,852	9,129,267
General Administration - - - - -	260,322	172,030	432,352	257,745	135,141	402,886
Marine - - - - -	212,785	140,615	353,400	213,853	120,425	334,278
Political - - - - -	24,186	15,983	40,169	24,349	13,711	38,060
Scientific and other minor Departments - - - - -	29,699	19,626	49,325	25,806	14,531	40,337
Civil Furlough Allowances - - - - -	225,783	149,205	374,988	187,640	105,664	293,304
Superannuation - - - - -	1,780,733	1,176,768	2,957,501	1,814,105	1,021,559	2,835,664
Stationery and Printing - - - - -	41,807	27,628	69,435	54,449	30,661	85,110
Civil Works - - - - -	65,147	43,051	108,198	51,955	29,257	81,212
Other Heads - - - - -	30,402	20,091	50,493	62,265	35,064	97,329
TOTAL - - - - -	15,468,729	10,222,256	25,690,985	16,004,601	9,012,506	25,017,107

SUMMARY.

PROVINCES, &c.	1896-97.		1897-98.	
	Surplus.	Deficit.	Surplus.	Deficit.
	Rx.	Rx.	Rx.	Rx.
BENGAL - - - - -	11,162,270		9,964,368	
NORTH-WEST PROVINCES and OUDH - - - - -	3,883,598		4,481,477	
PUNJAB, - - - - -	3,107,702		3,945,701	
BURMA - - - - -	1,661,353		2,182,445	
CENTRAL PROVINCES - - - - -	410,078		—	811,873
ASSAM - - - - -	423,011		354,100	
INDIA GENERAL - - - - -	—	5,110,080	—	7,839,175
MADRAS - - - - -	4,013,791		3,932,731	
BOMBAY - - - - -	4,374,240		3,448,093	
ENGLAND and EXCHANGE - - - - -	—	25,690,985	—	25,017,107
TOTAL - - - - -		1,705,022		5,359,211