

EAST INDIA (PROGRESS AND CONDITION)

STATEMENT

EXHIBITING THE

MORAL AND MATERIAL PROGRESS AND CONDITION

OF

I N D I A

DURING THE YEAR 1898-99.

THIRTY-FIFTH NUMBER.

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

India Office,
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ARTHUR GODLEY,
Under Secretary of State for India.

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STATEMENT

EXHIBITING THE

MORAL AND MATERIAL PROGRESS AND CONDITION
OF INDIA

During the Year 1898-99.

ADMINISTRATION.

[NOTE.—Throughout this Statement, Receipts and Expenditure are shown in pounds, rupees being converted for the purpose at the rate of Rs. 15 = £1.]

CHAPTER I.

ADMINISTRATION.

LIST of the holders in 1898-99 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	
	Field Marshal Sir Donald M. Stewart, Bart., G.C.B., G.C.S.I., C.I.E.	16 December 1885	Re-appointed 10 December 1896.
	Sir James B. Peile, K.C.S.I.	12 November 1887	Re-appointed 12 November 1897.
	Sir Alfred C. Lyall, K.C.B., G.C.I.E.	17 January 1888	Re-appointed 17 January 1898.
	Lieutenant-General Sir Archibald Alison, Bart., G.C.B.	1 January 1889	Period of office expired 31 December 1898.
	Sir Charles H. T. Cross-thwaite, K.C.S.I.	3 March 1895	In succession to Sir B. H. Davies.
Members of the Council of India	Sir Stuart G. Bayley, K.C.S.I., C.I.E.	16 September "	In succession to Sir H. C. Rawlinson.
	F. C. Le Marchant	27 February 1896	In succession to Mr. B. W. Currie.
	General Sir J. J. H. Gordon, K.C.B.	1 January 1897	In succession to Sir O. T. Burns.
	Sir Dennis Fitzpatrick, K.C.S.I.	24 April "	In succession to Sir John Strachey.
	Sir J. L. Mackay, K.C.I.E.	27 April "	In succession to Mr. Hardie.
	Sir John Edge, G.C.	30 March 1898	In succession to Sir C. Turner.
	Sir Philip P. Hutchins	1 August "	In succession to Sir A. J. Arbuthnot.
Governor-General	The Right Hon. the Earl of Elgin and Kincardine, G.M.S.I., G.M.I.E.	27 January 1894	
	The Right Hon. Lord Curzon of Kedleston, G.M.S.I., G.M.I.E.	6 January 1899	

STATEMENT EXHIBITING THE MORAL AND MATERIAL

ADMINISTRATION.

OFFICE.	—	Date of Appointment or Assumption of Charge of Office.	REMARKS.
Members of Council -	<i>General Sir W. S. A. Lockhart, G.C.B., K.C.S.I. (ex officio), Commander-in-Chief.</i>	4 November 1898	Lieutenant-General Sir Charles E. Naime, K.C.B., was appointed provisional Commander-in-Chief from 20th March 1898. Appointed Lieutenant-Governor of Bengal 7 April 1898. Resigned 2 April 1899. And temporarily from 18 October 1897 to 19 February 1898.
	Sir James Westland, K.C.S.I.	27 November 1893	
	Sir John Woodburn, K.C.S.I.	23 December 1895	
	M. D. Chalmers, C.S.I.	8 April 1896	
	Major-General Sir E. H. H. Collen, K.C.I.B.	27 April "	
	Sir A. C. Trevor, K.C.S.I. - C. M. Rivaz, C.S.I. -	2 May " 9 April 1898	
Lieutenant-Governor of Bengal -	<i>Clinton E. Dawkins -</i>	29 March 1899	Retired 6 April 1898.
	Sir Alexander Mackenzie, K.C.S.I. Sir John Woodburn, K.C.S.I.	18 December 1895 7 April 1898	
Lieutenant-Governor of the North Western Provinces and Chief Commissioner of Oudh.	Sir Antony P. MacDonnell, G.C.S.I.	6 November 1895	Officiating 6 May to 5 November 1898 during the absence of Sir A. P. MacDonnell on leave.
	J. J. D. La Touche, C.S.I. -	6 May 1898	
Lieutenant-Governor of the Punjab.	Sir William Mackworth Young, K.C.S.I.	6 March 1897	Formerly Chief Commissioner.
Lieutenant-Governor of Burma -	Sir F. W. R. Fryer, K.C.S.I.	1 May 1897	
Chief Commissioner of Central Provinces.	Sir C. J. Lyall, K.C.S.I., C.I.B.	21 December 1895	Appointed Secretary Judicial and Public Department, India Office.
	<i>D. C. J. Ibbetson, C.S.I. -</i>	14 July 1898	
Chief Commissioner of Assam -	H. J. S. Cotton, C.S.I. -	28 November 1896	
Agent to the Governor-General in Rajputana and Chief Commissioner of Ajmer-Merwara.	A. H. T. Martindale -	9 March 1898	
Resident in Mysore and Chief Commissioner of Coorg.	Lieutenant-Colonel D. Robertson.	10 February 1897	And officiating from 7 December 1896.
Resident, Hyderabad -	Sir Trevor J. C. Chichele-Plowden, K.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	
Governor of Madras -	Sir Arthur E. Havelock, G.C.M.G., G.C.I.B.	18 March 1896	
Members of Council -	Sir H. W. Bliss, K.C.I.B. -	9 November 1893	Period of office expired 8 November 1898. Died 7 June 1898.
	James Grose, C.I.B. -	9 January 1894	
	<i>Arundel T. Arundel - Henry M. Winterbotham -</i>	12 June 1898 9 November "	
Governor of Bombay -	Lord Sandhurst, G.C.I.B. -	18 February 1895	
Members of Council -	J. Nugent, C.S.I. -	12 July 1896	In succession to Brigadier-General C. A. Cunningham.
	Sir E. C. K. Olivant, K.C.I.B.	24 April 1897	
	<i>H. E. M. James, C.S.I. -</i>	29 July 1898	
Political Resident, Aden -	<i>Brigadier-General O'M. Creagh, V.C.</i>	22 February 1899	

LEGISLATION.

Between the 1st April 1898 and the 31st March 1899 20 Acts were passed by the Council of the Governor-General for making Laws and Regulations; four each by the Legislative Councils of Madras, Bombay, and Bengal; three by that of Burma, and one by that of the Punjab.

Seven 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 :—

Act VIII. of 1898, "to amend the Indian Paper Currency Act, 1898," merely extends for two years the operation of Act II. of 1898, which provided for the issue of currency notes in India on the security of gold held by the Secretary of State for India in England.

LEGISLATION.

Governor-General Council.
Indian Paper Currency Act Amendment Act, 1898.

Act IX. of 1898, "to make better provision for the importation of live stock," empowers the Government to regulate the importation of live stock which may be liable to be affected by infectious or contagious disorders. It does not interfere with the inland trade.

Live Stock Importation Act, 1898.

Act XI. of 1898, "to consolidate and amend the law relating to Agricultural Tenancies in the Central Provinces."

Central Provinces Tenancy Act, 1898

Act XII. of 1898, "further to amend the Central Provinces Land Revenue Act, 1881."

Central Provinces Land Revenue Act, 1898.

Act XIII. of 1898, "to declare the Regulations of the Bengal Code and Acts of the Governor-General in Council now in force in Upper Burma and to make certain provisions regarding the law in Burma and other matters." The main object of this Act is to place Upper Burma in the same legal position as the bulk of British India.

Burma Laws Act, 1898.

Act II. of 1899, "to consolidate and amend the law relating to Stamps," repeals and re-enacts in a consolidated form the various enactments by which the Stamp Act of 1879 has been amended, and introduces certain amendments.

Indian Stamp Act, 1899.

Act V. of 1899, "to further amend the Indian Evidence Act, 1892," admits as evidence the opinion of an expert as to the identity of finger impressions.

Indian Evidence Act, 1899.

Act VI. of 1899, "to amend the Indian Contract Act, 1872," gives the Courts a wider discretion in dealing with certain inequitable contracts where their powers appeared to be unduly limited. It does not interfere with the freedom of contract where consent is free and the parties contract on a footing of equality.

Indian Contract Act Amendment Act, 1899.

Act VIII. of 1899, "to consolidate and amend the law relating to the importation, possession and transport of petroleum and other substances."

Indian Petroleum Act, 1899.

Act IX. of 1899, "to amend the law relating to arbitration," is an adaptation to India, or to certain selected areas thereof, of the English Act of 1889.

Indian Arbitration Act, 1899.

Act X. of 1899, "to amend the law relating to carriers" with the object of relieving them from some of their liabilities.

Carriers Act, 1899.

Act XII. of 1899, "to amend the law relating to the forgery of currency notes and bank-notes" with the object of providing more adequately for their protection from forgery.

Currency Notes Forgery Act, 1899.

Act XIV. of 1899, "to further amend the Indian Tariff Act, 1894," imposes countervailing duties on bounty-fed articles at the port of importation with the object of preserving the sugar cultivation and industries of the country, which had been seriously affected by the rapid and large increase in the amount of bounty-fed sugar imported into India, especially from Germany and Austro-Hungary.

Indian Tariff Amendment Act, 1899.

Act I. of 1898, "to extend certain portions of the Police Act, 1861, to the Town and Suburbs of Calcutta," is a consequence of the riots which occurred at Chitpur and in the Northern parts of Calcutta on 30th June and 1st July 1897. It authorises :—

Bengal.
Calcutta Police Act, 1898.

- (a.) the quartering of additional police in areas which are in a disturbed or dangerous state, and the recovery of the cost from the inhabitants;
- (b.) the award of compensation to sufferers from misconduct of the inhabitants of such areas.

STATEMENT EXHIBITING THE MORAL AND MATERIAL

LEGISLATION.
Bengal Tenancy
(Amendment)
Act, 1898.

Act III. of 1898, "to amend sections 30, 31, 39, 52, and 119 and chapter X of the Bengal Tenancy Act, 1885." Its objects are—

- (1.) to clear up doubts and difficulties of procedure which have arisen in the working of chapter X (Record of rights and settlement of rents) of the Bengal Tenancy Act, 1885;
- (2.) to facilitate the settlement of rents when undertaken on a large scale, either for the purpose of settling land revenue or on the application of private individuals;
- (3.) to amend the substantive law relating to the enhancement and reduction of rents, so as to make the provisions of the law workable and to give effect to the intention of its authors, regarding certain points on which it has been found in practice to be inoperative.

Bombay.
City of Bombay
Improvement
Act, 1898.

Act I. of 1898, "for the improvement of the City of Bombay and to provide space for its future expansion," provides for the improvement of the City by forming new and altering existing streets, by removing or altering insanitary buildings, by providing open spaces for better ventilation and for recreation, and by constructing new sanitary dwellings for certain classes of the inhabitants and for the Presidency police. It also makes provision for the future expansion of the City by acquiring and laying out vacant lands and by reclaiming and laying out parts of the foreshore of the Island. It provides for the appointment of a Board of Trustees with special powers to carry out the scheme.

Burma.
Burma Municipality
Act, 1898.

Act III. of 1898, "to amend the law relating to municipalities in Burma," effects a thorough revision of the law relating to municipalities in the province based upon the experience of the past thirteen years.

Lower Burma
Town and Villages
Lands Act, 1898.

Act IV. of 1898 "to declare and amend the law relating to interests in land in towns and villages in Lower Burma." It provides for the assessment of revenue in them and deals with other subsidiary matters connected with them.

CHAPTER II.

LOCAL SELF-GOVERNMENT, MUNICIPALITIES, SANITATION,
HOSPITALS, &c.

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 1898-99, apart from loans, sales of securities, and such-like extraordinary receipts, was £2,896,520. 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 £3,162,000, 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 £2,147,000; 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.

LOCAL SELF-GOVERNMENT.

The income of the port funds, under the management of port trustees and local bodies, exclusive of loans, amounted in 1898-99 to £1,139,000.

The revenue of cantonment funds amounted to £148,000; that of town and bazaar funds came to £59,600; that of miscellaneous funds was £137,700.

Thus, the revenue from all sources managed by the various local bodies amounted in 1898-99 to about £7,542,800; 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.

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.

MUNICIPALITIES.
General.

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MUNICIPALITIES.

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.

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.

Bengal.
Calcutta.

The Calcutta Municipality consisted during the year of 50 elected and 25 nominated commissioners, but its constitution was under consideration and a new scheme was proposed under which the number of commissioners will be less, and the proportion of elected to nominated members will be smaller. The executive consisted of a general committee of 18 members with sub-committees, eight standing committees, and a number of special committees, appointed as occasion arises. There were 30 general meetings, and 222 meetings of committees, and the percentages of attendance among elected members, members nominated by Government and commercial representatives, was 52, 42, and 41 respectively. The income of the year was £321,700, or rather more than in 1897-98; £122,600 was derived from the general rate, and £138,000 from rates for sewage, water, and lighting; the assessed valuation of the town rose to £1,425,000, and the incidence of taxation per head of population was slightly under Rs. 6, equal to 9s. The expenditure against income was £320,000, of which £81,000 was for interest and other charges in connection with the water supply, £30,000 for lighting, and £178,000 for general purposes, including drainage and conservancy. Two new loans were successfully floated during the year; one of 30 lakhs (£200,000) for 19 years for drainage and other projects, and one of 4 lakhs (£26,666) for plague purposes, both at $4\frac{1}{2}$ per cent.; £19,600 was repaid to the Government; and the total outstanding debt at the end of the year was £2,000,000. The payments for interest and sinking fund amounted to £119,000, which is well within the legal limit of 10 per cent. on the valuation of the city.

During the last eleven years the suburban area of the town has been supplied with an excellent water supply at a cost of over £120,000, drainage schemes for the suburbs have been made, and are in course of execution, polluted tanks have been destroyed, and burial grounds improved, and roads opened out at an expense of nearly £60,000, besides other large and important works. Taking the town and suburbs together, £1,118,000 has been spent from capital and revenue on works of improvement, with the result that the death rate has fallen from 42·7 to 35·8 per mille. The year was an exceptionally healthy one but for the occurrence of two outbreaks of plague, in the first of which 192, and in the second 1200 deaths are reported. There was a great exodus of the people from the city during the first of the epidemics, which occurred in the spring, and a smaller movement also in the second or autumn outbreak. A Government grant of £23,300 was received and applied for plague purposes in addition to the loan mentioned above.

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 $3\frac{1}{2}$ 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 rate-payers; 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.

MUNICIPALITIES.

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 (an anna being equal to a penny) 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 per head. Exclusive of loans and extraordinary receipts, the total income was £220,000, of which £178,000 came from municipal taxation; and £16,000 were borrowed during the year. The total expenditure was £240,000. The chief heads of outlay were, public safety (fire establishments, lighting, police, &c.), £18,000; water supply and drainage, £25,000; conservancy, £71,000; hospitals, dispensaries, and vaccination, £24,000; buildings and roads, £34,000. 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 £450,000 capital outlay, and working charges of £28,000 has been found too costly; but it is hoped that something may be done there.

There are 104 municipalities in the North-Western provinces, with a total of 1,613 members, of whom 1,245 were elected, 312 were officials, and 1,409 were Natives. Seats were contested in 71 municipalities, and a fair amount of interest was shown in many cases, though in some towns, notably Bareilly and Meerut the number of voters was very small. The boards generally elect their chairman, but in six important towns, Agra, Allahabad, Benares, Bareilly, Lucknow, and Moradabad, the district magistrate is *ex-officio* chairman. Only four small municipalities held less than 12 meetings in the year, excluding meetings of sub-committees. The income of the municipalities, excluding loans, was £304,000, of which over £240,000 accrued from taxation. Of the taxation revenue, the octroi duties yielded £224,000, compared with £197,000 in the previous year. The year was generally one of recovery from the effects of famine and contraction of trade, and the above figures show that receipts are returning to their former levels. The expenditure, excluding debt heads, was £280,000, of which £109,000 was spent on water supply, drainage, and conservancy.

North-Western
Provinces and
Oudh.

There were in the Punjab 148 municipalities, besides 36 notified areas, which have a modified form of municipal government. Elected members serve on 111 of the municipal committees, the proportion being generally two elected to one nominated member; no members are elected to the committees of the notified areas. The members were divided as follows:—

Punjab.

	Elected.	Ex-officio and Nominated.	Total.	Natives.	Officials.
Municipalities - - - -	814	850	1,670	1,542	320
Notified areas - - - -	—	119	119	105	55

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MUNICIPALITIES.

The number of vacancies to be filled during the year was 215, of which 86 were filled after contested elections. In many towns elections were keenly contested; the number of electors appearing at the polls averaged 57 per cent. of the constituents. Thirty-eight of the committees failed to hold the prescribed minimum of 12 meetings, but the working of the committees in the larger towns throughout the province is reported to have been good. The total income of the municipalities, excluding loans and extraordinary receipts, rose from £288,000 to £304,000, of which £204,000 was raised by octroi duties. The latter figure shows a complete recovery from the famine, as it is slightly higher than in 1895-96. The incidence of taxation per head of the population was 23½ annas (about 2s.). In the notified areas, £1,600 was raised by taxation, or 3 annas per head of the population, in addition to £1,200 from other sources. The expenditure was £304,000, including £44,000 on fire, lighting, and police, £42,000 on education, £42,000 on conservancy, and £30,000 on roads and buildings. The expenditure of the notified areas was £2,600. The Government advanced £21,000 on loan during the year, and £11,400 was repaid; the debt outstanding at the end of the year was £257,700. The cash balances at credit of the municipalities and notified areas rose from £68,000 at the beginning to £80,800 at the end of the year.

Burma.
Rangoon.

In the town of Rangoon there is a municipal committee, for the most part elected by the various national communities, with a salaried president. There was a general election during the year, at which, among the native communities, there was only one contest; in the European community 14 candidates contested five vacancies, twelve of the members were natives, and three were officials. The average attendance at general meetings was 64 per cent. The ordinary revenue amounted to £127,000, which was slightly in excess of last year's figures, but the total receipts were lower by £4,500, owing to a new adjustment by which the school grants, £4,200, were paid direct by Government. Direct taxation accounts for £73,500, showing an increase owing to additional assessments; the taxes are a 9 per cent. general tax, and water, lighting, and scavenging taxes, and they amount to Rs. 5 per head of the estimated population for the year. Extraordinary receipts, including loans for the town lands reclamation fund, amounted to £72,000. The ordinary expenditure was £98,600, showing a decrease, largely in connection with roads; the extraordinary expenditure was £91,000, of which £20,000 was spent on reclamation works, and £3,200 on a rubbish disposal scheme, and the rest on loan charges, advances, &c. The debt of the municipality at the end of the year was £288,000. The birth-rate was 15.25 per thousand of the estimated population, the death-rate 35.28, both figures being higher than in the previous year. In connection with the reclamation work, a block was equipped with roads and drains during the year, but little fresh ground was reclaimed. In view of the proposed resumption by the Government of the rents of town lands, the municipality have represented that the reclamation work would be gravely hampered by the loss of this source of income, and it has been proposed to grant the rents to the municipality for a term of years.

Interior of
Province.

A new Municipal Act came into force in Lower Burma and Mandalay during the years 1898-99, which involved no fundamental changes, but embodied numerous amendments in administration. The number of municipalities was 41, as in the previous year, and they contained 524 members, divided thus:—

Elected - - - 109	Non-officials - - - 336	Asiatics - - - 371
Ex-officio and 415 nominated.	Officials - - - 188	Europeans - - - 153

The elective principle was extended to four fresh towns, making 11 in all, and the number of elected members rose from 70 to 109. Elections took place in several municipalities, but with the exception of Mandalay no interest was shown in them. Two committees held less than 12 meetings in the year; the average attendance at each meeting was 60 or more per cent. of the members

in 26 towns, and in only four towns was below 50 per cent. The income of the municipalities was £128,800, of which £50,400 came from taxation and ferry tolls, and £61,500 from markets and slaughter-houses. The ordinary expenditure rose from £119,000 to £145,000, including special charges for a lighting scheme at Moulmein, the police at Mandalay, a new market at the same town, and higher expenditure on conservancy and hospitals. Three small loans were raised from Government during the year, and the Moulmein municipality raised £5,300 in the open market in connection with its lighting scheme. Investigation of the financial position of the towns in debt to Government shows that they are all solvent and in a position to repay the loans; but the municipal funds are for the most part small, only six including Rangoon, exceeding £6,500 per annum. The incidence of taxation and tolls per head of population outside Rangoon, was 18½ annas, slightly higher than in 1897-98. The balances in hand at the end of the year amounted to £33,000, and the outstanding debt was £17,000. Besides municipalities there are seven other places in Lower Burma where town funds are raised, and are managed by committees nominated from among the townfolk, the amount during the year being £7,000. Expenditure does not keep up with income in these towns, and a balance of £4,800 has been accumulated.

MUNICIPALITIES.

In the Central Provinces one municipality was withdrawn from the operation of the Act, and the number of municipalities was thus reduced to 52. The number of members was 626, of whom 444 were elected; general elections were due in most of the towns, but were held in only 13 of them. The municipal incomes amounted to £98,600, of which £56,600 accrued from octroi duties, which were affected by the favourable marriage season. The expenditure was £98,000, of which £52,000 was spent on public health and convenience, including £10,400 on water supply works at Bhandara and Wardha, and £11,000 was spent on hospitals and plague operations.

Central Provinces

The number of municipalities in Assam, including two stations and three unions, remained at 14, but only one of them (Sylhet) has a population of more than 10,000. Their working is reported to have been satisfactory. The total number of members, was 141, of whom 51 were elected in six of the towns, 113 were natives, and 53 were officials. The income fell from £16,800 to £15,000, owing to smaller grants by Government; but there was a general increase under all taxation heads. The total expenditure was £15,700, of which £7,500 was on public health and £4,400 on public works. The incidence of taxation per head of population ranged from 6 annas at Golaghat to Rs. 3¼ at Shillong.

Assam.

On the municipality of Madras there are 33 Commissioners, of whom 24 are elected by the ratepayers, who numbered 5,615 in the year 1898-99, or 12·4 per mille of the inhabitants. Two elections were held, at which 60 per cent. of the registered electors came to the poll. Seven Commissioners were Europeans and nine were officials. At 25 meetings of the Commissioners the average attendance was 23; only one Commissioner attended less than 10 meetings during the year. The total income of the year, apart from loans and Government contributions, was £84,600, or £6,000 less than in the preceding year; of this total, £64,000 accrued from taxation, which fell on the population at the rate of Rs. 2¼ per head; the principal tax is one of 10 per cent. on buildings and lands. The total expenditure came to £119,500, of which £25,500 were spent on water supply and drainage works, and £32,500 on conservancy. The drainage system in Mylapur was opened during the year, and is a great success; further drainage is, however, urgently needed in other quarters of the city. The water supply from the Red Hills was plentiful, but the quality of it is reported as being suspicious. The death-rate rose from 35·5 per thousand in 1897 to 44·8 per thousand in 1898, owing, it is said, to general causes, combined with a small epidemic of cholera. Seven deaths only occurred from plague, but in view of the possibility of a plague epidemic various measures were taken, and a temporary loan of two lakhs of rupees (£13,333) was taken from the Government for this purpose.

Madras.
Madras City.

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MUNICIPALITIES.

The outstanding debt of the municipality amounts to £238,000, against which must be set the sinking fund, which is now £81,400, and investments in Government securities amounting to £86,000.

Interior of the Madras Presidency.

The number of municipalities in the interior of Madras was 58, as in the previous year. The councils were partly elective in 36 of these towns, 2·8 per cent. of the population being registered as voters, and in 39 towns the councillors elected their own chairman. On an average 29 meetings were held by each council, and the average attendance of councillors at meetings was 8·4, as compared with 8·8 in the previous year. There were 850 municipal councillors in all, divided thus:—

Elected	-	-	372	Non-officials	-	653	Indians.	-
Nominated	-	478	Officials	-	197	Europeans	and	
						Eurasians		147

An increase of 7 per cent. in the receipts from taxation was caused by the raising of the rate of the tax on buildings and lands in several towns. The expenditure was considerably below both the figures for 1897-98, and the budget estimate for 1898-99, and it resulted in an increase of the closing balance from £34,000 to £44,800. The chief points in which the decrease occurred were new water supply works and advances. Under the former it was due to an erroneous estimate, and not to suspension of work, which was in progress during the year on the Coconada, Tirupati, and Vizagapatani schemes. In 1897-98, £32,600 had been advanced for these works, and there was no need for high advances in 1898-99. The sanitary condition of most of the towns is not satisfactory, but the councils are reported to be generally alive to the importance of improvement in this direction.

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. A new corporation came into office in April 1898.

The revenue realised was £477,000, or £30,000 more than in 1897-98; the receipts from the general tax, £148,000, account for £11,300 of this increase, owing to the tax having been raised from 8½ to 9½ per cent. The water tax receipts rose from £88,500 to £100,000, as the bills for the last quarter of 1897 were credited in 1898-99; under town duties there was also a net increase from £63,300 to £74,600, due to the doubling of the duties on grain, flour, and firewood, in spite of a decrease of £15,300 in the receipts from sugar. The ordinary expenditure was £468,700, excluding plague, or about the same as that of the previous year, if from the latter is left out a sum of £33,300 spent from revenue on plague charges; but there must be added to the expenditure of 1898-99, a sum of £54,000 written off the amount advanced in previous years for the purchase of frontage lands, so that, after allowing £33,300 as rebate on account of the plague expenditure of the previous year, the expenditure was £489,300. Of this, £94,000 was spent on public works, £112,000 on public health, and £165,000 on debt services. The outstanding debt at the end of the year was £2,790,000; it had been intended to raise £326,700 by permanent loans, but the state of the money market was unfavourable, and recourse was had to the previously arranged temporary loan of £253,000 which was renewed by the bank of Bombay. The expenditure from loan funds during the year was £118,000 for plague purposes, £30,000 on sewerage works, and £31,500 on minor sanitary works. £66,700 was received from the Local Government during the year, and £30,000 at the end of the year, as provisional advances for plague purposes. The death-rate from all causes in the city was 63 per mille in the year 1898, compared with 58 per mille in 1897, and 41 per mille in 1896; the plague death-rate was 22 per mille, and the death-rate from cholera 7 per mille, compared with 13 and 15 per mille respectively in 1897.

The new City Improvement Trust was appointed at the end of 1898, and no demolition had been begun up to the end of 1898-99. Four schemes have been taken in hand, including a Nagpada improvement scheme, and projects

for three arterial streets through insanitary areas. The cost of these schemes was estimated at £1,213,000, the recouplement by value of surplus lands at £756,000, and the net cost at £457,000. MUNICIPALITIES.

The municipalities in the interior of Bombay, numbered 165, and the total number of municipal commissioners was 2,328. The constitution of the committees was as follows:— Interior of the Bombay Presidency.

Elected	- 897	Officials	- 621	Asiatics	- 2,158
Nominated	- 1,431	Non-officials	- 1,706	Europeans	- 170

All the municipalities except Bandra and Bassein held the requisite number of meetings, and the average attendance in most districts improved. The income of the municipalities was £356,000, excluding loans and advances, and of this total £273,000 was raised by taxation, the incidence per head of population being Rs. 1½ in the Northern, Rs. 1⅓ in the Central, Rs. 7⁄8 in the Southern Divisions, and Rs. 2¼ in Sind. Octroi duties accounted for £164,000 of the revenues, compared with £135,000 in 1897-98, an increase which is ascribed to a good season, the removal of plague restrictions, and a large number of marriages. The expenditure, also excluding loan heads, was £377,000, of which £169,000 was spent on public health and convenience, and £45,000 on education. The loans raised amounted to £32,000 from the Government and £20,000 in the open market, while £16,600 were paid off, and the closing balances were £74,000. The plague expenditure was £19,000 in Karachi and £10,600 in the Northern division, besides indirect expenditure and losses owing to the prevalence of the disease.

The number of municipalities in Berar was 12, as in the previous year, and in seven of these towns the majority of the municipal committees are elected by the ratepayers. There were altogether 171 members of these committees, at the end of the year, divided thus:— Berar.

Elected	- 90	Non-officials	- 117	Asiatics	- 143
Nominated	- 91	Officials	- 54	Europeans	- 28

Twenty-five vacancies occurred, for which, out of 6,198 registered voters, 768, or only 12½ per cent. of the electors, recorded their votes. The total income of the municipalities was £14,400, of which £6,000 came from rates and taxes. The incidence of taxation stood at the low figure of 8½ annas per head of population. The total expenditure was £16,000, or £3,200 less than in the previous year, a falling off which is partly accounted for by the closing of famine relief expenditure. No new public works were in progress, but two of the municipalities are contemplating drainage schemes, and have accumulated funds for the purpose.

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 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

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DISTRICT BOARDS.

expenditure on roads, schools, hospitals, and sanitation, within their jurisdiction. In most provinces the district boards delegate much of their detailed work to sub-divisional, or minor boards, which are constituted under the law, and are responsible for subdivisions or parts of a district.

Bengal.

In Bengal there were 38 district boards and 105 local boards, as in the previous year. On the district boards were 795 members, of whom 328 were elected by the local boards; on the local boards were 1,259 members, of whom 417 were elected. Out of the total number of 2,054 members, 1,644 were non-officials and 1,761 were Indians; 925 were landholders and planters, and 519 lawyers. There were also 57 union committees entrusted with minor duties, general elections were held during the year, but aroused little interest. Each district board held on the average 15 meetings; and the average attendance at each meeting was 10.5 members. The local boards held about 1,100 meetings, but nearly one-fifth of them were adjourned for want of a quorum, and the average attendance was only five members. The income of the district boards amounted to £446,000, including £264,000 from the road cess and £34,000 contributed by provincial funds. The expenditure was £444,600, of which £79,000 was spent on education and £268,000 on civil works, such as £8,600 on new roads in Muzaffarpur, and similar items.

North-West Provinces and Oudh.

There were, as in the previous year, 44 district boards and four district committees in the North-Western Provinces and Oudh, but there was an important change in their constitution. Up to this year all the members of the local boards of sub-districts were, as such, members of the district board, but the Local Government has now exercised the power reserved to it of notifying that district boards shall consist of members elected or nominated from the members of the local boards. The effect is to render the district boards less unwieldy, the total numbers of the 48 boards and committees having fallen from 1,538 to 995 members, of whom 639 were elected, and 88 were Europeans. The magistrate of the district is chairman of each district board. The boards held on an average, 11 meetings, and the committees, 9 meetings, with an average attendance of 8 and 10 respectively. The want of interest on the part of a large proportion of the members is still noticeable. It is hoped that when the members realise the advantages given to them by the new system of local finance, described in last year's statement, their interest in the work may be increased.

The income of the boards and committees during 1898-99 was £524,000, of which £262,000 came from taxes; the expenditure was £286,000, including £89,600 on education, £153,000 on drainage, waterworks, buildings, and roads, and £36,000 on medical services and sanitation. The net contribution by the boards to the Local Government was £12,600.

Punjab.

The number of district boards in the Punjab was 30, and the number of members at the end of 1898-99 was 1,261; there were also 52 subordinate local boards, with 969 members. In 12 districts, most of which are situated on or near the frontier, the district boards are composed entirely of nominated members, and in other districts the members are in part nominated or *ex officio*, and in part are elected delegates from the local boards. The members are thus classified:—

—	Ex-officio.	Nominated.	Elected.	Natives.	Europeans and Eurasians.	Total.
District boards - -	218	619	424	1,175	87	1,261
Local boards - -	58	374	537	968	6	969

As in previous years, it is noted that little or no interest was taken in elections for the local boards, and that the people prefer direct appointment. Thirteen district boards and 47 local boards failed to hold the required

minimum number of meetings. The working of the district boards was on the whole good ; but that of the local board was not satisfactory. In many cases there is not sufficient work to keep both district and local boards employed; 14 local boards were abolished during the year, and similar steps are in contemplation in other parts of the province. The year's income of all the boards came to £209,000, of which the chief items were £162,800 from local rates, and £18,000 from civil works. The total expenditure of the year was £202,000, of which the chief items were education, £44,400; hospitals, vaccination, and other medical or sanitary charges, £26,400; and roads and other public works, £62,800. The closing balances of the district funds taken together amounted to £50,600, which was £8,200 above the opening balance; but in five cases the expenditure on plague measures resulted in the reduction of the balance below the prescribed minimum, and in two cases, owing to this reason, there was a deficit which was made good out of provincial funds.

DISTRICT BOARDS.

In the Central Provinces district councils and local boards have been established everywhere except in the backward tract of Mandla, and their numbers were 17 and 53 respectively, as in the previous year. Particulars of their constitution are as follows :—

Central Provinces.

Elected members - 886	Non-officials 1,057	Asiatics - - 1,174
Nominated or <i>ex officio</i> - - 312	Officials - 141	Europeans or Eurasians - 24

General elections were held in eight districts, and bye-elections elsewhere, at which it was observed that more interest was shown by the agricultural than by the mercantile class. Two of the councils held less than the prescribed minimum of meetings, and the average attendance improved, though it was in few cases more than 50 per cent. Of local boards, 23 held less than the minimum of meetings, which was better than in 1897-98; and the average attendance improved. The income of the councils and boards, excluding deposits and advances, was £55,000, of which £32,000 were yielded by local rates and £6,700 by Government contributions. The expenditure, also excluding deposits and advances, was £52,000, including £19,500 on education, £1,000 on famine relief, and £16,000 on civil works. Generally speaking it is considered that sufficient attention was paid to road construction and repairs, and that the balances in hand are by no means excessive in view of the needs for famine purposes.

In Assam there are 19 local boards, containing 373 members, as follows :— Assam.

Nominated - 173	Ex officio - - 59	Europeans and
Elected - 141	Natives - - 227	Eurasians - 146

The European non-official members are elected by the tea industry, and native non-official members are generally nominated by the Deputy Commissioners. The income of the boards was £78,800, or rather more than in the previous year; the local rates yielded £44,000, or £800 above their yield in 1897-98. The boards spent £78,200; 64 per cent. of the total expenditure was devoted to public works, 18 per cent. to education, and 8 per cent. to sanitary and medical objects.

In Madras there were 21 district boards and 80 taluk boards, as in 1897-98; Madras. the number of village unions rose from 376 to 381. The sanctioned number of members of the district boards varies between 24 and 40, one half being elected by the taluk boards, where such exist; the average attendance at meetings of the boards was 54 per cent. of the members. The taluk or sub-divisional boards are not elective, the members being appointed by the Government, but some of them elect their vice-presidents; the average attendance at meetings was 56 per cent., and most of the boards met each month as required by the Act. The village unions were occupied chiefly with local sanitation and the management of elementary schools, markets, and other

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DISTRICT BOARDS.

local institutions entrusted to them by the taluk boards. The sanctioned number of members of all the unions was 3,728, and the average number of meetings was 13.

The income and expenditure of the boards and unions was as follows:—

	1897-98.		1898-99.	
	Income.	Expenditure.	Income.	Expenditure.
	£.	£.	£.	£.
District boards - - - - -	259,100	262,100	276,300	282,200
Taluk boards - - - - -	263,400	258,400	250,700	248,200
Village unions - - - - -	39,500	39,100	40,000	39,400
TOTAL - - -	562,000	559,600	567,000	569,800

The balances in the possession of all the funds at the end of 1898-99 were £106,700. The chief source of income is the land cess, which yielded £542,000; the chief items of expenditure were: Public works, £272,000; education, £72,000; sanitation, £122,000, including £21,000 for plague precautions. Of the public works expenditure, £35,000 was on new roads, &c., and the rest for maintenance.

Bombay.

In Bombay and Sind there were 23 district and 205 taluk (or subdivisional) boards. All these boards are partly elective, except in three backward districts and seven exceptional subdivisions. There were altogether 3,556 members of all boards, of whom 1,601 were elected. The total number of meetings held during the year was 1,261, and the average attendance of members was rather better than in the preceding year. The income of the local boards was £304,000, of which £186,000 was derived from provincial rates and £60,000 from Government contributions. Their expenditure was £310,600, including £89,000 on primary schools, £136,000 on civil works, and £24,000 on plague. The incidence of the taxes received by the local boards per head of the population was $2\frac{1}{6}$ annas in the central division and between 3 and $3\frac{1}{4}$ annas elsewhere.

Berar.

In Berar there were six district and 21 taluk or subdivisional boards. Each taluk board consists of 18 members, of whom 12 are elected by the people. 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 - - -	156	32	124	123	33	140	7
Taluk Boards - - -	373	129	244	344	20	373	-

All the district boards held more than the minimum number of four meetings prescribed by the rules. At the elections for vacancies on the taluk boards, 8.3 per cent. of the qualified electors voted. The income of the local boards was, £45,800, of which £21,500 accrued from rates, and £6,600 from assessed taxes. The total expenditure was £43,000, of which £12,400 was spent on education and £19,200 on civil works, chiefly roads and wells. It is reported that the district boards have been working with increased care and a greater sense of responsibility.

Burma.

In Burma local boards have not been constituted. In Lower Burma 19 district cess funds had an income of £119,500, as compared with £110,000 in 1897-98. The expenditure was £114,400, of which £51,500 occurred under the head of Civil Works and £11,000 under

Education. There were 16 district funds in Upper Burma, with a total income of £24,600, and an expenditure of £27,500. The balance to the credit of the district funds at the end of the year was reduced to £8,400. DISTRICT BOARDS.

PORT TRUSTS.

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

The year 1898-99 was one of exceptional prosperity to the Bombay Port Trust. The revenue amounted to £347,600, about £13,000 higher than in 1895-96, the highest on record; and a surplus of £10,000 was realised. The improvement in revenue, compared with that of 1895-96, the two intervening years being set aside as abnormal, was £26,000; the increase in expenditure necessitated by the larger volume in trade, was £20,500. The receipts for wharfage fees at docks and quays were £165,000, and from other sources, such as port dues, warehouse fees and rents, &c., £182,000. Wheat exports had almost ceased in 1897-98, but they amounted in 1898-99 to over 300,000 tons, so that in spite of smaller imports of rice from Burma, the total grain traffic was much higher. The exports of cotton resumed their normal level, and the import of piece goods showed a steady improvement; the enormous increase of petroleum imports was not maintained; the exports of seeds increased considerably. The tonnage of steamers engaged in foreign trade using the port in 1898-99 was 1,185,052 tons, against 1,081,970 tons in 1897-98; the total tonnage of all vessels rose from 2,134,173 tons to 2,146,824 tons. Bombay.

The total expenditure was £340,000, of which £146,600 was for interest. The debt of the Trust amounted at the end of the year to £3,476,500, including temporary advances by the banks of £170,000, rendered necessary by the unfavourable state of the market for raising a fresh loan. It has been decided to set aside annually as Sinking Fund an amount sufficient to extinguish the debt in sixty years. The value of the assets and property of the Trust, after being written down, stands at £3,716,500.

The receipts of the Calcutta Port Trust were £415,300, or £3,400 less than in the previous year, and the expenditure was £435,300, inclusive of the Kidderpore Dock Account and of payments to sinking funds. This deficit on the year's working was due to charges caused by the inability to deal with the large quantities of grain, and subsequently of coal, which arrived for export in the early part of the year. All this traffic went through the docks, the resources of which were impaired by illness of the staff and the plague scare among the labourers. An inquiry was held into the block of traffic, and authority was given for the erection of further buildings, and for the issue of a loan of £320,000 on the market. The exports of wheat and seeds from the Calcutta.

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PORT TRUSTS.

docks rose from 98,700 to 214,400 tons, of coal from 672,700 to 877,900 tons, and the total exports from 1,140,500 to 1,497,800 tons. The special toll of two annas a ton hitherto levied on coal exports was taken off. The dock revenue rose, in consequence of this large traffic, from £78,500 to £102,000; the expenditure was £100,500, and charges for municipal tax and interest on dock loans were £86,000 in addition. The income from the jetties, which deal only with import trade, was £110,000, and the expenditure was £74,200. The imports of petroleum at the Budge Budge wharf fell from 43½ millions to 38½ millions of gallons. The number and tonnage of vessels entering the port in recent years is shown in the margin. The number of vessels has been surpassed in 1897-98, and equalled in 1864-65, but the tonnage was the largest recorded. Only 105 of the vessels were sailing vessels.

Year.	No.	Tonnage.
1868-69	1,037	2,245,857
1891-92	1,117	2,699,567
1896-97	1,057	3,004,166
1897-98	1,235	3,562,373
1898-99	1,207	3,612,001

The outstanding debt of the port, including the dock loan of £1,918,000, amounted to £2,783,000, against which are to be set £140,000 at credit of sinking funds, reserve funds £211,300, and value of properties £3,842,000, besides the valuable Strand Bank lands held from the Government.

Rangoon.

The revenue of the port of Rangoon was £78,400, showing an increase of 7 per cent. above the high figure of 1897-98, due to the continued growth in the import trade. This growth is considerable, whether the year's imports are compared with those of the previous year or those of ten years ago. The total tonnage entering the port was 1,407,000 tons, against 1,380,000 tons in 1897-98, and consisted almost entirely of steamers, the number of which rose from 1,002 to 1,033; more steamers of tonnage exceeding 3,000 tons entered the port, including 65 of more than 4,000 tons, compared with 52 in the preceding year and only one in 1890-91. The exports of rice were also exceptionally good. The increasing work of the port led to more expenditure under nearly all heads, the total for the year being £84,800, against £52,000 in 1897-98; the larger part of this increase was caused by the provision of further buildings at the port. Certain additional harbour lights are in course of erection, which will allow of night pilotage. No debt was incurred during the year, and the reduced balance, £30,200, is still an ample one.

Madras.

The expenditure of the Madras Harbour Trust was £48,500 and its receipts were £48,000. The contribution from port funds fell from £16,000 to £5,600. 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 £6,700 on account of previous advances paid, and spent £14,500 on account of interest. No outlay was incurred on harbour extension and improvement during the year.

Karachi.

The income and expenditure of the Karachi Port Trust were respectively £91,300 and £64,500, as compared with £62,000 and £50,000 in the previous year. Exports showed a marked increase, and although imports declined by £333,000 the net result was a rise in the total of private trade of 17 per cent., to £11,654,000. The amount of rice exported was the largest on record, and the exports of wheat rose from 97,000 tons to 479,000 tons. The number of laden steamers which cleared from the port for foreign countries was more than double that of 1897-98, amounting to 274 vessels of 493,700 tons. Good progress was made in the harbour dredging operations.

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 five years in merchandise only, excluding PORT TRUSTS. Government stores, is set forth below :—

NAME OF PORT.	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.
	£	£	£	£	£
Bombay	42,106,000	43,933,000	40,011,000	34,709,000	40,387,000
Calcutta	54,213,000	48,211,000	49,841,000	47,997,000	48,553,000
Rangoon	6,954,000	8,202,000	7,506,000	8,232,000	9,360,000
Madras	7,324,000	7,156,000	6,841,000	6,774,000	6,747,000
Karachi	7,094,000	6,780,000	5,582,000	6,152,000	8,600,000

STATEMENT showing the Number of Municipalities in India, their Receipts and their Expenditure, for the Year 1898-99.

	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	161	104	148	42	52	14	1	58	1	165	20	757
Population according to the Census of 1891	081,560	2,722,170	3,235,685	2,124,197	865,822	688,899	81,727	452,518	1,702,402	821,764	2,236,547	283,344	15,899,635
Receipts:	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.
Octroi	-	-	171,747	285,006	-	56,739	-	-	-	97,290	163,766	18,029	712,577
Other Taxation	291,588	100,703	69,120	16,180	124,160	19,222	7,100	64,198	108,945	322,638	108,088	2,141	1,324,173
Sources other than Taxation (excluding Deposits and Advances).	50,826	43,838	63,629	83,706	147,023	22,564	7,688	22,090	64,044	187,532	156,722	8,008	859,770
Loans	260,000	6,745	10,600	20,778	29,933	4,246	-	13,333	-	53,333	29,553	-	428,521
TOTAL (1898-99)	£ 612,414	241,286	315,096	325,670	302,016	102,771	14,878	100,221	173,589	660,793	458,129	28,178	3,925,041
TOTAL (1897-98)	£ 431,423	236,502	295,775	296,548	319,616	99,299	16,338	99,764	181,526	656,370	358,659	28,146	3,020,178
Expenditure:													
Cost of Collection and Administration	38,080	25,102	34,704	45,172	27,903	27,054	1,188	7,732	15,545	36,178	88,900	5,775	353,033
Public Health and Convenience	263,485	159,541	152,900	146,023	197,326	61,903	12,739	80,205	110,764	269,461	238,293	11,942	1,694,582
Public Safety	33,252	12,694	42,626	44,351	29,911	1,229	612	4,800	7,054	56,858	14,940	2,905	251,212
Public Instruction	754	8,458	9,804	41,532	13,321	9,602	492	2,019	23,491	7,652	44,558	1,372	169,058
Interest and Miscellaneous (excluding Investments, Advances, and Deposits, and Payments to Sinking Fund).	130,044	22,016	40,849	27,215	26,848	7,374	433	15,367	10,861	312,425	21,067	5,036	808,988
TOTAL (1898-99)	£ 465,615	227,811	280,863	304,293	295,312	97,762	15,464	110,123	167,715	682,554	408,658	27,030	3,083,220
TOTAL (1897-98)	£ 467,796	240,240	298,574	291,220	290,732	96,547	15,347	110,000	200,722	673,728	402,654	27,664	3,105,224

SANITATION.

The health of the European troops in India was much better in 1898 than in the preceding year, though the rates of constantly sick and of death were still high as compared with the average rates of the last 10 years. The following table gives details:—

SANITATION.
European troops.

Year.	Average Strength.	Ratio per Mille of Strength.				
		Admissions into Hospital.	Constantly Sick.	Deaths.	Invaliding.	Total Loss.
1886-1895 (10 years average)	67,788	1,437	88	15.16	24	39
1897	68,395	1,557	101	22.93	33	56
1898	67,741	1,437	90	20.05	38	58

The chief causes of admission were, as usual, venereal diseases and ague, which accounted for 25 and 27 per cent. respectively of the total sickness. Enteric fever was the chief cause of mortality, showing a death-rate of 10.17 per 1,000, as compared with 9, the ratio of the previous year. This fever alone caused 51 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 13.46 per 1,000, while among men between the ages of 25 and 30, and between 30 and 35, the mortality equalled 5.45 and 2.77 per 1,000 respectively.

The total fever mortality was 10.9 per mille in 1898, compared with 10 in 1897, with averages of 4.49 during the years 1881-1890, and of 3.45 during the 10 years 1870-79. There was very little cholera among the European troops during the year.

The loss by invaliding during 1898 amounted to 2,580 men, equal to 38.09 per 1,000 of strength, against 2,258, or 33.01 in 1897. Venereal diseases were the cause of invaliding in about one twelfth of the number of cases, and the next most important cause was malaria. As regards the influence of age and length of residence in India upon invaliding, 24.5 per cent. of the men between 30 and 35 years of age were invalided, whilst the figure for those between 20 and 25 was 48, and for those over 40 was 58.7 per cent.; 49 per cent. of men with three years' service were invalided, 51 per cent. of those with one year, and 26 of those with more than 10 years' service.

The health of the Native troops in 1898 was fairly normal; there was an increase of influenza and respiratory disease, but there was a great reduction in cholera. On an average strength of 126,036, the admissions into hospital were in the ratio of 816 per 1,000, against 839 in 1897; the daily sick-rate was 33, a decrease of 2 per 1,000, and the death-rate was 13.3, against 14.9. Ague continued to rank first among the causes of admission, and yielded 41 per cent. of the total. Pneumonia, as usual, was the chief cause of death, and represented a ratio of 3.77 per 1,000, against 2.73 in 1897. The mortality from intermittent and remittent fevers was 1.66 per 1,000. From these two causes, pneumonia and malarial fever, nearly half the total deaths were recorded. From cholera the death-rate was 0.33 per 1,000, against 0.52 in 1897. The death-rate from enteric fever among the Native troops was only 0.13 per 1,000, as compared with 10.17 among the European troops. The deaths from plague during 1898 numbered 58; the chief outbreaks were among the 8th Bombay Infantry (15 deaths), and the 2nd Madras Lancers (9 deaths).

Native troops.

There was a marked improvement in the health of the jail population in 1898, not only as compared with the famine-stricken year 1897, but also with any of the last five years. Only in the Punjab was the death-rate higher than in

SANITATION.
Jails.

the previous year, owing to the prevalence of malarial fever and dysentery. For the jails of British India, as a whole, the ratio of admission into hospital and of daily average sick per mille, were 917 and 37 respectively, against 975 and 39 in 1897. The death-rate was 25·3, compared with 39·6 in the previous year; it ranged from 15 per mille in Berar to 36·6 in Assam and 34·6 (compared with 135 in 1897) in the Central Provinces. In six provinces there was no cholera in the jails, and elsewhere the attacks were much below the average; deaths from malaria were more numerous in Madras, Burma, Assam, and the Punjab, while the number in Bombay, though less than in 1897, was greater than the average; the death-rate from respiratory diseases was lower, as was that from dysentery, except in the Punjab. Of the total number of prisoners discharged during the year, 61 had gained weight and 17·6 had lost weight since their admission.

General
population.

	Mean Birth Rate.	Mean Death Rate.
Bengal - - -	35·79	26·57
Assam - - -	29·46	36·15
North - Western Provinces and Oudh - - -	37·35	27·38
Punjab - - -	41·0	31·05
Central Provinces	29·91	24·30
Berar - - -	31·3	23·4
Madras - - -	27·4	21·0
Coorg - - -	16·15	31·44
Bombay - - -	30·94	29·16
Lower Burma	34·11	26·13

The accuracy of the birth and deaths statistics collected with regard to the general population is said to be improving, although the improvement is by no means uniform and much remains to be done. Births and deaths were registered in all provinces during 1898, and the mean provincial birth-rates and death-rates are compared in the marginal table. In all provinces, with the exceptions of the North-Western Provinces, the Central Provinces, and Lower Burma, the birth-rates of 1898 were lower than those recorded in the preceding year. The year in most parts of the country was an extraordinarily healthy one, and in every province, except the Punjab and Lower Burma, the death-rate was lower, generally much lower, than in the preceding year.

Deaths from cholera were very few in comparison with previous years. In 1897 there were 555,035 deaths recorded as due to this cause, and the death-rate was 2·55 per mille; in 1898 the number fell to 152,703, fewer than in any year since 1880, and less than the number registered in an average year in Bengal alone. From smallpox too the number of deaths registered was 62,517, or about two-fifths only of the mortality in 1897 from that disease. Particulars of the plague mortality are given below in a separate chapter. The fever mortality was considerably below that of 1897, as well as that of the five-year period immediately preceding; the number of deaths from fever fell from 5,026,700 in 1897, to 3,866,650 in the year under report. The death-rates from fevers ranged from 7·48 per mille, in the Madras Presidency, to 22·67 per mille, in the North-Western Provinces and Oudh, and to 27·02 in Coorg. The North-Western Provinces had the highest general urban mortality from fevers in the whole of India, and it was one of the few provinces showing a rural mortality from fever lower than the urban. The mortality from dysentery and diarrhoea was reduced by 47 per cent. as compared with that of 1897, and by 20 per cent. compared with the average of the last five years; the rate was about 1 per mille for the whole of India, compared with 1·87 per mille in 1897.

Vaccination.

The total number of vaccinations performed during 1898-99 was 7,497,600, being a decrease of 300,000 on the previous year's work. Of primary vaccinations, 94 per cent. were successful, and 64 per cent. in the case of re-vaccinations, 30·3 per mille of the population having been successfully vaccinated. The number of infants vaccinated was 2,853,000, and of children between one and six years of age 3,008,000.

Some of the important sanitary works which have been either completed, in progress, or under consideration during 1898, were as follows:—

Bengal.

In Calcutta in the matter of water-supply there is nothing to record during the year 1898-99 but the ordinary progress of the existing system. The average daily consumption of filtered water rose slightly, to 20,684,000 gallons, being at the rate of 34 gallons per head in the town and 20 gallons in the suburban area. The consumption of unfiltered water was 4,779,000 gallons per diem, or 12 per cent. less than in the previous year; the consumption per head was about 11 gallons. Extensive improvements in the sewage and storm-water outfalls

of the town and suburbs, and the provision of a system of sewers in the suburbs were being executed by contractors. The public sewers in use at the end of the year 1898-99 measured over 200 miles. Further progress was made in the improvement of bustees, or clusters of Native huts. SANITATION.

The municipalities of the interior of Bengal spent £130,000 on sanitation, or 46 per cent. of their income, a decrease of £5,500 as compared with the sum expended in the previous year. In addition, a further sum of £32,400 was contributed by private individuals for sanitary works. The most important work was the completion of a portion of the Champanagar and Nathnagar extension of the filtered water-supply of Bhagalpur. Water-supply projects were considered by the Sanitary Board in respect to Howrah (extension), Darjeeling, and other places, and drainage projects for Krishnagar, Monghyr, Comilla, Siwan, and elsewhere. The Board was specially engaged in discussing the Monghyr drainage scheme and the scheme for giving a water-supply to the municipalities on the right bank of the river Hooghly. The towns in which drainage schemes have been carried out numbered 16, exclusive of Calcutta, and nine towns have improved water-supply.

In the North-Western Provinces and Oudh the municipalities expended nearly 40 per cent. of their income on water-supply, drainage and conservancy. Eight towns, Agra, Allahabad, Benares, Cawnpore, Lucknow, Meerut, Mussoorie, and Naini Tal are now furnished with waterworks and pumping machinery, which furnishes daily a quantity varying from 10½ gallons per head of the population supplied in Naini Tal, to 3½ gallons at Lucknow. Progress was made with the Benares sewerage works, and a small amount was spent on sewerage at Mussoorie; the water-supply works at Allahabad were continued; at Naini Tal a further water-supply scheme costing £17,000 was sanctioned in March 1898, and the greater part of the work had been done by the end of the year. The absence of epidemic disease, the extinction of plague, and the amelioration of the general health, combined with improvement in municipal sanitation, make the record of the year a satisfactory one. Orders were issued prescribing the maintenance of a village sanitation book in towns and villages for recording the needs of local sanitation. North-Western Provinces and Oudh.

In the Punjab the municipal towns spent nearly 25 per cent. of their income on sanitary work in the year 1898. Water-supply or drainage works were either completed, in progress, or under consideration in fifteen of the most important towns. Of the water-supply works in progress the chief were two reservoirs at Simla, a water-supply for Haripur, which was completed, and preliminary work for a water-supply at Amritsar. Important works were under consideration in Bhiwani, Delhi, and Simla. The chief drainage works in progress were those at Delhi, Lahore, Mooltan, and Rawalpindi; projects were in course of preparation for Umballa, Jagraon, Ferozepore, and Fazilka. Some of these schemes are of considerable magnitude, the estimated cost of the Delhi drainage works now in progress being no less than £40,600; but no very large amount was spent during the year on any one project. Private individuals also spent sums aggregating £4,500 on the construction of sanitary works during the year 1897-98. The health statistics of the towns, as might be expected, show, with few exceptions, a marked improvement after the introduction of water-supply, especially after enough time has elapsed to enable the people to get over their prejudice in favour of well water as against pipe water. Punjab.

The appointment of a sanitary engineer for Burma will, it is hoped, stimulate sanitary works in the towns of the province. He has made progress in the elaboration of schemes for the improvement of the water-supply of Moulmein, Mandalay, Bassein, Meiktila, and Kengtung, and he examined a drainage scheme for Prome town. The question of the extension of the Rangoon water-supply was still receiving attention. £147,000, or about one-third of the income of the various funds, was expended on sanitary works, in addition to the cost of the large reclamation schemes in Rangoon. It is considered that the proportion of income spent on sanitation in some towns, noticeably in the larger municipalities, might well be raised. The total spent in the municipalities, other than Rangoon, on conservancy rose from £22,000 to £24,000, the improvement being largely due to the introduction of better methods of disposal of nightsoil in the larger towns of Lower Burma. Burma.

SANITATION.
Central Provinces.

The municipalities in the Central Provinces expended 22 per cent. of their income on conservancy, drainage, and waterworks in the year 1898. The water-supply works in Jubbulpore and Khandwa were advanced, and those in Wardha and Bhandara were completed; progress was also made with the drainage of Jubbulpore. The Harda waterworks scheme was again in abeyance, owing to want of funds. No new villages were brought under the Village Sanitation Act during the year; the Act has been extended to 43 villages in previous years, and it is generally reported to work well. Village inspection note books have been started in all districts, but little was done towards keeping them up. The principle on which sanitary improvements in villages are undertaken is that the greater part of the burden should be borne by the village itself by cash contribution or by free labour; in 1898 both money and labour were scarce.

Assam.

Excluding the towns of Hailakandi, Sunamganj, Karimganj, and Maulvi-bazar, which have no separate incomes of their own, the municipal authorities in Assam spent 46 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. Sanitary inspection books were kept up in selected villages.

Madras.

In the Madras Presidency the municipal councils spent 54 per cent., and the district boards $6\frac{1}{2}$ per cent., of their income for sanitary purposes, exclusive of plague measures. A large portion of this expenditure was on conservancy, but the expenditure out of income on water-supply altogether amounted to £17,000, in addition to that of Madras city. The water-supply schemes of Coconada, Tirupati, and Vizagapatam were in progress during the year, and those of Coonoor, Bezwada, and Vizianagram were under the consideration of the Government. A decided advance was made in the matter of conservancy, and a large staff was maintained for scavenging. Village sanitary inspection report books were in use in all unions in 19 out of the 22 districts of the Presidency, the exceptions being Malabar, Anantapur, and Tanjore. The Sanitary Engineering Department completed surveys for water-supply or drainage for three municipalities, and one scheme was still under consideration. Three estimates were submitted to the Sanitary Board, the most important being the water-supply scheme for Vizianagram, estimated to cost £19,000, and another for Bezwada, to cost £25,000. In addition to these, many other small projects were in execution or under consideration.

For the sanitation of Madras City several useful improvements were being carried out. The underground sewerage system was completed in Mylapore, this marking the first stage of the scheme for the drainage of the whole city, and the laying of water pipes was continued. The water-supply was rather better than in the previous year, although the Red Hills lake stood at a low level during the middle of the year.

Bombay.

In Bombay City twenty drainage works were in progress, several of which have been practically finished; on the Mazagon sewerage works £18,000 had been spent up to date; £25,000 was spent during the year on the sewerage of Parel and other districts, chiefly in the purchase of machinery. Most of the other schemes were of considerable importance. The municipality spent out of revenue £88,000 on public works, including roads, and £113,000 on public health, while £30,000 was spent out of loan funds on sewerage and £31,000 on minor sanitary works. A short account of the work of the Bombay City Improvement Trust, which has been created for the ventilation of densely inhabited parts, the removal of insanitary dwellings, and the prevention of overcrowding, is given under the heading "Municipalities." In the other municipalities of the Presidency over 49 per cent. of the income was allotted for sanitary purposes, and $18\frac{1}{4}$ per cent. by the local boards, though in neither case was the full allotment spent. The whole expenditure on sanitary purposes was £194,000, of which 32 per cent. was spent on improvement of water-supply, 36 per cent. on conservancy, and the rest on

drainage, improvement of town sites, provision of tanks, &c. The large expenditure on plague precautions checked the prosecution of sanitary works; there was some progress made at Hyderabad, Yeola, Kirkee, and Akalkot, but elsewhere much needed projects had to be suspended; and the same may be said of drainage schemes. The Bombay Village Sanitation Act was introduced in 17 other villages during 1898, making a total of 299 villages which have been brought under it since it was passed in 1889. The Act provides for the establishment of a sanitary committee or a sanitary board, consisting of members chosen by the collector of the district or by the Local Government, to supervise sanitary matters.

The municipalities of Berar spent 50·7 per cent. and the district boards about 11 per cent. of their income on sanitary improvement, the proportion being in either case smaller than in 1897; but the amount in that year was swollen abnormally by expenditure more or less directly connected with famine relief. No new works of any great importance were undertaken during the year. The District Sanitary Boards met once at each of the six head-quarter stations. The sanitary survey of selected towns and large villages made better progress, the stress of famine relief having been removed. The number of towns now surveyed is 37, and of villages 1,009, leaving two towns and 4,234 villages still to be surveyed. The suggestions made for improvements, as a result of the survey, involved the expenditure of £2,700 during the year by district boards, and it is hoped that the information recorded will be put to practical use in future.

HOSPITALS, DISPENSARIES, AND LEPER ASYLUMS.

(Detailed information regarding the above is annually furnished in the Report on Sanitary Measures in India, which is published as a Parliamentary Paper, and a brief review only is given in this place.)

There are in India, besides the large hospitals in presidency and other important towns, a number of dispensaries which are maintained for the most part at the expense of municipal or local bodies. These are the chief agencies for the medical attendance of the rural population, but there is a large number of missionary dispensaries in many provinces, for which no statistics are available, and an attempt is being made in a district of Bengal to deal with the question by issuing simple medicine chests to headmen of villages remote from dispensaries. The latter, however, is as yet only in the position of an experiment. The following table compares the position of the various provinces, outside the presidency towns, in respect of hospital and dispensary attendance. The number of dispensaries is that for which returns were available for the year; and no account has been taken, for the reason given above, of mission dispensaries:—

Province.	Number of Dispensaries.	Square Miles per Dispensary.	Population per Dispensary.	Number of Patients per Dispensary.
Bengal	487	311	145,103	5,913
Bombay	337	371	56,086	5,074
Madras	496	280	71,835	8,161
Central Provinces	121	591	78,524	12,409
Punjab	265	417	78,720	12,232
North-Western Provinces	331	324	141,707	10,983
Burma	99	1,731	76,820	7,620

SANITATION.

The hospitals in the larger towns are in many cases on an important scale, as, for instance, the Campbell hospital at Calcutta, with its daily average of 452 in-patients in 1898, the Sir J. Jijibhoy hospital in Bombay City, with 308 beds, the Government General hospital at Madras, with 500 beds, the Mayo hospital at Lahore, with 149 beds, the Rangoon General hospital with about 460 beds, and others. The expenses are met to a large extent by the State, especially in the presidency towns, and State subventions are frequently given to dispensaries supported by local funds or private subscriptions. In Calcutta, the Government paid £52,000 out of a total expenditure of £66,000; in Bombay City, £21,500 out of £29,300; in Madras City, £19,600 out of £27,400. Elsewhere, however, the chief contributions are from local funds; of the £68,200 spent on the Madras dispensaries in the interior, £57,400 came from local funds; in Burma, out of £32,500, 69 per cent. came from local funds, and so on. Private subscriptions do not form a large proportion of the receipts; in Calcutta they amounted to £7,700 in the year 1898; in the rest of Bengal to £15,600; and in the North-Western Provinces and Oudh to £7,500; elsewhere the amounts were smaller.

The year was, apart from plague, generally a healthy one, and the number of indoor patients especially was less than in the previous year; but the decrease is not viewed with satisfaction because the aim is to widen the field of operations and to afford to all classes an opportunity of obtaining medical relief. There is an enormous mass of disease and sickness in India, which is as yet untouched by any hospitals or dispensaries; and the fact that their operations, so far as indoor patients are concerned, were not increased generally in the year is attributed in most provinces to the fear of plague restrictions. The number of outdoor patients also decreased generally, but in a smaller proportion.

The leper hospital at Madras was increased by the addition of a new ward during the year 1898, so that it contained 246 beds; but even this was insufficient to meet the applications for admission. At the six leper asylums in the Punjab 566 lepers were treated. A leper asylum was opened at Sylhet during the year. In the North-Western Provinces and Oudh there are asylums in which 926 lepers were inmates during the year.

LUNATIC ASYLUMS.

Bengal.

In the province of Bengal there are five lunatic asylums for natives, situated at Dullunda, Dacca, Patna, Cuttack, and Berhampore. The number of lunatics in these institutions on the 31st December 1898 was 911, of whom 729 were males and 182 females. The daily average strength of the several asylums during the year 1898 was as follows:—Dullunda, 218·34; Dacca, 226·54; Patna, 235·5; Cuttack, 38·84; Berhampore, 202·83. The total number of criminal lunatics in the five asylums on the 31st December was 477, of whom 418 were males and 182 females. The total number of lunatics in the asylums was slightly less than in 1897, but 159 patients were admitted during the year. At the same time 71 were discharged cured, and 73 died. Amongst the 159 fresh cases the cause of insanity was traced in only 61, the ganja habit being responsible for 21 of these. There was a marked improvement in the health of patients. Of the 477 criminal lunatics, 184 had been tried for crime and acquitted on the ground of insanity, 260 were found incapable of making a defence, and 33 became insane during imprisonment.

The expenditure on asylums during the year 1898 amounted to £6,552.

There is an asylum for European lunatics at Bhawanipur, the strength of which was 53 (including 13 admissions and 5 re-admissions during the year). There were 4 recoveries, 2 deaths, and 13 transfers of patients, so that on the 31st December 35 patients remained under treatment. The expenditure on this asylum was £1,392.

In the united provinces there are four lunatic asylums, situated at Bareilly, Benares, Agra, and Lucknow. The number of lunatics in confinement on the 31st December 1898 was 1,030 (as against 1,084 on the 31st December 1897), the average daily strength of the several asylums during the year being as follows:—Bareilly, 297; Benares, 303; Agra, 238; Lucknow, 227. Of the total number of patients 20 were Europeans or Eurasians. It is intended to keep this class of lunatics at Agra alone, as soon as the contemplated enlargement of that asylum has been carried into effect. Eleven lunatics escaped during the year, of whom five were recaptured. The number of deaths was 87. The number of criminal lunatics in the four asylums at the end of the year was 178. It is intended to transfer harmless criminal lunatics to the asylums, as far as the accommodation permits; hitherto only dangerous criminal lunatics have been housed in asylums.

SANITATION.
North-Western
Provinces and Oudh.

The cause of lunacy was known in less than 50 per cent. of the cases; among these 24·27 per cent. were attributed to the use of intoxicants. The expenditure on buildings in 1898 was £500, and on other charges £5,966.

There are two lunatic asylums in the Punjab, one at Lahore and one at Delhi. On the 31st December 1898 there were 291 patients in the former (230 males and 61 females), and 133 (99 males and 34 females) in the latter. The average daily strength was, at Lahore, 286·19, and at Delhi, 130·61. All these figures are the highest on record, but it is thought that the increase is due not to any spread of insanity in the Province, but to greater willingness on the part of the people to place patients under restraint, and on the part of magistrates to grant admission orders. At Lahore 369, and at Delhi 19 patients were discharged cured, while the deaths in the two asylums numbered 26 and 14 respectively. As regards criminal lunatics, the daily average strength was, at Lahore, 73·51 (against 68·37 in 1897), and at Delhi, 11·9 (as against 13·7).

Punjab

The total expenditure was:—Lahore asylum, £2,206; Delhi asylum, £884.

In the Bombay Presidency (including Sind) there are lunatic asylums at Colaba, Ratnagiri, Poona, Dharwar, Ahmedabad, and Hyderabad. The respective average daily strength of these six asylums during 1898 was, 311·3, 94·8, 105·7, 60, 107·1, and 108. The total number of lunatics in confinement on the 31st December 1898 was 811, of whom 644 were males and 167 females. Of these, 119 (110 males and 9 females) were criminal lunatics. Europeans and Eurasian patients were treated at Colaba alone, and during the year there were 76 Europeans and 27 Eurasians in this institution. Of the cases in which the cause of insanity is known, the greater number is attributed to the use of intoxicants, particularly charas, ganja, and bhang. The total number of deaths in the six asylums in 1898 was 55 (as against 81 in 1897); the number of patients discharged cured was 80. The total expenditure amounted to £10,154.

Bombay.

In the Madras Presidency there are asylums at Madras, Vizagapatam, and Calicut. At the end of the year 577 patients (442 males and 135 females) remained under treatment. The daily average strength was:—Madras, 425·53; Vizagapatam, 72·51; Calicut, 82·28. During the year there were 46 deaths, and 63 patients were discharged cured. The number of criminal lunatics at the end of the year was 135 (121 males and 14 females). Of the total number of 134 new admissions in 1898, 22 were Europeans or Eurasians.

Madras.

The total expenditure was £5,396.

There are two lunatic asylums in the Central provinces, one at Nagpur, and the other at Jubbulpore. On the 31st December 1898 the total number of lunatics was 326. The daily average strength was 162·45 at Nagpur and 152·89 at Jubbulpore. During the year 24 lunatics died and 31 were discharged as cured or improved. The number of criminal lunatics at the end of the year was 94.

Central Provinces.

The total expenditure was £2,296.

There is one lunatic asylum in the province of Assam, situated at Tezpur. During the year 28 patients were admitted, and there were five deaths. The number of inmates at the end of the year was 125 (99 males and 26 females) as against 118 at the end of 1897. During the year 14 lunatics had been

Assam.

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SANITATION.

discharged cured. The number of criminal lunatics was 36 (33 male and 3 female). The total expenditure for the year amounted to £884 (as against £890 in 1897).

Burma.

The only lunatic asylum in Burma is at Rangoon. During 1898 the total number of inmates rose from 342 to 345 (303 males and 42 females), of whom 173 (161 males and 12 females) were criminals. The number of admissions during the year was 88. Sixteen inmates were discharged cured, and 41 died. Three escaped and were not recaptured. At the end of the year three male Eurasians and one female Armenian remained in the asylum. The total expenditure for the year amounted to £2,768 (as against £2,824 in 1897).

CHAPTER II. A.

PLAGUE.

The plague epidemic began at Bombay in September 1896; and last year's PLAGUE. Statement brought the plague narrative down to March 1899. Reported deaths from plague in the Bombay presidency had then reached a total of 191,000, while in other parts of India 19,000 deaths from plague had been reported; and it was surmised that the total deaths from plague in British India and Native States from the beginning until March 1899 might have reached 300,000 in all.

Bombay city was again visited with plague in epidemic form. As in previous years the disease was worst in the months of February and March, and began to abate in the beginning of April. During the three months, February-April, the reported plague deaths of Bombay city were 7,897 in 1897; they were 11,647 in 1898; they were 10,314 in 1899, and 8,096 in 1900. Up to the end of April 1900, the reported plague deaths in Bombay city since the beginning of the epidemic had been 55,460 or 6½ per cent on the population of the city. The deaths from plague were fewer in 1898 than in 1897, and so far they are fewer in 1900 than 1899. The proportion of deaths to cases in the whole Bombay presidency was 88 per cent. in the epidemic of 1897, it was 94 per cent. in that of 1898, it was 83 per cent. in that of 1899, and it has so far been 79 per cent. in the epidemic of 1900. All classes appear to have suffered, except perhaps Europeans, of whom only 57 have died of plague in Bombay since the beginning of the outbreak. The castes and classes that suffered most were different in the several outbreaks. For instance, in the first outbreak the fishermen suffered severely, while in the second they came off better; in the first epidemic Parsees and Moslems were fairly exempt, but in the second these races suffered heavily.

Segregation of the sick and of persons who had been in contact with the plague-stricken was less rigorously enforced during the past twelve months; hospital treatment has throughout been carefully and efficiently managed; but of late the number of separate hospitals has been larger. During the past year the authorities have trusted more fully to the townspeople for information regarding plague cases; and domiciliary visitation by the police or special sanitary agents in search of plague cases has been less universal. The people of Bombay city no longer resist, but rather acquiesce in the operations for the prevention and cure of plague.

In 1899 the town of Karachi was again visited by plague in epidemic form for two months in the spring; but the number of reported plague deaths did not at any time exceed 281 a week as compared with 480, the maximum weekly total of 1898. In the year 1900, however, the plague deaths in Karachi were as high as 390 in the second week of April.

In the autumn of 1899 the districts of Belgaum and Dharwar were again visited by plague in epidemic form, but the disease was much less severe than in the previous year; the highest weekly return of plague deaths was for Dharwar district, 528 in October 1899 as compared with 2,358 in one week of November 1898; in Belgaum district the highest weekly total was 661 compared with 1,293 in 1898; both these maxima occurred in October. The State of Kolhapur had a severe and prolonged attack of plague during the autumn of 1899, and the total plague deaths of 1899 were 14,479 in Kolhapur as compared with 9,119 in 1898. The city of Poona too had a short and severe attack of plague in its most virulent form during the autumn of 1899; more than 6,000 deaths occurred in six weeks out of a total population of less than 100,000, after the city had been practically free from plague during the 12 months ending May 1899.

For the whole of the Bombay presidency the reported plague deaths were 57,943 up to December 1897, they were 104,881 in the year 1898, and they were 117,176 during 1899. For the first four months of 1900 the reported plague deaths of the whole presidency have been 19,841 as compared with 34,567 in the same period of 1899.

Outside the Bombay presidency the plague has spread more widely than in 1898 or previous years. In Bangalore city and cantonments plague deaths have fallen to 1,963 as compared with 5,643 in 1898. But in the Mysore, State as a whole reported plague deaths were 6,629 in 1899 against 6,342 in 1898.

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In other provinces reported plague deaths for the two years and for a part of the year 1900, have been :—

	1898.	1899	1900 (four months only).
Bengal	166	3,288	26,722
Madras	490	1,817	501
Panjab	1,871	253	42
N.W Provinces	116	0	116
Central Provinces	103	522	570
Central India States	1	6	Nil
Rajputana States	118	23	10
Hyderabad States	3,945	4,359	671

The severe epidemic of plague in Calcutta and in parts of the Behar districts of Bengal is the most serious feature of the plague history of the present year. Plague had been appearing at longer or shorter intervals in Calcutta since 1897; and for months at a time the city was reported to be free; but the disease suddenly assumed epidemic form in March 1900, during which month 3,300 persons are reported to have died of plague in the city. The figures fell to 1,903 for the four weeks ending on 28th April, and during the first three weeks in May the number of reported plague deaths was 537. In Behar the most formidable outbreak occurred in the Patna district in January, and the weekly number of plague deaths reported rose rapidly to a maximum of 2,044 in the week ending 17th March, since which date it has declined to 92 in the week ending 19th May.

Up to the end of April 1900 the total reported deaths from plague have been 299,844 in the Bombay presidency, and 58,841 for other parts of India, or 358,685 for the whole of British India and Native States. Possibly the real total may be nearly 475,000; this total for a period of nearly four years is less than the difference between the highest cholera mortality (727,493 in 1892) and the lowest (152,703 in 1898) for British India in a single year. After the recent outbreaks in Calcutta and Behar, the prospect that severe plague epidemic will be confined to Western India is less hopeful than at the end of 1899.

The Plague Commission, after visiting all plague centres in India and taking evidence, returned to England in the summer of 1899. They took some further evidence in this country; and it is expected that their complete report will soon be issued. Two sections of their Report regarding "Haffkine's Anti-plague Inoculation" and regarding "Measures for the Suppression of Plague," have been issued for the use of the Government of India and the authorities dealing with plague. The Commission hold that Haffkine's "inoculation sensibly diminishes the incidence of plague attacks on the inoculated population," though the protection is not absolute; and that "inoculation greatly diminishes the death-rate among the inoculated population," not only by reducing the rate of attack but also because "the fatality of attacks is diminished." The Commission, while they do not recommend compulsory inoculation, advise that the people of places threatened or attacked by plague should be persuaded to submit themselves to inoculation, and that improved facilities for undergoing inoculation in the best and most perfect way should be provided. Regarding measures for suppressing plague, the Commission say that the enforced removal of plague patients to hospital is a doubtful and unpopular measure; that segregation of persons who have been in contact with plague patients is only possible subject to large limitation; that evacuation of infected places is feasible only in villages and small towns; that perchloride of mercury has been found to be the best plague disinfectant; that there is little or no risk of plague being carried by goods and it is unnecessary to disinfect merchandise; that land cordons and the practice of searching railway passengers are of small use. The Commission state the measures of suppression recommended for villages and small towns, also those advisable in the case of large towns and cities. They apprehend that the extinction of plague may be found a more difficult business than it used to be in bygone centuries.

CHAPTER III.

JUSTICE AND POLICE.

CRIME AND POLICE.

The sanctioned strength of the police force in the town of Calcutta and its suburbs was 3,004. That of the District Executive Police throughout the province of Bengal was 26,637. In addition to these there was a force of 675 railway police and another of 300 military police. The latter force, which now consists of four companies, did good service at the time of the plague riots in Calcutta. The men enlist under a three years' engagement, the Subadars in charge are all experienced officers, and the men are regularly instructed in physical drill, bayonet exercise, musketry and battalion drill, &c., and are encouraged in athletic sports. The total strength of the town police (apart from the Calcutta force) was 5,506, while the rural police (consisting of village chaukidars) included 166,222 men at the beginning of 1898, the number being reduced during the year to 161,967. The new station-beat system has added to the efficiency of chaukidars in those districts in which it has been introduced.

CRIME AND POL.
Bengal.

The expenditure on the regular police (exclusive of town and rural chaukidars, but including the military police) was £339,516 in the year under review, as against £353,970 in 1897-98. The outbreak of plague necessitated the employment of a large temporary force of police.

The percentage of casualties due to deaths, retirements, and discharges (8·3 per cent.) was practically the same as in 1897. There were 13 charges against policemen of using torture, and 85 of extortion, but only two torture charges and 13 extortion charges resulted in conviction. A large number of the charges were malicious. It is to be noted, however, that the number of punishments awarded to members of the force has risen; during 1898 there were 418 judicial convictions (against 334 in 1897) and 3,856 (against 3,278) departmental punishments. At the same time the general discipline has been good, and the number of men wearing good conduct stripes is now 10,792.

The total number of cognisable offences* in the town of Calcutta fell from 26,592 in 1897 to 25,796, and in the suburbs there was a decrease from 7,301 to 6,419. The Calcutta police sent up 29,390 cases, and obtained convictions in 96·77 per cent. of these cases. An abnormal rise in the number of non-cognisable offences in Calcutta in 1898 was due mainly to neglect of duty on the part of the subordinate officials of the Municipality, which led to applications for more than 20,000 summonses under the Municipal Act for failure to take out trade licenses in due time. In the province the total number of reported cognisable crimes fell from 185,061 in 1897 to 171,993 in 1898. The number of cognisable cases investigated by the police fell from 106,561 in 1897 to 99,628 in 1898. The percentage of reported cases investigated shows an increase, but there were proportionately less convictions. The need of a good detective department is receiving the attention of Government.

There was in 1898 a decrease of 33 per cent. in the total volume of crime reported in the North-Western Provinces and Oudh. The number of cognisable cases investigated by the police was 167,708. In 46 per cent. of the total number of cognisable crimes reported the police refused investigation. The corresponding percentages in Bengal and the Punjab are 22 and 30 respectively. It thus appears that the police in the North-Western Provinces show more discretion in selecting cases for investigation, but it is at least possible that a larger amount of petty crime goes unpunished in these provinces. The percentage of convictions to cases tried is, as might be expected under these conditions, greater than in the neighbouring provinces. There was a marked decrease in the amount of non-cognisable crime. Dacoity has decreased, and no dacoit leaders of much notoriety are now at large. The police of neighbouring native states, particularly those of Gwalior and Rampur, have given valuable aid in this respect.

North-Western
Provinces and
Oudh.

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

CRIME AND POLICE.

The total strength of the provincial police in 1898 was 24,790, and the cost increased from £364,214 in 1897 to £371,240. The town police, 3,215 in number, cost £13,624. Municipal police numbered 6,685, and cost £33,862. The force of railway police was raised from 783 to 818, and cost £17,612. The number of village chaukidars was this year 89,957, and their cost £183,142. The Government is pursuing the policy of substituting a cash wage in the case of these chaukidars for the old system under which their remuneration very largely consisted in the grant of pieces of land rent-free. Only two instances of torture were alleged against the police during the year, and each of these cases resulted in acquittal. The total number of punishments inflicted on members of the district police fell from 1,363 to 1,048. It is recognised that the police service does not attract the best class of recruits, but within the last five years the aggregate pay of the force has been increased by 6½ lakhs annually, and it is hoped that the improvement in pay and prospects will not only secure better men for the ranks, but will lessen the force of the great temptations to corruption which undoubtedly meet the constables at present.

Punjab.

Although there was in the Punjab during 1898 an improvement as regards crime against property, offences against the State and crimes of violence continued to increase. There has been on the whole an improvement in the cis-Indus divisions, but Bannu and Peshawar show a larger list of murders. The Waziris are the worst offenders, but it is very probable that the rise in reported crime amongst them is due to the fact that the occupation of the Tochi valley has brought under British rule a region to which British subjects have long resorted for the purpose of settling their differences. These affairs, which formerly did not come under the notice of the authorities, now figure in the annual list of murders. It is almost impossible to make the border a difficult line to cross, and a good many crimes of violence are committed in British territory by trans-border Pathans. Steps are being taken to limit the number of pistols and daggers. The police are perhaps to some extent rendered less keen in the collection of evidence by the facility of handing over cases to be tried by the rough justice of tribal jirgas. In some of the eastern divisions of the Punjab, a decrease in violent crime is attributed to a sudden reconciliation between Hindus and Mohammedans, brought about by their common dislike of plague rules. During the year 1898, thirty-eight Lee-Metford rifles and twenty-five Martini-Henry carbines were stolen, and only nine of these sixty-three weapons were recovered.

The strength of the police force was 19,958, and its cost £235,346. During the year, 7 non-commissioned officers and 134 men were punished judicially, while departmental punishments fell from 2,133 to 1,996 and dismissals from 226 to 214. The number of voluntary resignations without pension or gratuity rose, the fact being evidence that the service is not popular. Out of 2,120 recruits enlisted during the year, only 67 were Sikhs, and the number of Hindus (including Sikhs) formed only 30 per cent. of the total. The working of the police during the year was handicapped by the detachment of a large number of men to cordon the plague-infected villages of the Jullundur Doab. But it is admitted that the efficiency of the police is not increasing *pari passu* with the intelligence and resources of the criminal. It is to be noted that an educational improvement in the force is accompanied by a decline in social status and prestige.

Burma.

The sanctioned strength of the District Executive Police in Burma at the close of the year 1898 was 13,053. The Railway Police number 332. The Mandalay Cantonment and Municipal Police were during the year amalgamated with the Regular Police. Desertions and dismissals were fewer than in 1897, but the number of departmental punishments inflicted on the rank and file increased.

The number of cognisable cases disposed of was 48,085 as against 49,762 in 1897. Dacoity and violent crime generally have decreased. The number of cattle thefts has decreased by 305 to 3,305. A great amount of opium smuggling is reported. Of the total number of cognisable cases 88 per cent. were investigated by the police. The percentage of cases ending in conviction to cases reported was 67. The system of beat-patrols, introduced in 1896, has already produced good results as regards the surveillance of criminals.

The sanctioned strength of the Military Police was 14,941 (as against 15,167 in 1897). Except in the unhealthy Ruby Mines District, where difficulty was experienced in enlisting Karens, recruiting was good, and Kachin recruits were obtained without difficulty, and did well. The ranks include many Sikhs, Punjabis, and Gurkhas. CRIME AND POLICE.

It had been hoped that the year 1898 would show a reversion to normal conditions of crime in the Central Provinces, and in effect the total number of offences reported was smaller than at any time during the past ten years. Murders generally have decreased by 50 per cent., but the cases of poison and drugging are as numerous as in 1897. There is a great reduction in cattle-maiming and cattle-theft, the police having watched certain "butchers" who were little better than professional cattle thieves. The total number of offences reported dropped from 50,021 in 1897 to 20,756 in 1898. As regards cognisable crime, the police investigated 75·10 per cent. of the reported cases, and 72·78 per cent. of arrested persons were convicted. Central Provinces.

The Police Force (including the Railway Police) had a strength of 1,401 officers and 6,976 men. No case of torture was reported during the year, but there were 14 cases of alleged extortion. Departmental punishments fell from 762 to 657. Difficulty is experienced in recruiting.

The actual strength of the total police force in Assam in 1898 was: Military Police, 3,064; Civil Police, 2,372; Union Police, 15; Rural Police, 6,757. An increase of 231 in the Military Police is due to the taking over of the South Lushai Hills Battalion from Bengal. The percentage of Civil Policemen departmentally punished was 11·2 per cent. in 1898, as against 15·4 per cent. in 1897. There was a remarkable increase in cognisable crime, which cannot be wholly ascribed to the influx of foreigners in connection with the Assam-Bengal Railway, 8,411 persons being convicted during the year. The total number of cognisable offences for disposal was 16,982 against 15,322 in the preceding year. Assam.

The sanctioned strength of the police in the Hyderabad Assigned Districts was 2,897. There were 17 judicial and 1,349 departmental punishments in the force. There was a notable diminution of cognisable crime, the number of cases falling from 10,296 in 1897 to 4,883 in 1898. Dacoities decreased by 50 per cent. The figures of 1897 had, of course, been exceptional, the presence of famine having made it hard for the poorer classes to live honestly, but it is satisfactory that the recovery from the famine conditions should have been accompanied by a striking diminution of crime. Of the 11,449 persons arrested by the police, 74 per cent. were finally convicted. Berar

Excluding village police, the total strength of the Police force in the Madras Presidency at the end of 1898 was 22,564, being ·8 per cent. under sanctioned strength. Expenditure decreased from £291,606 to £286,670. There were 1,995 enlistments during the year, and 1,797 men left the force. The number of policemen judicially punished was 290, while the dismissals amounted to 1·6 per cent., and the minor departmental punishments to 27·4 per cent. of the force. The percentage of men able to read and write rose from 86·4 to 86·6. Madras.

The number of cognisable cases rose from 164,007 to 172,634. Of these, 66·1 per cent. resulted in conviction of offenders. The volume of crime under the Indian Penal Code decreased slightly, while a substantial increase took place among cases under special local laws, and cases of nuisance. There was an increase among grave offences against property, and the police were rather less successful in their dealings with this class of crime.

The total number of reported cognisable offences in the Bombay Presidency (including Sind) was 40,805, as against 45,479 in 1897. At the same time there was a rise of 22,000 in the number of non-cognisable cases (193,327). The general fall in cognisable crime is ascribed to the improved condition of the year, and did not extend to Sind, where the year was a bad one for agriculture. While plague inevitably to some extent disorganises police work, it is thought that in some districts the restrictions placed on the movements of criminal classes by plague regulations tend to reduce the volume of crime. Of 357,789 persons appearing before the courts, only 20·9 per cent. were convicted, but these figures throw little light on the work of the police, since only about one-seventh of the cases were really police cases. The police investigated

CRIME AND POLICE. 34,408 cognisable cases during the year, and amongst the 16,423 actually tried convictions were obtained in 75 per cent. There was a great decrease in dacoity.

The total sanctioned strength of the police was 19,772, the cost being £225,405, as against a strength of 19,650 and a cost of £265,244 in 1897. About 59 per cent. of the force were engaged in the prevention and detection of crime. The number of judicial punishments inflicted on members of the force were in the Presidency proper 143, and in Sind 48; the number of dismissals 168 and 64, and of minor departmental punishments 2,107 and 774 respectively. The strength of the police in the town and island of Bombay was 2,118.

Coorg. The total number of cognisable cases in Coorg was 840, as against 765 in 1897. The strength of the police force was 226. It is becoming easier to recruit Coorgs for the police, and the results are expected to be satisfactory. During the year 19 constables were dismissed and 85 underwent minor departmental punishments.

CRIMINAL JUSTICE.**CRIMINAL JUSTICE.****Bengal.**

The number of offences reported during the year 1898 in Bengal (350,610) was less by nearly 5,000 than the number for 1897. There was a large decrease in the number of offences against property, but offences affecting the human body were more numerous. Of the total number of offences reported, 294,928 were found to be true. Crime decreased in 28 districts, but increased in 17 (including Calcutta). There were 4,715 (as against 4,409) reported cases of offences against the public tranquillity, and 74,568 offences affecting the human body (an increase as compared with the 73,069 reported in 1897, but considerably below the number for 1896, which amounted to 78,230). The number of murder cases found true was 386, and in connection with these 177 persons were convicted. The number of reported offences against property fell from 122,703 to 99,606, the figures being the lowest recorded since 1891.

At the close of the year there were 437 stipendiary magistrates of varying powers, including the district magistrates, and 1,818 honorary magistrates, excluding in both cases Calcutta. The latter tried 25·6 per cent. of the total number of persons tried by all the magistrates' courts in the Province (excluding Calcutta). The average duration of each case in the courts of the several classes of magistrates rose from nine days to 9·6.

The number of cases committed to the courts of session, or referred to the sessions judges, fell from 1,875 to 1,768, and the number tried from 1,835 to 1,806, leaving undisposed of at the close of the year 265, against 324 in 1897. The average duration of trials rose from 50·2 days to 55·8 days, while the percentage of persons convicted to the number tried rose from 60·3 to 67·5.

The number of persons tried by jury was 1,161. The sessions judge agreed with the verdict of the jury in respect of 1,048 persons, and differed from it in respect of 113. The number of persons tried with the aid of assessors was 1,892.

The number of cases brought to trial before Presidency magistrates was 42,840, of which 42,579 were decided. In magistrates' courts outside the Presidency town, 158,707 cases were brought to trial, and (including arrears) 158,871 disposed of.

The number of appeals before the High Court from the various criminal courts of the province, including those pending, fell from 985 in 1897 to 935, and the number decided from 1,009 to 927. The judgment of the lower courts was affirmed in 720 cases, reversed in 32, and modified in 91. Appeals to sessions judges fell from 8,706 to 7,132, while those to district magistrates fell from 5,636 to 5,418. The percentage of decisions confirmed to decisions appealed against rose, in the case of appeals to sessions judges, from 50·86 to 51·09, and of those to magistrates, from 60·42 to 61·84.

The number of persons sentenced to imprisonment by courts of session, Presidency magistrates, and magistrates outside Calcutta was respectively 1,677, 1,465, and 24,727. CRIMINAL JUSTICE.

Although the North-Western Provinces and Oudh have, for legislative purposes, been united, Oudh, not being subject to the High Court of the North-Western Provinces, but having a Judicial Commissioner as its highest court of appeal, presents its judicial statistics separately. North-Western Provinces.

In the North-Western Provinces 124,072 offences were reported, of which 97,326 were returned as true, and 88,906 were brought to trial. The proportion of persons convicted to those brought to trial fell from 61 per cent. in 1897 to 56·4 per cent. in 1898, theft and hurt being the offences with which 40,550, 29 per cent. of the 140,038 who were brought to trial, were charged, this proportion being 4 per cent. less than in 1897.

Of 87,626 cases disposed of in the several classes of magistrates' courts, 20,578 cases were tried by honorary magistrates, who continue to render efficient assistance to the administration. The average duration of cases in all the magistrates' courts rose from 6·2 to 7·4 days.

Sessions judges disposed of 2,054 out of 2,283 cases for trial, the corresponding figures for 1897 being 2,921 and 3,184, and they reduced the list of 235 cases pending at the close of that year to 204 at the close of 1898.

Sentences to death fell from 152 to 91, and to transportation from 573 to 281. There was also a marked decrease in the number of lighter punishments. Whipping (the punishment of male juveniles and adult offenders charged with theft and a few other offences) was inflicted in 6,459 instances, or 30·66 per cent. of possible cases, as against 17,187 instances, or 38·46 per cent. of possible cases, in 1897.

Courts of magistrates disposed of 3,541 appeals, against 3,505 preferred during the year, the average duration of cases being 14 days, and the percentage of unsuccessful appellants being 75·3. Courts of session disposed of 8,195 appeals against 8,345 preferred, giving an average of 17 days to cases, and finding against 75 per cent. of appellants. The corresponding figures in the case of the High Court were 1,255 fresh appeal cases for hearing, 1,269 disposed of, 32 days' average duration, and 85 per cent. of appellants wholly unsuccessful.

Out of 42,557 reported offences in Oudh (as against 50,765 in 1897), 31,879 Oudh. (as against 40,574) were brought to trial. The percentage of persons convicted to persons brought to trial fell from 59 to 54. Although there was a slight increase in the number of offences affecting the human body, the recovery of the province from famine conditions was marked by an enormous decrease in the number of offences against property.

The number of cases pending at the close of the year was slightly smaller than in 1897. The percentage of convictions in magistrates' courts fell from 59 to 53. Honorary magistrates disposed of 22 per cent. of the total number of cases. Sessions judges disposed of 623 cases, against 708 in 1897 and reduced the number of cases pending from 67 to 61.

Appeals to the Court of Session decreased from 4,328 to 2,402, and the proportion in which the sentence of the Lower Court was modified or reversed rose from 17·6 to 19·7 per cent.

In the Judicial Commissioner's Court, which during the year consisted of three Judges, the work was much the same as in 1896, although the number of cases (1,358) was 296 less than in 1897; appeals, however, fell from 955 to 684, sentence being upheld in 72 per cent. of the cases as compared with 83 per cent. in 1897.

In the Punjab the total number of reported and admitted offences fell from Punjab. 187,084 and 125,880 respectively in 1897 to 174,221 and 119,222 in 1898.

The fall in the number of offences does not justify the conclusion that crime is really waning. The year 1898 was marked by easy prices and good harvests, and thus offences against property fell, but the steady rise in crimes of violence shown in the last few years was maintained in 1898. The percentage of cases brought to trial on cases returned as true has risen from 79 in 1897 to 82, but the percentage of convictions on trials has fallen to 42. The natural inference is that either a large number of guilty persons escape punishment, or a large number of innocent persons suffer from vexatious prosecutions.

CRIMINAL JUSTICE. It is possible that lower-grade magistrates allow themselves to be unduly influenced by the prospect of appeals. An erroneous conviction is very rightly held to discredit a magistrate, but an erroneous acquittal often escapes notice, and the statistics seem to prove that such magistrates as tahsildars are too much inclined to acquit prisoners who might be expected to appeal.

The number of murders admitted to have occurred in the Province fell by 16 to 639, but in the Peshawar district, which was still by far the worst in this respect, there were this year 145 against 133 in 1897. There was a large increase in Bannu, balanced by a fall in Hazara and Kohat. The Provincial total in 1898 is 5·9 per cent. above the average for the last five years. Seven hundred and fifty-six persons were tried for murder by Sessions Courts, and 476 by Councils of Elders, the percentages of conviction being 34 and 35 respectively. There was a marked increase (from 372 to 498) in the number of cases under the Forest Act.

As regards punishments, the Chief Court confirmed only 78 death-sentences out of 148 referred by the Sessions Courts. Sentences of imprisonment, both rigorous and simple, have decreased, and there is a fall of over 33 per cent. in the number of sentences of whipping. It is clear that Native Magistrates generally prefer to punish by imprisonment offences for which whipping might more suitably be awarded.

The number of persons who appealed was 20,102 out of 71,574 convicted, the percentage (28) being the same as in 1897, when 21,883 persons appealed. The number of criminal appeals instituted in the chief court was 780, of which 671 were unsuccessful.

Burma.

The number of cases returned as true in Burma fell from 66,572 in 1897 to 65,539, the total number of offences reported being 70,571. There was a serious increase in the total of hurt cases, but an improvement as regards violent crime and theft. The number of petty offences was diminished largely in Rangoon, but augmented in Mandalay.

The number of cases brought before the tribunals fell from 68,623 to 68,252. Of 110,896 persons under trial, 68,309, or 61·2 per cent., were convicted. Much assistance was rendered by honorary magistrates in Lower Burma, especially at Rangoon, Mandalay, and Moulmein. In Upper Burma there was a large increase of cases in the Honorary Magistrates' Courts.

The percentage of convictions in Upper Burma rose from 64·98 to 67·40, but fell in Lower Burma from 61·41 to 60·92. Of the 68,309 persons who were convicted, 49,881 were sentenced to fines amounting in the aggregate to £40,544, of which £34,206 were realised; 12,461 to rigorous imprisonment, and 3,402 to whipping.

The Recorder of Rangoon, sitting as a Court of Session, tried 26 persons, of whom 16 were convicted. In other Sessions Courts of Lower Burma 662 persons were tried of whom 449 were convicted. Sessions Courts in Upper Burma tried 110 persons, and convicted 75. The decrease in appeals in Lower Burma was not maintained, but in Upper Burma there was this year a decrease.

Central Provinces.

In the Central Provinces 25,709 cases were reported as against 35,428 in 1897, of which 23,441, or 91 per cent., were returned as true. There has been a decrease in almost all kinds of heinous crime. The percentage of convictions before the magistrates fell from 68·3 to 52·3. The percentage of convictions before Sessions Judges fell from 64·4 to 62·2. The criminal statistics as a whole show a return to normal conditions after the abnormal results of the years of famine. The total number of persons punished in Magistrates' Courts fell by 50 per cent. Appeals to District Magistrates, to Courts of Session, and to the Judicial Commissioner have fallen by 69, 30, and 47 per cent. to 996, 1,278, and 166 respectively. The percentage of appeals of these three classes rejected was 56, 71, and 58 per cent. respectively. During the year 22 death sentences were referred to the Judicial Commissioner for confirmation.

Assam.

Of 32,764 offences reported during the year in Assam (as against 29,384 in 1897), 22,353 (as against 21,773) were found to be true. The number of cases tried was 15,671, affecting 25,350 persons, of whom 13,753 were convicted. The number of offences returned as true showed an increase of about 8 per cent. in the Assam Valley districts, and about 11 per cent. in the Surma Valley (Cachar and Sylhet) over the figures of 1897, but there was no very marked

increase in any special class of crime. It is noticeable that there was a general decrease in the number of cases under the Emigration Act. CRIMINAL JUSTICE.

Two Sessions Judges and eight District Magistrates were employed in the Province. The former in their original jurisdiction tried 223 persons, convicting 153. The number of appeals instituted before the High Court was 41, in 30 of which original convictions were upheld. Subordinate Courts decided 1,500 appeals, upholding original sentence in 1,111 cases.

The Hyderabad Assigned Districts Report on Criminal Justice covers not only Berar, but the cantonment of Secunderabad, the Residency Bazars, and certain railway lands in the Nizan's Dominions, and six Hyderabad Contingent stations. Hyderabad Assigned Districts. The total number of fresh offences reported was 22,821 (as against 17,536 in 1897), and the number reported true was 20,401 (as against 15,487). The total number of cases brought to trial in 1898 was 20,505, affecting 33,077 persons, of whom 16,645 were convicted.

In Berar 16,126 offences were brought to trial, a number slightly greater than that in 1897. At the same time there was here, as elsewhere, a considerable decrease (due to the favourable conditions of the year) in the number of offences against property. As regards punishments, the sentence of fine was much more freely employed, but it must be noted that the general poverty in 1897 had caused slight sentences of imprisonment to be passed in many cases which would, under normal conditions, have been visited by fines. In the year under review 940 appeal cases were disposed of, previous decisions being confirmed in 63 per cent. of these trials.

The number of offences reported in the Madras Presidency in 1898 was Madras. 330,634, of which 318,000 were returned as true. The number of offences tried was 313,088, affecting 480,125 persons, of whom 256,697 were convicted. These figures mark an increase on those for 1897, which is mainly attributable to a greater number of prosecutions under the Madras City Police Act, the District Municipalities Act, and the Forest Act. The number of offences under the Indian Penal Code decreased.

Magistrates' courts outside Madras disposed of 253,183 cases, trying 415,608 persons. The proportion of convictions in these courts was 48·92 per cent. for the whole Presidency, the high percentage of 70·25 being recorded in the Bellary division. The number of sentences of fine increased. Presidency magistrates in the town of Madras disposed of 57,888 cases, concerning 66,503 persons, of whom 87·38 per cent. were convicted. Courts of Session in their original jurisdiction tried 1,253 cases, concerning 3,306 persons, of whom 1,373 persons were tried by jury, 1,632 with the aid of assessors, and 24 both by jury and assessors.

The High Court on its original side dealt with 37 cases involving 45 persons. The proportion of convictions was 80 per cent.

As regards appellate jurisdiction, magistrates received during the year 9,188 appeals preferred by 17,346 persons, and disposed of 17,573 appellants, of whom 63 per cent. were unsuccessful. Sessions Courts heard 2,170 appellants, confirming sentence in 1,566 cases, and the High Court 1,179 appellants, confirming the sentences of lower courts in 65·84 per cent. of the cases.

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

Regulation Provinces.

The High Court.	4 Presidency magistrates.
16 Sessions Judges and Joint Sessions Judges.	119 first class magistrates. 209 magistrates of the second class.
6 Assistant Sessions Judges.	213 magistrates of the third class.
18 district magistrates.	14,238 police patels.

Sind.

The Sadar Court.	42 magistrates of first class.
4 Sessions Judges.	58 magistrates of second class.
2 Additional or Joint Sessions Judges.	50 magistrates of third class.
5 district magistrates.	

Of the High Court judges, five were Europeans and two natives; of 25 Sessions Judges, Joint Sessions Judges, and Assistant Sessions Judges, eight

CRIMINAL JUSTICE. were natives, three of them being statutory civilians; of 180 first-class magistrates, 127 were natives; of the second and third class magistrates, all but 16 were natives.

Out of 277,504 offences reported 227,269 were returned as true. The number of cases brought to trial in 1898 was 237,360, involving 372,366 persons, of whom 109,189 were convicted, and 94,148 remained under trial. The ratio of number of offences returned as true to population was in the year under review 1 to 83; in the previous year it had been 1 to 92. In ten districts, however, there was a decrease of crime. Bombay City continues to bear the worst criminal record in the Presidency. Offences under special and local laws decreased in number during the year, as did thefts and robberies, but the number of murders rose from 230 to 290.

Appellate courts throughout Bombay and Sind (including the High Court) considered the cases of 11,666 persons, and rejected appeals, or confirmed original sentences, in 8,598 cases. The High Court itself dealt with 1,343 appellants, of whom 77.7 per cent. were unsuccessful.

Coorg.

Out of 2,712 fresh offences reported (against 2,949 in 1897), 1,851 were reported true. The number of cases brought to trial was 1,925, affecting 3,019 persons, of whom 801 were convicted. Appeal courts dealt with 198 persons upholding previous sentences against 109 appellants.

JAILS.

JAILS.

The conditions which in 1897 very unfavourably affected jail administration were reversed in 1898. Prosperity returned to the country, prices fell, crime diminished. The jails therefore were not overcrowded, and discipline was more easily maintained. The prisoners were not predisposed to disease by semi-starvation, added to which there was a remarkable absence of cholera throughout every province but Madras. The gross cost was greatly reduced by the diminution in the number of convicts and the net cost by the increased demand for jail manufactures.

There were 40 central jails, 191 district jails, and 496 subordinate jails and lock-ups, of which 303 were in Madras alone. These numbers hardly vary from year to year.

The variations of the jail population in the last three years are best given in tabular form:—

	1898.	1897.	1896.
Jail population on 1st January	109,942	109,934	101,061
Admissions during the year	465,921	568,348	476,180
Aggregate Discharged during the year	575,863	678,282	577,341
	473,736	568,429	467,307
Jail population 31st December	102,127	109,853	109,934
Convict population	101,035	99,597	94,052
Admissions during the year	174,110	215,065	182,023
Aggregate Released during the year	275,145	314,662	276,075
	177,403	209,227	172,279
Casualties	3,912	4,400	4,207
Convict population on 31st December	93,830	101,035	99,569

These figures show a return to normal conditions. The improvement was shared by all provinces except Madras, Assam, and Coorg; and was due to a better season following a year of famine and high prices. It was greatest in the North-West Provinces and Oudh, where the admissions decreased by 37.1 per

cent. In Madras the admissions rose from 32,198 to 35,617. The Government do not admit that this was entirely due to the prevalence of distress during the early part of the year, and have directed attention to the question how far the existing jail system is successful in exercising a deterrent effect on criminals. The release of 21,684 persons in 1897 in celebration of the 60th year of Her Majesty's reign, and the reduced number of admissions in 1898 account for the smaller number of persons released in the latter year.

Classified according to religion there were 46,932 Muhammadans, 106,862 Hindus and Sikhs, 14,186 Buddhists and Jains, 2,195 Christians, and 3,874 of all other classes; these figures representing fewer Muhammadans (8.45 per cent.), Hindus and Sikhs (23.25 per cent.), and Buddhists (9.5 per cent.), and more Christians (25 per cent.).

Classified by age, 1,871 were under 16 years of age, 138,202 between 16 and 40, 30,896 between 40 and 60, and 3,080 over 60 years of age. Compared with 1897 these figures represent a decrease under each period respectively of 672 or 26.7 per cent.; 31,142, or over 18 per cent.; 8,081, or 21 per cent., and 1,049, or more than 25 per cent.

Madras, Bombay, the North-West Provinces, and Oudh, and the Central Provinces possess, each, a reformatory school for juvenile offenders. Bengal has two, and it is proposed to establish a school in the Punjab. At the close of the year 1,249 boys were confined in them, being 48 less than at the close of 1898. The Government of India have under consideration the system of management and administration of reformatory schools with a view to rendering them more efficient agents of reformation and assisting the inmates to earn an honest livelihood on leaving school.

Of the convicts admitted into jail in 1898, 10.5 per cent. were able to read and write, 2.6 could read only, and 86.9 per cent. were illiterate. These figures show an improvement on the corresponding percentages in 1897 of 8.8, 2.7, and 88.5 per cent. As usual, Burma's record is the best, and that of the North-West Provinces and Oudh is the worst.

Of the 163,511 male convicts, 93,260 or 57 per cent. were engaged in agriculture or with animals, the proportion being larger than in 1897; nearly 10 per cent. were in service, 4.8 per cent. were engaged in commerce or trade, over 3 per cent. were artisans, 4 per cent. were professional persons, 2.5 per cent. were employed under Government or local authorities, and 18.3 per cent. come under the head of miscellaneous pursuits. There was, of course, a decrease under all heads, and the largest proportionate decrease was among those whose previous calling is unclassified, and who, including daily labourers, suffered most in 1897.

The condition of the female convicts, numbering 10,528, shows that 60 per cent. were married women, about 5.9 per cent. were unmarried, about 30 per cent. were widows, and nearly 4.3 per cent. were prostitutes, this class in 1897 having numbered 2.8 per cent. only.

In 1897 persons who were driven by want to petty theft were as far as possible not sent to prison. In 1898, therefore, when the reason for leniency no longer existed, the proportion of sentences not exceeding one month rose from 31.47 to 33.35 per cent. of the total admissions. In 1897 sentences with the limit of three, six, and 12 months were 19.17, 18.33, and 15.56 per cent. of the total admissions. In 1898 they were respectively 18.72, 17.02, and 15.68. There were fewer sentences of one to two years and two to five, namely 8.3 and 3.91 per cent., compared with 8.64 and 4.11 per cent. of the total admissions in 1897. The proportion of sentences of five to 10 years and exceeding 10 years increased from 1.46 and .06 to 1.51 and .07. Transportations for life or for a term rose from .86 per cent. to .89 per cent., and death sentences from .34 to .35. Of the total number of convicts admitted into jail 24,272 or 13.9 per cent. had been previously convicted, the percentage in the previous year having been 14.26. Considerable progress was made in introducing and perfecting the system of identifying old offenders by finger impressions.

The average number of convicts who were sentenced to labour fell from 98,900 to 94,234, of whom 8 per cent. were employed as prison officers, 10.7 per cent. as prison servants, and 39.3 per cent. in manufactures, the remainder being employed in gardening, jail building, and repairs, and the preparation of articles for consumption in jails.

JAILS.

There has for some years past been a steady increase in the number of recorded offences committed by convicts, the figures having risen from 134,284 in 1893 to 164,962 in 1897. In 1898 notwithstanding the diminution in the jail population the number of offences rose again to 184,500. The increase is mainly the result of stricter discipline and more accurate recording of offences, but the great variation between figures for different jails shows that the enforcement of discipline is in many places still irregular, and that the subject requires constant watchfulness and care.

Although the figures for the North-Western Provinces and Oudh show a considerable rise over those of previous years, it will be seen that they are still proportionately lower than in the neighbouring provinces of Bengal and the Punjab. The number of more serious offences tried by criminal courts fell from 339 to 308.

Offences dealt with by Superintendents.

	1898.		1897.		1896.	
	Daily Average Population.	Offences.	Daily Average Population.	Offences.	Daily Average Population.	Offences.
Madras - - - - -	9,150	14,965	8,635	12,956	8,263	15,436
Bombay - - - - -	8,575	10,789	7,760	9,390	7,100	6,150
Bengal - - - - -	17,183	38,439	17,366	38,406	15,895	35,548
N. W. P and Oudh - - - - -	30,246	35,163	33,382	27,452	30,784	17,570
Punjab - - - - -	11,524	31,010	11,648	29,965	10,940	33,807
Burma - - - - -	12,360	45,353	13,063	37,177	14,081	42,646
Central Provinces - - - - -	4,776	5,987	6,838	7,311	5,196	6,495
Assam - - - - -	1,439	694	1,371	757	1,391	1,050
Coorg - - - - -	78	199	72	125	87	122
Berar - - - - -	1,521	1,603	1,697	1,024	1,344	946
	96,852	184,202	101,832	164,563	95,031	159,779

There was a rise in the number of major punishments in all the larger provinces except Bombay, where the number diminished from 2,857 to 2,351. The punishment of separate cellular and solitary confinement was most resorted to in the Punjab, where, however, the figure fell from 4,278 in 1897 to 3,548. In Burma there were 804 cases of penal diet combined with solitary confinement. In the North-Western Provinces and Oudh the number of cases in which fetters were imposed as a punishment rose from 896 in 1897 to 2,473 in 1898, and cases of solitary confinement, which numbered 386 in 1896, and 1,080 in 1897, fell to 981 in 1898; in the same province cases of corporal punishment diminished from 416 to 352, Burma following with 339, and Bengal with 327. In the Punjab a rise in the number of major punishments by fetters, from 539 in 1897 to 2,014 in 1898, was accompanied by a rise in the total number of major punishments, and a fall of 730 in the punishment of solitary confinement. With a slight rise in the total number of corporal punishments throughout India, the general proportion of corporal to total punishments fell from '99 to '9 per cent.

The number of convicts who came under the mark system rose from 28,891 to 30,927, the former number having been abnormally low, owing to the liberation of prisoners at the time of the Jubilee. As is usual, the great majority (82.5 per cent.) of those who earned remissions in 1898 were under sentences not exceeding two years. The maximum remission (2,082 days, as compared with 1,843 days in 1897), was earned by a convict in Burma, under a sentence exceeding 10 years. The largest amount earned by a convict under a year's sentence was 74 days. In some of the provinces gratuities were paid to convicts on their release, the maximum (Rs. 31.14) being paid to a convict released in the Bombay Presidency. The mark system has not in every province been attended by the degree of success anticipated in the reduction of prison offences, and in stimulating the convicts to better conduct and greater

industry, but on the whole it appears to have been useful. The question of simplifying the rules is under consideration, and as the benefits of the system become better understood by the convicts, better results may be expected in the future.

Little progress has been made in most provinces in carrying out the instructions of the Government of India that sleeping wards should be fitted with cubicles for the separate confinement of prisoners by night, but in Madras there is now sufficient cellular accommodation for 2,328 prisoners, representing 20½ per cent. of the total jail accommodation. In the other provinces lack of funds and the peculiar construction of existing jails retards the introduction of the measure.

The gross expenditure on jails, which had risen steadily from £374,451 in 1894 to £504,152 in 1897, fell to £438,735 in 1898, the gross cost per prisoner at the same time declining in the last year from Rs. 67. 5. 7. to Rs. 62. 4. 6. This diminished cost was the result of a smaller jail population and lower prices. The cost of establishment fell from £147,614 to £143,333; that of dieting, from £260,612 to £202,116. Hospital charges decreased slightly to £22,863, the average hospital expenses of a sick prisoner being highest in Bengal (Rs. 145. 2. 8.) and lowest in the North-Western Provinces and Oudh (Rs. 52. 14. 10). These figures are an increase upon those of 1897 for the same provinces, Rs. 137. 10. 4 and Rs. 44. 12. 1. In Bengal the rise has been steady, from Rs. 94. 4. 10 in 1894. With the lower prices prevailing in 1898, there is no obvious explanation of the rise in hospital charges in that year. The total cash earnings of prisoners rose from £72,929 to £86,364, but did not reach the sum earned in 1896 (£89,510). In Bengal the increase was from £13,289 to £25,221, in Madras from £2,761 to £12,511, in Berar from £1,736 to £3,524. In Burma alone there was a large falling off (£30,545 to £14,592). The average cash earnings per head of average strength were highest in Berar (Rs. 32. 12. 3), and lowest in the North-Western Provinces and Oudh (Rs. 5. 8. 8). Deducting these earnings from the gross cost, the result is a net cost to Government of £352,371, averaging a fraction over Rs. 50 per head of average strength, compared with a net cost of £432,222 in 1897, and of £326,882 in 1896.

A marked improvement in the health of the prisoners is shown in the ratio per 1,000 of deaths (25.3), admissions to hospital (916.6), and daily average sick (37.3), these figures being the lowest in the last five years. In every province but the Punjab the death-rate was reduced. In Bombay the rate (21.3) was the lowest since 1887; in Bengal it was the lowest on record (22.5). In Madras it fell from 47.45 per thousand to 26.2; in the North-Western Provinces and Oudh from 35.47 to 28.7; in the Central Provinces from close on 135 per thousand to 34.6. Against 4,462 deaths in 1897 the number in 1898 was 2,673. This improvement was mainly owing to the entire absence of cholera in six of the provinces, and to the small death-rate in the others, excepting Madras, where exceptionally high rates in some districts were balanced by very low rates in others. The health of the jail population is mainly a question of unremitting attention to their duties on the part of those responsible for the welfare of the prisoners from day to day, but the best efforts are in some cases defeated by bad sites and unsuitable buildings. The highest medical authority is of opinion that ultimately the convict death-rates should not, in most provinces, in ordinary years, exceed 15 per thousand.

CIVIL JUSTICE.

The number of civil suits for disposal on the original side of the Calcutta High Court was 1,973, against 1,948 in 1897; 628 suits were decided, and the pending file amounted to 1,275.

Out of 3,646 first and second appeals to the High Court from the decrees and orders of subordinate courts in Bengal 2,913 were decided. In cases affecting the lower courts their decisions were reversed or varied in 19.6 per cent. of the

CIVIL JUSTICE

appeals from original decrees, in 11·8 per cent. of the appeals from appellate decrees, and in 12·6 per cent. of the miscellaneous appeals; the corresponding proportions for 1897 being 25·3, 7·8, and 18·4 per cent. respectively.

The number of suits instituted in the civil courts subordinate to the High Court has risen from 590,515 in 1897 to 591,793 in 1898, and the number decided from 602,472 to 608,763. Though temporary additional assistance is provided from time to time the pending file grows, and at the close of 1898 numbered 95,194. Of this number, 1,405 were more than a year old, 5,385 more than six months, and 29,986 more than three months.

In appellate courts subordinate to the High Court, the number of appeals instituted and determined rose from 18,663 and 19,516 in 1897 to 21,381 and 22,679 respectively, and the pending file was reduced from 10,899 to 10,259. The decisions of the lower courts were reversed or modified in 28·4 per cent. of the total number of appeals, a larger percentage than in appeals heard by the High Court.

In the Presidency small cause court institutions fell from 25,704 to 22,730, and decisions, from 26,207 to 23,478, leaving the slightly smaller number of 1,401 cases pending at the close of the year. Institutions in the provincial small cause courts (13,067) were rather less numerous.

North-Western
Provinces

Institutions of civil suits in the North-Western Provinces fell by about 1,000 to 99,172, of which 73 per cent. were for money or moveable property; the total for disposal from 111,441 to 109,602; and the number disposed of from 102,887 to 100,275, and the pending files were increased from 8,554 cases to 9,327. The proportion of contested suits was 27·4 per cent.; *ex parte* decrees were passed in a larger number of cases (33 per cent.); plaintiffs were successful in 59·4 per cent. as against 61·3 per cent. in 1897; the average duration in contested cases was reduced from 79 in 1895, and 71 in 1896, to 62 (as against 61 days in 1897).

The number of appeals for disposal in courts other than the High Court rose from 12,948 in 1897 to 13,294 in 1898, of which 8,192 were disposed of, leaving a pending file of 5,102, which was greater by 371 than at the close of 1897. The results of these appeals were somewhat less favourable to appellants than in 1897, the percentage of sentences upheld being increased from 63 to 64.

The High Court had before it 3,968 cases, a decrease of 204; disposed of 1,855, and left a reduced pending file of 2,113. The Court confirmed 65·1 per cent. of decrees in contested first appeals, and 68·1 per cent. in second appeals.

Oudh.

In Oudh there was a decrease in the number of suits instituted, from 54,457 to 51,506, and a considerable falling-off in the total outturn of work. Nevertheless the number of pending cases was reduced from 6,265 to 4,999. The average work of munsifs has decreased, while that of subordinate judges has increased.

There were 3,033 appeals for disposal by the judges and subordinate judges, or 588 less than in 1896; of these 2,199 were disposed of, reducing the pending file from 891 to 834. The average of work done by subordinate judges was lower, and the average duration of appeals in their courts was reduced from 96·17 days to 91·62, but the average duration of appeals in the courts of District Judges fell back from 356·74 days to 452·76.

The results of appeals were more favourable to the decisions of the lower courts than in 1896, the percentages of decrees reversed or modified having fallen from 39 to 38·6.

In the court of the Judicial Commissioner the number of cases for disposal rose from 4,292 in 1897 to 4,506. The disposals, 3,756, were nearly 2,000 better than in 1897, and the pending list at the close of the year stood at the much reduced figure of 750.

Punjab.

The number of original civil suits instituted in the Punjab in 1898 was 248,801 (against 242,747 in the previous year), the number instituted in District Courts of general jurisdiction showing an increase of 3·7 per cent. on the unusually low figures of 1897. The total number, though higher than in 1897, was lower than in any other year since 1892. The aggregate of litigation about land continues to be abnormally high. The stringency of the money market during 1898 is thought to have increased the amount of litigation. The

total value of the suits was £1,632,972, or £56,708 more than in 1897. Of 287,231 suits for disposal in the District Courts, 261,858 were disposed of and the pending file, which has risen steadily in the last five years, stood at 25,373 at the close of the year. Honorary Civil Judges disposed of more work than usual. The average duration of contested cases in 1898 fell to 31 days.

CIVIL JUSTICE.

The appellate business of the Chief Court increases beyond the powers of the five judges composing it to keep pace with it. Of 3,405 suits before the court, 1,400 were disposed of, leaving an increased pending file of 2,005 suits. Even with the appointment of a sixth judge recently the reduction of this list can only be very gradual.

Against 50,995 civil suits instituted in Burma in 1897 the number in 1898 was 51,075. The increase was entirely in Lower Burma, where the total, 38,157, was larger by 471, and a small decrease is recorded in Upper Burma. The establishment of Civil Myooks is considered by the Local Government to have facilitated the administration of civil justice, but some of the judicial authorities hold that the Myooks do not command the confidence of the people.

Burma.

The total value of suits in Lower Burma rose from £415,826 to £442,878. In Upper Burma the value of suits fell from £108,425 to £96,010.

Of 50,936 suits disposed of in the province, 10,637 were decided without trial and 22,363 more without contest. In the contested cases judgment was given for the plaintiff in whole or in part in 12,056, or 67·5 per cent., the percentage in 1897 being 69. Execution proceedings were slightly more successful, and realisations better.

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

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

The total number of suits filed in the Central Provinces increased by 6·6 per cent. from 91,739 in 1897 to 97,838 in 1898. The number in 1897 had, however, been exceptionally low, in consequence of famine. Of the total number of suits 71 per cent. were for money or moveable property. The percentage of cases disposed of by Civil Judges is the same as in 1897, while Assistant Commissioners show a greater and Munsifs and Small Cause Courts a slightly smaller percentage. The average duration of contested suits was 84·6 days and of uncontested suits 45·9 days. The total number of appeals disposed of shows a decrease from 6,637 to 6,226. The number of appeals for disposal by District Appellate Courts was 6,321 (as against 6,165), of which 5,455 (as against 5,456) were disposed of. The Judicial Commissioner disposed of 449 appeals, as against 778 in 1897. There were 94 applications for revision as against 108 in the previous year.

Central Provinces.

The number of civil suits instituted in Assam increased from 27,781 to 27,863, the increase being shared by all except three districts. A decrease in Sylhet is attributed to the effects of the earthquake and to the prevalence of fever. The total value of the suits fell from £161,988 to £149,812. Of 28,136 suits disposed of, 6,103 were contested, a smaller number than in any year since 1893.

Assam.

Fewer appeals were instituted in the Appellate Courts of Assam; the number decided rose from 1,104 to 1,194, and the pending list was reduced from 715 to 429. The decrees of the lower courts were confirmed in 64·1 per cent. of the suits.

One hundred and fifty-four appeals were preferred to the High Court of Calcutta; of the 41 appeals decided by that tribunal, 32 resulted in the confirmation of the decrees of the lower courts.

The number of officers employed on civil work in Berar at the close of 1898 was 36, or four less than in 1897. The number of suits instituted in 1897 was 26,348, showing an increase of 2,508, or 10·5 per cent. Including cases pending from 1897, the total number for disposal in 1898 was 32,760 (as against 31,101), and of these 27,188 were disposed of, leaving a diminished balance of 5,592. Of the suits instituted, 21,399, or 81·2 per cent. of the total were for money or moveable property. The aggregate value of the suits was £262,532. Of the total number of suits 74·1 per cent. were contested. Including 406 cases pending from 1897 there were 1,547 appeals for disposal in 1898, as against 1,608 in 1897, and 1,068 were disposed of.

Berar.

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CIVIL JUSTICE.

Madras.

In the Madras Presidency, besides the Presidency Court of Small Causes, the City Civil Court and High Court in the Presidency Town, there were in the Mofussil 4,774 Village Courts, 67 Revenue Courts, a Cantonment Court of Small Causes, 138 District Munsifs' Courts, 21 Subordinate Judges' Courts, and 23 District Courts.

The number of original suits instituted in all the courts increased from 362,512 in 1897 to 373,792, and that of appeals fell from 12,171 to 11,177.

The suits instituted in the Village Courts (98,249) were more numerous than in any previous year.

The number of suits filed in the Presidency Court of Small Causes decreased from 24,109 to 22,286.

On the original side of the High Court, the number of suits instituted fell from 327 to 233, and of 376 suits in all for disposal 291 were settled, of which 125 were contested. On the appellate side the suits received were 2,798 in 1897, and 2,316 in 1898. The proportion of sentences confirmed was 69·30 per cent. as against 55·10 in 1896.

Among the main features of the year were increased disposals and decreased arrears in Village Courts, decreased disposals and arrears in Revenue Courts, an unprecedented outturn of work in District Munsifs' Courts, and in the High Court a decline in the disposal of original suits and second appeals, and an advance in the disposal of first appeals.

Bombay.

The number of 213,034 suits instituted in all the Civil Courts in the Bombay Presidency in 1898 represents an increase of 34,955, compared with 1897, but the aggregate value of the claims involved fell from £2,460,000 to £2,225,665. The increase in number was most marked in suits before courts of subordinate judges.

The number of suits disposed of was 211,786, and shows an increase of 34,859. Cases undisposed of at the end of the year rose from 35,424 to 38,457. There was an increase in the average duration of suits in Mámlatdárs' Courts, District Courts, and the High Court.

There were 9,987 appeals, of which 5,341 were disposed of. Applications for execution of decrees rose from 217,034 to 276,404, and the sum recovered by all the courts in execution of proceedings from £271,792 to £344,610.

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, rose by 47·6 per cent. to 17,012, the increase being ascribed to the recovery from scarcity and the resumption of ordinary avocations.

The number of conciliation agreements and of institutions before the village munsifs increased to 6,796 and 8,790 respectively. The Conciliators are said to have intercepted more than half the litigation which would otherwise have been taken before the courts. The experience of 19 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.

Coorg.

The total number of suits instituted in Coorg during the year was 2,835, or about 200 less than in 1896. The number disposed of was 2,913.

There were 68 appeals, the percentage of reversals being only 10·29. The number of applications for execution of decrees fell by 393 to 3,620.

CHAPTER IV.

REGISTRATION.

THE Registration Law of 1877 makes compulsory the registration of non-testamentary documents affecting immovable property of the value of 100 rupees and upwards. Under the Transfer of Property Act of 1882, deeds of sale of immovable property of whatever value require to be registered, though if the value of the property affected is less than 100 rupees, transfer may, as an alternative, be effected by delivery. This latter Act is in force now generally throughout India, with the exceptions of Sind, the Punjab, and Burma, in which provinces, if the value is less than 100 rupees, registration of the sale deeds is optional, except that in Upper Burma, which is under special conditions, registration is required of all deeds affecting immovable property. In all provinces the registration of other documents is permitted, at the option of the executing parties. 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 1899-99 there were in British India more than 2,000 registration offices; the total number of documents registered during the year was 2,831,000 or 7 per cent. less than in 1897-98; this total does not include the 138,000 registrations under the Dekkhan Agriculturists Act. The total registration receipts of the year 1898-99 were £293,000, as compared with £323,000 in the preceding year; and the cost of the registration offices was £165,000, leaving a surplus of £128,000, against £158,000 in the year 1897-98. The system of identification by thumb impressions, which was introduced a few years ago, has been gradually extended, and is reported to work well in many provinces.

REGISTRATION.
General.

The increased prosperity of the year 1898-99 caused a fall in the total number of deeds registered in Bengal from 1,438,000 to 1,318,000; but the latter figure is still higher than in any previous year. Of this total, 876,000 deeds were under the compulsory heading, which has shown a steady progress during recent years. The number of optional registrations, particularly of movable property, is more variable, but in these also there is a tendency to increase.

Bengal.

The number of registered transfers of holdings by tenants, paying at fixed rates or enjoying occupancy right, fell from 263,062 in 1897-98 to 246,900 in 1898-99, but the figures are high, and it is probable that the recent increase in these transactions is due to the operation of the Bengal Tenancy Act, which has led the peasantry to understand the rights secured to them; the transfer was made in 171,996 cases to other ryots, and in 21,348 cases to traders or money-lenders. The average price of occupancy holdings was Rs. 48 per acre, compared with Rs. 60 in 1897-98; but a comparison with previous years shows that the price tends to rise, *e.g.*, in 1889-90 it was Rs. 39; in 1892-93, Rs. 45; in 1895-96, Rs. 57. The Muhammadan Marriage Act was in force in 30 districts, and 15 new offices for registrations under the Act were opened in the year. The number of such registrations was 19,833.

Registrations under the Bengal Land Records Maintenance Act of 1895 were in progress during the year 1898-99 in parts of the Champaran and Mozaffarpur districts, but at present the operations are on a small scale, as the final records of only 909 villages have been handed over by the settlement officer. The mutations registered during the year numbered 4,802, or 988 less than in 1897-98. But this decrease was almost entirely due to a proclamation issued by the owners of the Bettiah Estate in Champaran, forbidding transfer of occupancy holdings without consent of the landlord, in view of a decision of the High Court on this point. Allowing for this, however, it appears that considerably less than half of the mutations have been registered, and that to this extent the record of rights has not been kept up.

REGISTRATION.
North-Western
Provinces and
Oudh.

The number of documents registered in the North-Western Provinces and Oudh fell from 230,000 to 198,400. The variation was proportionately largest under mortgages of immovable property of small value, and short term leases, for which registration was optional. The number of mortgages registered showed a decrease of 17 per cent. as compared with the preceding year; sales of land fell 15 per cent. The number of documents, other than deeds of gift, relating to movable property, for which registration was optional, fell from 42,208 to 38,032.

The effect of the famine upon registration may be seen in the following figures, in which the year 1895-96 has been arbitrarily taken as the standard of comparison:—

1893-94.	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.
91	98	100	108	100	80

It appears from these figures that the year under report showed a decrease as compared with 1893-94, which was before the famine; but this was only in documents relating to movable property, other registrations being rather higher.

Punjab.

The number of documents registered in the Punjab in the year 1898-99 was 141,000, or 19 per cent. less than in the two famine-affected years preceding. All classes of documents contribute to the decrease, but the number of registrations of movable property is always insignificant. With regard to immovable property, registration is optional if the value be less than 100 rupees; in the more valuable class, of which registration is compulsory, there were 88,758 deeds registered, of which 17,519 related to sales, and 50,997 to mortgages, of agricultural land. These figures, though they fall short of those of 1896-97 and 1897-98, exceed those of any of the preceding three years. Special inquiry into the question of transfers of agricultural land in the Province has resulted in the following return of registrations for the last two financial years:—

		Mortgages with possession.	Mortgages without possession.	Sales.
By Land owners to Money-lenders	1897-98	41,090	7,820	10,355
	1898-99	29,939	6,865	8,874
By Money-lenders to Landowners	1897-98	2,715	249	1,691
	1898-99	2,567	266	1,457
By Landowners to Landowners	1897-98	41,085		14,874
	1898-99	31,469		11,853

The total value of the agricultural land registered as sold or mortgaged during the past three years was, in lakhs of rupees:—

	Mortgages.	Sales.
1896-97.	275	122
1897-98	291	110
1898-99	227	101

These figures, however, are of necessity not so complete as the revenue returns, which are dealt with below in the Land Revenue chapter.

Burma.

The number of registrations in Lower Burma increased from 15,648 to 18,035. The number of optional registrations of all kinds remained about the same, but there was a large increase in the number of transfers of which

REGISTRATION.
 registration is compulsory, and the aggregate value of land so transferred, excluding transfers below 100 rupees in value, was £575,000, or 28 per cent. above that of the previous year. This increase is ascribed to a rise in the value of land, and a more easy money market.

The registration system of Upper Burma was altered during the year by a notification that all documents of which the registration is not compulsory are permitted to be registered; it still differs from that of Lower Burma in that all deeds relating to transfers of land, however small the value, must be registered. The registered deeds affecting immovable property showed an increase as compared with previous years, and amounted in total value to £191,100; 135 deeds affecting movable property were filed under the new system. The total number of documents registered rose from 5,046 to 5,412.

Central Provinces.
 The decrease in registrations in the Central Provinces was continued during the year; up to 1896-97 there had been a steady increase, but the agricultural depression, which at first stimulated alienations of land, has in the last two years made capital scarce and business sluggish. The fall in 1898-99 was also partly due to restrictions on registration introduced by the Central Provinces Tenancy Act, which came into force in 1898. Of the 29,449 registrations, 23,296 were compulsory, including 10,702 deeds of sale. The sale of agricultural land fell from 8,555 to 6,591, and mortgages from 10,490 to 6,625. During the last three years the proportion of sales to non-agriculturists, whether by proprietors or by tenants, was smaller than in the preceding triennium. The value of the property represented by all classes of registered documents fell from £850,000 to £738,000, of which £259,000 was under sales, and £302,000 under mortgages, of immovable property.

Assam.
 In Assam 44,082 documents were registered, or 12 per cent. more than the total of the preceding year; 75 per cent. of the registrations occurred in the Sylhet district. The unfavourable circumstances of the previous year had caused a slight check in the growth of the operations, but it was resumed in 1897-98, and the increase was spread over every class of document and nearly all parts of the province.

The marriages registered under the Muhammadan Marriage Act were 382, as compared with 305 and 345 in the two preceding years, but the Act is reported to be not popular among the Muhammadans of Cachar and Sylhet, in which districts it is in force.

Madras.
 The abnormal increase in the registrations in Madras for the year 1897-98 was followed by a decline in the year under report of 2½ per cent., from 884,000 to 862,000; but this number is higher than that of any other year excepting 1892-93. The number of registered sales of land was 275,000 in 1898-99, which is more than in any year but in 1897-98; the number of other deeds affecting immovable property was also higher than in previous years, but those relating to movable property show a decline. As usual, the Malabar district showed the largest number of registrations, amounting to 17½ per cent. of the presidency total, and working out at 57 documents per 1,000 of the population, as compared with 25 documents per 1,000 for the whole presidency.

Bombay.
 The number of registrations in Bombay was 183,000 or 4·2 per cent. less than in 1897-98, and smaller than in any year since 1892-93. The decrease occurred in under both the compulsory and the optional classes, and the cause of it was the plague, which has paralysed trade in the places where it has assumed an acute form. Registered deeds of sale and mortgages of immovable property numbered 64,221 and 71,998 respectively, but the registration of deeds transferring land of value less than 100 rupees is not compulsory in Sindh.

Under the special law for the protection of Dekkhan agriculturists in the four districts of Poona, Satara, Ahmadnagar, and Sholapur, there were 138,000 registrations, which was nearly 24 per cent. below the total of the previous year. Of the registered sales, leases, and mortgages of land, 48 per cent. were between agriculturists on both sides. The aggregate value of property concerned in these special registrations was £454,000. The plague was prevalent during the year in each of the four districts above-named, and was doubtless responsible for the decrease in the registered deeds.

REGISTRATION.
Berar.

The number of registrations in Berar had been abnormally large in the preceding two years, but in 1898-99 it fell to 32,156, which was the lowest since 1892-93. All kinds of documents showed a decrease, which was due, here as elsewhere, to the returning prosperity of the people.

JOINT STOCK COMPANIES.

JOINT STOCK
COMPANIES.

Particulars of the joint stock companies started in Bengal during the year 1898-99 were not available at the time of issue of this statement. The figures given last year have, therefore, been reproduced. 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 £2,054,000 and a paid-up capital of £238,000; while 203 companies, with a paid-up capital of £591,000, 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 £33,426,000 and a paid-up capital of £22,082,000. 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 £1,626,000 and in the North-Western Provinces it was £852,000; in no other province did the aggregate paid-up capital of registered companies reach £400,000. 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 £26,400; while for the 666 companies of Bengal it is £14,000, for the 307 of Madras £5,300, and for the 100 of Mysore £2,400. 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:—

	Paid-up Capital. £		Paid-up Capital. £
Banking and insurance	- 2,940,000	Brewery companies	- - 113,000
Trading and shipping -	- 3,471,000	Mills and presses	- - 10,853,000
Mining and quarrying	- 1,319,000	Tea and planting	- - 2,231,000

The companies with the largest aggregate subscribed capital, £10,853,000, 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 13½ to over 22 millions of pounds.

Bengal.

In Bengal 49 new companies were registered during the year 1897-98, with a nominal capital of £308,000; while 144 companies, with a nominal capital of £751,000, 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 had been wound up.

Bombay.

In Bombay 129 new companies were registered in the year 1898-99, including 104 provident societies. The increase of the latter during the last two years has been remarkable, and it is not regarded as a benefit to the subscribers. Twenty-five companies went into liquidation, and at the end of the year 534 joint stock companies were in existence, with a paid-up capital of £9,919,000; 228 companies, with a paid-up capital of £7,469,000, were working cotton and other mills and presses.

Madras.

In Madras 47 new companies were registered, in the year 1898-99, or 24 less than in the previous year, owing to dulness of trade and the stringency of the money market. Of these, two had no capital, 37 were banking and loan associations, and 10 were trading, manufacturing or planting companies. The nominal capital was £279,000; the paid-up capital £84,000. The number of companies on the register at the end of the year was 335, with a paid-up capital of £1,886,000.

PATENTS AND DESIGNS.

The total number of applications filed in 1897, the latest year for which statistics are to hand, for the registration of 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. PATENTS.

CHAPTER V.

FINANCE.

FINANCE.

FORM OF ACCOUNTS.

Form of Accounts.

From 1886-87 to 1898-99, the Accounts of the Government of India were rendered so as to show transactions in India in tens of rupees (Rx.) ; transactions in England were shown in sterling ; and a column entitled "Exchange" was added so as to bring the revenue and expenditure in the two countries under each head of account into the common denomination of tens of rupees, as given in a final column. The financial tables in the Moral and Material Progress Statement were drawn up in accordance with this system:

Sovereigns having now been made legal tender in India, and being at present interchangeable with rupees at the rate of one sovereign for fifteen rupees, the Government of India have decided to alter the form of the Accounts. Beginning with the year 1899-1900, the Accounts are to be prepared so as to show the transactions in India in rupees ; there will then be given the equivalent in pounds of the rupee totals, the rupee being taken for the purpose as one-fifteenth of a pound ; the sterling transactions in England will then be stated ; and the last two sets of figures will be added together so as to show in pounds the combined transactions in India and England. Thus, whereas formerly the English transactions were brought into tens of rupees by adding the Exchange, under the new plan the Indian transactions will be converted into pounds and added to those in sterling. The column entitled "Exchange" will no longer appear ; and the comparatively small sums which have to be brought to account owing to the facts that the remittances are not effected at exactly sixteen pence to the rupee, and that the Government is under obligations to carry out various transactions at fixed rates differing from the rate of sixteen pence to the rupee, will be included in a single line under the head of Exchange in the Miscellaneous group of Revenue and Expenditure.

The new system has been followed in the present Statement in anticipation of its adoption in the Finance and Revenue Accounts of the Government of India.

GROSS REVENUE AND EXPENDITURE.

Gross Revenue and Expenditure.

THE gross revenue and expenditure of British India in 1898-99 may be thus compared with the figures for 1897-98 :—

	1897-98.	1898-99.	Difference.
	£.	£.	£.
Revenue	63,613,050	67,595,815	+ 3,982,765
Expenditure	67,185,857	64,954,942	- 2,230,915
Surplus (+) or Deficit (—) - £.	- 3,572,807	2,640,873	6,213,680 (better) *

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 gross expenditure, first, the refunds and drawbacks, assignments and compensations, which are a direct set-off against the revenue ; secondly, the charge incurred for the production of opium, which is subject to variations caused by the state of the season and of trade ; thirdly, the charge for the maintenance of public works, which necessarily increases as more works are brought into operation. The financial position of the Government can be much better appreciated by looking at the net income and expenditure, a statement of which is annually laid before Parliament.* The following is a statement for 1897-98 and 1898-99 of the net revenue, *i.e.*, the revenue after the deduction

* See Parliamentary Paper H. of C. 203 of 1900.

of the refunds and drawbacks, assignments and compensations, and opium charges; and the net expenditure, *i.e.*, the expenditure after the deduction of the various departmental receipts:—

NET REVENUE.

Net revenue.

	1897-98.		1898-99.		Increase or Decrease (—).	
	£.	£.	£.	£.	£.	£.
Land Revenue, &c.:						
Land Revenue - - - -	16,385,516		17,547,611		1,182,095	
Forests - - - - -	1,156,085		1,236,910		80,825	
Tributes from Native States - - - -	562,782		579,550		16,768	
		18,084,083		19,364,071		1,279,088
Opium: Net Receipts - - - -		1,855,841		2,230,308		374,467
Taxation:						
Salt - - - - -	5,472,825		5,813,957		341,132	
Stamps - - - - -	3,189,251		3,161,672		-27,579	
Excise - - - - -	3,600,389		3,782,022		173,233	
Provincial Rates - - - - -	2,478,374		2,609,663		131,289	
Customs - - - - -	3,024,356		3,127,230		102,874	
Assessed Taxes - - - - -	1,254,155		1,274,020		19,865	
Registration - - - - -	323,613		293,175		-30,438	
		19,951,903		20,062,399		710,376
Miscellaneous Receipts:						
Mint - - - - -	62,554		-23,713		-86,267	
Miscellaneous - - - - -	160,195		217,984		57,789	
		222,749		194,271		-28,478
Exchange - - - - -		-644,157		28,028		672,785
TOTAL NET REVENUE - £.		38,871,979		41,870,617		3,008,238

NET EXPENDITURE.

Net expenditure.

	1897-98.		1898-99.		Increase or Decrease (—).	
	£.	£.	£.	£.	£.	£.
Debt Services:						
Interest on Public Debt (other than that charged to Railways and Irrigation) and other obligations.		1,613,037		1,311,263		-301,774
Military Services:						
Army - - - - -	17,283,207		15,385,042		-1,898,255	
Buildings and Roads: Military - - - -	740,952		771,493		30,541	
Special Defence Works - - - - -	15,059		974		-14,085	
		17,989,308		16,157,509		-1,831,799
Collection of Revenue - - - - -		4,399,322		4,302,449		-96,873
Commercial Services:						
Post Office - - - - -	-104,302		-123,919		-21,617	
Telegraph - - - - -	-179,348		-36,115		143,233	
Railways - - - - -	709,313		620,165		-89,148	
Irrigation - - - - -	-263,599		-179,760		104,139	
		141,764		278,371		136,607
Famine Relief and Insurance - - - -		3,375,343		791,543		-2,783,800
Civil Services:						
Civil Departments - - - - -	9,321,104		9,335,813		14,819	
Miscellaneous Civil Charges - - - - -	3,285,469		3,411,739		126,270	
Construction of Railways (charged against Revenue, in addition to that under Famine Insurance).	2,528		968		-1,560	
Buildings and Roads: Civil - - - - -	2,421,310		2,670,855		249,515	
Provincial and Local Surpluses or Deficits.	-305,119		978,231		1,283,353	
		14,726,112		16,307,609		1,672,107
TOTAL NET EXPENDITURE - £.		42,444,186		39,238,744		-3,203,442

FINANCE.

Result of the year.

Thus there was an increase of the net revenue by £3,008,238, and a decrease in the net expenditure by £3,205,442, making the position better by £6,213,680, and producing a surplus of £2,640,873 in 1898-99, as compared with a deficit of £3,572,807 in 1897-98. This is the result of an increase of the net revenue in India by £2,983,128, a decrease of net expenditure in India by £3,286,587, and an increase of £56,035 in the net disbursements of the Home Treasury.

Alterations in net revenue and expenditure.

The improvement of £3,008,238 in the net revenue is due especially to the recovery of the land revenue after the famine of 1896-97 and 1897-98, the rise in exchange, and the increase in the net receipts from opium. The improvements under these three heads were £1,182,095, £672,785, and £374,468 respectively. The salt revenue was better by £341,132. There was a substantial increase under excise, provincial rates and customs, and a small improvement in assessed taxes; while stamps and registration showed a slight decline. Further particulars concerning land revenue are given in Chapter VII., and concerning opium in a later section of this chapter. The average rate of exchange at which the remittances of the Government of India were effected in 1897-98 was 1s. 3.354*d.* the rupee, and in 1898-99 it was 1s. 3.978*d.*

The decrease of £3,205,442 in the net expenditure occurred mainly under the heads of famine relief and insurance, army, and interest on debt. Under the first head there was spent in 1897-98 £3,550,332 on the relief of famine, and £25,011 on the construction of protective irrigation works. In 1898-99 the charge for famine relief was only £26,703; but, in accordance with the principle on which the famine grant was instituted, there was spent a further sum of £764,840 on famine insurance, viz., £460,236 on the construction of protective railways, £7,779 on the construction of protective irrigation works, and £296,825 on the reduction or avoidance of debt, the remainder of the annual grant for this purpose being entered in the Railway Revenue Account. The decrease of expenditure under the head of famine relief and insurance was thus £2,783,800. The army charges show a decrease of £1,848,255, which is mainly due to the fact that there was included in the accounts for 1897-98 a net charge of £2,541,365 on account of military operations on the North-Western frontier, whereas the similar charge included in the accounts for 1898-99 was £695,127. The net charge for interest shows a decrease of £301,774; the chief elements in this improvement are the transfer during the year of £157,327 from the category of "interest on ordinary debt" to that of "interest chargeable to public works," and an increase of £125,641 in the amount received by Government as interest on loans and advances to municipalities, port trusts, and other bodies, on the investments of the Paper Currency Department, and on money lent in England from the cash balance.

The improvements in certain items on the expenditure side of the account which have been mentioned are partly counteracted by changes under other heads. The expenditure on civil buildings and roads is heavier by £249,515, the increase being due to the fact that in 1897-98 the expenditure under this head was kept considerably below the normal amount, in order that the Government might be in a better position to meet the financial burdens caused by the famine. The irrigation account is less favourable by £104,139. This is due to the fact that the drought of 1896-97 and 1897-98 caused an exceptional demand for canal water in those years; and the net receipts from irrigation works were in consequence abnormally large. The increased expenditure shown under miscellaneous civil charges is mainly due to the growth in the civil furlough allowances, superannuation allowances, and pensions paid in England. In 1897-98 the Provincial Governments defrayed from their balances £305,119 of the expenditure of the year. In 1898-99 they added to their balances £978,234 of the assignments which were allotted to them under their agreements with the Government of India. The position of the imperial account was thus altered for the worse in the latter year by £1,283,353.

The tables in the Appendix show the net revenue and expenditure in India of the several provinces under the chief heads for the years 1897-98 and 1898-99, and the net payments in England. 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 9 of the Appendix, were applied to meet the general charges in India and in England in approximately the following proportions:— In 1897-98: Bengal $36\frac{1}{2}$, North-Western Provinces $16\frac{1}{2}$, Madras $14\frac{1}{2}$, the Punjab $14\frac{1}{2}$, 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. In 1898-99: Bengal 31·82, North-Western Provinces 19·08, Bombay 14·37, the Punjab 12·03, Madras 11·97, Burma 7·5, Central Provinces 2·56, and Assam 0·67.

FINANCE.

CAPITAL OUTLAY ON PUBLIC WORKS.

The total capital outlay on railways and irrigation works, during the year, was as follows:—

Capital outlay on public works.

	1897-98.	1898-99.	Increase.	Decrease.
Amount supplied by borrowing or from the Cash Balances, without being charged against the Revenue of the year:	£.	£.	£.	£.
State Railways - - - - -	2,421,337	2,846,854	425,017	—
Irrigation Works - - - - -	461,620	435,699	—	25,921
	2,882,957	3,282,053	399,096	—
Amount met by Debentures issued by the East Indian Railway Company - - - - -	653,700	—	—	653,700
Amount defrayed from Revenue:				
Provincial Railways - - - - -	2,528	968	—	1,560
Surveys of Railways charged to Revenue in previous years - - - - -	6,263	—	—	6,263
Protective Railways - - - - -	—	460,235	460,235	—
Protective Irrigation Works - - - - -	25,011	7,779	—	17,232
Other Irrigation Works* - - - - -	8,477	9,568	1,091	—
TOTAL Direct Outlay by the State -	3,579,026	3,760,603	181,577	
In addition to this, the outlay by companies guaranteed or subsidised by the Government was - - - - -	3,088,695	3,183,291	94,596	
So that the TOTAL Outlay was - £.	6,667,721	6,943,894	276,173	

* Excluding capital outlay on the minor works, against which interest is not charged in the accounts.

DEBT.

The following table shows the alteration in the amount of the debt that took place in 1898-99, the amount of the rupee debt in India being expressed in pounds at the rate of Rs. 15 = £1:—

Debt

	Amount of Debt on 31st March 1898.	Amount of Debt on 31st March 1899.	Increase.	Decrease.
In India - - - - - £.	74,463,756	75,103,132	639,376	—
In England (permanent) - - - - - £.	117,274,680	119,768,605	2,493,925	—
„ (temporary) - - - - - £.	6,000,300	4,500,000	—	1,500,000

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FINANCE.

In 1898-99 a loan was raised in India at $3\frac{1}{2}$ per cent, to the amount of Rs. 12,000,000, at an average price of Rs. 94.12.6 per cent., and debt was discharged to the extent of Rs. 2,409,360. In England, India $2\frac{1}{2}$ per Cent. Stock to the amount of £6,000,000 was issued, at an average price of £88 10s. 5d. per cent.; the permanent debt discharged in England during the year was £3,000,000 India $3\frac{1}{4}$ per Cent. Debentures, £383,500 Oudh and Rohilkund Railway 4 per Cent. Debenture Stock, £478 India 4 per Cent. Stock, in addition to £122,097 of stock cancelled by the operation of Sinking Funds. The temporary debt was diminished during the year by £1,500,000; of the £6,000,000 India (sterling) bills which fell due, only £4,500,000 was replaced by similar bills, issued at average rates of £2 2s. 6d. and £2 12s. per cent. per annum.

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:—

	1897-98.	1898-99.
	£	£
Savings Banks, &c. (net deposits or withdrawals) - - -	- 216,632	173,937
Loans to Port Trusts, Municipalities, Native States, &c. by the Imperial Government (net receipts or disbursements) - -	29,975	27,860
Loans by the Provincial Governments (net receipts or disbursements) - - -	- 369,032	264,618
Other obligations (net receipts or disbursements) - - -	103,598	240,399
TOTAL - - - £	- 452,091	715,814

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.	
	1897.	1898.	1899.	In 1897-98.	In 1898-99.
In India - - - £.	9,249,168	10,654,962	11,177,669	+1,405,704	+ 522,707
In England - - - £.	2,832,954	2,534,244	3,145,768	- 298,110	+ 611,524

COINAGE AND PAPER CURRENCY.

Coinage and paper currency.

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

	1897-98.	1898-99.
	£.	£.
Silver - - - - -	657,128	465,676
Copper - - - - -	124,425	32,810
TOTAL - - -	781,553	498,386

The silver coinage in 1898-99 consisted of 4,179,600 rupees for the Native States of Bhopal and Kashmir; 2,056,987 half-rupees, 3,345,704 quarter-rupees, and 5,601,570 eighth-rupees, coined for the Government of India; and 457,862 half-rupees for Kashmir. There were also coined at Bombay, from silver tendered by exchange banks, 21,545,564 British dollars, of which 21,303,216 were issued to the banks, and exported to Singapore, Penang, and Hong Kong.

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

FINANCE.

	1897-98.	1898-99.
	£.	£.
Receipts	121,370	51,954
Expenditure	58,815	75,677
Net Receipts or Expenditure (—)	62,555	—23,723

On the 31st of March 1899 the value of notes in circulation was £18,802,184 being greater by £2,292,818 than on the corresponding date in 1898. The reserve was, in gold, £2,035,448, in silver coin, £10,100,073, and in Government securities, £6,666,663.

CURRENCY POLICY.

Currency Policy.

In April 1898, the Secretary of State for India appointed a committee, under the chairmanship of the Rt. Hon. Sir Henry H. Fowler, G.C.S.I., M.P., to consider certain proposals made by the Government of India with a view to the effective establishment of a gold standard in India, a policy which had been initiated in 1893 by the closing of the mints to the free coinage of silver for the public. The correspondence on the subject between the Secretary of State and the Government of India, and the Report of the Committee with Minutes of Evidence and other papers, have been presented to Parliament. (See Parliamentary Papers C.—8840 and C.—9037 of 1898, and C.—9222, C.—9376, C.—9390, and C.—9421 of 1899). The chief recommendations contained in the report of the Committee, which was signed on the 7th of July 1899, were that the mints should remain closed to the unrestricted coinage of silver; that the British sovereign should be made a legal tender and current coin in India at the rate of one sovereign for fifteen rupees; that sovereigns should be coined in India; that rupees should continue to be legal tender for an unlimited amount; and that the Government should not undertake an obligation to pay gold in exchange for rupees.

Her Majesty's Government, after careful consideration, came to the conclusion that it was advisable to accept generally, and to act upon, the principles recommended by the Committee. There was accordingly passed in the Council of the Governor General of India on the 15th of September 1899 an Act (XXII. of 1899) by which gold coins, whether coined at the Royal Mint in England, or at any mint established in pursuance of a Proclamation of Her Majesty as a branch of the Royal Mint, were made a legal tender in payment or on account at the rate of fifteen rupees for one sovereign. Arrangements are being made for the coinage of gold in India.

OPIUM.

OPIUM
General.

The opium revenue is raised partly by a monopoly of opium in Bengal and partly by the levy of a duty on all opium exported from Native States. Though the poppy can be grown in most parts of India, its cultivation in British territory is permitted only in parts of Bengal and of the North-West Provinces and Oudh; 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 despatched to the Government factories at Patna and Ghazipur to be prepared for the foreign market. The price for some years had been Rs. 5 per seer (two lbs.); and was raised to Rs. 6 per seer, with effect

OPIUM.

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. 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 £40 per chest for several years until December 1894, when it was raised to £43½. The duty was again reduced to £40 in July 1896, and to £33½ in October 1897.

The yield of the opium revenue during recent years has been :—

	1889-90.	1892-93.	1896-97.	1897-98.	1898-99.
Opium Receipts :*	£	£	£	£	£
Auction sales of monopoly opium	4,318,053	4,064,151	3,233,568	2,660,697	2,775,878
Duty on Bombay or Malwa opium	1,260,569	1,117,102	892,189	647,092	888,909
Cost of opium issued to the Excise and other Departments.	143,415	147,533	147,068	145,392	152,099
Total - - -	5,722,037	5,328,786	4,272,825	3,453,181	3,816,886
Opium expenditure, chiefly in Bengal	1,070,071	1,068,330	1,657,795	1,592,744	1,582,193
Net Opium Revenue - £	4,651,966	4,260,456	2,615,030	1,860,437	2,234,693

* These receipts are outside the provincial opium receipts of £662,888 shown in the Excise section of this Statement.

The number of chests of Bengal opium sold, and the average price obtained per chest in recent years, are as follows :—

	Number.	Average Price,		Number.	Average Price.
		Rs.			Rs.
1890-91	57,000	1,937	1897-98	39,300	1,023
1895-96	37,695	1,390	1898-99	39,450	1,055
1896-97	39,000	1,243	1899-1900	31,700	1,217

The exports of Bombay opium to China averaged 28,612 chests in the six years 1889-95; they amounted to 22,289 chests in 1896-97; 16,676 chests in 1897-98; and 29,891 chests in 1898-99. This rise is partly attributable to the failure of the opium crop in parts of China, and is expected to prove temporary.

Bengal.

The area cultivated with the poppy in the Ganges Valley during recent years is shown in the margin to have fluctuated considerably, owing partly to seasonal influences; the area engaged for the cultivation of opium in 1898 was larger than that of 1899, but there was a greater failure of crops in the former year, and the number of chests of provision opium actually manufactured rose from 44,077 in 1898 to 51,719 in 1899. Adding the balance of last year's crop, the total available in 1900 amounts to 61,815 chests, and the number of chests to be sold at the monthly auctions for that year has been fixed at 3,700; in 1899 the number was 3,400. This will leave a reserve of 17,415 chests at the end of the year. 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 Rs. 1,850 per chest of 140 lbs. weight, but since that year it has fallen; in February 1895 it rose to Rs. 1,540, the highest average at any monthly sale for 23 years; it fell to Rs. 923 in May 1898, but has since risen to Rs. 1,447 in March 1900.

The season of 1898-99 promised to be a remarkably good one, but unfavourable weather in February and March injured the crops. The average produce was 11½ lbs. per acre in Behar and 13½ lbs. per acre in Benares, compared with an average outturn for the last 22 years of 13½ lbs. in Behar, and 16 lbs. in Benares. The opium is received and prepared at the Government factories at Patna and Ghazipur, where also small amounts of morphia and codeia are manufactured for the London and Shanghai markets. The number of prosecutions for breaches of the opium laws in the two agencies was 1,367, and 1,168 convictions were obtained.

SALT.

SALT.

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 ¼th 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 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 1898-99 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.
	£	£	£	£	£	£	£
Northern India - -	1,350,146	—	—	10,341	1,360,487	72,501	1,287,986
Burma - - - -	14,215	83,784	7,437	—	105,436	289	105,147
Bengal - - - -	11,066	1,163,058	490,612	10,164	1,674,899	10,884	1,664,015
Madras - - - -	1,325,534	444	628	5,668	1,332,270	116,122	1,216,148
Bombay - - - -	1,543,279	590	954	48,659	1,593,483	110,672	1,482,811
TOTAL, 1898-99 -	4,244,240	1,247,876	499,631	74,832	6,066,581	310,468	5,756,113
TOTAL, 1897-98 -	3,929,410	1,067,032	654,896	78,146	5,729,484	315,852	5,413,632

The charges above shown do not include a sum of about £200,000 paid under treaties to Native chiefs who have assigned the management of their salt sources to the British Government. The rate of salt consumption per head of the population differs widely in the several provinces. As there are no means of accurately estimating the present population, the real rate of consumption, and its growth from year to year, cannot be given, but the variation between the provinces can be shown by giving the amount consumed in 1898-99 per head of the population of last census. It was about 19 lbs. in Burma, 17½ lbs. in Madras, 11½ lbs. in Orissa, 10½ lbs. in the rest of Bengal, 12½ lbs. in Bombay (excluding Guzerat, where the consumption is small), 10½ lbs. in the Central Provinces and Berar, 8½ lbs. in Behar, 7½ lbs. in the North Western Provinces and Oudh, 7½ lbs. in cis-Indus, and 11½ lbs. in trans-Indus, Punjab, and 7½ lbs. in Rajputana. The small difference, about 15 per cent., due to longer distance from salt sources, in the retail prices of salt between northern

SALT.

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 Rs. 2 to Rs. 2½ 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 "
1898-99 - - - - -	35,770,000 "

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 500,000 maunds in 1898-99, 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 salt sources under the control of the Northern India Salt Department are (1) the Rajputana sources, including the Sambhar Lake, and brine springs at Pachbadra and Didwana in the Jodhpur State, and (2) the Punjab sources, including the Mayo, Warcha, and Kalabagh mines, the Kohat mines, the Mandi mines, and the brine springs at Sultanpur. From these are supplied the wants of the Punjab, the North-Western Provinces and Oudh, parts of the Behar districts of Bengal, the northern districts of the Central Provinces, and the greater part of the Rajputana and Central India States. The most important sources are the Sambhar Lake and the Mayo mine. At the Sambhar Lake the rainfall was insufficient, but 5,317,712 maunds of salt were manufactured, or 3,486,083 maunds more than in the very bad year 1897-98. In the Mayo mine 1,836,104 maunds of salt were excavated, or rather less than in the previous year. The amount raised at the Kohat mines was 462,375 maunds, which shows a satisfactory recovery from the small production consequent on the raising of the duty in 1896, though a further increase may be expected. The total amount of salt which passed into consumption was 7,945,470 maunds, distributed as follows:—

	1898-99.	1897-98.
	Maunds.	Maunds.
Punjab, cis-Indus, including Native States and Kashmir.	2,466,780	2,495,908
Punjab, trans-Indus (Kohat salt)	311,249	165,819
North-Western Provinces and Oudh (chiefly Sambhar salt).	3,364,089	3,188,737
Behar	145,460	172,473
Central Provinces	120,388	136,303
Rajputana	948,698	1,006,833
Central India	410,557	379,716
Other places, including Afghanistan	169,249	183,049
TOTAL	7,945,470	7,730,838

The rate of consumption of salt from all sources per head of population in the above provinces cannot be accurately stated, but an approximate estimate is given in the margin,* based on the population of the last census returns. The

	1897-98.	1898-99.
	Lbs.	Lbs.
* Punjab, cis-Indus, and Kashmir.	7.53	7.59
Punjab, trans-Indus	8.45	11.11
North-Western Provinces and Oudh.	6.89	7.34
Behar	8.76	8.76
Central Provinces and Berar.	10.99	10.84
Rajputana and Central India.	7.16	7.13

wholesale prices which prevailed during the year were, in the Punjab, rock salt, Rs. 3 to Rs. 3½; in the North-Western Provinces, Sambhar salt, Rs. 3½ to Rs. 3¾; in the Central Provinces, Bombay salt, Rs. 3¾ to Rs. 4¼. The gross receipts rose from £1,305,000 to £1,364,000, owing to the larger amount of salt excised; and there was also a saving by the abolition of the Indus Preventive Line in the previous year. The number of convictions for breach of the salt laws rose from 517 to 539.

The salt consumed in Bengal comes from abroad or from other parts of India; but there is also in most years a small amount manufactured in Orissa. During the season 1898 this manufacture was stopped, but as the existing stock is sufficient for six years' demand, the issue was not checked; it only amounted, however, to 63,755 maunds. The imported salt paying duty during the year 1898-99 was 10,360,552 maunds. Deducting from these totals the net amount of salt exported by land, the consumption of the province was 9,833,328 maunds, as compared with 9,739,835 maunds in 1897-98. In the maritime tracts of the Presidency, other than Orissa, the manufacture of salt is prohibited. The following figures show the consumption of duty-paid salt per head of population in the last two years:—

	1897-98	1898-99.
	Lbs.	Lbs.
Orissa	10.08	11.13
Other saliferous tracts	9.77	10.03
Rest of Bengal	10.28	10.28

The amount of salt imported by sea during the last two years was as follows:—

	1897-98.	1898-99.
	Maunds.	Maunds.
The United Kingdom	7,115,000	6,277,000
Germany	973,000	509,000
Bombay	557,000	558,000
Madras	87,000	79,000
Red Sea and Persian Gulf ports:	2,333,000	1,996,000
Aden	1,128,000	885,000
Madagascar	29,000	47,000

The imports of 1897-98 were abnormally high, and there was a general fall in the year under report. The supply of Liverpool salt was regular and abundant, and the fall in prices continued. The decline in German salt during the last five years has been very marked. The average price of salt, including duty, at the chief marts of Bengal, decreased by 1 anna

SALT.

10 per cent., or nearly 3 per cent., as compared with the previous year. The wholesale price of Liverpool salt, exclusive of duty, ranged from Rs. 124 to Rs. 72 per 100 maunds in 1896-97; from Rs. 98 to Rs. 63 in 1897-98; and from Rs. 73 to Rs. 61 in 1898-99. The consumption of Madras salt increased in Orissa, and its quality was greatly improved, so that it can compete on fairly equal terms with Liverpool salt. It can be sold, apart from the Government duty, at less than half the price of the latter, and it is expected that when the East Coast Railway is completed the sales will grow largely. The gross salt revenue was £1,676,000, or £32,000 more than in the previous year, a result which was due to increased clearances from bond. The operations of the Salt Department have been extended from Orissa to the 24 Parganas. The number of cases in which contraband salt was confiscated was 981, as compared with 1,047 in the previous year. There were in all 966 prosecutions for salt offences; and 19 persons, out of a total of 991 accused people, were acquitted. In the previous year there were 904 prosecutions.

Madras.

There were in Madras available for the manufacture of salt by solar evaporation 25 Government and 46 other factories; but of these, 15 Government and four other factories were not at work during the year 1898-99, owing to the existence of large stocks. The amount of salt produced was 6,856,537 maunds, or over 4 per cent. more than in 1897-98, but the figures of both years were considerably below those of any recent year; of this amount, 5,715,792 maunds were manufactured in private factories. An improved method of manufacture was in operation at three factories owned by the Oriental Salt Company. The average wholesale price of "excise" (*i.e.*, private factories) salt was 3 annas $3\frac{1}{2}$ pies per maund against 3 annas $5\frac{1}{2}$ pies in 1897-98; the price of Government salt was also in most cases lower than in the previous year. The average retail price per maund, duty paid, varied from Rs. 3. 1. 2. to Rs. 4. 2. 10. in different centres. Excluding the salt used for fish-curing, the total consumption of the Presidency, apart from certain districts and Native States, during the last three years, was as follows:—

	1896-97.	1897-98.	1898-99.
Issues of Government, excise, and imported salt in maunds.	8,023,263	8,379,313	8,378,535
Imports from Bombay by railway	405,373	630,887	599,324
	8,518,636	9,019,200	8,977,859
<i>Deduct</i> ,—Salt consumed in three northern and two west coast districts, in Mysore, Coorg, and various Native States, or exported from the Presidency.	3,273,384	3,635,004	3,640,389
	5,245,252	5,384,196	5,337,470
	Lbs.	Lbs.	Lbs.
On an estimate of the population, allowing an increase of 10 per mille per annum, the rate of consumption per head in the rest of Madras.	16 $\frac{1}{2}$	16 $\frac{1}{2}$	16 $\frac{1}{10}$
On an estimate of the population, allowing an increase of 10 per mille per annum, the rate of consumption per head in the Tamil districts south of Madras, containing a population of about 19 $\frac{1}{2}$ millions.	17 $\frac{1}{2}$	16 $\frac{1}{2}$	17

Taking the population of the last census, for the purpose of comparison with other provinces, the rate of consumption in Madras may be put as 17 $\frac{1}{2}$ lbs. in 1897-98, and 17 $\frac{1}{3}$ lbs. in 1898-99.

The stocks of Government and excise salt in hand at the end of the year on the east coast was sufficient to last for 17 $\frac{1}{2}$ months, compared with a supply of 21 months in hand at the end of 1897-98. The gross revenue from Madras

salt was £1,332,000, as compared with £1,152,000 in the preceding year. SALT.
 The increase was chiefly due to larger sales of Government salt at Ganjam and Madras, owing to reduction of price. During the year 1898-99 there were 129 bonded yards in the Madras Presidency open for curing fish under special regulations, whereby cheap salt is sold to fish-curers. The quantity fish brought to be cured was 38,600 tons, or 4,700 tons less than in the previous year. The cost of the yards to the Treasury was more than covered by the reduced price (6½ to 10 annas per maund) realised for salt. Prosecutions under the salt laws were, as usual, numerous in comparison with other provinces; 10,451 persons were charged with salt offences, of whom 1,752 were released by departmental officers with a warning, and 8,556 were sent for trial. More than half of these were contributed by nine circles in the southern portion of the Presidency.

The salt supply of Bombay comes from the Government salt works (Baragra salt) on the Runn of Cutch, from sea-salt works on the coast, and by importation. Bombay.
 The sea-salt works numbered 442, of which one belongs to the Government; the imports of salt come chiefly from Goa. The following table shows the issues of salt from each source for the last two years:—

	1897-98.		1898-99.	
	Total Issues.	For Local Consumption.	Total Issues.	For Local Consumption.
	Maunds.	Maunds.	Maunds.	Maunds.
Baragra salt - - -	1,799,338	498,082	1,937,951	542,071
Sea salt - - - - -	7,293,866	2,613,235	7,385,794	2,465,444
Imported salt - - -	305,067	254,041	267,837	230,392
TOTAL - - -	9,398,271	3,366,258	9,591,582	3,237,907

The consumption in the whole Presidency was at the rate of 11·66 lbs. per head of the population given in the last census return, and 9·55 lbs. per head in Gujarat, compared with 12·13 lbs. and 8·97 lbs. (revised figures) in 1897-98. The low average in the rich tract of Gujarat is forming the subject of special inquiry; it is suspected that it is partly due to smuggling. The bulk of the Baragra salt is exported to the North-West Provinces, Central Provinces, and Central India; while the Madras Presidency, Hyderabad, Calcutta, and the Central Provinces take large amounts of sea salt. The cost price of Baragra salt was 1½ annas per maund, and the generally prevailing price, exclusive of duty, of sea salt was 2 annas; the average market price per maund ranged, as in the previous year, between Rs. 3, the price at Ahmedabad, and Rs. 4½ at Nasik. The gross salt revenue receipts were £1,542,000, or £59,000 above the total of the previous year. Eighteen fish-curing yards were at work, being one more than in 1897-98. The quantity of fish brought to be cured in bond was 4,035 tons, and 1,185 tons of cheap salt were issued to fish-curers; the fish-curing operations of the year were most successful.

The Sind salt supply is derived chiefly from the sea-salt works at Maurypur, Sind. and in smaller quantities from salt deposits at Saran and Dilyar on the edge of the desert, and by importation. The amount passed into consumption during the year was 278,000 maunds,*
 * From Maurypur - 236,000
 " Saran - 14,000
 " Dilyar - 13,000
 Imported - 9,000
 The consumption per head of the population of the last census was 7·86 lbs., against 7·90 lbs. in 1897-98. The average market price of salt was Rs. 3½, which showed a slight decline. The salt receipts were £50,000, which was slightly higher than in the previous year.

The amount of foreign salt which paid duty in Burmese ports during 1898 Burma. was 1,238,283 maunds, or 41,913 more than in the previous year. This comes almost entirely from England and Germany, and pays a duty of R. 1 per maund. The excise duty on locally manufactured salt is raised by a fee on 0.66.

SALT.

vessels used for boiling brine, which was enhanced at the beginning of the year. The result was a decline in the estimated output from 620,060 maunds in 1897 to 496,100 in 1898, although it is believed that the present rates, which vary in different districts but are generally equal to less than 8 annas per maund, are not too heavy. The imports of salted fish also fell from 350,794 to 296,493 maunds. The amount of licit salt available for consumption was, therefore, considerably reduced. Prices were slightly lower; the retail price of foreign salt at Rangoon, which governs the price throughout Burma, was 28½ instead of 29 annas per maund; the price in inland markets varies, but was generally over Rs. 2. The price of local salt varied very widely, but was generally below that of the imported article. The net amount of licit salt available for consumption, per head of population of the last census, was 19 lbs. compared with 19½ in 1897; it is thought likely that some impetus was given to the illicit production by the higher rates levied on local salt. It was stated in 1897 that illicit manufacture of salt practically did not exist in Burma; but 78 cases were detected in the year 1898.

EXCISE.

EXCISE.
General.

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. The excise duty on cotton yarns of counts above 20s. is dealt with under the heading of "Customs." 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, and assumes different forms in different provinces; in Bengal, the North-Western Provinces, and elsewhere, the distillery is a Government establishment at which private individuals distil spirits; or sometimes, as in the Madras private distillery system, there is competition between the owners of private establishments manufacturing their own liquor. Efforts are continually made to adapt the systems of excise as far as possible to the conditions of each province. 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 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.

* 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 following table gives the excise revenue of 1898-99 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.	Madra.	Bombay.	TOTAL.
License and Distillery Fees, and Duties for the Sale of Spirits, Fermented Liquors and Drugs, viz. :—	£	£	£	£	£	£	£	£	£	£
Foreign liquors, &c.	4,621	71,332	37,393	21,403	73,642	471	1,880	21,069	16,901	248,612
Country spirits	64,238	406,779	228,196	92,766	62,267	80,092	41,697	267,152	566,488	1,899,896
Toddy	1,476	69,486	6,962	—	27,332	1,287	13	459,824	83,107	648,419
Opium and its preparations.	1,537	41,798	6,828	26,436	93,328	73,494	21,232	26,688	1,750	233,979
Other drugs	2,010	93,222	63,607	21,283	—	5,535	13,010	3,673	28,674	231,008
Duty on opium consumed in India.	763	118,249	32,308	10,466	49,323	21,339	102,002	24,616	70,314	429,909
Acreage on land cultivated with the poppy.	—	—	—	1,396	—	—	—	—	—	1,396
Duty on ganja	—	64,196	—	—	—	6,412	12,173	4,320	346	117,607
Fines, confiscations, miscellaneous.	648	1,072	196	435	2,722	1,051	37	4,738	6,123	16,912
TOTAL Revenue	75,223	895,126	378,990	173,214	307,654	129,731	192,253	911,838	762,603	3,826,637
Charges	1,802	45,804	8,730	3,633	14,709	3,157	416	66,130	22,120	162,010
Net Revenue, 1898-99	73,426	849,322	370,260	169,581	292,945	126,574	191,837	845,708	740,483	3,664,627
Net Revenue, 1897-98	64,102	804,918	297,134	162,882	268,238	112,850	184,213	808,511	706,670	3,439,461

The sum of £462,000 was yielded by import duties on liquors and spirits imported into India during the year 1898-99, and thus the total drink and drugs revenue of India amounts to about 5 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 :—

	£	£	
1874-75	1,755,000	1895-96	4,118,000
1880-81	2,343,000	1896-97	4,040,000
1883-84	2,840,000	1897-98	3,940,000
1894-95	3,965,000	1898-99	4,127,000

For the 233* 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.

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Excise.

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

PROVINCE.	Number of Retail Shops licensed in 1898-99 for the Sale of					Quantity of Opium sold for Local Consumption, so far as known. <i>Maunds</i> (82 lbs. each).	
	Country Spirits made in India.	European Liquors Imported or made in India.	Toddy and Rice-Beer or other Indian Fermented Drinks.	Opium.	Narcotic or Intoxicating Drugs, other than Opium.		
Bengal - - - - -	3,262	500	14,868	1,656	3,105	2,164	
North - West Provinces and Oudh.	6,029	291	4,597	1,100	3,021	1,418	
Punjab - - - - -	1,363	311*	35	1,550	1,906	1,379	
Burma - - - - -	72	447	1,094	53	None	771	
Central Provinces - - -	6,022	80	506	921	939	619	
Assam - - - - -	218	70	9	751	281	1,342	
Madras - - - - -	10,371	772	17,523	1,059	308	795	
Bombay, Sind, and Aden -	2,818	257	1,370	1,153	1,188	1,309	
Berar - - - - -	1,118	19	971	450	163	323	
TOTAL -	1898-99	31,273	2,756	41,569	8,693	10,011	10,201
	1897-98	31,244	2,378	42,976	8,706	10,973	10,166

* For imported liquors only.

There are thus 95,202 licensed shops for the retail sale of intoxicants and narcotics in British India, or one shop to an average of about 2,400 of the population. In the United Kingdom, in 1898-99, there were more than 157,000 licenses for the retail sale of beer, wine and spirits, or one shop to 230 of the population. In neither computation are occasional or part-year licenses reckoned; of these latter licenses, nearly 35,000 were issued in the United Kingdom during the year, while the temporary or part-year licenses in India are under 2,000 a year.

Bengal.

In Bengal the total excise revenues of 1898-99 and the two previous years were as follows:—

Receipts from	1896-97.	1897-98.	1898-99.
	£	£	£
Country spirits - - - - -	405,364	372,067	406,510
Foreign liquors and rum - - - - -	47,547	47,087	41,464
Fermented local liquors, toddy, and rice-beer -	96,063	92,380	98,674
Opium - - - - -	155,040	154,574	160,069
Ganja, bhang, and their compounds - -	187,876	182,863	187,396
Miscellaneous - - - - -	1,245	891	1,027
TOTAL EXCISE REVENUE - -	894,030	849,871	895,149
Add duties levied in the Presidency on imported liquors.	127,993	122,937	133,173
TOTAL REVENUE FROM DRINKS AND DRUGS } - £	1,022,022	972,808	1,028,322

The excise revenue shows a distinct recovery after the famine-affected year EXCISE. 1897-98; it was slightly in excess of the figures for 1896-97, and was the highest on record. Of the total, £524,425 was collected in the shape of license fees.

The out-still system is in force in the Rajshahi and Chittagong divisions, and in parts of Western Bengal, containing altogether a population of 38½ millions; the rest of the province, containing over 32 millions, is under the central distillery system. No change was made in this respect during the year. The number of central distilleries was 30, as in the previous year, in addition to 35 depôts; that of out-stills rose from 2,018 to 2,042. The consumption of country spirits in the out-still area cannot be accurately stated, but is estimated at 1,245,000 gallons at London-proof; the amount of imported spirits consumed in the province cannot be stated; other figures as to consumption and sale in 1898-99 are as follows :—

	1896-97.	1897-98.	1898-99.
Issues of country spirits from central distilleries in gallons, at London proof.	478,140	442,104	530,083
Issues of spirits manufactured in India by European method.	80,898	77,979	50,053
Shops licensed for retail sale of—			
Country spirits - - - - -	3,288	3,211	3,262
Rum and imported liquors - - - -	484	513	500
<i>Pachwai</i> , or rice-beer - - - - -	1,663	1,592	1,606
Toddy (fermented) - - - - -	13,301	13,233	13,262
Consumption of licit opium, in maunds - -	2,100	2,086	2,164
" hemp drugs (chiefly ganja), in maunds.	6,033	5,636	5,783
Shops licensed for retail sale of opium - -	1,680	1,667	1,656
" " " hemp drugs -	3,064	3,090	3,105

The still-head duty levied on central distillery liquor ranged from Rs. 1½ to Rs. 5 per gallon of proof spirit. The revenue from the distillery area shows an increase of 13 per cent. over that of 1897-98; but in the out-still area revenue depended on the result of a settlement made beforehand, while the effect of famine was still strong, and the increase was therefore only 5 per cent. The incidence of excise revenue per head of population was 2⅔ annas, as compared with 2⅔ annas in the preceding year.

The revenue from toddy was £68,500, as compared with £67,600 in the previous year; in addition to the shops shown above as having been licensed to sell fermented toddy, 1,872 licenses were issued in 1898-99 for the sale of unfermented 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. The number of licenses for home-brewing of rice-beer for domestic consumption rose from 7,911 to 8,655. Ganja is grown under close supervision in the Rajshahi district, and its cultivation elsewhere in the province, including the Tributary States of Orissa, is forbidden. A large amount is annually exported, the chief items in 1898-99 being, to North-Western Provinces, 350 maunds; to Assam, 548 maunds; to Nipal, 199 maunds. The crop was a small one in this year, owing to the destruction of seedlings by unfavourable weather; prices were therefore very high. There was no change in the rate of duty. Special attention was paid during the year to the prevention of smuggling opium to Chittagong and Burma, with good results. 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*, and it is believed that those habits have thereby received a check.

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Excise.

The number of arrests for offences against the excise and opium laws rose from 3,634 to 3,830, and convictions were obtained against 3,365, or 88 per cent., of the accused persons; of these, 405 persons were convicted of the offence of illicit distillation.

North-Western Provinces and Oudh.

The latest excise report for the North-Western Provinces and Oudh relates to the year ending in September 1898. For the last three years the excise revenues have been :—

Gross Receipts from	1895-96.	1896-97.	1897-98.
	£.	£.	£.
Country spirits - - - - -	217,687	158,895	192,085
Foreign liquors and rum - - - - -	28,103	28,951	34,533
Opium - - - - -	45,215	40,118	40,909
Other drugs - - - - -	52,486	48,799	58,175
Toddy and miscellaneous - - - - -	6,144	5,762	6,872
TOTAL - - - £.	349,535	282,525	332,574

This is considered to be favourable from a financial point of view, as the earlier portion of the year 1897-98 was still under the shadow of the famine.

The changes in the revenue system in connection with country spirits during the year were chiefly from the farming to the out-still system. The revenue was raised as follows :—

- (a) £152,387 under the ordinary central distillery system, which extended over 65,800 square miles, inhabited by 36½ millions of people.
- (b) £16,199 under the modified distillery system, which extended over 1,380 square miles, inhabited by 922,000 people.
- (c) £16,791 under the out-still system, which extended over 33,500 square miles, inhabited by 7¼ millions of people.
- (d) £6,709 under the farming system, which extended over 6,300 square miles, inhabited by 2 millions of people.

Thirty distilleries were at work throughout the year, one having been closed in October 1897; five bonded warehouses for spirits have been established. The rate of still-head duty charged 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 consumption of spirit under systems (c) and (d) cannot be stated, but the following figures are of interest :—

	1895-96.	1896-97.	1897-98.
Issues of country spirit from distilleries, public and private, in gallons, at London proof.	912,000	661,000	885,000
Consumption of rum from the Rosa distillery -	30,700	30,500	34,900
Shops licensed to retail country spirits - -	6,269	6,126	6,029
" " rum and imported spirits	273	300	291
Sales of opium, in maunds - - - - -	1,532	1,356	1,416
Shops for retail sale of opium - - - - -	1,103	1,112	1,100
Net import of hemp drugs (chiefly <i>bhang</i>), in maunds.	13,388	11,210	12,216
Shops for retail sale of hemp drugs - - -	3,637	3,587	3,621
Shops for sale of toddy - - - - -	4,464	4,477	4,597

The system of taxing hemp drugs by a quantitative duty in addition to license fees, which came into force in 1896-97, is reported to work satisfactorily. 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 Madras system of taxing toddy trees was given a further trial in the Farukhabad district.

The number of prosecutions under the Excise Act was 1,018, or nearly 50 per cent. more than, and under the Opium Laws 801, or 31 per cent. more than, in the previous year; the prosecutions for illicit distillation were 179, against 125 in 1896-97.

In the Punjab the equalisation, dating from the beginning of the year, of the still-head duty on country spirits and spirits made in India by European methods had the effect of stimulating the production of the latter in the licensed private distilleries, and checking the consumption of the more crude spirit made in the pot-stills in the central distilleries. The private distilleries produce, besides whisky and rum, a white molasses spirit which is, excepting for its greater purity, identical with the country spirit; the result will be therefore to substitute a purer and perhaps rather higher-priced spirit for the cruder form. The new rates for country spirit are:—

	Rs.
10 per cent. under proof to London proof	4
20 " " " 10 per cent. under proof	3½
30 " " " 20 " "	3
45 " " " 30 " "	2½
More than 45 per cent. under proof	2

Private distillery spirit pays Rs. 4 if of London proof, and if below this strength, at the exact percentage rate according to its actual strength.

The result of the change is shown in the decline of the issues of country spirit from 247,300 to 157,700 gallons, and the increase of the issues of private distillery spirit from 14,400 to 74,800 gallons. Three new private distilleries are being started, and three of the central distilleries, of which there were 17 in 1897-98, were, after due notice and consideration, closed.

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

Receipts from	1896-97.	1897-98.	1898-99.
	£.	£.	£.
Country spirits - - - - -	78,185	85,213	98,929*
Imported liquors and beer - - - - -	16,168	16,677	14,988
Opium - - - - -	37,308	38,180	37,329
Other drugs and miscellaneous - - - - -	14,511	16,300	21,965
TOTAL - - - £.	146,172	156,460	173,211

* In 1898-99 private distillery spirits are included under the first head, which embraces all spirits made in British India.

The increase of £16,750 in the revenue was due partly to the imposition of duty on beer supplied for the use of the troops, which brought in £9,000, and partly to the enhanced duty on charas, which was introduced last year, but only had its full effect in 1898-99, showing an increase of £5,000. The total of licit spirits and drugs supplied to the public, and the number of licensed shops for the past three years, are returned as follows:—

	1896-97.	1897-98.	1898-99.
Consumption of country spirits computed at London proof, in gallons.	229,649	237,481	181,485
Consumption of rum and whisky, manufactured at private distilleries.	46,697	40,965	97,688
Consumption of imported spirits - - - - -	78,082*	61,721	59,647

* Probably includes some wine.

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EXCISE.

	1896-97.	1897-98.	1898-99.
Licensed retail shops for country spirits† -	1,269	1,286	1,363
Licensed retail shops for rum† and imported liquors, including hotels, refreshment rooms, and travellers' rest-houses.	473	483	311
Consumption of licit opium, in maunds -	1,471	1,499	1,379
Licensed retail shops for opium - - -	1,540	1,552	1,550
" " for hemp drugs - - -	1,310	1,445	1,306

† From the beginning of 1898-99 all spirits made in British India were sold at the shops licensed for country spirits.

The fall in the opium revenue is accounted for by smaller receipts from the acreage duty on poppy cultivation and from the import duty; receipts from licenses for sale of opium showed a slight increase. The import duty on Malwa opium was raised from Rs. 3 to Rs. 4 per seer. The acreage under poppy cultivation in the province continues to decline, the figures reading as follows:—

1895-96, 12,741 acres; 1896-97, 9,757 acres; 1897-98, 10,412 acres; 1898-99, 6,875 acres.

The number of persons prosecuted under the liquor and drug laws rose from 376 to 389, of whom 225 persons were convicted for serious offences, such as illegally distilling or smuggling liquor, and 58 for petty offences; and the number prosecuted under the opium laws rose from 269 to 499.

Burma.

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

Receipts from	1896-97.	1897-98.	1898-99.
	£.	£.	£.
Liquors imported or made in Burma by European methods.	65,378	64,331	72,485
Country spirit - - - - -	8,260	7,290	7,994
Toddy - - - - -	26,994	25,401	26,100
Rice-beer - - - - -	35,171	40,440	52,634
Opium (after deducting prime cost of Government opium).	142,203	140,965	135,626
Fines - - - - -	6,375	6,667	7,550
TOTAL - - - £.	284,381	285,094	302,485
<i>Add,—Duty on imported liquors - - -</i>	<i>71,845</i>	<i>69,680</i>	<i>76,574</i>
TOTAL - - - £.	356,226	354,774	379,059

The increase was general, except under opium, and was due not only to a larger consumption of distillery liquor but also to keener competition for licenses. The excise duty on distillery spirits in Burma is Rs. 6 per gallon, which is the same as the import duty on foreign spirits, and the large increase in the output noted below seems to show that the rate is not too high; the number of distilleries at work was five, and there was one brewery producing malt liquor. Rice-beer, which is chiefly consumed in the Pegu and Irrawaddy divisions, is increasing in popularity, and the receipts from license fees, as in the previous year, show a decided rise. The right to manufacture and sell country spirit is sold by auction; the spirit is for the most part consumed in Lower Burma, the manufacture of it is free in some of the hilly tracts of Upper Burma.

It is found extremely difficult to check the illicit manufacture of country spirits ; the number of illicit stills suppressed in 1897-98 was 574, and in 1898-99 it was 392. The remedy suggested is to encourage the consumption of rice-beer instead of spirits. EXCISE.

No statement can be given of the amount of country spirit made at the out-stills, or of the production of toddy or rice-beer; other figures are as follows :—

	1896-97.	1897-98.	1898-99.
Imported spirits in gallons - - - - -	176,933	186,621	185,229
Distillery spirits in gallons, at London proof -	50,719	35,827	59,046
Shops licensed for sale of—			
Distillery or imported liquors - - - - -	430	456	447
Country spirit - - - - -	74	66	72
Toddy - - - - -	863	817	839
Rice-beer - - - - -	289	252	255
Opium - - - - -	54	52	58
Licit opium consumed, in maunds - - - - -	708	752	771

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. These arrangements were being reconsidered, and it was proposed, among other things, to reopen the registers and to admit those who omitted to register themselves in 1893. The amount of licit opium consumed cannot be taken as representing the total consumption, as there is a great deal of smuggling; during the year 1898-99 no less than 103 maunds of illicit opium were seized, and in the previous year the seizures amounted to 72 maunds. The work of the Special Excise Establishment was not very satisfactory during the year, but the amount of rewards disbursed has increased considerably, and it is expected that this will cause greater activity.

The number of offences against the opium and excise laws reported in 1898-99 was 5,004 against 4,776 in 1897-98; those in connection with ganja increased in number, and the amount of hemp drugs confiscated was considerably greater.

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

Receipts from	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.
	£.	£.	£.	£.	£.
Country spirits - - - - -	115,649	99,196	88,155	68,716	76,558
Opium - - - - -	65,298	61,282	51,061	46,788	48,072
Ganja - - - - -	18,055	16,334	12,648	11,011	11,647
Toddy - - - - -	1,493	1,374	1,397	1,415	1,253
Miscellaneous, including foreign liquors.	1,937	2,294	1,829	1,797	2,075
TOTAL - - - £.	202,432	180,480	156,090	129,727	139,605

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EXCISE.

The greater part of the country is supplied with spirits from out-stills, from which nearly half of the country spirit revenue is derived; but the number of these is being steadily decreased in pursuance of the policy of substituting the central distillery system in tracts where it is considered possible to do so. The number of central distilleries was not increased during the year. In two districts, Nagpur and Nimar, the modified bonded warehouse system described in last year's Statement was for a second year on its trial, and is reported to have worked fairly well. Under the out-still system the revenue is raised by license fees; under the central distillery system by license fees and by a duty varying between one and four annas per seer, on the raw material (*mohwa* flower); under the new system it is raised by license fees and a duty on liquor consumed, fixed at Rs. 3 per gallon of spirit 10 degrees below London proof and Rs. 1½ per gallon 50 degrees under proof.

Particulars of consumption and sale, so far as available, are as follows:—

	1896-97.	1897-98.	1898-99.
Issues of country spirit from central distilleries, in gallons at London proof - - - - -	153,000	150,000	166,000
Shahjehanpur rum imported - - - - -	6,709	7,933	7,161
Number of distilleries supplying bonded warehouses - - -	6	4	4
" " " central distilleries - - -	10	20	20
" " " out-stills - - -	1,706	1,504	1,496
Shops holding permanent licenses for retail sale of—			
Country spirits - - - - -	6,366	5,985	6,022
Imported liquors - - - - -	64	90	89
Toddy - - - - -	677	654	596
Opium - - - - -	920	916	921
Hemp drugs - - - - -	998	978	986
Total issues of licit opium, in maunds - - - - -	633	597	619
" " ganja " - - - - -	788	750	805

Opium and ganja are supplied by the Government for the use of Feudatory States at fixed rates, and 125 maunds and 98 maunds respectively must on this account be deducted from the totals of 1898-99 given above, in order to arrive at the consumption in the province. The excise revenue from all sources falls at the rate of about 3 annas per head of the population.

The number of prosecutions under the excise laws rose from 300 to 561, and from 150 to 222 under the opium laws. The number of licenses for the cultivation of ganja rose from 95 to 181, and the area cultivated was 265 acres, or 133 acres more than in 1897-98.

Assam.

The excise demand of Assam for the year 1898-99 and previous years was distributed thus:—

Receipts from	1896-97.	1897-98.	1898-99.
	£.	£.	£.
Country spirits - - - - -	36,785	35,108	41,805
Imported liquors and rum - - - - -	1,736	1,602	1,837
Opium and its compounds - - - - -	124,067	122,393	122,532
Ganja and its compounds - - - - -	23,524	23,740	25,447
Miscellaneous, including toddy, &c. - - -	750	189	118
TOTAL - - - - - £.	186,262	183,032	191,829

The fall in revenue of the previous year was more than compensated by the large increase of 1898-99, occurring chiefly under country spirits. These are for the most part consumed by the immigrant population, which has grown rapidly during the past few years. Owing to the sparse population of the province the central distillery system has not been introduced, and the out-still system everywhere prevails. Under this 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. Much of the liquor is weak, being sold at from six annas to one rupee per quart bottle, according to strength. The indigenous population consume chiefly opium and ganja, the use of the latter being especially prevalent in the two Surma Valley districts; and there is no demand for the other hemp drugs, known as *charas* and *bhang*. The figures of sale and consumption, so far as they can be given, are as follows:—

	1896-97.	1897-98.	1898-99.
Estimated consumption of country spirits, in gallons at London proof.	Figures not available.	Figures not available.	367,351
Consumption of licit opium, in maunds	1,330	1,332	1,342
" " ganja "	634	623	618
Shops licensed for retail sale of—			
Country spirits	218	217	218
Opium	804	758	751
Ganja	276	272	281

The amount of rum imported from the North-Western Provinces or from Bengal was 2,929 gallons; no rum was manufactured in the province. Licenses for the sale of rum and foreign spirits fell from 73 to 70 in number. There is a very limited consumption of toddy and rice-beer, which does not require notice.

The number of prosecutions under the excise and opium laws rose from 267 to 486, and convictions were obtained against 79 per cent. of the accused persons. The prosecutions included one important opium smuggling case, and 10 cases of illegal possession and sale of opium prepared for smoking; the large increase occurred chiefly under the heads of illegal manufacture, sale, or possession of country spirits or excise opium.

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

Receipts from	1896-97.	1897-98.	1898-99.
	£.	£.	£.
Country spirits	436,011	406,709	367,699
Toddy	468,308	479,082	462,711
Foreign liquors and miscellaneous	32,448	32,768	29,732
Opium and other drugs	55,193	52,444	55,143
TOTAL	991,960	971,003	915,285
Add,—Customs duties on imported liquors	73,368	73,283	64,445
TOTAL REVENUE FROM DRINK AND DRUGS	1,065,328	1,044,286	979,730

The total excise revenue showed a decrease of £55,719, and was 5.7 per cent. less than in the previous year; the cause is apparently decrease of consumption owing to an unfavourable season.

Excise.

The central distillery system is in force over the greater part of Madras, and the number of distilleries was 12 during the year, compared with 14 in 1897-98. In the Ganjam and Vizagapatam, and most of the Kistna and Malabar, and part of the South Canara districts the right of manufacture and supply at a fixed price to retail vendors was sold to a contractor. In the Godavari district and in other small tracts, containing a population of about 2½ millions, non-distillery systems are in force, but these areas are being restricted. Under these "renting" systems the right to retail spirit was sold, either with or apart from the manufacturing right, by areas or by separate shops. Still-head duty is levied on all spirits issued from contract or other distilleries; the rate varies, but generally speaking is Rs. 4½ per gallon at proof strength. Much of the spirit is made from sugar at large distilleries worked with modern appliances. 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 amount of toddy consumed in the Presidency cannot be stated; other figures of consumption and sale are as follows:—

	1896-97.	1897-98.	1898-99.
Consumption of country spirits, in gallons at London proof	1,204,444	1,112,675	949,697
" imported spirits, in gallons -	204,231	188,586	171,133
" opium, in maunds - - -	940	901	795
" hemp drugs - - - -	984	792	285
Shops licensed for retail sale of—			
Country spirits - - - - -	10,640	10,387	10,371
Toddy - - - - -	18,415	17,602	17,523
Opium - - - - -	1,129	1,067	1,059
Hemp drugs - - - - -	270	272	308

The most notable feature of these figures is the continued decline in amount of consumption and in number of shops, with the exception of ganja shops. In August 1897 the possession or transport of ganja was placed under restriction and unlicensed cultivation was prohibited, and in August 1898 an excise duty was imposed as follows: ganja Rs. 4 per seer, bhāng 8 annas, charas Rs. 6; to this is ascribed the decrease in consumption. No opium is cultivated in Madras, the supply being procured from Indore; the right to retail it is farmed. The number of persons sent for trial for offences against the excise laws was 21,360, against 21,743 in the previous year, and among these, 89 per cent. of convictions were obtained. Nearly half the excise cases reported during the year were for illicit manufacture of toddy. There were 45 prosecutions for smuggling intoxicating drugs, compared with three in 1897-98.

Bombay.

The central distillery system obtains through practically the whole of the Bombay Presidency, but it differs from the similar system of Madras. In the most prevalent form in Bombay, the monopolies of manufacture and sale of country spirit over an excise area are sold together to one contractor, and most of the revenue is obtained from still-head duties; in the Madras distillery system the monopoly of manufacture is separated from that of retail vend, and much of the revenue is obtained from the auction sale of shop licenses. 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. 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 general fiscal results of the excise management in Bombay, Sind, and Aden during the last three years were:—

Gross Receipts from	1896-97.	1897-98.	1898-99.
	£.	£.	£.
Locally-made liquors, including toddy	647,850	625,061	616,720
Foreign and Indo-European liquors	14,747	10,900	11,242
Opium	100,337	83,367	73,182
Intoxicating drugs	25,767	32,062	28,535
Miscellaneous items	7,369	6,439	6,276
TOTAL EXCISE REVENUE	796,070	757,829	735,955
Import duties on potable liquors for Bombay and Sind	117,483	121,000	189,319
TOTAL REVENUE FROM DRINK AND DRUGS	913,553	878,829	925,274

The rate of still-head duty ranges from Rs. 5½ to Rs. 1 per gallon of London proof spirit; and the average over the greater part of the presidency is about Rs. 3 per gallon. The incidence of excise revenue, excluding opium, per head of the population was 8½ annas in Bombay, and 6 annas in Sind. The details of consumption and sale in the Presidency were as follows:—

	1896-97.	1897-98.	1898-99.
Country spirit, in gallons at London proof	2,129,000	2,193,000	2,216,000
Shops licensed for sale of country spirit	2,810	2,823	2,818
" " toddy	1,313	1,294	1,876
" " opium	1,147	1,148	1,153
" " ganja	1,223	1,195	1,188
Licit consumption of opium, in maunds	1,534	1,469	1,392
" " hemp drugs, in maunds	6,881	6,740	4,775

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

	1896-97.	1897-98.	1898-99.
	£.	£.	£.
Country spirit and toddy	68,152	54,717	62,075
Foreign liquors	148	90	164
Miscellaneous	684	1,335	1,264
Opium	22,404	21,565	24,122
Ganja	1,455	1,520	1,880
TOTAL	87,843	79,227	89,505

The increase, as compared with 1897-98, is due to larger arrear collections and to greater success in collecting amounts due for the year; the demand on account of the year was rather less than in 1897-98. In 13 subdivisions, out of the 22 of which Berar is composed, the Bombay central distilling system was in force during the year, with a fixed price for spirits and a minimum guarantee. Under this system the wholesale and retail rights alike were sold to a contractor. From the end of the year a change was to come into opera-

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EXCISE.

tion, by which the Madras system is substituted, under which the right of retail vend is separated from that of manufacture and supply. The distillery area comprised the Ellichpur, Amraoti, and Akola districts and part of the Buldana district; the rest of Berar was supplied by out-stills. The considerable increase in receipts from country liquor was due to recovery of arrears, the consumption of distillery spirits having fallen, and the still-head duty remaining the same.

During the year new rules under the hemp drugs law came into force, by which a duty of Rs. 3 a seer was imposed on ganja, and R. 1 on bhang. These have resulted in a considerable decrease in the consumption of ganja in the year under report. New opium rules have been made, and will take effect during the year 1899. Figures relating to sale and consumption are given below:—

	1896-97.	1897-98.	1898-99.
Consumption of distillery spirit, in gallons at London proof.	125,700	166,300	147,800
Consumption of opium, in maunds - - - -	337	307	323
" " ganja " - - - -	531	595	119
Shops licensed for retail sale of—			
Country spirits - - - - -	1,105	1,141	1,118
Toddy - - - - -	971	971	971
Opium - - - - -	471	461	450
Hemp drugs - - - - -	138	127	163

Under the excise, hemp drugs, and opium laws, 220 convictions were obtained, which is the same number as in the previous year.

STAMPS.

STAMPS

The stamp revenue is leviable under Act VII. of 1870 (the Court Fees Act), which imposes fees on plaints, petitions, and other documents filed before civil, criminal, or revenue courts, and under Act I. of 1879 (the Stamp Act), which imposes duties on commercial transactions recorded in writing, such as conveyances, bonds, cheques, bills of exchange, receipts, and the like. The following table gives the stamps receipts, province by province, for the year 1898-99:—

	India, General.	Bengal.	North- Western Provinces and Oudh.	Punjab.	Burma.	Central Provinces.	Assam.	Madras.	Bombay.	TOTAL.
	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.
Sale of court fee stamps -	17,494	852,507	878,790	186,594	70,207	73,738	47,789	286,343	236,102	2,229,559
Sale of commercial and other stamps.	8,210	297,993	113,024	94,087	45,579	20,055	16,462	178,595	125,410	908,415
Fines and miscellaneous -	159	8,239	2,669	4,219	1,923	241	456	6,182	36,371	60,469
TOTAL Stamp Revenue of 1898-99 }	25,863	1,168,739	494,483	284,900	117,709	103,029	64,707	551,120	397,883	3,198,433
TOTAL of 1897-98 -	33,008	1,183,961	488,131	298,564	113,404	106,595	58,034	561,351	386,649	3,224,695

The refunds of the year were £36,760, and the charges of collection came to £98,500. The increase in revenue, which had varied during the four preceding years from 1 to 2 per cent., was checked in this year, and the receipts were nearly 1 per cent. lower than in 1897-98. This decrease was confined to commercial and other stamps, the receipts for which fell off considerably in Bengal, and to a greater or less degree in all provinces with the exception of Bombay.

CUSTOMS.

Import duties, which had been abolished in India in 1882, and were reimposed in 1894, amount, generally speaking, to 5 per cent. of the value of the goods. The chief, though not the only, exceptions are railway material and industrial machinery, food grains, raw materials such as coal, jute, or wool, and gold and unset precious stones, which are all admitted free of duty; petroleum, which pays one anna per gallon, and iron and steel, on which an import duty of 1 per cent. is levied. For a time cotton goods were exempted, but in December 1894 a five 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. A duty is levied on exported rice and rice-flour at the rate of three annas per maund of unhusked rice.

The appended table shows the net customs revenue for five 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 December; 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; and the three subsequent years 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:—

	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.
Sea Customs, import duty:	£.	£.	£.	£.	£.
Arms and ammunition -	10,126	11,403	13,113	11,805	9,343
Liquors - - - - -	406,355	440,609	437,874	430,826	462,020
Petroleum and other oils -	213,118	270,782	284,167	360,583	323,492
Cotton manufactures - -	256,631	776,483	593,788	522,845	558,043
Silver bullion and coin -	230,557	231,859	214,650	285,733	188,914
Other metals - - - - -	135,077	168,641	131,220	145,889	129,851
Other articles - - - - -	630,450	686,725	633,319	669,272	678,525
Export duty on rice - - -	504,018	609,581	491,513	472,857	658,026
Miscellaneous - - - - -	6,694	1,770	7,317	7,344	8,561
TOTAL Sea Customs -	2,483,026	3,197,913	2,811,951	2,925,214	3,016,774

CUSTOMS.

	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.
	£.	£.	£.	£.	£.
Land Customs - - - - -	15,884	13,307	16,766	20,032	13,445
Excise duty on cotton manufactures	6,897	40,632	72,773	75,930	90,208
Miscellaneous (including warehouse and wharf rents).	10,773	18,072	13,293	15,539	18,377
TOTAL Customs Revenue - £.	2,516,580	3,270,014	2,914,783	3,030,715	3,138,804

An Act imposing a duty on imports of bounty-fed sugar equivalent to the amount of the bounty received came into force on the 20th March 1899, but it had no appreciable effect on the receipts of the financial year 1898-99. These receipts showed a considerable increase over those of 1897-98, in spite of the falling off under petroleum; they are larger than those of any year except 1895-96, when an abnormal importation of cotton manufactures occurred.

Regarding the working of the excise duties on cotton goods, complete report is available for the Bombay Presidency, where 54 cotton factories produced excisable woven goods, including three hosiery factories, while 67 factories produced yarn only. The total output of the cotton mills in the British districts of Bombay for 1898-99 was 368 million lbs. of yarn and 82½ million lbs. of woven goods, these figures showing an increase of 14 per cent. and 12½ per cent. respectively as compared with the output of 1897-98. The excise revenue realised on cotton goods in Bombay was £75,000, as compared with £64,000 in the previous year. The loss of revenue in Bombay attributable to plague is estimated at about £6,700, which is considerably less than in the preceding year. Production of cotton goods, has partially recovered from the effects of the plague. Inspections were made of mills from time to time to secure correct return of goods; millowners 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 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 £2,610,000 in 1898-99, as against £2,444,000 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:—

PROVINCIAL RATES.

	India, General.	Bengal.	Assam.	North-Western Provinces and Oudh.	Punjab.	Central Provinces.	Burma.	Madras.	Bombay.	TOTAL.
REVENUE.										
District Local Funds—	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.
Cess on Land for expenditure on Roads, Schools, Hospitals, and general purposes.	1,300	300,532	43,882	404,335	155,109	31,345	86,311	371,920	190,323	1,585,147
Provincial:										
Cess on Land for expenditure on Roads, Schools, &c.	—	300,477	—	—	—	263	—	—	—	300,740
Cess on Land for Famine Assurance, Canals, and Railways.	—	—	—	91,640	40,758	12,484	—	—	—	144,882
Cess on Land for District Post	—	95,178	—	—	7,711	3,395	—	—	—	36,215
Cess on Land for Village Service and Patwaries.	2,196	—	—	178,083	94,637	36,170	—	138,487	30,887	480,466
Assessment on Wards' Estates for Establishment Charges.	—	13,514	—	—	1,388	—	—	—	—	14,902
Miscellaneous	4,888	—	—	43,471	408	—	—	3,044	—	82,410
TOTAL Receipts	8,474	639,701	43,882	717,629	300,011	83,593	86,311	514,051	231,210	2,014,762
Refunds and charges of collection	—	2,357	10	410	260	298	56	901	700	5,099
Net Receipts, 1898-99	8,474	637,344	43,872	717,119	299,751	83,297	86,255	513,050	229,510	2,009,663
Net Receipts, 1897-98	7,485	599,303	42,799	619,619	295,078	84,378	79,643	523,759	209,229	2,443,353

INCOME TAX.

There was no change in the income tax law (Act II. of 1886) during the year, or in the rate at which the tax was levied. The principal provisions of the Act are that incomes derived from salaries, pensions, and interest on securities, if amounting to Rs. 2,000 per annum, should pay five pie in the rupee (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.

INCOME TAX. General.

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

Provincial details.

	Gross Collections.	Refunds.	Net Receipts.	Charges for Assessment and Collection.
India, General	£. 96,939	£. 616	£. 96,323	£. 65
Bengal	345,052	1,541	343,511	12,799
North-Western Provinces and Oudh	164,635	1,766	162,869	222
Punjab	101,000	474	100,526	775
Burma	70,096	339	69,757	2,369
Central Provinces	32,075	170	31,905	62
Assam	22,374	30	22,344	130
Madras	185,938	1,285	184,653	1,929
Bombay	263,351	1,220	262,131	3,524
TOTAL, 1898-99	1,281,460	7,441	1,274,019	21,875
TOTAL, 1897-98	1,263,643	9,488	1,254,155	21,519

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INCOME TAX.
Bengal.

In Bengal the collections in 1898-99 amounted to £339,000, compared with £330,000 in the previous year. Setting aside £44,300 recovered from Government salaries and interest on Government securities, Calcutta contributed £146,000, which was 3 per cent. more than in 1897-98. The increase under Part IV. was small, and in Calcutta there was a slight decrease; the receipts were adversely affected in the neighbourhood of Calcutta by the plague scare and by a decline in the sugar manufacturing industry. More than half the assesseees had incomes between Rs. 500 and Rs. 750 per annum, and nearly 13 per cent. of the receipts were contributed by this class. The total number of objections against 115,643 assessments was 10,890, as compared with 11,036 in the previous year; 33·8 per cent. of the objectors were more or less successful, as against 33·3 per cent. in 1897-98; and the final demand was 2·4 per cent. below the original assessments.

The proportion of persons assessed to the total population of Bengal was 1 to 625, and the incidence of the tax was Rs. 44½ on each assessee. The number of distress warrants issued was 5,725, and property was sold in 324 cases.

North-Western
Provinces and
Oudh.

In the North-Western Provinces and Oudh the receipts for the year were £160,000, about the same as in 1897-98. Of this amount £31,000 accrued under Part I., and £119,500 under Part IV. The final number of assesseees in Part IV. was 64,174, objections having been sustained against 7¼ per cent. of the original assessments, resulting in a reduction of the demand by 5 per cent. The system of enlisting the aid of non-official assessors was given an extensive trial, and it has proved to be a valuable aid in assessment, especially in the direction of fair distribution, as the opinion of the assessors as to the comparative wealth of their neighbours is more to be trusted than their statement of the actual figures of the incomes. One person was assessed in every 689 of the population, and the average assessment per assessee was Rs. 34. Assesseees possessing an income of less than Rs. 750 per annum were 43 per cent. of the whole, and paid 14 per cent. of the amount levied.

Punjab.

The total receipts in the Punjab were £91,200, showing a slight decrease compared with the receipts of the previous year, mainly under Part IV. It is reported that in the previous year speculative dealings in grain had abnormally swollen the incomes which were assessed, and that the cessation of these transactions at the end of the famine accounts for smaller assessments in 1898-99, in spite of the increase of general prosperity. Objections were filed against 28 per cent., and were more or less successful in the case of 10 per cent. of the original assessments under Part IV.; the final demand was 6·7 per cent. less than the original demand, compared with 8·3 per cent. in the previous year. 18 per cent. of the total was paid by assesseees having an income less than Rs. 750 per annum.

Burma.

In Burma the Act was applied to four fresh villages during the year, and to officers of Government, and of the Burma Railways Company in the Shan States. The net collections rose from £60,000 to £67,000. Successful appeals under Part IV. reduced the original assessment by nearly 15 per cent.; in 1897-98 the reduction was over 20 per cent. The Act is reported to have been administered with greater care during the year; but the increased receipts are to some extent due to the inclusion for the first time of deductions made by the Burma Railways Company from their employeés' salaries. In Rangoon town 4,353 persons were originally assessed for a total of £19,500; but this was reduced by £2,800 by successful objections.

Assam.

In Assam the yield of the tax was higher than in any previous year, and 70 per cent. above the yield in 1886-87. The chief increase of the year occurred in Part IV., under which 13 per cent. more was realised than in 1897-98. The largest item was still the tax on salaries paid by companies, which constituted over 43 per cent. of the whole yield. The number of objections was 1,136 against 5,842 assessments; 410 objections were successful in whole or in part. The number of processes for the realisation of arrears was 494 below that of the previous year; and in 33 cases the property of defaulters was sold for arrears, against 34 in 1897-98.

The final assessment in Madras amounted to £171,500, showing an advance of 3 per cent. above the figures of 1897-98; under Part IV. one in every 389 of the population was taxed, the average amount per taxpayer being Rs. 29, and the amount collected was £127,000, compared with £118,500 in 1897-98. Against 72,818 assessments under Part IV. 27,531 objections were preferred, of which 22·7 per cent. were wholly or partly successful; and the final demand was 6 per cent. below the original assessment. In 42,839 cases notices had to be issued against defaulters, and in 573 cases property was sold on account of arrears.

In the city of Bombay, where nearly half the income tax of the Presidency is paid, the receipts on account of the year were £118,500 or 4 per cent. lower than in 1897-98, owing to the depression in the mill industry caused by the plague; the average incidence on each taxpayer in the city fell from Rs. 74 to Rs. 65, there having been a rise in the number of assessable salaries, chiefly in the lower classes. The total receipts, including arrears, throughout the Presidency were £256,600, or slightly more than in the previous year, the final demand having been about the same as in that year.

CHAPTER VI.

SURVEYS AND SETTLEMENTS.

SURVEYS.

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 1897-98.

The field operations of the year were carried on by two double and 17 ordinary parties. Of these, one party and one detachment were employed on trigonometrical surveys; seven parties on topographical surveys; one double and two ordinary parties on forest surveys; three parties on cadastral surveys; one double and one ordinary party on traverse surveys; and three parties on scientific operations. The operations of the Forest Survey Branch were continued in addition to the above.

Trigonometrical.

The party (No. 24) engaged on trigonometrical work in Baluchistan was attacked shortly after beginning work by Mekran insurgents, and was in consequence withdrawn. The work laid out in advance for the year comprised an area of 1,400 square miles, but final observations were only taken at four stations, and no triangulation was completed. A detachment of No. 25 party was employed in the Khasia and Garo hills in Assam, to ascertain what displacement, vertical or horizontal, had been caused by the earthquake of June 1897. Observations taken at 13 stations, over an area of 1,020 square miles, gave reason to suppose that the whole area had been displaced; the amount of displacement, as compared with unaffected areas, could not, therefore, be determined, but it appears to average, horizontally, about seven feet, and vertically to vary between a subsidence of 4·3 feet and an upheaval of 24 feet.

Topographical.

The parties engaged on topographical work accomplished in all 15,109 square miles of topographical survey, against 14,460 in the preceding year. Parties Nos. 10, 11, and 21 were engaged in Upper Burma, and the aggregate area completed by them amounted to 7,282 square miles on the 1-inch scale, and 1,752 square miles on the $\frac{1}{4}$ -inch scale, while 8,871 square miles were triangulated in advance. The Shan States country, in which these three parties were at work, is hilly and covered for the most part with forest, and the climate is unhealthy, so that the average outturn is considered very satisfactory. No. 12 party continued the survey of Sind on the 2-inch scale, and completed an area of 2,709 square miles. In addition to this, they surveyed an area of 1,477 square miles in Kalat for the Irrigation Department, on the same scale. The work of No. 15 party consisted in topographical survey of 1,857 square miles on the 1-inch scale, in the western portion of Sind, together with minor surveys. The Himalaya party, No. 18, surveyed 317 square miles on the 4-inch scale in Kangra, Kulu, and Sirmur, and 259 on the 2-inch scale in the Mandi, Suket, and Simla Hill States. Exceptional difficulties were presented by some parts of this country, and the weather was not favourable; the cost of

the 4-inch survey averaged Rs. 107½ per square mile. The observations have been tested and found to be good. The survey of the Lushai hills was begun by party No. 14. As there are no Great Trigonometrical Survey stations in these hills, a series of secondary triangles had to be made as a basis for detailed survey. Of the 170 miles over which this triangulation will have to be carried, 100 miles were covered during the year. A further area of 1,300 square miles was also triangulated in advance, but no detailed survey was completed. SURVEYS.

In Madras two Forest Survey parties (Nos. 9 and 19) were amalgamated, and completed detail survey on the 4-inch scale over 1,050 square miles, besides triangulation in advance over 2,331 square miles and traverse survey extending to 712 miles. The work was carried on in the North Coimbatore, Salem, South Arcot, Kurnool, and Cuddapah districts, a start being made in the latter by the triangulation of 900 square miles. In Bombay a party (No. 17) completed the following work: in the districts of North Kanara, 444 square miles of forest reserves on the 4-inch; in Thana, Nasik, and Kolaba, 204 square miles of teak forest on the 8-inch; and in Admednagar and Nasik, 29 square miles of babul reserves on the 16-inch scale. This was in addition to the usual amount of preliminary work, which was done by native agency. In Lower Burma, party No. 20 completed 406 square miles of detail survey on the 4-inch scale in the Pegu and Shwegyin reserves, and 118 square miles on the 2-inch scale in the unreserved forests on the Yenwe river. The Forest Survey Branch completed surveys over 1,735 square miles, chiefly on the 4-inch scale, in the Central Provinces, in the Chamba State, Punjab, and in Upper and Lower Burma; they also took in hand boundary surveys on the Nepal boundary and in Oudh. The total of forest surveys for the year amounts to 4,132 square miles, compared with 4,823 in 1896-97, a decrease due to the transfer of one party (No. 14) from forest to topographical work. Forest Survey.

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

Two parties (Nos. 22 and 23) resumed the determination of latitude on the group system, originated by Lieutenant Herschel, R.E. The work was done in the neighbourhood of Agra. Owing to the difficult nature of the country success was not complete, but the system is expected to prove highly valuable. The object in view is the determination of the direction and magnitude of the deviation of the plumb line in the area examined. Geodetic.

The number of new maps or sheets, and new editions, completed during the year was 319; these included 40 sheets of the Atlas of India (scale of 4 miles to the inch), and district and standard maps, especially of the Central Provinces. Map printing.

The recording of tidal curves by self-registering tide gauges, their reduction, and the publication of tide tables, were continued during the year at 13 stations, of which seven are permanent and six are temporary; during the year 1897-98 the Muscat Observatory was closed, and stations were opened at Perim and Porbandar. The tidal operations of the year are reported to have been successful. The number of Indian ports for which tide tables for 1899 have been published is 31. No levelling operations were in progress during the year, as the levelling detachment was employed, as above stated, in Assam in connection with the earthquake. Tidal and levelling operations.

The eclipse of the sun in January 1898 was observed at Dumraon by a detachment equipped with an equatorial camera, and good results were obtained. The parties which came from England to observe the eclipse were also aided by officers of the survey department. Astronomical.

A magnetic survey of India is under consideration, and steps are being taken to provide the necessary instruments and suitable observing stations. Magnetic.

In Upper Burma an area of 1,752 square miles was geographically surveyed, on the ¼-inch scale. The aggregate areas geographically surveyed during the year on the eastern and western frontiers amounted to 9,976 square miles. Officers of the department accompanied the Burma-China Boundary Commission, and the boundary north of the Taping river was successfully demarcated. Explorations.

SURVEYS.

Marine Survey.

The marine survey vessels "Investigator" and "Nancowry" began and completed a survey of the Moulmein river and approaches, and the "Nancowry" then proceeded to the Andaman Islands to continue the survey from the point to which it had been carried in 1897. The "Investigator" ran a meridian distance to the North Andamans from Rangoon, in order to test the longitude of the islands. Subsequently detailed examination was made of shoals in the neighbourhood of the Andamans, and a visit was paid to Invisible Bank.

Archæology.

The Archæological Survey of Western India toured in Kathiawar, and reported on temples at Than, Somanatha, Sejakpur, and elsewhere, including temples along the coast resembling the very old semi-classic temples of Kashmir. The expenditure on the conservation of antiquarian remains in the Bombay Presidency amounted to £530. In the North-Western Provinces attention was chiefly directed to the shrines and temples at Agra and Fatehpur Sikri, and reports were made with a view to conservation work. Some exploration was also done in the Nepal Terai. In the Punjab no archæological survey work was done during the year. In Madras in the early part of the year the survey work at Adoni in the Bellary district and at Conjeeveram was finished, and subsequently a tour was made among the temples in the Tinnevely and Cuddapah districts. A Report was under preparation describing the ancient palaces which have been surveyed. An Archæological Department was sanctioned for Burma during the year, and work was begun in 1899. Arrangements have been made for the furtherance of archæological efforts throughout India by the formation of a fund, to be called the International Indian Exploration Fund. The proceedings of the Association connected with this fund will be managed by a Central Council, of which the President of the Royal Asiatic Society is to be chairman. The Government of India welcomed the establishment of this fund, and promised assistance to the International Association.

Meteorology.

Meteorological observations were recorded during the year 1898-99 at 227 stations, of which 174 are maintained by the Government of India. Of these latter, four were first-class observations, and 38 second-class, 23 of the latter having been transferred to class 3, in which less frequent observations are taken. The number of visits of inspection made during the year was 67; five observatories were returned as very satisfactory, 33 as satisfactory, 19 as fair, and five as bad; and steps were taken to remedy defects. The area under observation embraces not only India, but the whole of the Arabian Sea and Indian Ocean down to Zanzibar and the Seychelles, and the area northwards up to Resht and Kashgar. Besides observing stations, inquiries are made from ships entering Indian ports, which give valuable meteorological data. The points investigated are rainfall, snowfall, barometric and thermometric readings, cloud movements, storms, and earthquakes; daily charts and weekly and monthly reviews, as well as seasonal forecasts and storm warnings are issued. The monthly reviews contained, among other information, rainfall data from 2,280 stations.

The forecast of the probable rainfall for the monsoon of 1898, published in June of that year, 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, Western Rajputana, and parts of Berar, Bombay, and the Punjab. This proved to be in very fair accordance with the facts, excepting that the rainfall in Berar, Central India, and Eastern Rajputana was less favourable than was expected. The only variations from the normal rainfall exceeding 20 per cent. were in Bihar (+ 21 per cent.), and in Rajputana and Berar (- 35 and - 30 per cent. respectively).

The forecast of the winter rains, from December 1898 to February 1899, was issued in December 1898, and predicted normal rainfall in Upper India, slight deficiency in the Gangetic plain, and slight excess in Central India and the Central Provinces. This was less accurate than the preceding forecast, as the rain was considerably below normal except in North-eastern India.

The average rainfall and the actual rainfall of the three years 1896 to 1898, SURVEYS, in the regions 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.	Actual Rainfall, 1898.
			<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	
Punjab Plains - - -	120,000	29	21·52	13·88	18·41	18·67
North-Western Provinces and Oudh.	83,500	44	37·49	23·69	41·39	43·35
Rajputana - - -	67,000	19	28·42	24·13	24·43	19·23
Central India States - - -	91,000	20	42·01	36·22	37·53	40·26
Bihar - - -	30,000	15	45·01	32·52	60·43	54·92
Western Bengal - - -	38,000	10	49·39	45·59	52·50	55·19
Lower Bengal - - -	54,000	28	66·64	62·86	64·53	70·38
Assam and Cachar - - -	61,000	16	96·39	78·26	94·48	89·80
Orissa and Northern Circars	27,000	16	48·00	38·36	52·10	47·85
Central Provinces, South - -	61,000	17	51·38	56·77	50·21	48·49
Berar and Khandesh - - -	43,000	13	35·96	31·97	32·72	28·50
Gujarat - - -	54,500	13	33·03	36·67	33·08	29·30
Sind and Cutch - - -	68,000	10	8·49	8·74	9·87	5·44
North Deccan - - -	48,000	13	30·54	30·51	33·12	35·40
Konkan and Ghâts - - -	16,000	11	138·92	160·41	152·28	150·62
Malabar and Ghâts - - -	18,000	8	113·89	134·92	146·33	107·79
Hyderabad - - -	74,000	15	32·71	23·36	28·72	30·57
Mysore and Bellary - - -	58,000	18	29·52	25·78	32·19	31·93
Carnatic - - -	72,000	37	36·06	38·23	32·25	47·65
Arakan - - -	11,000	7	148·04	137·21	144·47	142·15
Pegu - - -	32,500	7	71·95	75·94	72·91	71·25
Tenasserim - - -	10,500	4	172·38	199·78	177·65	178·30
Upper Burma - - -	?	13	38·73	33·31	35·67	37·81

Over the whole of India the rainfall of 1898 was ·39 inch above the normal, and the only regions in which it differed from the normal by so much as 10 per cent. were the Konkan and the Carnatic tracts, in which there was an excess amounting to 11·70 and 11·59 per cent. respectively.

Warnings of approaching storms are sent to ports on the Bay of Bengal from Calcutta, and to ports on the Arabian Sea coast from Simla. The revised system of storm signals introduced in 1898 provides for fuller signals being sent to the larger ports, the port authorities deciding in each case whether they will have the full or the less complete signals. On the Bay of Bengal 22 ports received warnings, three of them on the "brief" system. Warnings were sent of nine storms, only three of which were of much intensity. On the western side also 22 ports were warned, seven of them on the "extended" system. Only three unimportant storms were notified. The system of flood warnings to canal, civil, and railway officers, to military officers, and to private firms, continued to be useful; 313 such warnings were issued by the Meteorological Department during the year. The warnings are generally stated by the recipients to have been timely and satisfactory, but criticisms and suggestions are invited, and, in cases where they have been received, have been adopted.

The rainfall of the early part of the year 1899 was about normal in Burma, Bengal and Assam; but elsewhere it was in defect, or failed entirely. In some districts, as in Khandesh, no rain fell until April. In that month the rainfall was greater, except in Northern Bombay and the Punjab, than the normal, and in parts of Madras the fall was heavy. May was drier than usual, but the monsoon set in favourably in June, until towards the end of the month, when the rainfall on the west coast ceased. The monsoon current from the Bay of Bengal began to give good rain at the end of June, and continued to do so throughout July. But on the west coast and in the Punjab, Rajputana, Berar, the Central Provinces, Hyderabad and Madras, the rainfall of July and August was very seriously deficient, and in many districts hardly any rain fell. In Bengal, Assam, Burma and the North Western Provinces the fall had been above the normal amount, and in September there were showers which relieved the

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situation in Madras, Mysore and the Bombay Deccan ; but elsewhere the failure of the monsoon rains had caused almost total destruction of the crops. The winter rains fell nowhere until the middle of January, and then were confined to the North Western Provinces and Oudh and parts of the Punjab, Central India, the Central Provinces and Madras.

 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 subsoil 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 court-house; and usually a third copy is placed in the subdivisional 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 most recent Bengal report available brings the account of survey and settlement affairs down to September 1898; settlements were in progress in the three districts of 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. Bengal.

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 Wards' 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 £31,700. It is reported that the new assessments have been accepted by the zemindars 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 £12,000, 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 £4,300. The fair rents settled on Government estates in Noakhali during the year yielded an increase of £1,100, 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 4½ rupees per acre for occupancy ryots to 5½ 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 2½ 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 4½ rupees for occupancy ryots to 3½ 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 £79,000 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.

In the North-Western Provinces and Oudh assessments had by the end of the year been completed in all but seven districts, and in two of these operations are practically at an end. In the Meerut district rates were finally sanctioned during the year for six tracts resulting in an increase of 37 per cent., yielding £11,000: in Bahraich two revised settlements were declared, showing an increase of 57 per cent., or £9,800, and in Lalitpur two revised assessments yielding 9 per cent. more than the former demand. Elsewhere no settlements received sanction during the year, though work progressed satisfactorily. The cost of operations per square mile during the year nowhere exceeded 49 rupees.

The rent-rolls for all districts of the North-Western Provinces and Oudh show that the rental demand of the year 1896-97 was £8,115,000, out of which the landlords realised £6,389,000 during the year, £903,000 being 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 79 per cent. in 1897-98; in the latter year the proportion of collections was 76 per cent. in the North-Western Provinces, and 85 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:—

	North-Western Provinces.	Oudh.
	<i>Acres.</i>	<i>Acres.</i>
By cultivating proprietors - - - -	5,975,000	1,117,000
„ privileged tenants - - - -	940,000	377,000
„ ryots with occupancy rights - - -	8,794,000	110,000
„ tenants-at-will, or without declared rights -	10,872,000	6,980,000
„ rent free - - - -	503,000	365,000

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; they had been completed in one district, Dera Ghazi Khan, by the close of the previous year, and they were begun in part of the Hazara district. The Dera Ghazi Khan settlement resulted in an estimated increase of £7,500 in the revenue and its cost was £24,600. In Mooltan two-thirds of the total area had been surveyed, and it was hoped that the remainder would be finished in the ensuing year. The cost up to date had

been £12,900. In Montgomery survey operations had been closed, and settlement rates had been fixed for two tracts, showing an increase of £7,700. The total cost has been £10,000. The Jhelum district has been under settlement for three years, and the expenditure has been £16,400; no new rates were announced during the year. The other district under settlement, besides the Agror valley in the Hazara district, brought under settlement during the year, was Mozuffergarb, where survey operations were still in progress, and were being pushed on vigorously.

One party of the Survey of India was employed in the Toungoo district of Lower Burma, where 706 square miles were surveyed; a detachment of the same party surveyed 109 square miles in Upper Burma. The average cost of the whole was Rs. 344 per square mile. Locally trained surveyors were also engaged on the survey of grants of waste lands and on minor field to field operations. Burma.

Settlement was in progress over 807 square miles of the Toungoo district and in the Magwe, Sagaing, Meiktila, and Yamethin districts of Upper Burma; in the two last-mentioned districts the settlement operations are of a simplified character. Revision settlement operations were carried on over 710 square miles of the Hanthawaddy district, 812 square miles in Bassein, and 550 square miles in Pegu, the re-settlement work in the Myaungmya district having been completed; the operations included re-survey of considerable areas in each case. Revised assessments were sanctioned for 744 square miles in the Pegu district, giving an increase of 72 per cent., for 429 square miles in Myaungmya, giving an increase of £6,700, and 795 square miles in Bassein, £4,700. No fresh assessments were sanctioned in Upper Burma, but temporary rates have been introduced experimentally into some districts; a Settlement Commissioner has been appointed to expedite the work. The area under supplementary survey, that is, the area for which the field maps and records are tested and corrected yearly, increased from 22,269 to 22,974 square miles in Lower Burma, and from 4,693 to 7,027 square miles in Upper Burma. The 20 Government survey schools had 430 students on the rolls, including many sons of village headmen. The system of revenue collection by village headmen was introduced into 19 new circles during the year, and there are now 317 of these circles or groups of villages in which the system is in force.

Assessment operations were continued in five districts of the Central Provinces, and on the removal of the obstacles caused by famine good progress was made. In Seoni, and in Betul, the assessment work is finished, and has resulted in increases of 52 and 47 per cent. respectively in the revenue. In Bhandara, Nimar, and Balaghat the assessments up to the end of the year show increases of from 47 to 56 per cent. in the revenue. In Raipur and Chanda work had only recently been begun, and no assessments had been framed. The final reports on the Nagpur, Chindwara, Hoshangabad, and Saugor settlements were in preparation, and reports on the Damoh, Jubbulpore, Wardha, and Narsingpur settlements were awaiting submission. 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. Central Provinces.

A party (No. 6) of the Survey of India continued to be employed on traverse surveys in the Surma and Brahmaputra valleys, with a view to cadastral survey by local agency, as well as on traverse and topographical surveys of tracts in the Brahmaputra valley omitted from the cadastral survey. Under the first head a total of 128 square miles was completed by the party during the year, besides 1,248 square miles of survey under the second head. The work of the local surveying agency consisted, besides a plane table traverse of 27½ square miles in Syihet, of cadastral survey of 142 square miles. The re-settlement of the Jaintia parganas was brought into effect during the year; the increase of revenue will ultimately be 31 per cent., but this is to be distributed over several years. The cost of the settlement was £1,100. The Cachar re-settlement report was approved during the year. The enhancements amounted to 30½ per cent., leaving out of account extension of cultivation. Assam.

In Madras cadastral re-survey prior to re-settlement was in progress during the year 1898-99 in the Godavery, Kistna, and Kurnool districts, and the area Madras.

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SURVEYS.

covered was 404 square miles. Besides this work, 141 square miles of original survey was carried out in the Salem and Coimbatore districts over Government lands excluded from former surveys, and 99 square miles in proprietary estates, under the Act of 1897, which authorised the survey of such estates, either upon the request of the landholders or, in special cases, on the initiative of the Government. Special cadastral surveys of town lands in Tanjore and North Arcot were completed over areas amounting to 13 square miles.

The work was done under the Madras Survey Department in five divisions, and the outturn, as shown above, compares favourably with that of 1897-98. It was still found, however, that the agency of the village accountants (*karnams*) was in some instances unsatisfactory, and constant supervision is needed. An increase in their pay was sanctioned during the year. The re-survey of the Godavery district has now been completed; in Kistna and Kurnool 1,729 and 4,095 square miles respectively remain to be done; there is also an area of 3,708 square miles on lands excluded from former surveys awaiting completion. For the ensuing year four survey parties were sanctioned, and the estimated outturn is fixed at 1,838 square miles of survey and re-survey altogether. The number of copies of survey and other maps struck off during 1898-99 was 307,000, or 34,000 more than in 1897-98. The final report on the re-settlement of the Trichinopoly district was submitted during the year. The total cost of the operations was £16,700, and the amount of increase in the revenue was £29,000 or 30 per cent. The general basis for the increase was the great rise of prices of produce since the last settlement. The re-settlement is for a term of 30 years. The total outlay on survey and settlement, since operations began in 1858, has been £2,417,700; while the net increase of revenue secured has been £600,000, or 25 per cent. on the outlay.

Bombay.

In Bombay, where survey and settlement work are approaching completion, 15 survey sections employed in Gujarat, the Deccan, and the Konkan, during the year 1898-99, measured an area of 730 square miles and classified 812 square miles. The revision survey in Broach and the Panch mahals was completed, and progress was made in the Nasik, Belgaum, Satara, Kolaba, and Thana districts. Besides this, cultivable waste land was being measured and broken up into blocks in Sind. Revised settlements were introduced into five tracts and six alienated villages in Bombay, besides one tract in the Bhor State. After the end of the financial year revised settlements were introduced into 18 tracts, containing 1,482 villages, with a total increase of 27 per cent. on the previous revenue; also into five alienated villages. The total approximate cost of the Bombay revision settlement up to the 31st March 1899 was £471,000; this expenditure has resulted in an increase in the revenue demand of £293,500, or 30 per cent. on the former revenue, being equal to a return of 62 per cent. on the total expenditure. In Sind the work of the year consisted of the preparation of revised irrigation settlements in seven tracts and the introduction of revised rates into seven tracts.

Berar.

Particulars of the re-settlement operations which are in progress in Berar were given in last year's Statement. In order to hasten the close of the survey operations, an extra party was employed for one year, and the outturn of work was increased. The number of villages completed rose to 1,526, and the area entirely or partially re-measured was 25,700 acres, while old work of the 1861-67 survey was confirmed over 2,323,000 acres. The work was done very cheaply, only costing Rs. 11½ per square mile. Settlement registers were completed in 367 villages. The proposals for revision settlement of one taluka in the Buldana district were finally sanctioned during the year.

CHAPTER VII.

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

LAND REVENUE.

THE subjoined table shows the receipts and disbursements on account of land revenue for each province, as entered in the public accounts for the year 1898-99.

DETAILS of LAND REVENUE and EXPENDITURE.

	India, General.	Bengal.	North-Western Provinces and Oudh.	Punjab.	Burma.	Central Provinces.	Assam.	Madras.	Bombay.	TOTAL.
REVENUE.										
Ordinary Land Revenue - -	£. 80,500	£. 2,577,884	£. 4,462,099	£. 1,689,464	£. 984,059	£. 579,635	£. 397,796	£. 3,687,744	£. 2,547,094	£. 16,906,968
Recovery of Survey and Settlement Charges.	—	48,683	—	—	—	—	—	—	—	48,683
Sale of Proprietary Right of Government in Land.	39	96	66	1,783	—	—	56	—	—	1,440
Assessment of alienated lands, less quit-rents.	—	5,568	—	16,323	—	—	—	—	651,847	673,638
Sale of Waste Lands and Redemption of Land Revenue.	189	13,622	11,017	84,006	4,404	—	1,701	861	—	116,800
Capitation Tax, or House Tax levied in lieu.	1,111	872	—	—	680,669	—	—	—	—	682,669
Receipts for the Improvement of Government Estates.	—	37,469	—	—	—	—	—	—	—	37,469
Fisheries and other Receipts classed as Miscellaneous.	8,477	12,830	29,907	63,805	202,362	2,972	29,388	146,326	18,201	513,767
Total Gross Revenue - Rs.	99,316	2,696,524	4,503,089	1,754,681	1,871,487	582,607	418,941	3,834,930	3,217,142	18,279,717
<i>Deduct</i> portion credited to Public Works for Irrigation.	—	—	78,332	46,265	—	—	—	476,088	72,811	672,506
Total credited to Land Revenue for 1898-99 - £.	99,316	2,696,524	4,424,757	1,710,416	1,871,487	582,607	418,941	3,358,842	3,144,331	18,607,211
Total for 1897-98 - £.	99,103	2,682,146	3,734,787	1,635,819	1,764,180	445,170	397,415	3,291,882	3,102,478	17,122,430
EXPENDITURE.										
District Administration - -	17,520	203,280	230,000	128,682	128,069	52,310	88,784	264,048	185,916	1,249,602
Survey and Settlement - -	9,819	76,516	27,086	30,581	46,487	18,335	4,747	26,203	28,100	268,840
Land Records and Agriculture - -	6,061	5,326	241,790	103,478	30,078	30,183	18,357	127,535	139,088	705,876
Charges directly connected with the collection of Land Revenue.	1,555	32,147	12,861	6,677	110,087	872	10,043	220,129	84,074	477,465
Total Charges in India - £.	34,955	317,269	511,737	269,398	313,694	110,700	86,931	639,921	437,158	2,701,783
Charges in England - - - - -	—	—	—	—	—	—	—	—	—	£. 1,257
Total Charges - - - - -	—	—	—	—	—	—	—	—	—	£. 2,703,040

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 £2,850,000 a year; and it is fixed periodically, for terms of 12 to 0.66.

LAND REVENUE.

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 1897-98. The figures are in thousands of acres:—

	Rayatwari (peasant Proprietors).	Zamindari (larger Proprietors) and Village Communities.		Total.	Transfers.
		Permanently settled.	Temporarily settled.		
Upper Burma - - -	50,756	—	6	50,762	20
Lower Burma - - -	53,317	5	155	53,477	450
Assam - - - - -	21,388	3,930	1,166	26,484	73
Bengal - - - - -	—	81,879	16,136	98,015	*
North-Western Provinces	—	6,160	46,437	52,597	919
Oudh - - - - -	—	1,113	14,225	15,338	188
Punjab - - - - -	—	—	70,975	70,975	1,089
Sind - - - - -	29,959	—	—	29,959	*
Bombay - - - - -	44,881	—	3,944	48,825	*
Central Provinces	1,248	—	42,867	44,115	570
Madras - - - - -	60,846	29,528	—	90,374	450

* Figures 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 the North-West Provinces the incidence is about Rs. 1½ per acre of cultivated land; in Madras it is considerably lower than this. 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; the average incidence of the land revenue as given in the returns is Rs. 2 in the North-Western Provinces and Oudh, Rs. 1½ in the Panjab, Rs. 2 in Lower Burma, Rs. 2¼ in Assam, Rs. 2⅔ in Sind, Rs. 1½ in Bombay, 10½ annas in the Central Provinces, and Rs. 2½ in Madras. 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. In Sind and Madras the land revenue rates given above include the charge for irrigation supplied by the State; elsewhere payment for water, supplied by State canals

or reservoirs for purposes of irrigation; is made over and above the land revenue, either according to the area irrigated or according to the quantity of water used; but the State demand on any land is not enhanced on account of increased productiveness due to improvements made by the proprietors or occupiers themselves.

The receipts of the year 1898-99 exceeded the total of 1895-96, the year before the famine, which hitherto had shown the largest total. But some part of the increase of the year was due to the recovery of revenues the payment of which was suspended during the famine, which were to a large extent paid off during the year. The increase of the land revenue in past years may be seen in the following table:—

	Land Revenue Receipts excluding Receipts due to Irrigation.	Increase or Decrease.
	£	Per Cent.
1861-65 (five years' average) - - -	13,287,000	
1866-70 " " - - -	13,227,000	+0.3
1871-75 " " - - -	13,977,000	+5.0
1876-80 " " (includes the great famine of South India) - - -	14,076,000	+0.7
1881-85 " " - - -	14,748,000	+4.8
1886-90 " " - - -	15,444,000	+4.7
1891-95 " " - - -	16,521,000	+7.0
1895-96 - - - - -	17,467,000	+5.7
1896-97 (famine year) - - - - -	15,983,000	-8.5
1897-98 - - - - -	17,123,000	+7.1
1898-99 - - - - -	18,806,000	+6.9

A part of the increase during later years was due to the acquisition of Upper Burma, which yielded £111,000 of land revenue in the year 1886-87, and £593,000 in the year 1898-99.

The progress of the land revenue, the condition of the landed classes, and the relations of these classes to each other are now noticed province by province. The figures are taken from the land revenue reports, and differ in some instances slightly from those given above, which are from the corrected Accounts of the Government of India.

The rainfall of 1898-99 was generally in excess of the normal all over Bengal, owing to exceptionally heavy rain in August and September. The weather was also favourable to the spring crop of 1899. The early autumn crops, consisting chiefly of millets and rice, yielded a good normal return; the winter rice crop was above the normal; and the spring crops, which covered an area of 15 millions of acres, compared with 14½ millions in 1897-98, also gave a good yield.

The collections of land revenue during the last three years resulted as follows:—

	1896-97.	1897-98.	1898-99.
	£	£	£
Demand on account of current year	2,587,537	2,594,544	2,625,884
" " arrears	80,810	95,344	110,176
Collection on account of current year	2,499,074	2,499,530	2,535,626
" " arrears	66,455	77,094	84,168
Remissions	11,546	9,950	12,924

The total amount collected during the year under report was 99½ per cent. on the current demand; it would have been higher, but for the Chittagong 0.66.

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LAND REVENUE.

cyclone of October 1897, which occasioned considerable remissions and short collections in that division. The current demand for the three years was thus distributed :—

	1896-97.	1897-98.	1898-99.
	£	£	£
Permanently settled estates - - -	2,153,486.	2,153,586	2,154,654
Temporarily settled estates - - -	192,992	194,504	211,066
Estates held direct from Government -	237,060	246,454	260,166

The increase under Class II. was chiefly due to the Orissa Settlements, and that under Class III. to resettlements and good harvests. Land was sold for arrears in 1,790 cases out of 21,433 cases in which estates became liable to sale under the law.

Under the Public Demands Recovery Act, 211,300 certificates were filed for recovery of arrears of revenue, cesses, &c., compared with 172,800 in the previous year; attached property was sold in 6,317 cases, and 52 defaulters were imprisoned. Defaulters may deposit the amount due with a penalty within 30 days after the sale of the property, and thus have the sale set aside. This procedure is said to have diminished competition among bidders at the sales.

The revaluation of the rental, for the purposes of the road cess, is practically complete for the whole province. The gross rental of the 43 districts of Bengal in which the Act was in force was returned for road cess purposes at £11,025,000 for the year 1898-99, as compared with £8,755,000 for 40 districts in 1873. No districts showed any decrease in rental at the revaluations completed during the year under review. The registration of landowners had previously been completed for the whole of Bengal; the total number of interests registered under the initial registration is 989,039, and the percentage of transfers by succession or otherwise during the year was 5.8 on the total number of interests recorded at the initial registration. The corresponding percentages in each of the two previous years was 6.7 and 6.9.

The number of estates under Government management was 2,817, of which 239 belonged to private individuals. The cost of management was £16,400, or 6.3 of the current revenue demand, and £14,200 was spent on works of improvement, besides other sums on education and roads. The condition of the tenants on Government estates is reported to have been generally good.

Advances to agriculturists under the Loans Acts amounted to £4,000 only, as compared with £104,000 during the year 1897-98, in which the effect of the famine was still felt.

The Bengal Tenancy Act continues to work smoothly, and the relations between landlords and tenants were, on the whole, fairly satisfactory. The Board of Revenue, however, are of opinion that, owing, among other reasons, to the general spread of education, the improvement of communications, the gradual weakening of the caste system, and the introduction of the Bengal Tenancy Act, the old personal or patriarchal relations between landlords and tenants are rapidly being replaced by relations based solely on law and contract.

The latest report on land revenue affairs in the North-West Provinces and Oudh pertains to the year ending 30th September 1898. The season was a favourable one, in spite of deficient rain in July and January, and two good crops were harvested. Among cereals, maize, bajra, wheat, and barley, gave a good normal out-turn, and other crops were little below this standard, including the important rice crop; cotton and indigo yielded only three-fourths of a full crop.

The total area of crops was 40,142,000 acres, as compared with 36,907,000 acres in 1896-97, the year of bad harvests, and with 40,136,000 acres in 1895-96.

North-West
Provinces
and Oudh.

The demand and collections of land revenue in the North-Western Provinces and Oudh for the last three years, also of various rates, cesses, and other sources of income connected with the land, are given as follows :—

	1895-96.	1896-97.	1897-98.
	£	£	£
Current demand :			
Land revenue - - - - -	4,020,528	4,059,466	4,077,324
Rates, cesses, &c. - - - - -	1,146,996	1,400,814	1,472,214
Collection on account of the current year :			
Land revenue - - - - -	3,824,332	3,077,098	4,000,210
Rates, cesses, &c. - - - - -	1,100,606	1,208,980	1,364,268
Total receipts under all heads - - - - -	5,961,770	4,358,674	5,695,068

These figures show a satisfactory recovery from the disasters of the previous years. In spite of enhancements of demand owing to revision, the amount collected was more than 97 per cent. of the demand; of the recoverable balance, nearly half was outstanding in the Allahabad division, which suffered severely in the famine year.

The total number of coercive processes of all kinds was 60,236, against a total of 47,726 during the preceding year, and attachments of property for arrears were 13,341 as compared with 10,387. The previous year's troubles had necessitated very lenient treatment, and the increase is to be considered as a return to the usual state of things, and not as showing special difficulties in the recovery of dues in the year under report.

The suits instituted under the Rent Law, both in the North-Western Provinces and in Oudh, show a large increase over the figures of 1896-97, which is ascribed to the landlord's desire to realise arrears of rent, while tenants on the other hand, hoped that nonpayment might lead to remission. Suits for arrears of rent constituted in the North-Western provinces 91 per cent., and in Oudh 74 per cent. of the total number.

There was a decline in the total number of land transfers, as compared with the previous year, owing to the return of agricultural prosperity; but the following table shows that there has lately been a steady increase in the number, putting aside transfers by order of court or by succession :—

	Sale of Revenue Paying Land.		Mortgages.	
	N.W.P.	Oudh.	N.W.P.	Oudh.
1893-94 - - - - -	17,107	2,530	7,655	6,483
1894-95 - - - - -	17,052	2,717	8,256	7,144
1895-96 - - - - -	20,030	3,070	9,486	8,255
1896-97 - - - - -	22,599	3,487	13,388	8,205
1897-98 - - - - -	21,329	4,035	12,077	8,606

The number of loans sanctioned under the Land Improvement Loans Act of 1883 fell from 151,543 to 293, the total amount lent having been only £3,600; under the Agriculturists Loans Act, £23,600 were advanced during the year, against £149,800 in the previous year. The outstanding amounts of principal and interest under both Acts, at the end of the year, were £186,000, a large part of the heavy outstandings of 1896-97 having been recovered.

The latest Punjab land revenue report is for the year ending on the 30th September 1898. The harvests of that year were good; the autumn harvest exceptionally good, and the area of crops, nearly 26 millions of acres, had only once been exceeded in the last decade. The area under irrigation was also abnormally high, amounting to 9½ millions of acres, which was 8½ per cent. above the figure for the previous year of drought.

LAND REVENUE.

The area under wheat, the chief crop of the Punjab, rose 16½ per cent. in 1897-98, as compared with the average. Prices of food grains fell to the normal level.

The regular land revenue collections on account of the year were nearly 16 per cent. above the collections of the previous year, or £1,552,000 in all. The amount under suspension at the beginning of the year was £164,000, and £10,400 were suspended during the year. Out of this, £82,000 have been recovered during the year. The number of writs and warrants issued against defaulters rose from 40,837 to 45,363. As in other provinces, this increase is ascribed partly to the claim for arrears, and partly to the belief of the people, founded on the leniency of the previous year, that failure to pay would result in remission or suspension of the revenue.

Half of the cultivated land is now held by rent-paying tenants. In 1887-88 the proportion so held was 38 per cent.; and it has grown steadily since that date. At the same time, the number of tenants-at-will has been increasing, until in the year under report, it was 80.5 per cent. of the total number of tenants; and of tenants-at-will, again, an increasing proportion pay rents in kind.

The following table gives details regarding transfers of land during recent years:—

	Area of Cultivated Land			Average Prices realised per Acre of Cultivated Land sold.
	Mortgaged.	Redeemed.	Sold.	
	Acres.	Acres.	Acres.	Rs.
Average of five years 1888-1893	381,760	211,936	164,952	54
1893-94	465,410	317,458	218,703	56
1894-95	432,573	259,564	185,823	64
1895-96	453,661	292,503	203,469	59
1896-97	471,809	309,572	199,160	71
1897-98	554,959	413,412	218,940	73

The area sold to "new agriculturists" was 5 per cent. less than in the previous year, and amounted to 16.4 per cent. of the area sold; other sales and mortgages show a considerable increase in the year under report. The average prices given above are not absolutely accurate, but they may be taken as showing broadly the proportionate increase in land values.

The tenancy question is not a burning one in the Punjab, and the number of suits under the Tenancy Act for enhancement of rents fell again from 779 to 511; the number of ejectments of tenants-at-will by order of the revenue courts rose from 6,259 to 6,813, but these figures still remain unimportant. The rates of cash rent showed no appreciable variation from the figures given last year; rents in kind vary between 50 and 25 per cent. of the produce.

The following table shows the course of land prices in the Punjab for 37 years:—

	Price per Acre of Cultivated Revenue Paying Land.	Number of Years' Purchase of the Land Revenue which the Price represents.
Average for the period 1861-65	Rs. (approx.) 7	9
" " 1866-71	11	18
" " 1871-75	16	20
" " 1876-81	19	28
" " 1881-86	18	36
" " 1889-92	57	54
" " 1893-97	65	62
" " 1897-98	73	70

Over the Punjab proper, excluding the Delhi territory, the area of cultivated land has risen in the same period from 13½ millions to 21½ millions of acres.

Although the year 1898-99 shows an increasing revenue and extended cultivation, the season was a somewhat disappointing one in Lower Burma, owing to the early cessation of the rains; and in Upper Burma, though the season was on the whole an average one, the crops suffered considerably from the same cause. In Lower Burma the gross demand under the various heads was as follows:—

LAND REVENUE.
Burma.

	1897-98.	1898-99.
	£.	£.
Land	834,204	867,916
Capitation tax	278,472	289,058
Fisheries	116,004	125,196
Other sources	20,194	21,795
Total	1,248,874	1,303,965

The increase in land revenue proper was due chiefly to the extension of the cultivated area, owing to the good harvests of the two preceding years, but revision of rates in one subdivision also contributed; under capitation tax the growth is due to the increased number of assesses, of whom three-fourths are agriculturists. In Upper Burma the gross revenue demand was—

	1897-98.	1898-99.
	£.	£.
Household tax	340,956	396,792
State land	99,236	106,852
Miscellaneous	83,662	91,270
Total	523,854	594,914

This large increase was chiefly due to the restoration of the full rates (Rs. 10 per household) of the *thathameda* or household tax, and it was to some extent counterbalanced by the larger remissions, amounting to Rs. 36,196, rendered necessary by the early cessation of the rains. The revenue from the State lands is levied either by assessment or by a rent fixed at a share of the produce; extension of cultivation and a better outturn account for the increase. About one-fifth of the occupied area in Lower Burma was worked by tenants at an average rent, paid generally in kind, equal to about Rs. 8 per acre, which is less than one-third of the gross produce. Legislation has been proposed with a view to secure reasonable permanence of occupancy to these tenants. There was an increase during the year in the areas sold and mortgaged, and in some of the coast districts a considerable amount of land is now held by non-agriculturists and non-Burmans. The price of paddy at Rangoon ranged from Rs. 85 to Rs. 105 per 100 baskets; there was a steady decline at the end of the year, and the inland prices of rice fell in a corresponding manner.

The latest land revenue report from the Central Provinces is for the year ending in September 1898. The monsoon of 1897 was singularly favourable, and the autumn harvest specially good; large millet gave a bumper outturn, and there was a good crop of rice. Of other important crops, cotton and sesamum yielded a normal outturn, but the sugarcane crop was below the average. The winter rains were short, and the wheat and pulse crops were below the average. The yield of the year for the province as a whole was 5 per cent. above the normal, and only the districts of Saugor, Hoshangabad, and Balaghat fell much below it.

Central Provinces.

LAND REVENUE.

The figures given in the margin afford a comparison between the results of the harvests of the last six years, taking into account both area and yield.

Owing to the difficulty of obtaining seed grain, the area cropped, though larger than in 1896-97, was only $16\frac{1}{2}$ millions of acres, 9 per cent. below the amount, 18 millions, which is taken as the normal. Of the year's total, 30 per cent. was under the more valuable spring crops, compared with 44 per cent. in 1893-94; and the proportion of wheat to other spring crops has also fallen very considerably during the last few years.

Prices fell rapidly after the autumn harvest had been gathered, and the good year favourably affected the physical condition of the people, but the recovery as regards their resources was less complete. Loans were made by Government for agricultural purposes during the year to the extent of £82,300, and the amount outstanding at the end of the year, *i.e.*, in September 1898, was £187,000. The ordinary revenue demand for the year was £566,800, and 94 per cent. of it was collected. The arrears left over from the famine amounted to £255,200, of which £64,000 were collected during the year, and nearly half the balance, or £93,800, was remitted, besides £7,800 from the current year's demand. The demand under miscellaneous heads of land revenue was £20,000, of which 71 per cent. was collected. The number of sales of moveable property for non-payment of dues rose from 115 to 198. The areas sold or mortgaged during the last three years compare as follows:—

	1895-96.	1896-97.	1897-98.
	Acres.	Acres.	Acres.
Private sales - - -	385,945	337,044	301,470
Sales by order of court - -	142,184	84,944	111,936
Mortgages - - -	97,198	64,651	96,642

The number of suits under the Rent and Tenancy Law, which fell from 16,049 to 14,145 in 1896-97, rose again in 1897-98 to 14,449.

Assam.

In the Assam Valley, the season 1898-99 was a favourable one. The rainfall was sufficient in most districts, and the rice crop, which forms two-thirds of the total crops, was generally good, but the outturn of tea was not satisfactory. The prices of food grains, which were high in the previous year, fell generally, the fall being specially marked in the case of rice, which was in some districts more than 50 per cent. cheaper. The revenue demand for the year was £384,500, and the arrears to be recovered were £32,200; of these amounts, $92\frac{1}{2}$ per cent. was realised. The number of sales of land for non-payment of revenue rose from 166 to 299, and those of moveable property from 307 to 538. The schemes which have been under consideration for the colonisation of waste lands in Assam with a view to the relief of over-populated districts in Behar and Bengal again occupied attention during the year. No great progress has as yet been made in regard to this question, which is complicated by the as yet unsettled question of tenancy legislation in Assam.

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; but the rain was badly distributed. The total area under crop was $27\frac{1}{2}$ 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.

The land revenue receipts for the year ending June 1898 rose from £3,589,000 to £3,694,000, and the revenue was promptly collected in almost every district. Of the total demand, £332,000 was due from permanently settled estates, and £49,000 from villages held under special tenures, the remainder coming for the most part from the assessment and water rate paid by peasant proprietors. Remissions were granted to the amount of £32,700 on lands where the crops failed. The outstanding arrears of revenue were £223,000 in June 1897, but had been reduced by June 1898 to £137,000. The number of demand notices issued was large, owing to the arrears of famine years which fell to be collected. The area of land sold for arrears was 25,400 acres, against 21,500 in the previous year, when the area was exceptionally small; 9,500 acres were bought in by the Government.

LAND REVENUE.

The season of 1898-99 is reported to have been, on the whole, favourable in the Bombay Presidency, although the rainfall was not so good towards the end of it, and crops were below normal in most districts. In Sind, the inundation was one of the worst on record, and where there were no canals the crops failed generally, and fodder was scarce. Prices of food grains, with few exceptions, fell everywhere. The amount of land revenue for collection fell from £2,718,000 to £2,590,000, owing partly to the arrears included in the demand of 1897-98, and partly to the unfavourable season in Sind. Collections up to the end of the year amounted to £2,507,000, including £46,000 for arrears. The number of distraints for nonpayment of land revenue rose from 1,446 to 3,156; but there were only 85 in Sind. The amount of land revenue remitted was £34,000. The sums advanced by Government to cultivators amounted to £55,000 only, compared with £153,000 in the previous year; but of this amount the Sind cultivators, who had no advances in 1897-98, received £14,700, chiefly for the purchase of seed and cattle.

Bombay.

The season of 1898-99 in Berar, although the rainfall was again short, was fairly favourable for the autumn crop, but the spring crops failed generally. The outturn of millets was good, but, owing to the very low prices of food grains, the cultivator benefited little, and the best result was an increase of 33 per cent. in the stock of millet in the province, which was of special importance in view of the famine at the end of 1899. The area cropped was 6,787,000 acres, of which 84 per cent. was under autumn crops. The collections on account of land revenue and local rates were £522,000, against £501,000 in the previous year. The land revenue is moderately assessed in Berar, and nearly the whole amount demanded was collected. The number of fields sold for arrears due was 178, personal property was sold in 64 cases, and one defaulter was imprisoned. Voluntary sales of land were high as in the previous year, an area of 162,000 acres being thus transferred, on an average price of 16 times the assessment.

Berar.

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 1898-99 the number of estates managed by Courts of Wards in different parts of British India was 1,153, with a total annual income of £1,771,000. The period for which an estate remains under the Court of Wards is generally from 10 to 12 years.

WARDS' ESTATES.

WARDS' ESTATES,
Bengal.

In Bengal, 67 wards' estates and 68 attached estates, or six less than in the preceding year, were under the management of the Court of Wards, with a total rental of £803,000; the collections on account of the current rental came to 66 per cent. on the current demand as in the preceding year. Twenty-one of the estates had a rental demand of over £3,500, and six of over £14,000. Eight estates were taken under management and seven were released; of the latter, only one was of importance, the income amounting to £4,200 per annum, and for this estate debts to the amount of £10,400 had been paid off before the estate was handed over, out of a total debt of £11,700. The management charges of the estates under the Court for the whole of the year amounted to 7 per cent. of the current rental demand. There was spent on schools and dispensaries, on surveys, and improvement and maintenance of estates, a sum of £52,600, £113,000 for the maintenance of the wards, and £4,700 on their education. Debts to the amount of £91,800 were paid off during the year, and the outstanding debts due from all wards' estates were £849,000 at the close of the year. The cash balances at credit of the estates were £152,400 on the 31st March 1899, and the investments in Government securities were valued at £451,000.

North-Western
Provinces and
Oudh.

The number of estates under the Court of Wards in the North-Western Provinces and Oudh for the whole or part of the year ending in September 1898 was 207, with a yearly rental of £502,000. Twenty-eight fresh estates were taken under management; 13 estates were restored to their proprietors during the year, in all but three of which the financial position had been much improved during the term of management; the other three were hopelessly bankrupt. The land revenue and local rates due upon the estates came to 45 per cent. upon the gross rental, or £226,000 in all. The total debts of the estates amounted to £2,410,000, of which £693,000 has been paid off, and £787,000 replaced by loans at a lower rate of interest. The cost of management averaged 6 per cent. on the total receipts, compared with 7 per cent. in 1896-97, and 9 per cent. in the two preceding years. The amount spent on improvements was £11,300, rather more than in 1896-97, but there was a large decrease in advances to tenants in comparison with those issued in the famine year, which were to a large extent recovered during the year under report. Of the current rental of the year 86 per cent. was collected, leaving the total balance, current and arrear, at £163,000.

Punjab.

At the end of September 1898 the number of estates under the management of the Punjab Court of Wards had been reduced from 100 to 70, owing to the release of certain insignificant properties not properly within the province of the Court; besides these, five estates and half a sixth were released, and six estates brought under the Court during the year. Five of the estates have an income of over £3,500 a year, and six of them have an area of more than 10,000 acres. The gross income of the estates was £73,000; and the expenditure, including repayments of debt, was £51,000. The cost of management was 8 per cent., against 11 per cent. in the previous year, of the gross income. £9,300 were spent out of income on paying off debts and interest; the debts of all the wards, which had been £131,000, were reduced to £45,000 by the end of the year. Investments made in behalf of wards amounted to £15,200. The expenditure on works of improvement was £3,600, and on the personal expenses and education of wards, £13,000.

Central Provinces.

In the Central Provinces the number of estates under the management of the Court of Wards at the end of the revenue year 1897-98, *i.e.* in September 1898, was 178, six estates having been released and 12 taken under management during the year. Of the released estates, the most important was one with a rent roll of £4,300, which was handed over to the proprietor on attainment of his majority. The estates under management throughout the year numbered 166, with a gross aggregate income of £119,000, the effect of the good crops being shown in largely increased collections of revenue and better progress in repayment of debt. The current expenditure was £109,000, of which £49,000 was for Government revenue and cesses, and £21,000 for personal expenses of wards. Substantial aid was given to cultivators in advances of cash and grain. The total indebtedness of the estates under management at the close of the year was over £166,000.

Three estates in Madras were handed over during the year, and 39 remained under control of the Court at the end of the year. Of those handed over one had been under management for 21 years; £1,500 had been spent on irrigation, and the revenue had increased 16 per cent.; for another, £12,000 of debts had been recovered, and £1,400 paid off; the third was a small estate. The season was, on the whole, favourable on most of the estates; 689,000 acres, or 91 per cent. of the total area of all holdings on these estates was cultivated. The rent collections on account of the current year amounted to £143,000, or 85 per cent. on the current demand; the demand on account of arrears amounted to £146,000, of which £29,800 were collected during the year. The cost of management and of State assistance came to 11½ per cent. on the total receipts of the year. The balance at the credit of all estates, invested and uninvested, at the end of the year was £333,000. The debts due by the estates at the end of the year were £118,400. The expenditure on works of irrigation and other improvements was £18,400. The education of the 52 wards, 46 male and 6 female, received due attention. A Bill was introduced, and passed soon after the end of the year, to permit the Court of Wards to take charge of encumbered estates when the owners apply to be declared incapacitated to manage them; the Bill was intended chiefly for the benefit of the owners of ancient properties.

WARDS' ESTATES.
Madras.

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

	No.	Aggregate Income.
		£.
(1.) Estates under the Court of Wards, outside Guzerat -	43	12,800
(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	31,200
(3.) Encumbered estates in Sind - - - - -	2	800

Outside Guzerat the estates were of small area.

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 were £53,800. Payments to creditors were £10,400; £14,200 were paid as Government land revenue; maintenance of the owners and their families cost £20,000; and £10,400 was the amount of uncollected balance at the close of the year. Each minor talukdar was receiving education either at the Jubilee Institute at Ahmedabad or at village schools. The income of the talukdari villages under revenue charge amounted to £27,400. Under the Guzerat Talukdars' Act of 1888, loans to the amount of about £6,500 were sanctioned; applications for permission to borrow £2,000 were rejected. Of the two encumbered estates in Sind, both were in the Karachi district, and of small value, and one was released.

There were no wards' estates under the management of public officers in—
 Burma, Berar, Burma, &c.
 Assam, Ajmere,
 during the year.

CHAPTER VIII.

FORESTS.

FORESTS.

THE subjoined tables give the forest receipts, expenditure, and net revenue for each province during the year 1898-99 :—

	India, General.	Bengal.	North Western Provinces and Oudh.	Punjab.	Burma.	Central Provinces.	Assam.	Madras.	Bombay.	TOTAL.
REVENUE.	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.
Receipts - - -	28,938	61,822	104,536	98,296	556,726	66,340	26,339	140,702	153,010	1,239,909
EXPENDITURE.										
General direction - -	5,551	—	—	—	—	—	—	—	—	5,551
Conservancy and Works -	13,683	12,489	36,716	34,102	97,244	21,438	7,401	51,084	58,778	332,936
Establishments, &c. - -	10,457	10,933	28,086	22,921	64,502	36,651	12,950	55,228	63,839	314,567
Charges in England - -	7,431	—	—	—	—	—	—	—	—	7,431
TOTAL Expenditure -	37,122	32,422	64,802	57,023	161,746	58,089	20,351	106,312	122,617	660,184
Net Revenue or Forest Surplus, 1898-99 -)	— 3,184	32,400	39,734	41,273	394,980	8,251	6,188	34,390	30,393	579,425
Net Revenue or Forest Surplus, 1897-98 -)	— 220	36,723	31,255	19,769	334,577	— 9,426	6,400	37,576	36,231	491,886

General.

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. 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. 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.

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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 1899.

In Bengal, at the end of the year, the area of reserved and protected forests were 5,881 and 3,816 square miles, the latter figure showing an increase, owing to the inclusion of forests in the Angul district. Working plans had been sanctioned by the end of the year for 4,425 square miles of forest, and were being compiled for 293 square miles; there was, therefore, an area of 4,967 square miles of reserved or protected forests for which they have still to be made. The year 1898-99 was favourable for natural reproduction, and the area of plantations and nurseries rose to 6,380 acres. Attempt was made to exclude fire from 2,089 square miles, and the effort succeeded over 98 per cent. of that area. The yield of the forests rose under all heads, timber from 4,905,000 cubic feet to 6,420,000 cubic feet, and other produce in a less proportion. Of fuel, 32,249,000 cubic feet were extracted, the number of bamboos was 20 $\frac{3}{4}$ millions, and the minor produce, including grazing, was valued at nearly £20,000. The sales of railway sleepers from the Singbhum forests ceased during the year, but the general prosperity of the country, especially in the Sunderbans, was such as to cause the above increase in the output. The financial results, if the amounts received for the sleepers in former years are eliminated, were equally favourable, the surplus for the financial year 1898-99 being £32,400. A difficult question, which is receiving attention, is the regulation of grazing in protected forests.

Bengal.

The reserved forests of the North-Western Provinces and Oudh rose from 3,851 to 4,005 square miles in 1898-99, including 152 square miles of leased forests; there was also an area of 9,249 square miles of protected forests under the Forest Department at the end of the year. Satisfactory progress was made in the preparation of working plans, and only 163 square miles remained to be taken in hand. The question of the forest policy in the provinces has been carefully investigated in recent years, and steps have been taken to bring it into full accord with the prescribed principles of management. Protection from fire was attempted over 3,082 square miles, or three-quarters of the forests, and it was successful over 96 per cent. of that area; the year was not a good one for these operations. The yield of the forests was 4,086,000 cubic feet of timber and 10,858,000 cubic feet of fuel, about 7 per cent. and 45 per cent. respectively in advance of the yield of 1897-98. The forest receipts were £110,000, and the expenditure was £63,600, leaving a surplus of £43,100, compared with a surplus of £34,100 in the previous year.

North-Western Provinces and Oudh.

At the end of 1898-99 the reserved forest area of the Panjab was 3,019 square miles, besides 4,724 square miles of protected and unclassed forests,

Panjab.

FORESTS.

a large area in Shahpur having been added to the reserves for administrative purposes. The survey of the reserved Himalayan and other forests was continued during the year. A working plan for the Kulu forests received sanction, and seven others were in different stages of preparation. The year, on the whole, was favourable as regards forest fires, and the only division in which they raged to any extent was Rawalpindi; the area burnt was 7 per cent. of the total area under the Forest Department, the number of fires falling from 366 to 311. Natural reproduction was generally good, excepting in Kulu, where deodar seed was badly attacked by insects. The area of regular plantations remained at 696 acres, as in 1897-98, but the area under cultural operations rose from 3,951 to 5,056 acres. The total yield of the forests for the year was returned at 3,238,000 cubic feet of deodar and pine timber and 32,059,000 cubic feet of firewood, or nearly 11 per cent. more timber, and about 7 per cent. more firewood than in 1897-98; over 27½ millions of cubic feet of timber and fuel were removed by free-grantees and right-holders without charge, 5 millions were worked out by Government agency, and 1½ millions by purchasers. The total forest revenue of the year was £97,000, against an outlay of £60,000, yielding a surplus of £37,000, as compared with £25,000 in 1897-98.

Burma.

The system under which the Burma forests are worked came under reconsideration during the year. The monopoly of teak extraction in defined areas is granted to contractors, who pay a tonnage royalty, and become the owners of the timber extracted. There are also departmental contractors, who work on behalf of the Government. It was decided that the system should be continued. An addition of 962 miles was made to the reserved forest area during 1898-99, bringing it up to 15,669 square miles. It is in contemplation to include a further area of over 1,100 square miles of the Shan States in the reserves. The privilege of cultivating hill gardens has been secured to forest tribes over 478 square miles of the reserved forests. A survey of India party was at work, and completed a large amount of traverse survey, and detail survey on the 4-inch scale was also in hand in several districts. The preparation of working plans made good progress. Fire protection operations were attempted over 3,157 square miles, and were successful in 77 per cent. of that area; special efforts were to be made to prevent fires in the ensuing year. The plantations, chiefly teak, now cover about 87 square miles, 3,969 acres having been added during the year. The quantity of teak extracted by the principal lessees from the forests held by them under the system above described fell from 257,500 to 199,300 tons; and, besides this, over 200,000 tons were taken out by Government agency or by purchasers. The total of teak exports from Burma were 268,300 tons, compared with 273,400 tons in 1897-98, and the average value per ton is stated at £5¾, compared with £6 in that year. The forest receipts were £557,000, and the expenditure was £157,000, leaving a surplus of £399,000, which was 45 per cent. above the average surplus for each of the last five years. The advance was due partly to an increase in the catch licenses but mainly to the larger amount of timber of all kinds removed from the forests.

Central Provinces.

The area of reserved forest in the Central Provinces was 19,115 square miles, of which 12,848 square miles were at the end of the year 1898-99 classed as A. or permanent reserves, and 6,082 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. The Forest Survey parties turned out 1,780 square miles of detailed survey, leaving a balance of 4,798 square miles still to be done. The whole of the Northern Circle was being managed in accordance with provisional working plans and in the Southern Circle plans have been finally sanctioned for 67 per cent. of the area. Fire was excluded from 92 per cent. of the 5,484 square miles over which special fire protection was attempted, and from 85 per cent. of that protected. Natural reproduction was good in the Southern Circle, but indifferent in the Northern, owing to the attack of the teak-defoliating moth. 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. The number of animals grazed in the forests was 1,950,000, of which 5,500 only

were allowed into the forests without fee, as the year was not one of famine. The amount of timber and fuel removed from the forests by purchasers during the year was 11,651,000 cubic feet, as compared with 11,469,000 in 1897-98. Departmental operations were much larger than in that year, but the amount issued by free grant fell from 1,602,000 to 520,000 cubic feet. The forest revenue of the year was £66,200, against an expenditure of £57,500, leaving a surplus of £8,700, compared with a deficit of £1,400 in 1897-98. FORESTS.

The State forests in Assam are reserved forests and unclassed State forests, the latter including lands recently cultivated and all lands at the disposal of the State not included in reserved forests. A decrease of 53 square miles occurred in the area of reserved forests, which stood at 3,537 square miles at the end of the year, while the area of unclassed forests was 26,673 square miles. Three of the reserved forests are worked under sanctioned working plans, but for the rest, yearly plans of operations are drawn up; the plans were carried out except in some cases when the demand for timber was too weak. Fire protective measures extended over 1,204 square miles, and were almost completely successful. A large portion of the produce of the forests consists of sal trees (*shorea robusta*); there are also plantations of rubber trees, some of which were tapped experimentally during the year with good results. The total of timber and fuel sold to traders from all the forests during the year was 19½ millions of cubic feet, against 16½ millions in 1897-98, and the revenue from other products was 5 per cent. higher than in that year; the forest surplus rose from £5,700 to £7,900. ASSAM.

Nearly a quarter of the total area of Berar is classed as State forests, which in 1898-99 covered 4,175 square miles, including 1,555 square miles of timber and fuel reserves, 89 of fodder and thatching grass, and 2,531 of pasture. The forests yielded 474,000 cubic feet of timber, which was 121,000 cubic feet more than in 1897-98, and the out-turn of fuel rose by 36 per cent. and that of bamboos by 40 per cent. Working plans are complete for 725 square miles, and are in hand for 371 square miles, while the residue is worked at present under provisional plans. The season was favourable to forest fires, and protection was consequently more difficult, the area of success being 96 per cent. in place of 99 per cent.; considering the difficulties, the result is considered very satisfactory. The surplus receipts were £12,700. BERAR.

Areas amounting in all to 1,113 square miles were added to the reserved forests of Madras, owing chiefly to the transfer of 1,015 square miles from the reserved lands. The net result is an increase of 341 square miles in the reserved area at the end of June, 1899, so that now includes nearly 38 per cent. of the unoccupied area of the presidency. Two parties of the Survey of India were employed during the year, and covered 986 square miles of forest reserves, while 1,573 miles of permanent demarcation were completed. Protection from fire was undertaken over 5,126 square miles, and was successful in 96 per cent. of that area. The year was favourable for natural reproduction, and the coppice growth was excellent. The timber plantations consist of teak in Malabar, eucalyptus on the Nilgiri and Palni hills, and casuarina on the eastern coast. The yield of the forests according to the returns was 2,676,000 cubic feet of timber, and 13,380,000 cubic feet of fuel, besides 26 million bamboos and other minor produce; the timber out-turn was rather larger, and the fuel out-turn considerably larger, than in the previous year, but the number of bamboos was less. The value of the timber and other produce removed by purchasers fell from £107,900 to £101,200; the total receipts were £138,300, which was rather less than in 1897-98; and the surplus was £32,000. MADRAS.

At the end of the forest year 1899 the area of the reserved forests in Bombay was 12,748 square miles, besides 1,514 square miles of protected forests. A party of the Survey of India continued its work in three forest circles of the Presidency, and completed 677 square miles of detail survey and 164 miles of traversing, besides triangulation over 718 square miles. In each of the forest

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FORESTS.

circles permanent working plans were being prepared ; while further progress was made with the demarcation of the forest into compartments for working in rotation. There was no sensible improvement respecting the frequency of forest fires, while in Sind the area burnt was nearly six times that of 1897-98. Considerable progress was, however, made in fire conservancy measures. Natural reproduction was satisfactory in all circles except in Sind, where a low inundation and scanty rainfall retarded growth. The total expenditure amounted to £125,000, and left a surplus of £29,000, the central circle only showing a small deficit on the year's working. The forest surplus in 1897-98 had been £37,000.

Coorg.

The area of reserved forests in Coorg was 238 square miles, as in 1897-98, besides 648 square miles of other forests ; the chief timbers are teak and sandalwood. The greater part of the Coorg reserves is now under regular working plans, of which one received sanction during the year, while plans for three forests and for the sandal wood forests were under preparation during the year. The number of fires fell from 32 to 23, covering an area of 6,000 acres. There was a decrease in the quantity of timber removed from the forests, which amounted, including all the forests, to 169,000 cubic feet, compared with 241,500 cubic feet in 1897-98. The quantity of sandal wood extracted from the forests was 143, as compared with 58 tons in the previous year. The forest surplus rose from £2,900 to £5,000.

CHAPTER 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 following table is intended to show what are the staple crops of each province, as given in the returns for 1897-98 ; in cases in which the percentage is less than one, the column has been left blank, and in all cases fractions have been neglected :—

PROVINCE.	Total Crop Area.	Percentage of the Crop Area of each Province under										
		Food-Grains.						Oil-seeds.	Sugar.	Cotton.	Jute.	Indigo.
		Rice.	Wheat.	Barley.	Millet and Maize.	Gram.	Other.					
Upper Burma	Acres. 3,007,806	46	—	—	25	2	5	13	—	4	—	—
Lower Burma	6,479,253	91	—	—	—	—	—	—	—	—	—	—
Assam	2,472,784	66	—	—	—	—	2	7	—	—	—	—
Bengal	66,796,700	61	2	2	5	2	8	6	2	—	2	1
North-Western Provinces	28,471,006	14	15	19	18	12	14	2	2	2	—	1
Oudh	10,757,831	22	14	12	12	11	21	2	2	—	—	—
Punjab	25,810,149	2	80	—	26	10	8	4	1	4	—	—
Sind	4,069,601	22	14	—	38	2	5	12	—	2	—	—
Bombay	24,312,877	7	6	—	66	2	12	6	—	9	—	—
Central Provinces	16,528,231	24	13	—	14	5	21	11	—	4	—	—
Bihar	6,663,884	—	6	—	45	2	5	6	—	32	—	—
Madras	27,212,086	26	—	—	33	—	21	6	—	6	—	1

Particulars as to the relative distribution of the area under each staple among the various provinces are given below under the heading "Agricultural Produce." Of other crops, not mentioned in the above statement, occupying a small area, but of great value, Bengal grows a large quantity of opium, tea, tobacco, and garden produce; Assam of tea; the North-Western Provinces and Oudh of opium; Madras of tobacco and garden produce; and the fodder crop of the Punjab covered 4 per cent. of the crop area.

The following provincial details refer, unless it is otherwise stated, to the year 1898-99, and therefore differ frequently from the particulars given in the Land Revenue part of this statement, where the year under discussion is in several cases an earlier one.

The season of 1898-99 in Bengal was generally very favourable, both in the case of the autumn and of the spring crops. Exceptionally heavy rain fell in August and September, and the average fall throughout the province for the year was in excess of the normal. The area under autumn crops was 16½ millions of acres, or 3 per cent. higher than in the preceding year; and nearly 15 millions were sown with spring crops, against 14½ in 1897-98; this included 996,000 acres under sugar-cane, against 974,000 in 1897-98, and there was also an increase in the acreage under wheat, which amounted to 1,600,000 acres. The out-turn at both seasons was a full crop, the autumn

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crop being well above the average. and the only serious damage suffered having been caused in North Behar by floods in September. The autumn crops of 1899 were not so satisfactory, and are estimated to yield 67 per cent. of a full normal out-turn.

At the Botanical Gardens at Calcutta special attention was, as usual, given to plants of economic importance, numbers of rhea, rubber, and other useful plants being distributed. The Superintendent has been engaged in a botanical examination of various leguminous plants, but the results have not yet been published. Many other investigations relating to soils and crops were carried out through local officers, and referred to the Reporter on Economic Products, who also published a revised pamphlet on the cultivation of rhea. Inquiries as to the sugar industry appear to show that the importation of foreign sugars reduced the price of refined sugar in the Indian market, and seriously affected the Indian sugar refining industry, but that the price of unrefined sugar did not fall, and the area under sugar-cane was not diminished in the past few years.

At the experimental farms on the Burdwan and Dumraon 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 been converted into a demonstration farm for the agricultural classes at Sibpur College; it was not suitable for an experimental farm. On the Dumraon farm experiments with wheat were continued; four Central Provinces varieties which had been grown in previous years, were excluded owing to their great liability to attack by rust. There was an outbreak of this pest on the farm during the year, chiefly confined to two of the six varieties grown. Agricultural experiments are also undertaken or encouraged on many Government, Wards', and private estates throughout Bengal.

A fresh scheme was inaugurated by the silk firms of Murshidabad, the centre of the silk industry in Bengal, for the more general adoption of Pasteur's system of silkworm rearing. It received assistance from the Government, and made a favourable commencement in 1898-99, several rearers having learnt this scientific method, chiefly by the agency of scholarships offered at the Rampur Boalia Industrial School. It is hoped that the devastations caused by pebrine and muscardine may thus be checked, and that these diseases may eventually be wholly eradicated.

There is no land record staff in Bengal, but in the tracts which are not permanently settled, and which have been cadastrally surveyed, a considerable amount of statistical information is available as to cultivation, stocks, and crops. Reference has already been made, in the Registration chapter of this statement to the working of the Bengal Land Records Maintenance Act of 1895.

North-Western
Provinces and
Oudh.

The agricultural year 1897-98 was very favourable in the North-Western Provinces and Oudh, and two remarkably good crops were harvested, which did much to accelerate the recovery of the population after the preceding bad seasons. The monsoon of 1898 was also good, although it was weak in September, and the result was a good autumn harvest, which was, however, not quite up to the level of that of 1897. The total area under crops in 1897-98, 29½ millions of acres, was higher than it had been since 1894-95, when the area was 31 millions of acres; 4½ millions were under wheat, 4½ millions under rice, 3½ millions under barley, and 8½ under pulse. Prices of food grains had by June 1898 regained their normal level. The agricultural statistics of the year were filed by the 29,500 village accountants under the control of the Land Records Department, of whom 85 per cent. had passed through school courses, while many of the remainder had been specially exempted.

At the Cawnpore Agricultural Station experiments were conducted which seem to show the special value of nitrogenous manures for maize and wheat, or of a leguminous crop preceding a crop of wheat; some of the varieties of American cotton appeared to have deteriorated; American rust-proof wheat was tried, and escaped an attack of rust which prevailed in the neighbourhood. The Meerut farm, the management of which was taken over by the District Board in April 1898, was made a centre for the distribution of improved seed, and was also used for manure experiments and for the maintenance of a small

stud of stallions and a bull. On three tracts, the soil of which is damaged by saline efflorescence experiments were continued with some success, as it has been found that valuable trees can be cultivated by the use of deep holes filled with a better soil; broadcast sowings, however, were generally unsuccessful. Dairy experiments are now left entirely to private industry, and the Government dairy farm at Cherat, in the Aligarh district, has been sold. AGRICULTURE.

The monsoon rains of 1898 in the Punjab were not so good or so well distributed as those of 1897, and sowings for the autumn crop were delayed in consequence; the September rainfall was also deficient, so that the ploughing for the spring crop was retarded, and the subsequent climatic conditions were unfavourable to the spring harvest. The area of crops harvested was $20\frac{3}{4}$ millions of acres, as compared with $25\frac{1}{4}$ millions in the good year 1897-98 and an average of $22\frac{2}{8}$ millions in the 10 preceding years; $9\frac{1}{4}$ millions of acres were under autumn crops, while spring crops were taken from $11\frac{1}{2}$ millions of acres, of which nearly $5\frac{7}{8}$ millions were irrigated by canals, tanks, or wells. Punjab.

Colonisation on the Chenab Canal, the extension of the Western Jumna and Sirhind Canals, and construction of new canals elsewhere, have resulted in the following increase of the area irrigated by Government canals during recent years:—

	Acres.		Acres.		Acres.
1892-93	2,550,441	1894-95	2,567,982	1896-97	3,733,267
1893-94	2,523,378	1895-96	3,161,008	1897-98	4,395,453

The average "cultivated area" of the last five years, including current fallows, is 27 millions of acres, compared with an average of $25\frac{3}{4}$ millions for the previous quinquennial period; deducting areas which were fallow, or on which crops failed, and adding the area cropped twice, the average area of crops gathered is $23\frac{1}{4}$ millions of acres in the earlier period, and $22\frac{3}{4}$ millions in the last five years, in spite of the disastrous failures of crops in the years 1895-96 and 1896-97.

The number of village accountants employed under the Land Records Department was 8,350, practically all of whom have passed the prescribed examination. It is again reported that the standard of work is rising, and that there is a tendency towards improvement in the *morale* of the men. Records of rights were under preparation in Muzaffargarh and in some other limited tracts, and crop abstracts were filed with fair punctuality.

Trials of American corn were continued during the year; the sowings were made in April, and the average out-turn was considerably higher than in the previous year. Palestine wheat also gave a better yield, though it was still far below that of five years ago. Experiments with young fruit trees were in progress in the Government Agri-Horticultural Gardens, and a good measure of success was attained, though more time is required for definite results.

The monsoon of 1898 was a plentiful one, the rainfall in many districts being above the average; the falls of August and September were heavy and continuous, especially in some of the northern districts. But during October and until February rain was deficient, and the season was therefore unfavourable for the spring crops. The crop area rose from $16\frac{1}{2}$ to 17 millions of acres in 1898-99, and of this 654,000 acres were irrigated from tanks and wells. In the famine year, 1896-97, the area irrigated was 790,000 acres. Rice occupied about five millions of acres in 1898-99, although the ground lost in the famine in this respect had not yet been made up. The same may be said of wheat, which occupied $2\frac{1}{2}$ millions of acres; the out-turn of wheat was not good. In spite of the improvement in the area cropped, it was still considerably below the figures of the years 1892-93 and 1893-94, in which the crop areas were $17\frac{3}{4}$ and $18\frac{1}{8}$ millions of acres respectively. Central Province.

Experiments were continued at the Nagpur farm, but unfavourable weather prevailed, and the results were not important; the chief crop grown was wheat. The agricultural class is filling well, and with the right kind of students.

The revision of the Land Records arrangements in the Central Provinces was by the end of September 1898 fairly complete in all districts but one, for which

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preliminary proposals were under consideration; 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 reports on the working of these village officials are fairly satisfactory, though the list of fines and other punishments for neglect of their duties is still a large one.

Burma.

The rainfall of 1898-99 showed a deficiency towards the end of the season, both in Upper and in Lower Burma, but the latter division of the province suffered most. The area under crops in Lower Burma rose, partly in consequence of the preceding favourable season, from $6\frac{1}{2}$ to $6\frac{3}{4}$ millions of acres, of which over six millions were under rice. The yield of rice was rather disappointing, owing to the early cessation of the rains; prices rose in the middle of the year, but declined considerably before its close. The total exports of rice from Lower Burma were 1,819,000 tons in 1898, and 1,377,000 tons in the first ten months of 1899; but the former figure was exceptionally high, the average of the ten years 1889-98 being 1,342,000 tons. In Upper Burma the harvest was, on the whole, an average one, and the price of rice was everywhere low. The potato industry in the Southern Shan States continued to thrive, but the attempt to grow wheat there has not as yet met with much success. Experiments have been made in growing American tobacco, but without much success.

The Land Records Department in Lower Burma has recently been reorganised and increased, and it has now been decided to apply the system to Upper Burma, which will necessitate a further increase of the staff. For admission to the lower grade of the department a certificate is required, to be obtained at one of the survey schools, and a practical surveying course is also necessary.

Assam.

In Assam the rainfall of 1898-99 was below that of the previous year, but it was above the average in the Brahmaputra Valley. Both early and late rice turned out well, the latter being a bumper crop. The cotton crop was about the average, but the outturn of tea was not satisfactory. Prices of food grains fell generally. The area under crops in 1897-98 was about $2\frac{1}{2}$ millions of acres, of which two-thirds were under rice.

At the newly started Shillong experimental farm, a large variety of crops were grown, the chief results of the year being the successful conversion of the wild hill grasses into useful silage. The soil, however, was too poor for success with most of the crops tried. Other noteworthy experiments were the cultivation of a patch of rhea on a tea estate at Golaghat, and of jute and sisal hemp on other estates.

The number of village officials under the Land Records Department was 1,139, and although there are various defects it is considered that the fundamental objects of the system are being attained with fair success. Cadastral maps and land records are maintained in spite of the shifting of cultivation so prevalent in the province. Satisfactory progress is being made in the introduction of a system of inquiry into and tabulation of agricultural conditions. The number of pupils who gained certificates during the year 1898-99 at the three survey schools was 132, the highest in the last 10 years; of the total number of village officials given above, 1,031 have obtained certificates of qualification in surveying.

Madras.

The season of 1898-99 was generally favourable for agriculture in the Madras Presidency, with the exception of parts of the Deccan districts, where deficient rainfall caused partial failure of crops. The crop area, excluding permanently settled estates and those held on exceptional tenures, rose from 26 to $26\frac{1}{2}$ millions of acres, the latter figure being above the average of the previous five years. The area of irrigated land under cultivation was five millions of acres. The rice crop, covering $6\frac{1}{10}$ millions of acres, gave a good yield, equal to the normal. Owing to the good harvest, and to the cessation of the abnormal exports of grain, the prices of food grains fell generally, though they were still above the average of the ten years, 1881-90. The advances to agriculturists for improvements or the purchase of fodder and

cattle amounted to £81,800, and the outstanding Government loans for these purposes were about £311,000 at the end of the year. AGRICULTURE.

The Land Records Department maintained survey schools in nearly all the subdivisions of 19 districts of Madras, and 10,054 village accountants were instructed in the surveying and demarcation of fields; while 607 out of the 634 revenue inspectors in the province have also been trained to survey lands and correct land records. The work of the Department was increased by the inspections in connection with famine operations in part of the Nellore district. The village statistical register books for the revenue year 1897-98 were prepared and checked everywhere except in part of North Arcot. A proposal was made during the year to establish eight experimental farms in the presidency, and two were to be started as early as possible. The farm at the Saidapet Agricultural College is maintained for educational and not for experimental purposes. Experiments were conducted in various parts with the sisal hemp plant. Sugar cane disease was investigated, and a large quantity of fresh ground-nut seed imported, as it was thought that the indigenous seed had deteriorated. At the Saidapet College there were 46 students, and the course consisted of lectures in agricultural science, field work, and of veterinary instruction. The question of agricultural education received much attention during the year.

The rainfall in Bombay was, on the whole, sufficient, and crops were generally about normal; but in Sind the inundation was very bad, and there was an almost entire failure of crops in areas where there were no canals. The area sown with crops in 1898-99 in the Presidency proper was 24,689,000 acres, of which 47 per cent. was under millet, and 18 per cent. under non-food crops. The chief alterations as compared with the year 1897-98 were increases of 32 per cent. in the area under wheat, and of 19 per cent. in the area of cotton, while the millet area fell $7\frac{1}{2}$ per cent. Prices relapsed to a low level in almost every case. The irrigated area, 3,419,000 acres, was rather smaller than in the less favourable year preceding; it consists chiefly of lands in Sind irrigated by canals, but 561,000 acres were irrigated from wells in the Presidency proper. Bombay.

At the Poona demonstration farm the season was, on the whole, favourable though the rainfall was light. Experiments were conducted with various fodder crops, with Egyptian cotton, the seedlings of which were destroyed by a heavy rainfall, indigenous varieties being unharmed, and with rhea, the cost of growing and preparing which appeared to be so heavy that it is doubtful whether the crop can be profitably introduced into the Deccan. At the Surat farm experiments as to rotation of crops were continued, and striking results were obtained in the prevention of fungoid disease in cereals by steeping the seed in sulphate of copper or in hot water. A large number of other experiments were also made, both at these farms and by revenue officers in the several districts.

Government loans to cultivators for permanent improvements and the purchase of seed and cattle amounted to £55,500, or £98,500 less than in 1897-98 as the famine conditions which necessitated the large grants in the two preceding years no longer existed; a large portion of the allotments remained unutilised for want of applicants. Of the amount advanced, £22,500 was for purchase of seed and cattle, and £32,500 for permanent improvements. The Government report that the advances were generally found to have been utilised for the purposes for which they were granted.

The rainfall in 1898-99 was short for the third successive year, being 28 per cent. below the average of normal years; it was, however, satisfactory in the beginning of the year, and the autumn crops, on the whole, did well; the spring crops were not good, and considerable distress was caused by the scarcity of drinking water in most districts. Cotton yielded very well, and millet, the chief food staple, gave a good crop. Prices of food grains fell to a low level, so that in spite of the good harvest the year was not a prosperous one for cultivators, and probably little was done by them in the reduction of debt. The voluntary sales of land were still nearly as high as in 1897-98, though the average price fell from 21 times to 16 times the amount of the assessment. The area under crops was 6,787,000 acres, of which 39 per cent. Berar.

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was under millet, 36 per cent. under cotton, and 15 per cent. under spring crops, wheat, oil seeds, and pulses. The food stocks in the province were estimated to have increased considerably, owing to the low selling prices, and the stock of millet was 33 per cent. higher than in 1897-98.

 HORSE-BREEDING, AND VETERINARY COLLEGES.

The improvement of the breeds of horses, ponies, mules and cattle, the prevention of disease, and veterinary instruction, are in charge of the Civil Veterinary Department, which consisted during the year of 19 officers, with a considerable number of veterinary assistants; these latter it was in contemplation to form into a subordinate veterinary establishment. Operations are carried on throughout India, but chiefly in Northern India, which is most favourable for horse-breeding; their objects are the provision of remounts and mules for military purposes, and the preservation and improvement of native breeds of horses and cattle. For the first of these objects the Government of India imports and maintains horse and donkey stallions, and registers are kept of mares suitable for producing useful remounts. For the second object stallions are kept by provincial governments, local authorities, and private individuals; investigations into cattle and equine diseases are carried on, both locally and at the Imperial Bacteriological Laboratory at Muktesar; and numerous veterinary dispensaries are maintained by the provincial governments. The following paragraphs give particulars for the year under various heads:—

HORSE-BREEDING.

The number of Government horse stallions was 390, of which 344 stood at stud during the year; but besides these there were at stud 86 horse stallions and 112 pony stallions, chiefly Arabs, belonging to provincial governments or others. The Government of India imported 13 stallions from England and nine from Australia; three Australians and 21 Arabs were bought by the Government in India. At the end of the year there were 131 Arabs, 58 Norfolk trotters, 98 English and 47 Australian thoroughbreds.

The number of stock got by Government stallions during the year, so far as is known, was 3,892 horses and 3,382 mules, but in each case the result of a large proportion of coverings is not known. The Army Remount Department purchased 1,763 horses or 196 less than in 1897-98; it is being abundantly proved that the produce of thorough-bred sires is best for army purposes.

Mule-breeding.

The number of donkey sires bought by the Government of India during the year was 67, including 11 imported from Spain and 51 from Cyprus, whence a good yearly supply is obtainable. The number in the possession of the Government was 406, of which 332 were at stud during the year, besides 23 owned by provincial governments and others. Of the Government donkey stallions, 173 were Italian, 99 Cyprian, 26 Spanish, and 27 Persian; attempts are being made to improve the native breeds of donkeys for mule-breeding purposes. In addition to the above, a considerable number of horse and donkey stallions are kept by Native States.

Of mules 290 were purchased by the Department as ordnance or baggage mules and 1,281 for transport. The exceptional requirements of the previous year, due to the Frontier expedition, had constituted a serious drain on the mule supply, and the full number required in 1898-99 for ordnance purposes could not be made up. Effort is being made to extend mule-breeding in every part of India where it is likely to be a success.

Cattle-breeding.

With a view to improve native breeds of cattle, bulls are kept by local authorities in many provinces, but a great deal remains to be done, as the importance of the subject is not yet fully recognised, either by breeders or by local authorities. The Civil Veterinary Department have been investigating the requirements of each district, in order to find the proper means for improving

local breeds. The Hissar Cattle Farm has been placed under the management of the Department, and much is expected of the improved bulls which will be sent thence to suitable localities; but the primary object of the farm will be to produce suitable siege train bullocks, and local authorities will rely principally on well bred bulls locally purchased. The system recommended is, that indigenous bull calves should be bought by the district boards, and after being well fed up, turned out in absolute freedom among the herds at 3½ years old.

HORSE-BREEDING.

The horse and mule shows of the year are reported to have been, on the whole, successful. The number of animals shown was, for most of the shows, about the same in the previous year; but the number competing for prizes rose from 11,861 to 13,784, which points to an improvement in the class of animals shown. The number of remounts purchased at the fairs was 978, at an average price of Rs. 228, and of mules purchased by Government 238, at an average of Rs. 117. There is a large trade in horses and mules apart from Government requirements. The cattle fairs on which report has been made showed in most cases an improvement in the class of animals, and a good number of exhibits.

Horse and cattle fairs.

The Glanders and Farcy Act was amended during the year, with a view to giving inspectors fuller powers of search in cases of suspected horse disease, and also extending the operation of the Act to other diseases of horses. Glanders was very prevalent during the year in the Punjab, and cases occurred in Calcutta; it is being stamped out in Bombay, where it has in past years prevailed; the North-Western Provinces were fairly free from it. There was a recurrence of "surra" outbreaks in Bombay. There is a considerable amount of cattle disease, especially in the North-Western Provinces, in Madras, and in Assam; but the year was not a specially unhealthy one. Much is being done, though much remains to be done, in the investigation of cattle disease. At the Imperial Bacteriological Laboratory at Muktesar, as elsewhere throughout India, experiments on the rinderpest disease were in progress; the preparation of various bacterial antitoxins was undertaken; the question of the supposed identity of the "surra" and the tsetse fly diseases received attention; and other inquiries were instituted, including one into a fungus alleged to be fatal to locust swarms. There were 16 veterinary dispensaries in the Punjab, 11 in Bengal, where the system was much extended, 6 in the Central Provinces, 15 in Bombay, and two in Berar. The number of cases treated was 48,428. In addition to these, there is a large staff of veterinary assistants, who during the year visited 32,124 villages and treated 165,844 animals.

Horse and cattle disease.

In Bengal the veterinary school was during the year raised to the status of a college, with a three years' course; all the 15 second-year students who presented themselves for examination were successful; it is expected that the extra year's instruction will be of great advantage. At the Bombay College 15 students came up for the final examination, and eight passed. The Lahore school showed more satisfactory results, 36 having passed out of 44; at the Rajputana school 18 out of 24 passed. At the Burma school 16 Burmans, 6 Shans, and 8 Karens received instruction. These institutions supply not only the needs of India, but also, in recent years, those of the Uganda Railway, which has taken eight qualified men. The systems of education differ materially at the different colleges, and are considered to need some modification; with this object it has been suggested to summon a conference to discuss the matter.

Veterinary instruction.

AGRICULTURAL PRODUCE.

The following figures are extracted from the annual returns of agricultural statistics of British India, and relate to the year 1897-98; they include figures for Bengal which must for the most part be regarded as estimates; the estimates of irrigated area and of number of stock in that province are mere

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approximations. The Bengal uncultivated area has been separated this year for the first time into three classes as in other provinces:—

	Acres.	Acres.
Total area according to Survey - - - - -	—	733,000,000
Deduct feudatory and tributary States - - - - -	127,000,000	
Deduct area for which no returns exist - - - - -	64,000,000	
		191,000,000
Net area - - - - -	—	542,000,000
Forest areas - - - - -	66,000,000	
Area not available for cultivation - - - - -	136,000,000	
Culturable waste other than fallow - - - - -	100,000,000	
Current fallows - - - - -	37,000,000	
		346,000,000
Net area yielding crops during year 1896-97 - - - - -	—	196,000,000
of which bore two or more crops during the year - - - - -	—	27,000,000
Total crop area - - - - -	—	223,000,000
Total irrigated area (including 6,000,000 acres estimated for Bengal) - - - - -	—	37,000,000
Area of rice crop - - - - -	71,000,000	
Area of millet crops - - - - -	46,000,000	
Area of wheat crop - - - - -	20,000,000	
Area of gram crops - - - - -	10,000,000	
Area of barley - - - - -	8,000,000	
Area of other food grains, including pulses - - - - -	27,000,000	
Area of orchard, garden, and miscellaneous food crops - - - - -	5,000,000	
Total of the above food crops - - - - -	—	187,000,000
Area of sugar - - - - -	—	2,800,000
Area of tea, coffee, spices, and condiments - - - - -	—	1,500,000
Area of oil-seeds - - - - -	13,000,000	
Area of cotton - - - - -	8,000,000	
Area of jute and other fibres - - - - -	2,700,000	
Area of indigo - - - - -	1,400,000	
Area of poppy (opium) - - - - -	600,000	
Area of tobacco - - - - -	1,000,000	
Area of fodder crops - - - - -	2,800,000	
Area of other non-food crops - - - - -	1,800,000	
Total of non-food crops - - - - -	—	31,700,000
Number of cattle (including 25 millions estimated for Bengal) - - - - -	—	102,000,000
Number of sheep and goats (including 6 millions estimated for Bengal) - - - - -	—	39,000,000
Number of horses, ponies, mules, and donkeys (including 300,000 estimated for Bengal) - - - - -	—	2,500,000

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

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	Millions of Acres.					
	1892-93.	1893-94.	1894-95.	1895-96.	1896-97.	1897-98.
Total area of crops sown - - - -	221	225	224	214	209	230*
Including area cropped more than once -	25	28	27	25	23	27

* The figures for 1897-98 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, a detailed account of the crops of 1898-99 follows.

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

WHEAT.

	Average Wheat Area for preceding Five Years.	Areas Cultivated with Wheat in	
		1897-98.	1898-99.
	Acres.	Acres.	Acres.
Punjab - - - - -	7,362,800	8,013,800	7,729,200
North-Western Provinces and Oudh -	4,352,900	4,537,400	4,840,800
Bengal - - - - -	1,483,700	1,569,500	1,594,600
Central Provinces - - - - -	3,245,100	2,171,700	2,521,500
Bombay - - - - -	2,282,800	2,004,800	2,138,800
Sind - - - - -	506,200	591,600	352,100
Berar - - - - -	787,900	390,400	436,400
Rajputana* - - - - -	1,295,600	1,183,200	1,109,200
Central India* - - - - -	1,493,300	1,212,800	1,277,500
Hyderabad and Mysore - - - - -	1,125,800	1,096,000	1,200,500
TOTAL - - - - -	23,936,100	22,771,200	23,200,600

* Excluding some Native States from which no reports have been received.

The season was favourable for the growth of wheat in the North-Western Provinces and Oudh and in Bengal, but the yield in other provinces was not good; the yield of the last two years in the principal wheat-growing provinces is given in the margin. The total yield for all India is estimated at 6,209,000 tons, compared with 6,655,300 tons in 1897-98. Prices remained at a high level for some part of 1898, and the exports of wheat were much larger than

they had been since the Russian famine swelled the demand in 1891. Wheat exports of recent years are as follows :—

1,053,000 tons in - - - 1885-86	500,000 tons in* - - - 1895-96
689,000 " - - - 1889-90	95,000 " - - - 1896-97
1,315,000 " - - - 1891-92	120,000 " - - - 1897-98
345,000 " - - - 1894-95	976,000 " - - - 1898-99
0.00.	

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Since the spring of 1899 London prices have receded to their previous low level, and famine has recurred throughout a large tract of Central India, so that the export for the year 1899-1900 is small. The area sown with wheat for the 1900 harvest was very restricted, being only 64 per cent. of the 1898-99 area in the Punjab, 85 per cent. in the North-Western Provinces, and little more than half in Bombay and elsewhere. Even on this area the yield is expected to be very small, owing to the failure of the rains.

OIL SEEDS.

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.	1897-98.	1898-99.
Area in acres { Linseed, rapeseed, and mustard.	18,970,000	18,345,600	18,101,000
{ Sesamum oil-seeds	2,900,000	3,028,000	2,959,000
TOTAL	21,870,000	21,373,000	21,060,000
Yield in tons estimated for all seeds	1,450,000	1,833,000	1,662,000

The yield of linseed, rapeseed, and mustard was above the average of the preceding five years, but that period included some bad seasons. In Bengal the oil-seeds harvest of 1898-99 was good, but in the rest of India it was at best a poor one, as the weather at the time of sowing was unfavourable, and a full area was not sown. The sesamum yield was about 6 per cent. smaller than that of 1897-98, but it exceeded the five years' average by 16 per cent.; the out-turn was diminished, especially in the Central Provinces and in Berar, by unfavourable weather. The exports of oil-seeds in 1893-94 had been the largest on record, and amounted to 1,211,000 tons, valued at £11,169,000; they were 570,000 tons, valued at £5,342,000, in 1896-97, and 964,000 tons, valued at £7,898,000, in the year 1898-99.

The cultivation of ground-nuts is confined to the Bombay and Madras presidencies. The crop was again a bad one in 1899; the area sown was only 155,000 acres, against 218,000 acres in 1898, and an average of about 335,000 acres for each of the preceding five years. The yield is estimated to be not more than an eighth part of the previous year's crop, being far below that of a normal crop on the area sown. The exports of ground-nuts have fallen as follows in recent years:—

1894-95 . . . 113,400 tons.	1897-98 - 2,200 tons.
1895-96 - 55,900 „	1898-99 - 4,400 „
1896-97 - 24,300 „	

The total normal area under rice in British provinces is said to be about 68,000,000 acres, of which 38,000,000 belong to Bengal, 6,500,000 to Madras, and 6,500,000 to Burma. The total yield of British India in an average year may amount to 28,000,000 tons of cleaned rice. The year 1898-99 was a favourable one in the three principal rice-producing provinces, but the yield of 1899-1900 was not so good, except in Burma. The figures of area and yield compare as follows with previous years:—

	Area in Acres.			Yield in Tons of Cleaned Rice.			AGRICULTURAL PRODUCE.
	1899-1900.	1898-99.	Average of preceding five years.	1899-1900.	1898-99.	Average of preceding five years.	
Bengal - - - - -	39,070,000	39,605,000	37,980,000	18,617,000	20,292,000	16,873,000	
Madras - - - - -	6,721,000	7,168,000	6,768,000	1,939,000	2,747,000	2,624,000	
Burma - - - - -	6,041,000	5,911,000	5,137,000	2,780,000	2,243,000	2,346,000	

The quantity of rice exported from India and Burma beyond the sea in 1898-99 was 1,897,000 tons, or nearly 42 per cent. above the total of the preceding year. More than two-thirds of the exports went from Burma, which also exported 346,000 tons of rice to India. The exports to foreign countries in the first eleven months of 1899-1900 amount to 1,350,000 tons, as they are restricted by the same causes as were in operation in 1896-97 and 1897-98, namely, high prices in India and the diversion of Burma rice to the Indian famine tracts. It is estimated that Burma has this year (1900) an exportable surplus of 1,740,000 tons of cleaned rice.

The Indian export duty of three annas per maund on rice yielded to the Indian Treasury £646,000, against £473,000 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 area under cotton in India is returned and estimated as follows:—

COTTON.

	Average Cotton Area for preceding Five Years.	1898-99.	1899-1900.
	Acres.	Acres.	Acres.
Madras - - - - -	1,554,000	1,322,000	1,389,000
Bombay, Sindh, and Bombay Native States (estimated) - - - - -	5,374,000	5,191,000	3,156,000
North-Western Provinces and Oudh - - - - -	1,335,000	1,151,000	1,199,000
Punjab - - - - -	1,115,000	789,000	988,000
Central Provinces - - - - -	644,000	608,000	692,000
Berar - - - - -	2,163,000	2,476,000	1,984,000
Nizam's Dominions (estimated) - - - - -	1,587,000	1,738,000	1,292,000
Burma - - - - -	No estimate available	108,000	161,000
Central India (estimated) - - - - -	470,000	471,000	478,000
Rajputana (estimated) - - - - -	540,000	479,000	325,000
Bengal - - - - -	180,000	163,000	161,000
TOTAL - - - - -	14,962,000	14,621,000	11,865,000

The decrease in the yield of cotton is estimated to be considerably greater than the above figures would suggest, owing to the disastrous season in the chief cotton-growing areas, Bombay, Berar, Hyderabad, and the Central Provinces. The five years' average is 2,308,000 bales of 400 lbs.; in 1898 the yield was 2,417,000 bales; in 1899 it was 791,000 bales only.

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AGRICULTURAL PRODUCE.

The exports of raw cotton from India were—

1894-95	- -	3,387,000 cwts.,	valued at £ 5,806,000
1895-96	- -	5,248,000 "	" " 9,406,000
1896-97	- -	5,216,000 "	" " 8,647,000
1897-98	- -	3,728,000 "	" " 5,914,000
1898-99	- -	5,409,000 "	" " 7,457,000
1899-1900 (9 months only)		3,456,000 "	" " 4,822,000

TEA.

The following is an estimate of the cultivation and the production of tea in India during recent years. Owing to delay in furnishing the full report for the year 1898, the statistics as to the crop of that year outside Assam cannot be given :—

	Area growing Tea, in Acres (Mature and Immature Plants).			Production of Tea in Lbs.		
	1896.	1897.	1898.	1896.	1897.	1898.
Bengal - - -	105,707	128,067		36,652,000	38,951,000	
Assam - - -	291,909	310,550	325,813	109,727,000	107,266,000	109,071,000
Madras - - -	5,270	6,335	Figures not available.	642,000	398,000	Figures not available.
North-Western Provinces -	7,919	7,965		1,774,000	2,043,000	
Punjab - - -	9,830	9,970		2,117,000	2,302,000	
Native States - - -	11,444	30,076*		5,182,000	2,546,000*	
Burma - - -	1,201	747		302,000	276,000	
TOTAL - - -	433,280	493,710			156,426,000	

* Figures doubtful.

The yield of tea per acre during 1898-99 is reported to have averaged 396 lbs. in Assam, where the season was, on the whole, unfavourable, owing to deficiency of rain. The tea producing industry has been passing through a severe crisis, and the price of Indian tea in the London market was still lower in 1898 than in the previous year, averaging $8\frac{1}{2}d.$, compared with $9d.$ per lb. in 1897. The average price during 1899 is stated in the "Economist" to have gone up to $8\frac{1}{2}d.$ per lb., and the total amounts of the Indian tea crops of the three years, 1897-99, are said by the same authority to have been 148, 154, and 168 millions of lbs. respectively. The consumption of Indian tea in India is about $4\frac{1}{3}$ million lbs., besides 3 million lbs. of China and Ceylon teas. The tea gardens of India employed in 1897 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—

78½ million lbs. in	1886-87	148½ million lbs. in	1896-97
107 "	" " 1890-91	151½ "	" " 1897-98
126½ "	" " 1893-94	157½ "	" " 1898-99

During the latest year 870,000 lbs. of tea were also exported from India by land into neighbouring countries. The value of India's tea exports in 1898-99 was £5,364,000, or £8,700 less than in 1897-98. Australia took 4 per cent. of the total exports; about 2 per cent. was sent to Persia, and about the same amount to Turkey in Asia; and 6½ per cent. to other countries; while the rest (139½ million lbs.) went to the United Kingdom. The quantity of Indian tea sent direct to the United States was 1,414,000 lbs., or 52 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:—

AGRICULTURAL PRODUCE.

In the Year	From China.	From India.	From Ceylon.
1865	93 per cent.	2 per cent.	0 per cent.
1875	86 "	13 "	0 "
1886	66 "	80 "	2 "
1895	16 "	46 "	32 "
1898	10 "	52 "	36 "
1899	12 "	50 "	35 "

In 1899 the price of tea from China rose to $7\frac{3}{4}d.$ per lb., while Indian tea fetched at the auction sales in London an average price of about $8\frac{1}{4}d.$ per lb., and Ceylon tea similarly fetched an average of $8d.$ per lb. In 1898 the auction averages were, Indian tea, $8\frac{1}{2}d.$, and Ceylon tea, $7\frac{3}{4}d.$ per lb.

The area under coffee was all, with the exception of 548 acres, in Southern India; its cultivation is, in fact, restricted for the most part to a limited zone in Mysore, Coorg, and the Madras districts of Malabar and the Nilgiris. The details of the year were as follows:—

COPPER.

	1897.	1898.
	Acre.	Acre.
Coorg	86,155	82,575
Madras	65,895	63,983
Mysore	125,876	128,079
Travancore and Cochin	7,024	6,384
Burma, Assam, &c.	524	548
TOTAL	276,074	281,569

The yield in 1898, like that of the two previous years, was poor, and in addition to this the London price of coffee ruled low. Taking the area and production of 1885 to represent 100, the ratio of yearly increase or decrease is as noted in the margin. The normal yield of coffee per acre may be taken at $2\frac{1}{2}$ cwts. for the best European plantations, and 1 cwt. for Native plantations. The total yield in 1898 was $23\frac{1}{2}$ million lbs., and the yield per acre in the Madras presidency works out at less than $1\frac{1}{2}$ cwt. per acre. It is reported that 25,930 persons were permanently and 88,550 temporarily employed on the coffee estates. The exports of Indian coffee were 225,000 cwts. in 1897-98 and 270,000 cwts. in 1898-99.

—	Area.	Production.
1887	103	109
1890	114	63
1898	109	109
1895	119	115
1897	116	69
1898	118	68

The area under cinchona, according to the not very trustworthy figures which are obtainable, is given as 7,591 acres in 1898-99 compared with 4,406 acres in 1897-98. The Government plantations, 1,303 acres in Darjeeling and 874 acres in the Nilgiris, show no great change, but the returns of private plantations both in Madras and Travancore are more complete. For several years cinchona cultivation has been declining in Bengal and Madras, while in Coorg it has been almost entirely abandoned. A large amount of the yield of private plantations is taken to the Government factories, but there

CINCHONA.

AGRICULTURAL
PRODUCE.
CINCHONA.

is also a considerable export from Madras, averaging 1,854,000 lbs. during the last 14 years, and amounting to 1,362,000 lbs. in 1897-98.

On the Government cinchona plantations of the Darjeeling district in Bengal 130 acres were planted during the year; but a spell of cold weather did great damage to seedling plants, and the rate of planting was expected to suffer in 1899-1900. The number of trees uprooted for bark was 469,440, yielding 236,000 lbs. of dry bark, and 170,136 young trees were planted out. The total of the plants at the end of the year was 2,179,000. The purchases of bark from private plantations amounted to 131,615 lbs. The factory, which supplies Bengal, the Punjab, and Assam, used 102,000 lbs. of mixed *succirubra* and hybrid barks, yielding 3,921 lbs. of cinchona febrifuge, and 437,000 lbs. of quinine-yielding bark, from which 10,335 lbs. of sulphate of quinine were extracted. The issue of quinine fell from 10,939 lbs. to 8,766 lbs. and that of cinchona febrifuge from 3,398 lbs. to 2,993 lbs., owing partly to the transfer to the Madras factory of the obligation to supply the North-Western Provinces, and partly to malaria being less prevalent. The quinine supplied to the public is sold at post offices in five grain packets; the febrifuge is sold at the factory; but a large part of the issues are to Government officers for dispensaries and medical depôts. There was a small profit on the operations of the year.

The season in the Madras Cinchona Gardens was favourable, and all the three plantations did well; 88 acres of new land were planted; the year's crop amounted to 101,307 lbs. of bark, taken chiefly by coppicing sickly trees and by thinnings, besides 405,074 lbs. purchased from private plantations. Experiments with home grown seed have been so satisfactory that the supply from Jamaica has been discontinued. The amount of bark worked up in the factory was 461,700 lbs. which produced 12,600 lbs. of sulphate of quinine and 7,200 lbs. of cinchona febrifuge, an output considerably larger than that of any previous year. From this factory are to be supplied the requirements of Madras, Bombay, the North-Western Provinces and Oudh, the Central Provinces, Ajmere, Burma, Coorg, Berar, and Mysore. The sale of quinine at post offices decreased owing to the raising of the price from two to three pies, but shows a tendency to recover. The price of issue to the public, regulated on the basis of the market price was Rs. 18 per lb. for quinine, and Rs. 12 per lb. for the febrifuge.

JUTE.

In Bengal, where nearly the whole of the jute crop is grown, the season was not favourable, and only 75 per cent. of a normal crop is estimated to have been secured. The area under jute in the province was 1,971,300 acres, or 21 per cent. more than in 1898, but lower than the normal area, which is stated as 2,189,400 acres. The total yield, in bales of 400 lbs., is estimated at 4,382,000 bales in 1899, against 4,115,000 bales in 1898. The fluctuations of the jute export trade during recent years have been as follows:—

YEAR.	Raw Jute.		Jute Manufactures.	TOTAL EXPORTS.
	Quantity.	Value.	Value.	VALUE.
	Cwts.	£.	£.	£.
1883-84 - - - - -	7,018,000	3,062,000	800,000	3,952,000
1891-92 - - - - -	8,532,000	4,566,000	1,675,000	6,241,000
1895-96 - - - - -	12,267,000	6,662,000	3,165,000	9,827,000
1897-98 - - - - -	15,023,000	6,754,000	3,954,000	10,708,000
1898-99 - - - - -	9,865,000	4,628,000	3,866,000	8,494,000
1899-1900 (eleven months) - - -	9,407,000	5,184,000	3,316,000	9,002,000

Of the raw jute exports, 50 per cent. went to the United Kingdom, 23 per cent. to Germany, and 13 per cent. to the United States; of the manufactured jute, 13 per cent. went to the United Kingdom, and 47 per cent. to the United States.

The indigo industry of India is passing through a phase of extreme depression, caused by deficient crops and low prices. The fall in price is attributed in some quarters to the competition of the chemical indigo made in Germany. The area under indigo during recent years has shown a considerable decline, the last two years showing totals amounting to only two-thirds of the average of the five preceding years, during which period cultivation had been largely extended, owing to high prices. The acreage of the year under review was little below the average of the five years 1888-92. Apart from the acreage, the yield was a poor one, owing to excessive rain and floods.

AGRICULTURAL
PRODUCE.
INDIGO.

	1899.	1898.	Average of preceding Five Years.
	Acres.	Acres.	Acres.
Bengal -	453,000	512,000	583,000
N.W. Provinces and Oudh	205,000	240,000	386,000
Punjab	97,000	47,000	117,000
Madras	307,000	211,000	447,000
Other provinces, about	15,000	15,000	—
TOTAL	1,082,000	1,010,000	1,533,000

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The total exports of recent years have been:—

	Cwts.	£
1888-89	142,000	valued at 2,633,000
1890-91	118,000	2,049,000
1894-95	166,000	3,164,000
1895-96	187,000	3,570,000
1896-97	170,000	2,914,000
1897-98	134,000	2,038,000
1898-99	135,000	1,980,000
1899-1900 (eleven months)	105,000	1,708,000

Exports by sea, besides about 2,500 cwts. annually exported across the land frontiers of India.

The area under sugar in India during the years 1893-98 is given as follows:— SUGAR CANE.

	1893-94.	1894-95.	1895-96.	1896-97.	1897-98.
	Acres.	Acres.	Acres.	Acres.	Acres.
Bengal	1,030,600	967,300	944,600	839,800	972,700
North-Western Provinces	1,061,500	978,300	1,099,200	967,700	935,900
Oudh	60,900	255,700	289,800	246,500	212,200
Punjab	327,600	339,900	385,900	398,200	348,100
Other Provinces	216,400	223,500	211,100	199,500	179,500
TOTAL	2,897,000	2,764,700	2,930,600	2,651,700	2,648,400

The amount produced is estimated at about three millions of tons per annum. The imports of sugar during the last four years are given as follows:—

	1895-96.	1896-97.	1897-98.	1898-99.
	Tons.	Tons.	Tons.	Tons.
From Austria-Hungary	246	5,775	47,287	53,787
„ Germany	35,910	37,940	60,165	20,698
„ Mauritius	68,338	74,442	70,302	105,205
„ China	10,302	6,965	14,558	9,284
„ other Countries	11,450	8,008	19,444	14,001
TOTAL	126,244	134,120	211,756	203,875

AGRICULTURAL
PRODUCE.

Shortly before the close of the financial year 1898-99, a law was passed empowering the Government of India to impose countervailing import duties on articles which receive direct or indirect bounties from their country of origin, and such duties were at once levied on bounty-fed sugar. The chief result of this has been a very considerable fall, almost a cessation, of the imports of German sugar, and some reduction in imports of Austrian sugar, while sugar imports from China and the East have increased during the eleven months ending in February, as compared with the corresponding period of the previous year. The total imports for the eleven months in 1899 were considerably less than those of the same months in 1898, and they were both lower than the 1897 figure.

MINES AND MINERAL RESOURCES.

MINERAL
RESOURCES.
COAL.

The output of coal in India for the last three years is contrasted below with the amount produced ten years ago.

	Coal produced in			
	1888.	1896.	1897.	1898.
	Tons.	Tons.	Tons.	Tons.
Bengal - - - -	1,381,000	3,038,000	3,142,000	3,622,000
Central Provinces - -	158,000	141,000	132,000	150,000
Assam - - - -	102,000	177,000	186,000	200,000
Punjab - - - -	11,000	79,000	93,000	86,000
Baluchistan - - -	3,000	11,000	9,000	11,000
Burma - - - -	Nil	23,000	11,000	7,000
Rewah State - - -	41,000	116,000	125,000	135,000
Nizam's Dominions - -	18,000	263,000	365,000	394,000
TOTAL - - -	1,709,000	3,848,000	4,068,000	4,605,000

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; in 1898-99 it was 347,000 tons, of which over 85 per cent. came from the United Kingdom. Against this must be set an export during the year 1898-99 to foreign countries amounting to 327,000 tons, so that India may be said to produce all the coal she needs. On all Indian railways 1,452,000 tons of coal were used in 1898, of which 1,414,000 tons, or more than 97 per cent., were Indian coal. At the end of 1898 there were 101 coal mines, including some very small ones, in Bengal, of which seven were opened, while eight were not worked, during the year. There are two important mines in the Punjab, and two, including the Government mine at Warora, in the Central Provinces; the largest of all the mines are the East India Railway Company's mines near Giridih which produced 461,000 tons and the Singareni mine in Hyderabad, which produced 394,000 tons of coal during the year. The number of persons employed in the coal mining industry in 1898 was 63,000, of whom 17,000 were women and 3,000 children.

IRON.

The question of the utilisation of the coal and iron supply of India in the establishment of a steel industry has received much attention of late, and a report has been drawn up, and a brief summary of its conclusions is given below in the chapter on Trade and Manufactures. At present the only ironworks in India are those at Barrakur, in Bengal, at which during the year

1899 the total production of pig-iron was 19,631 tons; 11,996 tons were consumed in the Barrakur foundries and 5,826 tons were sold. The Company raised over 49,000 tons of coal during the year, and made 11,600 tons of coke; some of the coke used by them is not of their own manufacture. The contract under which the East Indian Company were supplied with a large quantity of pig-iron expired at the end of 1898, and was not renewed during the year, but orders from other customers showed an increase, and the total output was little less than in the previous year. 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 has much improved, and it is reported to be as good as Middlesborough iron.

MINERAL RESOURCES.

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

MINERAL OIL.

Produced in	Average of Three Years 1894-1896.	1896.	1897.	1898.
	Gallons.	Gallons.	Gallons.	Gallons.
Burma - - - -	12,904,000	14,816,000	18,905,000	18,424,000
Assam - - - -	148,000	239,000	222,000	548,000
TOTAL - - -	13,052,000	15,055,000	19,127,000	18,972,000

In Upper Burma a yield nearly equal to that of the preceding year was obtained in 1898 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, gave a largely increased output during the financial year 1898-99. The Assam Oil Syndicate more than doubled their yield of oil during the year. In Baluchistan the attempt to work the oil sources was not renewed.

The large importations of 1897-98 were not equalled in the year 1898-99, although the figure was still a considerable one. Particulars of recent years are as follows:—

IMPORTATIONS of Mineral Oils into India.

—	1883-84.	1893-94.	1895-96.	1897-98.	1898-99.
	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.
From United States -	12,714,607	49,226,000	22,494,000	25,967,000	23,602,000
„ Russia - -	—	34,045,000	39,876,000	60,672,000	60,641,000
„ elsewhere - -	1,169,141	395,000	948,000	10,687,000	7,408,000
TOTAL - - -	13,883,838	83,666,000	63,318,000	87,326,000	81,951,000

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 1898-99 was £2,164,000, and that of the locally-produced oil is estimated at about £340,000 for the year 1898.

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MINERAL
RESOURCES.
GOLD

The outturn of the Indian gold mines in 1899 was higher than in previous years, as shown in the margin, in spite of an outbreak of plague, which made labour scarce in the early part of the year. Eleven companies produced gold during the year, but of these only four show figures of any importance. The Coromandel mine fell off from the increased output which it had shown in the previous two years. The principal mines are—

	Oz.
1896 - - -	321,878
1897 - - -	389,779
1898 - - -	416,236
1899 - - -	448,071

The Champion Reef, which produced 140,158 oz. in 1898 and 159,101 oz. in 1899.

„ Mysore	„	„	159,374 oz.	„	155,786 oz.	„
„ Nundydroog	„	„	31,223 oz.	„	43,654 oz.	„
„ Ooregun	„	„	52,585 oz.	„	61,282 oz.	„

RUBIES.

The Burma ruby mines were worked by the company and by native licensed miners under the company; the expenditure of the company was returned at £430,000, and the value of the rubies recovered is said to have been £579,000. The company paid in 1899 a dividend of 5 per cent. on their shares, being the first dividend distributed since the company began work in 1899.

CHAPTER 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 throughout the year by Mr. F. R. Upcott.

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 1898 and 1897 :—

	Government of India List.	Government of Madras List.	Government of Bombay List.	TOTAL.
Royal Engineer officers - - -	61	5	3	69
Other military officers - - -	6	—	—	6
<i>Civil Engineers :</i>				
Appointed from Europe - - -	294	56	52	402
Europeans appointed in India - - -	158	5	7	170
Natives appointed in India - - -	61	17	25	103
TOTAL for 1898 - - -	580	83	87	744
TOTAL for 1897 - - -	588	81	87	756

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 - - - - -	208	62	90	280
Natives - - - - -	338	118	171	627
TOTAL - - - - -	546	176	191	912

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, 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.

PUBLIC WORKS.

The following statement of the total receipts and expenditure under the head of "Public Works" for 1898-99 is compiled from the Finance and Revenue Accounts of the year:—

RECEIPTS.		
	£.	
Railways - - - - -	15,160,536	
Irrigation - - - - -	2,308,716	
Buildings and Roads - - - - -	470,024	
TOTAL - - -	17,939,275	

EXPENDITURE (exclusive of £975 charged under Special Defence Works).		
	Charged to Revenue.	Not Charged to Revenue.
	£.	£.
<i>Railways:</i>		
Construction - - - - -	968	2,846,353
On Revenue Account - - - - -	15,788,619	—
<i>Irrigation:</i>		
Construction - - - - -	52,232	435,698
Ditto - from Famine Relief Grant - - - - -	7,779	—
On Revenue Account - - - - -	2,076,725	—
<i>Buildings and Roads:</i>		
Military Works - - - - -	807,719	—
Civil Works - - - - -	3,104,816	—
Miscellaneous Public Improvements - - - - -	—	2,736
TOTAL - - -	21,838,857	3,284,787

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

	£.
Railways - - - - -	3,741,332
Irrigation - - - - -	875,129

On the 31st of March 1899 £90,701,358 of permanent public debt had been incurred on account of railways, and £22,219,581 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 £1,716,326.

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 1899 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. Notice of intention

to purchase the Great Indian Peninsula Railway was served on the Company RAILWAYS. on the 18th August 1899. 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 1898-99, show the financial result of the working of the railways in India for the year ended 31st March 1899:—

	Imperial.	Provincial.	England, including Exchange.	TOTAL
REVENUE.				
(Railways.)				
	£	£	£	£
State Railways—(Gross traffic receipts) - - - - -	13,087,343	38,406	230	13,075,979
Guaranteed Companies—(Net traffic receipts) - - - - -	2,055,115	-	-	2,055,115
Subsidised Companies—(Repayment of advances of interest) - - -	29,143	-	297	29,440
TOTAL - - -	15,121,601	38,406	527	15,160,534
EXPENDITURE.				
(Railway Revenue Account.)				
State Railways:				
Working expenses - - - - -	6,622,226	34,634	-	6,656,860
Interest on debt - - - - -	2,773,123	-	968,209	3,741,332
Annuities in purchase of railways -	-	-	1,716,326	1,716,326
Interest chargeable against companies on advances - - - - -	88,718	-	219,179	307,897
Interest on capital deposited by companies - - - - -	10,992	-	812,978	823,970
Guaranteed Companies:				
Surplus profits, land and supervision - - - - -	265,489	-	-	265,489
Interest - - - - -	5,472	-	2,165,440	2,170,912
Subsidised Companies:				
Land, &c. - - - - -	62,800	6,794	-	69,603
Miscellaneous railway expenditure -	36,561	-	-	36,225
TOTAL - - -	9,865,390	41,092	5,882,132	15,788,614

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 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

PUBLIC WORKS.

The following statement of the total receipts and expenditure under the head of "Public Works" for 1898-99 is compiled from the Finance and Revenue Accounts of the year:—

RECEIPTS.		£.
Railways	- - - - -	15,180,535
Irrigation	- - - - -	2,308,716
Buildings and Roads	- - - - -	470,024
TOTAL		17,959,275

EXPENDITURE (exclusive of £975 charged under Special Defence Works).

	Charged to Revenue.	Not Charged to Revenue.
	£.	£.
<i>Railways:</i>		
Construction	968	2,846,353
On Revenue Account	15,788,618	—
<i>Irrigation:</i>		
Construction	52,232	485,698
Ditto - from Famine Relief Grant	7,779	—
On Revenue Account	2,076,725	—
<i>Buildings and Roads:</i>		
Military Works	807,719	—
Civil Works	3,104,816	—
Miscellaneous Public Improvements	—	2,736
TOTAL	21,838,857	3,284,787

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On the 31st of March 1899 £90,701,358 of permanent public debt had been incurred on account of railways, and £22,219,581 on account of irrigation.

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RAILWAYS.

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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 1899 were prepared, the figures must be accepted as only approximately correct.

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It will be observed that, with an increase of 1,410.33* miles, or 6.46 per cent., in the open mileage as compared with 1898, the gross earnings and working expenses show increases of £1,070,563, or 5.85 per cent., and of £539,170, or 6.21 per cent., respectively, resulting in an increase of £531,393, or 5.53 per cent., in the net earnings.

The total number of passengers carried show an increase of 9,671,437, and the quantity of goods handled of 2,953,527 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.
Bengal-Nágpur—Balasore to Barang	- - - -	136.78	
Indian Midland—Dainoh to Katni	- - - -	88.86	
North-Western State—			
Lyallpur to Toba Tek Sing	- - - - 49.00		
Campbellpur to Mari	- - - - 75.55		
		124.55	
Eastern Bengal State—Sivarampur to Faridpur	- - - -	7.43	
Bezwa-Madras—Gudur to Ennúr	- - - -	74.60	
Madras—Walajah Road to Ranipet	- - - -	4.17	
Southern Punjab—Narwana to Kaithal	- - - -	23.38	
Tápti Valley—Vyara to Nardana	- - - -	103.59	
South Behar—Luckeeserai to Gya	- - - -	78.83	
Bina-Gooná-Baran—Gooná to Baran	- - - -	73.49	
			675.59
METRE GAUGE.			
Bengal and North-Western—			
Mau to Benares	- - - - 58.00		
Aunrihar to Ghazipur	- - - - 28.47		
Kopaganj to Chand-Deiara Ghát	- - - - 66.61		
Revelganj Ghát to Manjhi Ghát	- - - - 3.71		
South Indian—		156.75	
Negapatam to Nagore	- - - - 4.49		
Cuddalore Old Town station to the Beach	- - - - 1.30		
Tuticorin station to the new Pier	- - - - 0.27		
Tuticorin to Salt factory	- - - - 2.02		
Assam-Bengal—		8.08	
Gauhati to Lanka	- - - - 59.01		
Lanka to Lumding	- - - - 18.98		
Badarpur to Damohara	- - - - 18.00		
		98.94	
Burma—Meiktila to Myingyan	- - - -	57.70	
Brahmaputra-Sultanpur—Santahar to Bogra	- - - -	24.50	
Mymensingh—Jamalpur-Jagannathganj—Singhjani to Jagannathganj	- - - -	20.30	
Segowlie-Raxaul—Segowlie to Raxaul	- - - -	18.09	
Nilgiri—Mettupalaiyam to Coonoor	- - - -	16.90	
Mysore-Nanjangúd—Nanjangúd to nearer Nanjangúd	- - - -	0.55	
Birur-Shimoga—Birur to Shimoga	- - - -	37.98	
Hyderabad-Godávari Valley—Manmád to Sailu	- - - -	154.23	
Jodhpur - Bikaner, Jodhpur Section—Balotra to Barmer	- - - - 60.00		
Bikaner Section—Gigasar to Palana	- - - - 9.50		
		69.50	
Udaipur-Chitor—Debari to the Ahr river near Udaipur	- - - -	6.44	
			684.96
SPECIAL (2FT. 6IN.) GAUGE.			
Rajpipla—Rajpardi to Nandod	- - - -	18.29	
Cooch Behar—Cooch Behar to Alipur Duar	- - - -	11.50	
Ránaghat-Krishnagar—Aistala Ghát to Krishnagar	- - - -	30.25	
SPECIAL (2FT.) GAUGE.			
Gwalior Light—			
Gwalior to Sipri	- - - - 72.56		
Gwalior to Bhind	- - - - 47.04		
		119.60	
			169.64
TOTAL	- - -	† 1,510.19	

* For difference between this figure and the total length shown as opened during 1899 in paragraph 3, see foot-note (d), (e), and (f), on page 4.

† See foot-note † above.

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RAILWAYS.

The additional lengths sanctioned for construction were—

	Miles.	Miles.	Miles.
STANDARD GAUGE.			
East Indian—			
Sitarampur to Domohani - - - - -	6·99		
Pandra branch of the Jherriah extension - - - - -	3·24		
Barun to Daltonganj - - - - -	78·32		
		88·55	
Bengal-Nágpur—			
Midnapore to Bujudih - - - - -	*114·39		
Khargpur to Midnapur - - - - -	†8·00		
		122·39	
North-Western State—Peshawar to Jamrud - - - - -		*10·00	
East Coast Stas—Naupada to Government Salt Pans - - - - -		2·61	
Petlad-Cambay—Petlad to Cambay - - - - -		*20·78	
			344·33
METRE GAUGE.			
Bengal and North-Western, Tirhoot Section—Sakri to Jainagar		*30·47	
South Indian—			
Madura to Toni Torai - - - - -	94·00		
Mutanandal to Sivaganga - - - - -	9·00		
Tinnevelly to Quilon - - - - -	103·00		
		206·00	
Burma—Bassein <i>via</i> Henzada to Tharrawaddy - - - - -		119·00	
Eastern Bengal State—Kaunia-Dhubri-Gaubati extension—			
Moghalhat to Dhubri - - - - -		38·83	
Vijapur-Kalol—Vijapur to Kalol - - - - -		*29·60	
Shoranur-Cochin—Shoranur to Cochin - - - - -		65·00	
Jodhpur-Bikaner, Bikaner Section—			
Gigasar to Palana - - - - -	9·50		
Suratghar to Bhatinda - - - - -	88·00		
		97·50	
Jaipur-Sanganer to Siwai Madhopur - - - - -		†72·85	
			659·25
SPECIAL (2FT. 6IN.) GAUGE.			
Nowshera-Dargai State—Nowshera to Dargai - - - - -		40·10	
Ranaghat-Krishnagar—Ranaghat to Krishnagar - - - - -		20·25	
			60·35
			968·93
		TOTAL - - -	

The total mileage under construction or sanctioned for commencement at the close of the year, *i.e.*, on the 31st December 1899, was as follows:—

	Miles.	Miles.
STANDARD GAUGE.		
State lines worked by companies - - - - -	638·46	
State lines worked by the State - - - - -	182·36	
Lines worked by guaranteed companies - - - - -	129·09	
Assisted companies - - - - -	49·26	
Lines owned by Native States and worked by companies - - - - -	20·78	
Lines owned by Native States and worked by State railway agency - - - - -	80·32	
		1,100·27
METRE GAUGE.		
State lines worked by companies - - - - -	1,178·53	
State lines worked by the State - - - - -	107·89	
Assisted companies - - - - -	153·39	
Lines owned by Native States and worked by companies - - - - -	824·65	
Lines owned and worked by Native States - - - - -	807·82	
		2,072·08
SPECIAL (2FT. 6IN.) GAUGE.		
State line worked by company - - - - -	66·67	
State line worked by the State - - - - -	40·10	
Assisted companies - - - - -	64·81	
Lines owned by Native States and worked by State railway agency - - - - -	20·62	
SPECIAL (2FT.) GAUGE.		
Assisted companies - - - - -	60·00	
		242·20
		TOTAL - - -
		3,414·55

* Commencement of work not yet authorised.

† Sanctioned previously, but omitted.

The following gives a brief abstract of the important works completed and in progress during 1899:—

East Indian Railway.—The Moghal Sarai-Gya extension is expected to be shortly opened for traffic. Work was commenced during the year on the Barun-Daltonganj branch, 78·32 miles in length. The extension from Sitárampur to Domohani, 6·99 miles, and the Pandra branch of the Jherriah extension, 3·24 miles, were sanctioned during the year. The doubling of the Gháziabad-Delhi (10·76 miles) and Sitárampur-Barákar (4·32 miles) sections and of 4·46 miles between mile 143 and mile 151 was also sanctioned during the year.

South Behar (Luckeeserai-Gya) Railway.—This line, 78·83 miles in length, was opened for traffic on the 3rd July 1899.

Bengal Central Railway.—In order to afford facilities for goods traffic at Calcutta, the construction of a siding from Dum-Dum Cantonment station to Pattipooker was sanctioned during the year and land is being acquired to allow of the work being put in hand.

Bengal-Nágpur Railway.—Of the Cuttack-Calcutta extensions, the sections from Kolaghat to Balasore, and from Balasore to Barang were opened for all descriptions of traffic on the 6th March 1899; but a portion from Bhadrak to Barang was closed during the rains and re-opened in November 1899. The Kola-Howrah section is well advanced and the rails are now laid to Bowraah. This section is likely to be opened for traffic in April 1900.

All the large bridges have been completed with the exception of the Kooakye, Katjuri, Mahanadi, and Roopnarain, which are expected to be completed and ready for traffic shortly.

Of the Khargpur-Midnapore extension, 8 miles, which was sanctioned in December 1899, the portion from Khargpur to Kossye river was opened for goods traffic in December 1899, and only about a mile and a half remain to be completed. This length will be finished and the whole extension opened for all descriptions of traffic shortly. The extension from Midnapore to Bujúdh, 114·39 miles in length, was sanctioned during the year.

The gauge of the Raipur-Dhamtari feeder line has been altered from 2' to 2'6"; and the revised estimates are under preparation. Pending sanction to these estimates, work is progressing slowly.

Bána-Gooná-Bárán Railway.—The Goona Bárán extension, 73·49 miles was opened for traffic on the 15th May 1899, and is being worked by the Indian Midland Railway Company.

Gwalior Light Railways.—Both the Gwalior-Sipri and Gwalior-Bhand sections, 119·60 miles in length excluding 8 miles of the existing line, were opened for traffic on the 2nd December 1899 and are being worked by the Indian Midland Railway Company.

North-Western (State) Railway.—The Mari-Attock railway from Campbellpur to Basál and from Jand to Daud Khel, aggregating 75·55 miles in length, has been taken over by the North Western State Railway and was opened for public traffic on the 1st April 1899. The extension from Lyallpur to Toba Tek Singh, 49 miles, was also completed and opened for public traffic on the 22nd June 1899. Construction of a line of railway from Nowshera to Dargai, 40·10 miles in length, on the 2'6" gauge, was received during the year and work has been commenced.

Work in connection with the junction arrangements at Kotri and additions and alterations to the yard in view of the approaching opening of the railway bridge over the Indus are nearly completed.

At the end of the year, all main girders of the Indus Bridge at Kotri had been erected and only minor girder-work and miscellaneous work on the bridge and approaches remained to be done. The bridge is expected to be ready for opening in April 1900. The Hyderabad Rahoki section (6·25 miles) awaits arrival of girders of small span, on receipt of which culverts will be completed and rails laid.

Southern Punjab (Delhi-Samásata) Railway.—The Narwana Kaithal branch, 23·38 miles in length, was opened for goods traffic on the 1st February and for passenger traffic on the 8th March 1899.

RAILWAYS.

Ludhiana-Dhuri-Jokhal Railway.—The construction of this railway, 80·32 miles in length, was commenced during the year.

Oudh and Rohilkhand State Railway.—The works in connection with the remodelling of the Benares Cantonment station, as well as the works on the metre-gauge connection between the Oudh and Rohilkhand Cantonment and the Bengal and North-Western City stations at Benares, are in progress and will, it is anticipated, be completed by the 31st March 1900. For the convenience of the public, the metre-gauge connection was, under certain restrictions as regards speed, opened for passenger traffic on the 5th April 1899.

The construction of the Ghaziabad-Moradabad railway, 87·05 miles in length, has made good progress during the year. The permanent-way has been laid throughout and bridging practically completed with the exception of the Ganges bridge (11 spans of 200 feet), all the piers of which are in hand and more than three-fourths of the well-sinking completed. It is expected that the portion of the line on the east side of the Ganges will be opened for traffic in April 1900 and that on the west side in December 1900.

Hardwar-Dehra Railway.—Construction was in progress on this railway during the year, and the line is expected to be opened for traffic in March 1900.

Eastern Bengal State Railway.—On the eastern section the remaining portion of the Rajbari-Faridpur branch, 7·43 miles in length, was opened for traffic on the 9th of April 1899. The Raazaghat-Churni extension was opened on the 5th of April 1899. On the Northern Section, work on the Teesta Bridge has been in progress. The construction of the Moghalat-Dhubri section (38·83 miles of the Kaunia-Dhubri-Gauhati extension has been started. Sanction has also been accorded to the conversion of the existing 2' 6" gauge line from Teesta to Moghalat, 12·23 miles, to the Metre gauge in connection with this extension.

Brahmaputra-Sultanpur Railway.—The portion of this railway from Santabar to Bogra, 24½ miles, was opened for traffic on the 1st April 1899. The section from Bogra to Khooriabadha will probably be opened about April 1900 and the rest will be ready for opening about June 1900.

Mymensingh-Jamulpur-Jagannathganj Railway.—The remaining portion of this railway from Singhani to Jagannathganj, 20·30 miles, was opened for traffic on the 1st December 1899.

Cooch Behar State Railway.—Of the Santabari extension, the native state section from Cooch Behar to Alipur Duar (11·50 miles) was opened for traffic on the 15th April 1899. The British portion from Alipur Duar to Jhainti will probably be ready for opening by the end of February or in March 1900. The Torsa bridge is expected to be opened shortly.

East Coast State Railway.—The Gudur-Eunur section of the Bezwada-Madras railway was opened for all descriptions of traffic on the 23rd February 1899, and the working taken over by the East Coast State railway. A branch from Naupada station to the Government salt pans (2·61 miles in length) was sanctioned during the year and the work is now in hand. The junction arrangements with the Southern Mahratta railway at Tadepalli have been completed and the transhipment of goods traffic with that railway was transferred from Bezwada to Tadepalli on the 15th August 1899.

The formation of both the approaches of the Godavari bridge is finished. The right and left abutments have been completed. The wells of remaining four piers are in progress, superstructure of 49 piers have been completed and three are in hand; 12 spans of girders have been erected and lifted on to piers and 19 spans are in progress. The bridge is likely to be ready for opening in December 1900.

Great Indian Peninsula Railway.—Good progress was made during the year in the construction of the Amalner-Jalgaon extension, 34·28 miles, which, excepting the Girna bridge, will probably be completed before next monsoon. The construction of the Chalisgaon-Dhulia branch, 35 miles, was commenced in June 1898, and good progress made up to the end of 1899. This branch, it is expected, will be opened for traffic in April 1900.

Bombay, Baroda and Central India Railway.—Work is in progress on the length remaining to be doubled, *viz.*, between Dahanu and Sachin. The work of renewing Warren girders by plate girders was completed during the year. The protective works of the Nerbudda bridge are in hand. Estimates for the extension of the Parel Workshops have been sanctioned and the work is in progress.

Rajputana-Malwa Railway.—The conversion of the portion between Ferozepore Cantonment and Kot Kapura from the metre to the standard gauge and the construction of a standard gauge line from Kot Kapura to Bhátinda were completed and North Western State Railway trains commenced running over the section on the 15th June 1899.

Tápti Valley Railway.—This line was opened for passenger traffic as far as Dondaicha, mile 118½, and for goods traffic as far as Nardána, mile 138½, during 1899.

Vizapur-Kalol Railway.—The construction of this line, 29·60 miles, at the cost of the Baroda Durbar, was sanctioned during the year.

Pettlád-Cambay Railway.—The construction of this line, 20·78 miles in length, was also sanctioned during the year at the cost of the Baroda and Cambay Durbars.

Rajpipla Railway.—The length, Rajpardi to Umalla, 4·95 miles, was opened for traffic on the 19th January 1899, and the remaining portion, from Umalla to Nandod, 13·34 miles, on the 13th November 1899.

Jaipur Railway.—Up to the end of the year, earthwork throughout the whole length was practically complete. The bridge work for the first 40 miles was also completed, and the remaining bridge work was taken in hand from the 1st October 1899. One abutment and one pier of the Banas bridge, 30 spans of 60 feet, have been nearly completed and the second abutment and 10 more piers are already founded. Eighty-five per cent. of the ballast required is in hand and three station buildings are ready, the remaining three being well in hand.

Madras Railway.—The Walajah Road Ranipet section, 4·17 miles, was opened for traffic on the 17th April 1899. The Madras-Ennur section was handed over to the East Coast State Railway on the 1st July 1899. The extension of the Madras Railway from Ráyapuram to the joint station of the South Indian and Madras railways, opposite the General Post Office on the Beach, has been finished. The construction of the Calicut-Baliapatam Railway (59·71 miles) is in progress.

Nilgiri Railway.—This railway was opened for public traffic on the 15th June 1899, and is being worked by the Madras Railway Company.

Shoranur-Cochin Railway.—The construction of this railway, 65·00 miles in length, on the metre gauge, was sanctioned in February 1899, and the work is in progress.

Hyderabad-Godávari Valley Railway.—Of the Northern section, the portion from Manmád to Sailu, a length of 154·23 miles, was opened for public traffic on the 7th December 1899. The portion beyond Sailu is ready for rails. Of the Southern section, rails have been laid from Secunderabad up to the southern bank of the Godávari river, a distance of 116½ miles, and formation beyond this point is also ready for rails. The whole line is likely to be opened for traffic in June 1900.

Bengal and North-Western Railway.—Of the Ganges-Gogra Doab lines, the remaining portions, *viz.*, the section from Mau to Benares Cantonment, the Chazipur branch and the Mau-Ballia-Revelganj line, aggregating 156·75 miles in length, were opened for goods traffic on the 15th March 1899, and all these, with the exception of the portion from Ballia to Chand-deara Ghát, for coaching traffic on the 5th April 1899. The Ballia-Chand-deara Ghát section, 29 miles, was opened for passenger traffic on the 12th May 1899, but was closed from the 15th June 1899 during the monsoon. It was re-opened on the 26th December 1899.

RAILWAYS.

The temporary bridge over the Gogra at Turtipur was removed on the 24th June 1899 during the rains and is again being erected.

Fair progress has been made with the works on the Hajeepur-Katihar extension of the Tirhoot section, 161 miles in length, and it is expected that the greater portion of the line will be open for traffic in March 1900. The construction of a branch line from Sakri to Jainagar, 30·47 miles in length, was sanctioned in June 1899.

Segoulie-Raxaul Railway.—This branch line, 18·09 miles, was opened for traffic on the 1st March 1899; but had to be closed from the 29th June 1899 during the rains. It has again been opened for goods traffic from the 19th October and for passenger traffic from the 23rd October 1899.

Birur-Shimoga Railway.—This line, 37·98 miles in length, was opened for public traffic on the 1st December 1899, and is being worked by the Southern Mahratta Railway Company.

South Indian Railway.—The Negapatam-Nagore extension, 4·49 miles, was opened for traffic on the 1st December 1899. The construction of the Madura-Pamban and Tinnevely-Quilon branches, each 103 miles in length, was sanctioned during the year, and work is in progress.

Assam-Bengal Railway.—On the Chittagong-Badarpur section, the head office and station buildings at Chittagong have been completed and occupied during the year. Cranes for the jetty at Chittagong have been erected and the hydraulic machinery put into working order, and the jetty is now ready to deal with cargoes. The Badarpur-Silchar branch was opened for passenger traffic from the 5th April 1899.

On the Badarpur-Lumding section, the line from Badarpur to Dámchara was opened for goods traffic on the 23rd April 1899, but, owing to several landslips caused by heavy rains, the line between Bihara and Dámchara was twice blocked; it was reopened on the 20th September 1899. Earthwork, tunnelling, and bridge work were in progress on all the divisions; but a heavy rainfall greatly impeded the progress. The tunnels on the 8th division were completed.

A portion of the branch from Gauhati to Lanka was opened for goods and passenger traffic on the 2nd January 1899, and an additional length of 16·93 miles from Lanka to the junction with the 11th division was opened for goods traffic on the 1st March 1899. But the portion of line between Jamuna Mukh and Lanka had to be closed from the 2nd October 1899, owing to the bad state of the road caused by excessive rains. This portion was reopened on the 1st January 1900.

Burma Railways.—The Mogaung-Myitkyina extension, 37 miles, and the Meiktila branch, 57·70 miles, were opened for traffic of all kinds on the 11th February and 15th November 1899, respectively; and the branch line from Ywataung station (on the Mu Valley Railway) to the town of Alon in the Lower Chindwin district has been under construction, and will probably be ready for opening by the end of March 1900. Work has been commenced on the Letpadan-Tharrawa section of the Bassein-Henzada branch, the construction of which was sanctioned in September 1899.

On the Mandalay-Kunlon extension, rail communication between Myohaung and the Gokteik gorge (mile 80) was established in October 1899. The first shipment of materials for the Gokteik bridge arrived in Rangoon at the end of October 1899; but in November heavy floods breached the line in many places and caused a delay of three weeks in getting materials to site, and work on the bridge consequently was not started till the 1st December 1899. These floods, which were much above any known previous record, did a great deal of damage, which will probably delay the opening of the line to Nammaw (mile 73).

The alignment of the Gokteik approaches was finally settled in June 1899, and work was immediately started thereon, a considerable amount of earthwork and 59 lineal feet of tunnel heading, with 65,569 cubic feet of opening out, being completed before the close of the year.

On the line between Gokteik gorge and Thibaw, ballast, permanent-way, and erection of girders remained to be completed at the end of the year, and the earthwork and bridging was in a fairly advanced stage between Thibaw and Lashio.

Bengal Doours Railway.—The extensions of this railway are under construction. A portion of the Eastern extension, viz., from Mal Bazar to Chalsa, and the Western extension from Dam Dim to Bagrakote are likely to be opened for traffic by the 1st July 1900. On the Southern extension from Barnes Ghát to Lalmonir Hat, the rails will be laid throughout by the 1st July 1900.

Dibru-Sadiya Railway.—The construction of the Dihing Bridge is in hand.

Jodhpur-Bikaner Railway.—Of the native states section of the Shadipalli-Balotra Railway, the first 60 miles from Balotra to Barmer was opened for traffic on the 15th May 1899. Platelaying beyond Barmer has been carried out on 35 miles, and the entire section is likely to be opened in April 1900.

Of the Bikaner-Bhátinda section, earthwork on the portion from Dulmera to Suratgarh (72·00 miles) was completed and rails laid on 25 miles. The whole of this length is likely to be opened in July 1900. Sanction to the construction of the extension from Suratgarh to Chátinda, 88·00 miles, was accorded during the year, and about half the earthwork has been done.

The Gigasar-Palana branch, 9·50 miles in length, which was sanctioned in January 1899, was opened for goods traffic only on the 26th June 1899.

Hyderabad-Shadipalli-Balotra Railway (British Section).—Work in connection with the conversion of the Hyderabad-Shadipalli section (55·08 miles) is in abeyance. On the Shadipalli-Jodhpur frontier section (69·06) miles, earthwork and culverts are practically complete, and rails have been laid for 20 miles from Shadipalli. Buildings are well advanced. This section is expected to be opened for traffic in June 1900.

Udaipur-Chitor Railway.—The extension from Debari to Udaipur with the new Udaipur station was opened for public traffic on the 25th August 1899.

Cherra-Companyganj State Railway.—On the 27th March 1899, the railway banks were destroyed between Therria and Bholáganj for a distance of 3½ miles by a very heavy flood of the Therria river, which caused the traffic to be again closed. A surface line has been laid, and the line opened for goods traffic only on the 3rd January 1900.

Darjeeling-Himalayan Railway.—The damage done to this railway during the cyclonic storm of the 24th and 25th September 1899 extended from the 25th mile to Darjeeling, a distance of 26 miles, the last 18 miles having suffered the most. After the storm, railway communication beyond mile 23½ was stopped. By the end of the year nearly the whole length was repaired and through communication restored thereon.

Ránaghat-Krishnagar Light Railway.—This line, 20·25 miles in length, was opened for public traffic on the 5th April 1899.

The following were the principal events in 1899 :

Agreements were made on the 20th and 27th February and 12th May 1899, respectively, between the Indian Midland Railway Company, and the native states of Kotah, Tonk and Gwalior for the maintenance and working of the respective sections of the Goona-Báran Railway traversing those states.

The Government of India, in April 1899, approved of the taking over and working of the Powayan steam tramway by the Rohilkund and Kumaon Railway Company, and negotiations are being carried on between the two companies for settlement of the details of the agreement.

Under the terms of the contract, dated the 31st October 1896, between the Secretary of State and the Segowlie-Raxaul Branch Railway Company for the construction and working of the Segowlie-Raxaul Railway, the Secretary of State on the 5th June 1899 entered into an agreement with the Bengal and North-Western Railway Company for working the branch line.

From the 1st July 1899, the Bengal Central Railway Company was granted running powers for the Company's goods trains over the Eastern Bengal State Railway between Dum-Dum junction and Sealdah, Chitpore and the Kidderpore Docks on special terms. The terms of the agreement for running powers for coaching trains over the five miles between Dum-Dum junction and Sealdah were also revised with effect from the 1st January 1899.

RAILWAYS.

At the Annual Viceregal Conference, which assembled at Simla on the 15th August 1899 for the consideration of railway projects, the following measures were determined upon:—

- (a) The preparation of a continual triennial programme of railway construction in place of the three years forecast.
- (b) The constitution of a small travelling commission to enquire into local interests affecting railway schemes.
- (c) The editing and publication in a suitable form yearly of lists of railway projects submitted for the consideration of the Government of India; from these lists purely strategic railways will be excluded.

The travelling commission is to sit and take evidence in public and will be open to interested parties. If the results of the investigations carried out by the commission appointed for this year should prove satisfactory, it is possible that such a commission may become part of the regular machinery for the administration of railways in the future, and it may develop into a permanent railway commission as is described in Chapter V. of the Indian Railways Act IX. of 1890.

Notice of intention to purchase the Great Indian Peninsula Railway by Government was served on the Great Indian Peninsula Railway Company, both in England and in India, on the 18th August 1899.

In August 1899, agreements between the Board of Control of the Bháv-nagar-Gondal-Junágad-Porbandar Railway and the proprietors of the Jetalsar-Rájkot and Dhrángadrá Railways for the working of the latter lines were approved by the Government of India.

On the 6th September 1899, the Secretary of State entered into an agreement with the Maler Kotla and Jhind Durbars for the construction, maintenance, and working of the Ludhiana-Dhuri-Jakhal Railway by the agency of the North-Western State Railway.

A Traffic Conference of railway delegates assembled at Simla in September 1899, under the orders of the Government of India. The efforts of the conference were mainly directed towards (a) drawing up rules with the view to making the Indian Railway Conference regulations binding on all railway administrations, who are parties to the conference, and (b) revision of the regulations of 1893. The principal feature in (b) is the adoption of the principle of payment for the use of foreign railway's vehicles by time instead of by mileage and demurrage, as in the Conference regulations of 1893.

The revised terms on which the Secretary of State is prepared to continue the working of the East Indian Railway by the existing agency on the expiry of the contract of 1879 having been settled, a subsidiary contract was entered into on the 14th November 1899 between the Secretary of State and the East Indian Railway Company, which gave the company the right of working the line for a further period of 20 years, viz., to the 31st December 1919.

With a view to secure the free movement of food-grains and fodder in connection with the prevailing scarcity in India, the Government of India, in November 1899, requested the railway authorities to take such action in the matter of lowering the railway rates and assimilating the upward and downward rates as the circumstances of the case may demand. Earthwork has also been sanctioned for famine relief purposes on certain projected railways in the localities affected by famine.

The Marwar (Jodhpur) and Bikaner Durbars have accepted a draft agreement between the Government of India and the Durbars for the construction of a railway on the metre gauge from Balotra to Hyderabad (Sind) and for the working of the British section of the line from the Jodhpur frontier to Hyderabad by the administration of the Jodhpur-Bikaner railway.

The rules for the Claims Arbitration Committee for Southern India, which was formed in July 1895, were revised in 1899. A similar committee is being formed for Northern India.

The Government of India have under consideration the proposal for the substitution, on all railways in India, of a monthly for a weekly system of station accounts. The question was referred for the opinion of the Railway Traffic Conference of 1899, who have suggested that the Government of India might depute an officer to enquire into the matter.

Negotiations are in progress for the working of the Rajputana-Malwa railway and connected State lines by the Bombay, Baroda, and Central India Railway Company during the interval between the 30th June 1900, when the present arrangements for working these lines will terminate, and the end of 1905 when Government will have the option of purchasing the Bombay, Baroda, and Central India Railway on expiry of the contract.

No new railways were sanctioned during the year under the "Branch line terms" resolution of 1896, but negotiations in regard to the following have been in progress:

	Miles.
Bhagalpur-Bausi-Baidyanath	69
Ahmadpur-Baidyanath	63
Kurnool Road-Kurnool	36
Nadiad-Kapadvanj	28
Tilgaon-Sylhet	35
Aukhaura-Bhairab Bazar	18½
Fatehpur-Markundi	63

In paragraph 8, Part I., of the railway administration report for 1898-99, the Laksam-Noakhali-Ichakhali and Bezwada-Masulipatam branch railways were mentioned as offered for construction at the sole risk of the promoters. The construction of these branches is now being negotiated under the rebate terms of the resolution referred to above. The negotiations, which were in progress, for the construction of the undermentioned lines have since been concluded:

	Miles.
Amritsar-Tarn Tarn-Sarhali	30
Sabarmati-Dholka	33
Chandipur-Taki	39

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	Net	Guaranteed	Interest	Net	Surplus
	Capital	Revenue.	Interest.	in	Revenue	Profits.
	Outlay.		Excess	Excess		
	£.	£.	£.	of	£.	£.
	Revenue.	Interest.	Revenue.	Interest.	Profits.	
Great Indian Peninsula	26,084,701	950,481*	501,178	—	349,303	328,711
Bombay, Baroda, and Central India	10,192,132†	450,569	224,254	—	226,315	226,315
Madras	11,238,594	212,878	267,573	54,605	—	—
TOTAL	£. 47,465,427	1,613,928	1,093,005	—	520,923	555,026
	Half-year ended the 31st December 1899.					
Great Indian Peninsula	20,055,107	405,220	594,219	98,983	—	—
Bombay, Baroda, and Central India	10,258,862†	285,046	225,000	—	60,646	60,646
Madras	11,913,886	204,339	203,573	9,234	—	—
TOTAL	£. 47,527,855	1,045,314	1,086,785	41,571	—	60,646
TOTAL for this Year 1899	£. 47,527,855	2,559,142	2,179,790	—	479,352	615,672
TOTAL for the Year 1898	£. 40,957,625	2,683,305	2,169,926	—	463,439	622,847

* Including 20,592l. paid to Government as rent for the State lines leased to the Great Indian Peninsula Railway Company.

† Excluding the State outlay on the Patni branch, 60,841l.

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.

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 £1,997,588, comprises 459 miles of main canal, and 4,327 miles of distributaries, and in the year under review supplied water to 901,602 acres. The Sirhind Canal in the Punjab, which was completed in 1887, has cost £1,617,056, and consists of 319 miles of main channels and 2,714 miles of distributaries. In Madras the great deltaic irrigation systems of the Godaveri, Kistna, and Cauvery have respective lengths of main channel of 503, 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 Baluchistan, 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 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 1898-99 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.
	£	£	£	£	£	Acres.
Major Works	23,223,076	2,176,733	698,260	1,478,464	6.37	9,857,823
Minor Works	8,607,171	374,034	168,276	205,758	5.70	2,168,362
TOTAL for 1898-99	26,830,247	2,550,767	866,545	1,684,222	6.28	12,026,185
TOTAL for 1897-98	26,282,261	2,662,298	825,858	1,836,440	6.99	13,029,306
TOTAL for 1896-97	25,773,712	2,409,176	840,986	1,568,190	6.08	12,740,545

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.

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IRRIGATION.

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	1,607	1,620	2,104	1,155	NIL.	NIL.	7,186
Distributaries - - -	2,644	10,389	7,778	5,828	332	NIL.	NIL.	26,971
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Area Irrigated - - -	713,443	2,152,338	3,450,750	2,775,782	756,501	NIL.	NIL.	9,857,823
MINOR WORKS :	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.		Miles.
Main Canals - - -	47	—	1,813	1,365	2,092	4	Tunk Irrigation.	5,323
Distributaries - - -	—	618	319	1,184	328	41		
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Area irrigated - - -	—	103,117	664,213	563,697	806,223	5,653	25,560	2,168,362
	£.	£.	£.	£.	£.	£.		
Estimated value of crops raised by Major and Minor Works.	1,586,343	4,950,471	3,861,438	5,693,679	282,681	10,997	—	—

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.

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.	£
Bengal - - - -	496	1,339*	1,834	541,327	6,807,007
Punjab - - - -	432	—	432	15,301†	—
North-West Provinces and Oudh - - -	537	—	537	235	276,978
Madras - - - -	990	262	1,252	562,071	2,918,838

* Includes Nudda rivers and Calcutta and Eastern Canals.

† Sirhind Canal only.

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.

The progress of irrigation on the three large irrigating works, the Orissa, Midnapore, and Sone Canals fluctuates from year to year, but on the whole

there is steady progress. In the year of the famine 1896-97, the area irrigated was the highest on record, but in the two years which followed the area watered did not fall to its former level, but was over 700,000 acres in 1897-98 and over 710,000 acres in 1898-99. This increase in the irrigated area shows that the people are realising more and more that the use of canal water both assures their crop and increases its outturn.

The general results for 1898-99 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.
	£	£	£	£		Acres.
1893-94	4,989,918	157,809	138,617	18,692	0.3	556,065
1894-95	5,010,020	144,652	133,940	10,712	0.2	509,811
1895-96	5,040,389	136,850	116,496	20,354	0.4	579,933
1896-97	5,074,920	168,494	121,912	46,522	0.9	809,467
1897-98	5,103,735	185,376	121,695	63,681	1.29	703,190
1898-99	5,112,735	183,335	120,362	33,973	0.66	710,544

* Includes £40,404 and £10,358 expended on two abandoned projects, viz., Tirhut and Damodar projects.

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.
	£	£		Acres.
Major Works:				
Orissa Canals	1,768,310	—1,981	—	194,847
Midnapore	564,361	—3,016	—	74,901
Tidal Canal	174,849	1,618	.98	—
Sone Canals	1,784,038	30,877	1.73	440,790
Total Major Works	4,290,958	27,498	1.14	710,544
Minor Works:				
Calcutta and Eastern Canal	430,750	8,573	1.99	—
Orissa Coast Canal	302,160	—612	—	—
Sarnu Project	48,105	248	.52	—
Total Minor Works	φ781,015	8,209	2.03	—

φ Excludes the sums spent on the Tirhoot and Damodar projects.

IRRIGATION.

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

Besides the Minor Works mentioned in the foregoing statement, there are four works of this class for which capital accounts are not kept, viz., the Nadia rivers system, the Gaighatta and Buxi Khal, and the Eden and Madhuban Canals. The first-named, which comprises about 470 miles of channel, is used for navigation purposes only. The net revenue from the Nadia rivers shows a slight improvement over that of 1897-98, but this is only due to apportionment of establishment charges, and as railway communication develops these rivers must probably continue to decrease in importance.

In the following statement the traffic on the canals in Bengal in 1898-99 is shown in comparison with the traffic results of the previous year. The Nadia 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.	£.	£	£	£	
1897-98 - -	1,834	74,485	33,908	40,582	8,038,122	788,518
1898-99 - -	1,834	66,816	30,820	26,996	6,807,067	541,327

The capital expenditure for the year amounted to £8,936, viz., £2,600 on major works, and the remainder on minor works, chiefly on the Calcutta and Eastern Canals.

North-West Provinces.

In the North-West Provinces, the results of the irrigation operations during 1898-99 were very satisfactory.

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.
	£	£		Acres.
1893-94 - - - -	5,524,436	293,285	5.31	1,645,197
1894-95 - - - -	5,573,388	285,411	5.12	929,461
1895-96 - - - -	5,661,010	178,658	3.16	2,010,021
1896-97 - - - -	5,770,535	416,852	7.21	3,023,864
1897-98 - - - -	5,862,864	507,726	8.66	2,511,173
1898-99 - - - -	5,806,936	391,626	6.59	2,384,190

Excluding the Betwa Canal, which is a protective work, the major works earned a profit of 7.01 per cent. on their capital outlay. The individual returns from the four works were as under:—

CANAL.	Percentage of Net Revenue (actually realised) on Capital.
Upper Ganges - - - - -	9.20
Lower Ganges - - - - -	4.04
Agra - - - - -	4.50
Eastern Jumna - - - - -	28.13

For the second time since its opening in 1885 the Betwa Canal, the only "protective" work in these provinces, has again 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 £9,712, which gave a percentage of 5.2 on the capital outlay of £183,920.

The area irrigated by all the canals was approximately 2,255,455 acres, which has only been exceeded by the returns of the previous two years.

The water was distributed from 40,681 outlets to 11,448 villages. Of the total area irrigated, 895,389 acres were under wheat, 144,910 under indigo, 261,808 under sugar cane, and 167,798 under rice.

The value of the crops irrigated is estimated at 7½ 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. 33. The average rate paid by the occupiers for the use of the water is Rs. 3.85 per acre, or about 11.7 per cent. of the value of the crop.

The capital expenditure of the year amounted to £78,005, most of which was spent on the Lower Ganges Canal, and the new Fatehpur Branch, and on the special works for the protection of the Narora Weir.

Of the 1,463 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.
1894-95 - - - - -	£ 183
1895-96 - - - - -	84
1896-97 - - - - -	471
1897-98 - - - - -	525
1898-99 - - - - -	612

In addition to the area irrigated by the canals under the direct control of the Irrigation Department, there were 130,388 acres irrigated during the year by the Tarai and Bhábar Canals under the Commissioner of Kumaon.

The year under review, no less than 1897-98, has been one of remarkable financial prosperity for the Punjab Canals. The gross direct income exceeds that of the previous year by £19,998, and amounts to £8,491,146, which with the indirect revenue of £1,156,128, brings the total gross revenue of the Canals to £9,647,274. Owing to the working expenses, including cost of extensions and improvements charged to the revenue account, the net direct income of the year is about £11,600 less than in 1897-98. The value of the crops raised by canal irrigation during the year, adopting moderate rates per acre for the different classes, is estimated at over thirteen crores of rupees.

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IRRIGATION.

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.*
	£	Acres.	£
1894-95 - - - - -	5,239,085	2,781,668	513,389
1895-96 - - - - -	5,469,040	3,458,544	737,250
1896-97 - - - - -	5,745,234	4,164,920	905,978
1897-98 - - - - -	5,956,869	4,805,811	1,004,566
1898-99 - - - - -	6,134,972	4,123,972	983,796

* 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.			
	Miles.	Miles.	£.	£.	
Major Works:					
Perennial Canals:					
Swat River - - - - -	22	182	268,619	23,114	8.60
Western Jumna (including Sirsa Branch).	359	2,022	1,107,960	125,300	11.31
Bari Doab - - - - -	353	1,167	1,210,138	169,424	13.17
Sirhind (British portion) -	319	2,714	1,617,056	135,580	8.38
Chenab - - - - -	406	1,514	1,616,076	131,566	8.14
Sidhnai - - - - -	63	131	79,932	9,843	12.32
Jhelum - - - - -	—	—	42,609	—	—
Inundation Canals:					
Lower Sohag and Para -	98	48	47,993	5,543	11.55
Minor Works:					
Upper Sutlej - - - - -	216	188	55,764	7,014	12.58
Lower Sutlej and Chenab -	737	19	8,397	12,738	151.69
Indus - - - - -	687	—	47,175	15,690	32.25
Shahpur (Imperial) - - -	79	94	13,872	2,532	18.25
TOTAL - - - - -	3,389	8,079	6,115,591	628,344	10.27

On the Native States branches of the Sirhind Canal the area irrigated was 361,699 acres against 345,431 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 £8,861,438, giving a rate of £1.86 per acre. The principal crop was, as usual, wheat, of which there were 1,872,684 acres under irrigation.

The capital outlay on Imperial works for the year amounted to £178,082, of which £103,177 was expended upon the Chenab Canal. This canal is practically completed. On the Western Jumna Canal there was an expenditure of £27,185.

On the Jhelum and Ghaggar Canals, which were started in 1896-97 as IRRIGATION. famine relief works, £28,990 and £2,048 respectively were expended during the year.

The navigation operations on the Western Jumna and Sirhind Canals resulted in a profit of £3,126. The profit realised on the Western Jumna Canal was £3,364. The Sirhind Canal was worked at a loss of £237.

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.
	£.	Acres.	£.	Per Cent.
1892-93	721,233	157,197	4,084	0.57
1893-94	878,031	270,405	3,552	0.40
1894-95	995,082	269,357	9,511	0.96
1895-96	1,174,781	369,935	51,632	4.40
1896-97	1,362,075	520,279	92,629	6.75
1897-98	1,512,916	810,000	111,041	7.34
1898-99	1,616,076	957,705	131,566	8.14

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. The Chenab Canal has cleared its interest debt within 10 years of the commencement of the work, and the accounts now show a balance of net revenue amounting to £20,635.

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. Burma.

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 1898-99 to £101,263.

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 £178,697, of which £7,920 had been spent at the end of 1898-99.

The report on Irrigation in Ajmere-Merwara had not been received when this Statement went to press. AJMERE-MERWARA.

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 Godavari, 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.

IRRIGATION.

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 3,775 miles, and of distributary channels 7,012 miles. The area irrigated during the year by these works was 3,339,379 acres, the crops grown being valued at £5,693,679.

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.
	£.	Acres.	£.	
1894-95 - - - -	5,638,106	2,886,488	346,705	6.2
1895-96 - - - -	5,689,647	2,940,317	364,758	6.4
1896-97 - - - -	5,815,502	3,129,659	356,901	6.1
1897-98 - - - -	5,919,671	3,241,728	421,602	7.1
1898-99 - - - -	5,988,198	3,339,379	445,812	7.44

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 768,489/.

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.	£	£	
Godaveri Delta - - - -	776,498	871,034	161,479	18.42
Kisina Delta - - - -	566,277	893,108	134,279	15.03
Pennér Anicut - - - -	72,192	126,812	10,426	8.23
Sangam Anicut - - - -	78,261	258,574	10,425	4.03
Kurnool-Cuddapah Canal - -	48,810	1,448,300	2,959	0.20
Barur Tank - - - -	4,901	28,336	500	1.77
Cauvery Delta - - - -	991,118	140,822	58,520	41.56
Srivaikuntham Anicut - - - -	42,740	98,495	5,400	5.54
Periyar Project - - - -	109,025	578,773	9,582	1.66
Rushikulya (Protective Work) - -	82,965	313,282	2,916	0.93
TOTAL - - - -	2,775,782	4,757,336	396,516	8.31

The minor works irrigated an area of 563,597 acres, and earned a net revenue of £50,262, equivalent to a percentage of 4.08 on the capital expended on them. The purely navigation works, with the exception of the Buckingham and the Gaiyam Gopalpur Canals, 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 irrigation revenue derived from these works in 1898-99 was £465,164 more than in the previous year, and the area irrigated by them was 3,350,560 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 £473,000 had been incurred under this scheme, 38,395 square miles had been investigated, and estimates for 5,498 works had been prepared.

IRRIGATION.

The capital expenditure for the year on the major works amounted to £38,916. This expenditure was incurred chiefly on the Kistna, Cauvery, Periyár, and Rushikulya works. On the latter project over £300,000 has now been expended, against an estimate of £3,170,666.

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.

Bombay, excluding Sind.

The total area irrigated in 1898-99 was 103,849 acres, against 126,516 acres in 1897-98, or a decrease of 22,667 acres. This decrease was distributed over nearly all the canals.

A comparative statement of the results from those works, for which full accounts are kept, for 1898-99, and the preceding four years, is given in the following table:—

YEAR.	Capital Expenditure to End of Year.	Area Irrigated..	Revenue Realised.	Working Expenses.	Net Revenue.
	£	Acres.	£	£	£
1894-96	1,741,167	84,237	37,565	23,394	14,171
1895-96	1,760,749	74,923	30,922	19,619	20,308
1896-97	1,757,324	118,004	37,226	23,996	13,230
1897-98	1,772,069	126,516	42,386	26,926	15,460
1898-99	1,780,258	103,849	46,451	22,453	23,998

The net revenue realised for the year represents a return of 1.35 on the capital expenditure, as compared with 0.87 in the preceding year. The major works in operation produced a net revenue equivalent to 1.65 per cent. on the capital of £1,268,641 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 1898-99 irrigated an area of 8,045 acres, besides supplying the cantonment and civil station of Poona with water. The total expenditure on this work is £442,422, and in the year under review the net revenue was equivalent to a return of 2.58 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 4.14 per cent. on the capital expenditure. The works known as the Nira Canal and Bhátghar Reservoir, which are classed as protective, are estimated to cost £406,962 when complete, and will be capable of irrigating 56,640 acres. The return on capital outlay yielded by these works in 1898-99 was 1.38 per cent.

IRRIGATION.

The minor works, for which full accounts are kept, earned a net revenue during the year of £1,452, equivalent to a return of 0·35 on the capital outlay.

The capital outlay during the year on all works amounted to £8,183, which was incurred principally on the Nira Canal, the Stretphal Tank, the Mutha Canals, and the Gokak Canal.

The total value of the crops irrigated is estimated at £282,681, against £362,071 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 £15,151, and the revenue realised was £37,795, giving a net revenue of £22,644. The area irrigated by the works of this class was 146,364 acres.

Sind.

The Report on Irrigation in Sind had not been received when this Statement went to press.

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 £45,148, and the latter £62,370.

In the year under review the net revenue from the Shebo Canal was £872, or 2·0 per cent. on the capital outlay.

The net revenue from the Khushdil Khan Reservoir was £1,342, or 1·79 on the capital expenditure.

The area irrigated by these two works was 5,653 acres, as compared with 5,552 acres in the preceding year. The value of the crops raised was £10,997.

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 1898-99 under the heads referred to is shown in the following table:—

	Imperial.	Provincial.	Local.	Total in India.	Expenditure in England.	Exchange.	GRAND TOTAL.
	£.	£.	£.	£.	£.	£.	£.
Military Works	755,118			755,118	35,020	17,580	807,718
Civil Works	272,046	1,662,794	1,070,109	3,005,639	66,028	33,148	3,104,815
TOTAL, 1898-99	1,027,164	1,662,794	1,070,109	3,760,757	101,948	50,728	3,912,533
TOTAL, 1897-98	907,773	1,505,345	1,042,673	3,455,791	100,332	56,499	3,612,622
TOTAL, 1896-97	1,182,382	1,421,187	1,123,416	3,726,985	77,397	51,146	3,855,528

This statement does not include the outlay from imperial revenues recorded under the head of Special Defence Works, which amounted to £63,073 in 1896-97, £15,805 in 1897-98, and £975 in 1898-99.

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.

BUILDINGS AND
ROADS.

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 £808,694 in 1898-99, against £795,726 in 1897-98. The cost of Special Defence Works amounted to £975 only, against £16,803 in the previous year.

MILITARY WORKS.

The expenditure of £807,719 on ordinary military works included an outlay of £310,196 on new works, of £245,465 on repairs, and of £194,919 on establishment. Under the head of New Works, additions to the barrack and hospital accommodation for British and Native troops cost over £130,000, while General Cantonment Works figured at £66,449.

The total amount expended on Special Defence Works up to the close of 1898-99 (exclusive of contributions from imperial revenues) was £3,052,956. 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 1898-99.

	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>	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.
Civil Buildings - - - -	41,638	145,568	99,445	83,246	116,193	20,897	52,260	80,667	83,572	750,481
Communications - - - -	98,091	55,138	154,144	110,854	163,730	66,388	132,940	22,861	111,179	855,325
Miscellaneous Public Improvements.	38,210	4,846	7,590	19,260	17,472	2,343	9,621	5,186	7,970	111,898
TOTAL Works and Repairs -	117,939	205,547	258,179	213,360	327,395	89,628	194,821	108,714	202,121	1,717,704
Establishment - - - -	27,744	60,236	72,200	54,821	78,556	28,671	35,886	54,352	66,281	478,697
Tools and Plant - - - -	1,768	2,221	1,584	3,074	4,844	1,000	3,978	9,702	3,444	31,615
Profit and Loss, Suspense, &c. -	— 168	— 4,092	— 1,831	1,609	— 3,004	— 252	— 1,275	2,484	— 1,139	— 7,668
TOTAL Expenditure by Public Works Department -	147,283	263,912	330,132	272,864	407,791	119,047	238,410	175,252	270,657	2,220,348
<i>Expenditure by Civil Department -</i>	638	292,229	52,170	16,810	42,817	10,628	4,248	286,656	72,350	778,271
TOTAL Expenditure in India -	148,121	556,141	382,302	289,674	450,138	129,675	237,658	461,908	343,007	2,998,619

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 :—

CIVIL WORKS.

	By Public Works Department.	By Civil Department.	TOTAL.
	£.	£.	£.
Civil Buildings - - - - -	750,481	47,612	798,093
Communications - - - - -	855,825	496,118	1,351,943
Miscellaneous Works - - - - -	111,898	63,880	175,778
TOTAL Works and Repairs - - -	1,717,704	607,610	2,325,314
Establishment - - - - -	478,897	126,260	604,957
Tools and Plant - - - - -	31,615	7,040	38,655
Profit and Loss, Suspense, &c. - - -	-7,668	37,361	29,693
TOTAL - - -	2,220,348	778,271	2,998,619

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 1898-99 to £26,363. The revenue of this institution for the year was £30,519.

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.

	£.
Imperial—Civil - - - - -	13,749
Provincial - - - - -	197,766
Local - - - - -	118,582
TOTAL - - -	330,097

The greater part of the expenditure from provincial funds was upon the construction and repair of buildings and communications.

North-Western Provinces and Oudh.

The expenditure on buildings and roads in the North-Western Provinces and Oudh for 1898-99 was smaller than in the two previous years.

The outlay under the different heads of service was as follows :—

	£.
Imperial—Civil - - - - -	13,783
Provincial - - - - -	197,766
Local - - - - -	130,582
TOTAL - - -	330,131

During the year the building for a bacteriological laboratory at Mukhtesar was completed, with the exception of certain additional works required in con-

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CIVIL WORKS.

nection 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 was completed and made over to the school authorities. The construction of new drainage works at Naini Tal were also put in hand.

The monsoon of 1898 caused even more damage to communications in the Kumaon Division than its predecessor, and the heavy rainfall in August 1898 also caused great damage to the approaches to Naini Tal, the cost of repairing which is estimated at £5,300.

Punjab.

In the Punjab the expenditure was considerably smaller than in the preceding year. The outlay on civil works was as follows:—

	£.
Imperial	30,661
Provincial	188,613
Local	53,257
Total	272,864.

The most important works under the head of Imperial were the reconstruction of the old building at Simla known as "North View," the adaptation of the house at Simla known as "Willie Park," the former as a telegraph office and the latter for the requirements of the press employes; additions to the levy post at Khajuri Katch and an alternative route for pack traffic from Murtaza to Sarwakai.

The provincial works included the building of the new Central Lunatic Asylum at Lahore, additions to the boarding house of the Government College in the same city, and the Rasul Jail to be used for prisoners employed in the digging of the Jhelum Canal; improving the section of the Hazara Trunk Road from Abbottabad to the boundary of the Kashmir territory and also the Mardan Charsadda Road besides the metalling and improving various other roads.

As regards miscellaneous public improvements, the works connected with the extension of Simla have had much attention. The water supply has now been increased to an amount which, will, at all events, be sufficient to meet the increased volume used for some years to come. Other improvements connected with the distribution of water are being investigated. Sewage works are next in importance, and for these, estimates are being prepared. After these will come the needed new roads and miscellaneous items. There is every reason to hope that the works really necessary for the present will be completed in 1901-1902.

Water supply schemes (either for extensions or for an original scheme were prepared for Delhi, Amritsar, and Lahore. The former has been started since the new official year began, and will probably want further extension before very long as Delhi is growing largely. The latter schemes wait for the provision of funds; all else is settled.

The comparative expenditure on civil buildings and communications was as follows:—

	Original Works.	Repairs.	TOTAL.
	£	£	£
Civil Buildings	52,324	30,932	83,246
Communications	33,262	77,591	110,853

Including station roads, the total road mileage at the end of the year was 26,027 miles, viz., 2,308 miles metalled, and 23,719 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 £36,869, and the cost of maintenance during the year was £8,620.

The total expenditure for the year was £291,596.

Civil Works.
Burma.

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 carried out and the construction of a jail at Myaungmya commenced. The extensions to Prome jail were also completed.

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 1898-99 was 6,032.46 miles. Owing to the large demands for police and civil buildings the funds available for roads were very limited, and only 25.72 miles of metalled road were constructed during the year, and 80.75 miles of roads of other classes.

There was considerable expenditure on navigation works. Improvements to the Pegu-Sittang and Sittang-Kyaikto canals were in hand.

The amount of the normal expenditure for the year was :—

Central Provinces.

	£.
Imperial - - - - -	1,888
Provincial - - - - -	109,858
Local - - - - -	7,300
TOTAL - - - - -	119,046

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.

Many important roads were in hand, and surveys were carried out for further extensions amounting to 54½ miles.

The total length of roads maintained in the province during the year from public funds was :—

	Miles.
Metalled roads - - - - -	1,664½
Unmetalled roads - - - - -	5,097
TOTAL - - - - -	6,761½

A further outlay of £691 was incurred on the Khandwa Waterworks and £5,100 on the Bhandara Waterworks.

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 132,502½ tons, against 115,682 tons in the previous year, showing an increase of 16,820½ tons. The net profit from the working of the colliery was £12,209, or 10.26 per cent. on the total capital outlay. The working of the Umaria Colliery resulted in a profit of £1,852, or 2.47 per cent. on the capital outlay. The output from this colliery was 153,540 tons, against 119,346 tons in 1897-98.

The total expenditure in Assam for the year was as follows :—

Assam.

	£
Imperial—Civil - - - - -	10,200
Provincial - - - - -	173,495
Local - - - - -	49,713
TOTAL - - - - -	233,408

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.

CIVIL WORKS.

The continued heavy charges under Provincial were due to the exceptional expenditure necessary to restore buildings and communications damaged and destroyed by the earthquake of 1897.

Madras.

The expenditure in Madras was as follows:—

Imperial	-	-	-	-	-	-	-	-	£	5,017
Provincial	-	-	-	-	-	-	-	-		168,974
Local	-	-	-	-	-	-	-	-		19,886
TOTAL										<u>193,877</u>

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.

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 £9,694; the work is expected to be handed over by the end of 1899-1900. Good progress was made with the extension of the Normal and Unions Schools at Rajahmundry. The upper storey was completed and handed over for occupation on the 1st April 1899. The outlay on the work to the end of March 1899 was £3,640.

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 the Public Works Department for particular works. In the year under review 24,515 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 lighthouses.

The works in connection with the extension of the Northern and Southern jetties at Cocanada were completed, and good progress was made during the year in the construction of certain lighthouses along the coast.

The only works under execution in connection with famine relief during 1898-99 were the Nandanavanam Tank, the Duthalore-Pamur, and the Kanigiri roads. Owing to early rains in May the number on relief fell off, the Nandanavanam tank work was then closed, and all labour was concentrated on the other two works. The heavy rains in September caused the closure of these works in October.

Bombay.

The expenditure on civil works in the Buildings and Roads Branch in the Bombay Presidency for 1898-99 was as follows:—

Imperial	-	-	-	-	-	-	-	-	Rx.	14,474
Provincial	-	-	-	-	-	-	-	-		182,947
Local	-	-	-	-	-	-	-	-		73,236
TOTAL										<u>270,657</u>

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. During the year control of the Somali coast works were transferred to the Home Government.

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, distilleries, and new lines for the Governor's body guard at Chaupati and quarters for bandsmen at Walkeshwar Road.

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 additional quarters for 50 students of the Agricultural School at Hyderabad was commenced. CIVIL WORKS.

The total outlay on communications during the year was about 21 lakhs of rupees. The total mileage of roads maintained from Imperial and Provincial funds was as follows:—

	Completed.	In Progress.
	Miles.	Miles.
Imperial	35	—
Provincial	3,619	70

There were in addition 4,076 miles of local fund roads in charge of the Public Works Department, of which 142 miles were in progress.

The planting and preservation of roadside trees continued to receive careful attention.

Under miscellaneous public improvements, the Ránder portion of the Surat and Ránder water supply works still remain to be completed. Substantial progress was made with drainage and sewerage works. The work of constructing roads and drainage on the Chanpáti estate at Bombay was completed, and also the drainage of the Arkilli Moat at Bijapur. Stone pitching to the right bank of the Narbada opposite Kaladra in the Nágra Táluka was commenced and completed during the year, the object being to protect the village against the scouring action of the river which had of late grown very serious.

The expenditure on public works in the Hyderabad Assigned Districts was as follows:— Berar.

	£.
Imperial	1,229
Provincial	51,716
Local	19,141
TOTAL	72,086

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.

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 £12,817. 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.

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.

The total expenditure by the Public Works Department of the Central India Agency in 1898-99 amounted to £23,648, the greater part of which was upon the extension and maintenance of roads. The most important works completed during the year were the Bonar River bridge on the Nowgong-Jhansi Central India.

NATIVE STATES.

Road, causeways across the Dhip and Gobir rivers and the Kulhar-Pathan Road. The total length of road communication maintained by the Department was 814 miles.

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-Bara extension was completed, and good progress has been made on the line of the 2-feet gauge from Gwalior to Sipri.

About 907 miles of metalled road were maintained.

Rajputana.

The total outlay in 1898-99 on public works in Rajputana was £537,204, of which £510,973 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. This section will probably be opened for traffic in July 1900.

The metre-gauge line from Bikanir northwards as far as Khari is open for traffic. 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 was opened for public traffic in August 1899.

A considerable advance has been made in irrigation works, especially in Jeypore on the Ramgarh project and in Bhurtpore Baretta Bund system, the Cochein Canals and the Sikai Canals.

A mining engineer took over charge of the Palana Collieries in the Bikaner State. The coal from the collieries has been tried on both locomotive and stationary engines. In the latter it does very well, but in locomotives it has not hitherto given satisfaction, as it has been found impossible to keep up steam with heavy loads against gradients, and the coal often clinkers very badly.

The total length of roads maintained by the Native States in Rajputana during 1898-99 was 2,288 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 £157,910, of which £54,200 were spent upon communications, £25,333 upon buildings, and £24,533 on irrigation. The total length of cart roads was increased to 2,007 miles.

In Cochin the expenditure was £41,574, of which £17,888 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 £6,899; Palanpur, £3,628; Mahi Kantha, £4,244; and Cambay, £6,374. In the Káthiáwár States the outlay on public works amounted to £207,885, Bhávnagar heading the list with an expenditure of £50,962.

The largest amount expended in South Gujarát and North and South Konkim was in Bansda, where there was an outlay of £2,596, and in Aachin, £1,954. In the Deccan and South Mahrátha country the largest items were an expenditure of £22,083 in Kolhapur, and of £5,479 in the Sangli State.

CHAPTER 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.
	£	£	£
1896-97 - - - -	1,188,983	1,132,104	56,870
1897-98 - - - -	1,252,311	1,153,057	99,254
1898-99 - - - -	1,275,972	1,149,937	126,035

The above figures include the charge on account of district post establishments, which is entirely met by grants from district post funds (only a very small portion of which is credited to the Post Office in the Finance and Revenue Accounts), and they exclude certain indirect charges in respect of the rent of Government buildings, cost of pensions, &c. If the figures for the year were recast on this basis, the surplus for 1898-99 would be £141,478.

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.
1896-97 - - - -	9,948	16,950	4,388	66,019
1897-98 - - - -	10,263	17,721	4,588	88,720
1898-99 - - - -	10,505	18,617	4,723	90,395
Increase in 1898-99 over 1897-98 - - - -	242	896	131	1,675

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 increased from 1,479 in 1897-98 to 1,481 in 1898-99, the letter boxes from 3,827 to 3,997, and the staff of village postmen decreased from 3,000 to 2,920.

YEAR.	Letters (including Postcards).	Newspapers.	Parcels.	Book and Pattern Packets.	TOTAL.
	No.	No.	No.	No.	No.
1896-97 - - - -	366,960,269	29,778,291	2,708,769	19,341,398	438,778,727
1897-98 - - - -	408,797,236	31,891,484	2,965,990	21,364,415	465,019,125
1898-99 - - - -	410,134,096	32,122,602	3,040,236	23,036,424	477,336,258
Increase in 1898-99 over 1897-98 - - - -	10,336,860	231,018	74,246	1,675,009	12,317,133

In addition to the 90,395 miles of Imperial postal lines shown in the statement, there were 35,082 miles of district post lines, and 1,551 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

126,992 miles at the close of 1898-99, as compared with 126,351 miles at the close of the previous year. There was a slight increase under all heads except steamer lines, but the increase was greatest under the head of "railways." The use of light hand-carts, or "rickshaws," for carrying mails was further extended, especially in Bombay, and continues to be well reported on. The use of bicycles, which was tried last year in parts of the Madras Presidency and in Lahore, was extended during the year under review to the town of Bombay, with successful results. The experience gained so far shows that the bicycle

is not a suitable means of conveyance for mails over lines of any length in the interior of the country, but for short communications over good roads in, or in the vicinity of, the larger towns, it is clear that the services of runners can be efficiently and economically replaced by employing bicycle riders. Post Office.

The general correspondence returns, of which a summary is given above, show an increase of over .12 millions of articles (excluding money orders) carried by post in 1898-99, as compared with 1897-98. Of this increase, over 10 millions were due to postcards, which, in Bengal, Bombay, the Punjab, and Eastern Bengal, exceeded the total number of paid letters.

The total number of articles received for delivery, including money orders, was over 489 millions, of which 99.09 per cent. were delivered. The net receipts of postal articles (other than money orders) at the dead letter offices for disposal were 3,982,336; of this number, 824,530 articles were disposed of by being re-directed, and then delivered to the persons to whom they were addressed, while 2,111,900 were returned to the senders, and 1,045,906 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. From special statistics kept by the Bengal dead letter office for three months, it appears that some 3,000 letters, 5,600 newspapers, and 1,800 packets were posted in the Bengal, Eastern Bengal, and Assam circles without any address at all.

A large amount of valuable property was, as usual, found in letters and other articles posted without addresses, 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 the five more important dead letter offices were found cheques, hundis, bills of exchange, currency notes, coins, and other property amounting in value to Rs. 3,88,201, 1,940*l.* 15*s.*, 180 francs and 420 dollars. Nearly the whole 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 1.67, against 1.63 in 1897-98. Per head of literate population, the percentage was 39.60, against 38.58 in the preceding year.

The letters and postcards despatched from India to the United Kingdom in 1898-99 are estimated at 3,312,445, against 3,068,417 in 1897-98, or an increase of 7.95 per cent. Those received in India from the United Kingdom are estimated at 4,226,195, against 3,598,444 in the previous year, or an increase of 17.44 per cent. The increase is, in both cases, largely to be attributed to the introduction of the lower rate of postage, one penny (or one anna) per half-ounce, which was in force during the last three months of the year.

The newspapers and packets despatched home from India show an increase of 6.21 per cent., but the number of such articles received in India from the United Kingdom showed a decrease of over 300,000 (or 4.73 per cent.), for which it is not easy to account.

The statistics of correspondence exchanged between India and foreign countries and colonial administrations used to be taken once in three years, alternately in May and November, and were last recorded in May 1896. The total number of letters and postcards exchanged with such countries was over 4½ millions, and that of newspapers and book-packets nearly 3 millions. Under the terms of the Principal Convention of Washington, no further statistics are to be taken during the currency of that Convention.

The parcels exchanged with the United Kingdom formed more than 69 per cent. of the whole foreign parcel traffic. The parcels received from, and despatched to, the United Kingdom through the British Post Office, *viâ* Gibraltar, and *viâ* Brindisi, taken together, increased from 171,225 to 175,789; but the service *viâ* Brindisi was only established two months before the close of the preceding year. The number of parcels, both sent and received, through the Peninsular and Oriental Steam Navigation Company, without the agency of the British Post Office, continued to decrease.

In the exchanges with continental Europe, the number of parcels despatched from, and received in, India shows a slight increase. In the exchanges with other countries there was again a satisfactory development of the traffic in

POST OFFICE.

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, while there was, at the same time, a distinct development of the traffic with the British East Africa Protectorate.

The receipts from the insurance of letters and parcels were £18,014, as compared with £17,703 in the preceding year. The number of insured articles was greater by 1·05 per cent., and the value by 1·01 per cent. Of the increase the larger part occurred in Madras, and was due in a great measure to the same cause as that which operated in Bombay in the preceding year, viz., the panic caused by the plague, which drove many of the Marwari and other foreign traders in Bangalore, Mysore, and other places to their homes. They resorted largely to postal insurance for the safe conveyance of their valuables to their native places.

The average value for which each article was insured was, in the case of letters, Rs. 264, as compared with Rs. 258 in the previous year, and in that of parcels, Rs. 324, against Rs. 327 in 1897-98.

The number of claims for compensation preferred in respect of insured articles was 72, as compared with 34 in the preceding year. Sixty-three claims were admitted, which involved the payment of £1,988, or 11·03 per cent. of the total amount realised from insurance fees, against a percentage of 2·65 in the preceding year; of the claims admitted, the loss was due in 11 cases to fraud or negligence on the part of the servants of the Post Office, and three were under inquiry at the close of the year. In two of the six claims rejected the contents of the insured parcels were declared at the office of posting to be gold, but were found on delivery to be pieces of lead and stones.

The business of the value-payable post continued to show steady progress. The number of articles sent was 2,347,569, and the amount declared for recovery by the Post Office from the addressees was £1,879,945, the commission on which was £33,547. There was an increase of 7·66 per cent. in the number of articles, of 9·88 per cent. in the value specified for recovery, and 10·20 per cent. in the commission realised. There was no change in the conditions under which Calcutta is responsible, year by year, for nearly two-fifths of the entire business. Out of a total of 832,291 articles sent by the value-payable post in the whole of the Bengal circle, 758,448 were posted at the Calcutta General Post Office and its town sub-offices; and, of the sum of nearly 92 lakhs recovered from the addressees of value-payable articles in that circle, more than 86½ lakhs were payable to the tradesmen of Calcutta.

The value-payable system has not been introduced between India and any country other than Ceylon. During the year under review 24,840 value-payable articles, of the aggregate value of £14,715, were despatched from India to Ceylon, as compared with 23,697 articles of the aggregate value of £13,800 in the preceding year.

The average value of each article, taking all classes of articles together, was Rs. 12. 0. 2, as compared with Rs. 11. 12. 4 in 1897-98.

The number and value of inland money orders issued in India, including telegraphic money orders but excluding transactions with Native States, increased respectively from 11,664,350 and £16,155,807 in 1897-98 to 11,740,565 and £16,363,363 in 1898-99; and the commission realised, from £203,813 to £205,871. The average value of an inland money order was Rs. 20. 14., against Rs. 20. 12. 4. in the previous year.

In the North Western Provinces and Oudh the number of revenue money orders again showed a considerable improvement, the number and amount being respectively 206,444 and £307,532, against 168,118 and £249,781.

In the Central Provinces, where there had been a falling off during the previous year owing to the prevalence of famine, the number of orders rose from 9,976 to 18,338, and the amount from £29,889 to £45,969. In the Punjab the number and value of these orders increased from 11,030 and £47,014 to 14,065 and £63,441, respectively. In the Lower Provinces of Bengal, including Eastern Bengal and Bihar, there was an increase in the number of the transactions, but a slight falling off in their aggregate value.

The remittance of miscellaneous Government dues by official money orders increased in the Lower Provinces of Bengal, in the North-Western Provinces and Oudh, and in the Punjab.

The total number of rent money orders issued rose from 49,819 in 1897-98 to 51,774 during 1898-99, and the amount of rent remitted, from £48,993 to £50,786. POST OFFICE.

In the money-order transactions with Native States the number and value of the issues in those States were respectively 82,546 and £171,020, against 76,043 and £151,168 in the previous year; and the number and value of payments in the States were 49,166 and £99,343, as compared with 47,709 and £90,679 in 1897-98. The excess of the issues by the States over the payments is mainly due to the issues of the Gwalior State.

The number of telegraphic money orders issued in 1898-99 was 159,826, for £1,227,252, as compared with 155,075 orders for £1,256,865 in the preceding year. The decrease in the aggregate value is to be accounted for by the fact that in the preceding year the remittances by telegraphic money orders were of an abnormal character, owing to the system having been largely used by grain dealers for the purchase of stocks of grain for the famine-stricken districts of the Deccan. The average value of a telegraphic money order was Rs. 115. 2., against Rs. 120. 12. 8. in 1897-98. The postal commission amounted to £12,981, in addition to £10,655 charged for the telegrams and credited to the Telegraph Department.

The system of identification by thumb impressions was introduced, as an experimental measure, for the payment of money orders to illiterate payees in a part of the North Arcot district of the Madras Presidency. Successful results were obtained, and steps were taken to extend the system to the whole of the Madras postal circle.

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 by India rose from 63,350 in 1897-98 to 68,430 in 1898-99, and the value from £224,346 to £233,331, while the orders paid in India decreased in number from 39,743 to 39,248, and in amount from £221,024 to £220,964. In 1897-98, of the total sterling money-order transactions, viz., £445,369, no less an amount than £404,219 was with the United Kingdom and British colonies, and in 1898-99 the proportion was £391,851, out of £454,295.

The average value of a sterling money order issued by India was £3 8s. 2d., as compared with £3 10s. 10d. in 1897-98, and that of such a money order paid in India was £5 12s. 7d., as compared with £5 11s. 3d. in the preceding year.

The average of the rates of exchange for sterling money orders in force in 1898-99 was 1s. 3½d. per rupee, as compared with 1s. 3¼d. 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 £49,419 in 1897-98 to £51,320 in 1898-99, and the orders paid by India, from £310,656 to £369,359.

The average value of a foreign rupee money order issued by India in 1898-99 was Rs. 37. 10. 9., as compared with Rs. 37. 12. 2. in 1897-98, and that of an order paid in India was Rs. 43. 7. 5., as compared with Rs. 42. 14. 3. 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 total of the money orders issued by the Indian Post Office in 1898-99 amounted to £16,748,907, against £16,529,697 in 1897-98, and the total of payments to £17,138,260, against £16,845,877 in the preceding year.

At the close of the year there were 6,310 offices performing savings bank business, against 6,290 in the preceding year, thus showing an increase of 20 offices during the year. The number of accounts in the Post Office savings banks rose from 730,387 in 1897-98 to 755,871 in 1898-99; the deposits, exclusive of transfers from one post office to another, from £2,145,972 to £2,206,885; the withdrawals fell from £3,331,705 to £3,122,672; and the interest from £186,913 to £183,003. The balance at the credit

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of depositors at the close of 1898-99 stood at £6,285,336, against £6,191,532 at the close of 1897-98. The average balance at the credit of each depositor was Rs. 124. 7. 3., as compared with Rs. 127. 15. in the previous year. Of the total number of accounts, 90·84 per cent. were held by natives, as compared with a percentage of 91·14 for the preceding year. Of the 755,871 accounts, 310,696 were held by persons of no occupation, or whose incomes were derived from others, or from their own property; 257,230 by persons of the professional class, 126,183 by persons of the domestic class, 29,082 by persons of the commercial class, 22,663 by persons of the industrial class, and only 10,017 by persons of the agricultural class. The last-mentioned class showed, however, the highest percentage of increase, viz., 9·88.

During 1898-99 the total amount invested in Government securities by savings bank depositors through the agency of the Post Office was £27,887, against £49,507 in the preceding year; and the balance of securities in the hands of the Comptroller-General at the close of the year was £56,247, compared with £48,747 on the 31st March 1898. Of this balance, £51,773 represented the nominal value of securities of the 3½ per cent. loan, the remainder being in 3 per cent. loans.

The arrangements for the sale of quinine through the agency of the Post Office are now in force throughout India, and in the aggregate the sales show a decrease of nearly 199 lbs. This decrease was due chiefly to a large falling off in the demand for the drug in the Madras circle, owing partly to the general panic caused by plague measures, and partly to the price of the fine grain packets having been raised in the preceding year from two to three pies each, under the orders of the Local Government. There was also a large decrease in the sales in Bengal, against which may be set off a considerable increase in Bombay.

The total number of Native army pensioners whose pensions were paid through the Post Office during the year was 26,075, and the amount paid to them was £124,768, as compared with 24,713 and £118,810 in 1897-98.

During the year under review 1,470 new policies of the aggregate value of £179,705 were granted by the Postal Insurance Fund. Of these, 1,146 (or 78 per cent.) were endowment policies, amounting to £140,439 in all. This class of policy was introduced with effect from the 1st of February 1898, and has proved, as was anticipated, the most popular form of insurance. Fourteen new contracts for monthly allowances were issued, as compared with 11 in the preceding year, and there were 32 contracts in existence at the close of the year, as compared with 19 at the close of 1897-98. Thirty-three claims, amounting in all to £2,237, were paid on the death of insured persons. Since the fund was started, on the 1st of February 1884, 4,436 lives have been insured; and, at the close of 1898-99, there were 3,834 active policies in existence (1,973 held by Post Office servants and 1,861 by servants of other Departments), and the aggregate sum insured was £402,637. No advantage has yet been taken by women of the extension to them of the benefits of the scheme.

During the year under review there were 30 cases in which the mails were plundered by highway robbers, of which 26 were in British territories, and four in Native States. The figures for the preceding year were 27 and 10 respectively.

The number of cases in which the servants of the Post Office were found guilty of offences punishable by the law were 324, of which 163 were departmentally punished, while legal convictions were obtained in the remaining 161 cases.

The number of complaints made by the public was 20,075, against 19,055 in the previous year. In only 36·23 per cent. of the whole number were the complaints ascertained to be well founded; 40·47 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.

The principal postal event of the year was the introduction, on Christmas Day 1898, of the Imperial Penny Postage scheme, in accordance with which

letters are now exchanged between the United Kingdom and the great majority of British colonies and possessions, including India, at a uniform postage rate of one penny the half-ounce. The scale of postage for inland letters was also revised and made cheaper. Post Offices.

The scheme for the continuous delivery of letters and other postal articles, which had been introduced experimentally in certain parts of Calcutta in the preceding year, was adopted as a permanent arrangement, and extended throughout Calcutta. The scheme was also introduced in selected parts of Bombay towards the close of the year, and although special difficulties had to be contended with owing to the prevalence of the plague, the measure was working satisfactorily when the year ended. The foreign parcel post was extended to Russia in Europe, Brazil, Guatemala, Nicaragua, Bolivia, Samoa, the French Soudan, and some other foreign colonies and possessions. A general revision was carried out of the rates and conditions applicable to parcels for countries served through the United Kingdom, France, and Germany.

The shortest time occupied in transit by the mail from London to Bombay was 12 days 8 hours and 31 minutes, while the average time for the year was 14 days 3 hours and 40 minutes. The quickest transit from Bombay to London was 12 days 20 hours and 22 minutes, while the average time for the year was 14 days 6 hours and 34 minutes.

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 51,769 miles of line, 160,650 miles of wire, and 275 miles of cable. TELEGRAPHS.

During the year £151,931 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 1,463 miles of line and 5,826 miles of wire. The total capital outlay at the close of the year stood at £4,347,693.

The number of telegraph offices open to the public at the end of the year, including railway and canal offices, was 4,699, of which 3,488 were maintained by the Department. The net addition to the number of offices during the year was 277.

The following statement shows, for a period of five years, the progress that has been made in extending public telegraphic communication :—

	Capital Expenditure.	Miles of Line.	Miles of Wire.	Miles of Cable.	Offices Opened.		
					Departmental, Ordinary and Postal combined.	Railway and Canal.	TOTAL.
Up to beginning of 1894-95	£ 3,773,399	42,707	134,255	274	1,224	1,511	2,735
During 1894-95	52,220	1,941	4,001	—3	138	10	148
„ 1895-96	92,385	1,727	4,670	—8	99	12	111
„ 1896-97	115,387	2,209	5,210	5	102	73	175
„ 1897-98	162,460	1,722	6,688	—5	71	62	133
„ 1898-99	151,931	1,463	5,826	11	85	101	186
To end of 1898-99	4,347,693	51,769	160,650	275	1,719	1,769	3,488

TELEGRAPHS.

A general view of the operations of the Department in 1898-99, 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.
		£	£	£		
1894-95 - -	4,391,226	528,340	379,548	148,792	28.2	3.60
1895-96 - -	4,736,734	590,715	385,582	205,133	34.7	5.24
1896-97 - -	5,077,584	589,366	414,338	175,028	29.7	4.34
1897-98 - -	5,713,227	719,530	417,771	301,759	41.94	7.19
1898-99 - -	5,448,600	591,566	427,549	164,017	27.73	3.77

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 1898-99 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 1898-99 amounted to 5,448,600, as compared with 5,713,227 in 1897-98, showing a decrease of 264,627, or 4.63 per cent. The corresponding decrease in value was £133,598 or 22.09 per cent. The falling off was mainly in inland State messages, but the extension of this class of traffic in 1897-98 was wholly abnormal on account of the military operations on the north-west frontier and the earthquake of June 1897. Compared with the figures of 1897-98 the inland State traffic of the year under review shows an increase of 9.9 per cent. in number and 21.11 per cent. in value.

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.	1897-98.		1898-99.	
	No.	Value.	No.	Value.
Inland State - -	860,382	£ 193,878	659,304	£ 90,712
Foreign State - -	9,896	5,687	9,726	3,871
Total State -	870,278	199,565	669,030	94,583
Inland Private -	4,107,270	263,573	4,036,510	244,915
Foreign Private -	735,679	141,444	743,060	131,485
Total Private -	4,842,949	405,017	4,779,570	376,400
TOTAL STATE AND PRIVATE - -	5,713,227	604,582	5,448,600	470,983

The following statement shows the development of the revenue from the inland private traffic for the 10 years ending 1897-98 :—

	£
1888-89	148,767
1889-90	151,887
1890-91	163,552
1891-92	179,695
1892-93	192,571
1893-94	203,486
1894-95	214,398
1895-96	231,687
1896-97	249,228
1897-98	263,573

In 1898-99, however, the receipts from the inland private traffic amounted to £244,915 or a decrease of 1.72 per cent. in number and 7.07 per cent. in value, compared with the figures of the previous year, whereas if the comparison is made with the figures of 1896-97, a normal year, there is an increase in number of 6.59 per cent., but a decrease in value of 1.73 per cent., resulting from the greater general use of the deferred class of telegram since the arrangement made in April 1897 for delivering deferred messages by hand came into force. There is every indication of a progressive increase in the number of these messages, and it is probable that the temporary contraction of revenue, due to a measure of which the practical effect has been to give to the public a cheaper class of message, will disappear during the current year.

The total foreign traffic, as measured by the number of chargeable words transmitted (foreign State messages being included), shows an increase of 648,299, or 8.3 per cent. over the figures of 1896-97, and of 145,623, or 1.76 per cent., over those of 1897-98; but with a rising exchange the receipts, which are based on tariffs calculated in gold, do not, as shown in rupees, necessarily correspond with the increase of work done. The receipts show a decrease of £9,419 or 6.50 per cent., when compared with those of 1896-97, and £11,774 or 8.00 per cent., when compared with the receipts of 1897-98.

Foreign private telegrams, including transit messages, show an increase of 1.00 per cent. in number but a decrease of 7.04 per cent. in value.

The private traffic (including press) between India and the West shows decrease in volume of 69,512 words, or 3.24 per cent., and £4,887, or 8.66 per cent. in value (Indian share only), as compared with 1897-98, when there were exceptional circumstances, which induced a large amount of private (especially press) telegraphic correspondence; but when compared with that of the normal year 1896-97, there is an increase of 135,659 words, or 6.99 per cent., with a decrease in value of £3,643 or 6.60 per cent. only, and this decrease in the receipts is mainly due to a rising exchange, as explained above.

The local traffic between India and Ceylon shows a decrease of 54,715, or 4.02 per cent., in the number of words, and of £549 or 4.99 per cent., in the receipts. Between India and the East, including Australia, the traffic shows an increase of 10,299, or 2.54 per cent., in the number of words, but a decrease of £774 or 6.57 per cent., in the receipts. In transit messages of all kinds the number of words transmitted increased by 312,770, or 7.59 per cent., but the receipts decreased by £1,340 or 2.129 per cent.

Inland press-telegram traffic, as compared with that of the previous year, shows an increase of 2,434 in number and £292 in value, or 6.77 and 3.15 per cent. respectively. This development is remarkable, considering the stirring events which gave such an abnormal stimulus to telegraphic traffic in 1897-98.

The foreign press traffic, however, shows a decrease of 1,025 in number and of £782 in value (Indian share only), or 19.42 and 35.51 per cent. respectively, as compared with the previous year, which, as mentioned above, was an exceptional one; but a comparison with the four preceding normal years shows a satisfactory progressive increase.

TELEGRAPHS.

The telephone companies at Bombay, Calcutta, Karachi, Madras, Moulmein, Rangoon, and Ahmedabad continue to extend their business. The number of subscribers was augmented by 117 and the number of exchange connections by 92 in 1898, while the number of private lines increased from 229 to 244. There was a small increase in the number of exchanges and exchange connections under the control of the Telegraph Department.

Communication with Europe *via* Suez was maintained uninterruptedly during the year by the Eastern Telegraph Company. The Teheran route was interrupted for 151 hours in all, as compared with 232 hours in the previous year, while the total duration of the interruptions on the Turkish route between Fão and Pera in Asia Minor was 453, against 1,044 hours in 1897-98. The cable between Bushire and Fão was cut for repairs on the 12th and 13th October, and closed to traffic for 9 and 12 hours respectively. The percentages of the traffic between India and the West carried by these three lines were :—

	Per Cent.
Red Sea <i>via</i> Suez - - - - -	47.65
Indo-European <i>via</i> Teheran - - - - -	50.83
Indo-European <i>via</i> Turkey - - - - -	1.52
	100.00

The bulk of the transit traffic was, as usual, carried *via* Suez.

As regards communication with the East, traffic with the Straits Settlements was not interrupted during the year. The Moulmein-Bangkok line *via* Kanburi continues to improve, but the Saigon-Bangkok route was interrupted for periods aggregating 83 days, as compared with 46 days in the previous year. A great improvement is shown in the working of the land route to China *via* Bhamo, though it is still far from satisfactory. The interruptions occur almost entirely in the province of Yunnan, and are said to be due more to the neglect of the Chinese telegraph clerks than to the breakdown of the lines.

Amongst the "telegraph events of interest" given in the report, it is stated that a new cable was laid between Porthcurno and Alexandria, the first section between Porthcurno and Gibraltar being opened in August 1898, and the last two sections between Gibraltar and Malta, and Malta and Alexandria, in January 1899.

INDO-EUROPEAN TELEGRAPH DEPARTMENT.

INDO-EUROPEAN
TELEGRAPH
DEPARTMENT.

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 1,721 knots of cable, 1,377 miles of line, and 3,453 miles of wire, exclusive of the Persian Government line from Teheran to Meshed, 568 miles, which is maintained by the Department.

The administration of the Indo-European Department, which in 1888 was amalgamated with the general telegraph system of India, 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 £769,054 at the beginning of the year under review, amounted at its close to £770,264, or an increase of £1,210.

The financial results of working the Department, as compared with the four preceding years, were as follows :—

INDO-EUROPEAN
TELEGRAPH
DEPARTMENT.

YEAR.	Total Capital Outlay.	Gross Receipts.*	Expenditure.	Net Receipts.	Percentage of	
					Net Receipts to Capital.	Expenditure to Gross Receipts.
1894-95	£ 702,859	£ 104,095	£ 55,126	£ 49,509	6.50	52.6
1895-96	765,947	111,339	54,497	56,842	7.42	48.9
1896-97	769,985	98,967	51,492	47,535	6.17	51.9
1897-98	769,054	102,677	52,132	50,545	6.57	50.77
1898-99	770,284	97,722	51,235	46,487	6.03	52.43

* This represents the revenue of the Departments after adjustments made in accordance with the provisions of the joint purse arrangement.

The capital account was increased by £1,210.

The total earnings of the Department show a falling off of £4,955 as compared with the previous year. This is due to (I.) a decrease of £2,350 in the Indian traffic; (II.) improvement in the value of the rupee, which resulted in fewer rupees being collected as the franc equivalent; and (III.) a decrease of £809 in the value of Australian traffic. On the other hand, the value of the Far East traffic (excluding Australia) shows an increase of £2,678.

The expenditure shows a decrease of £897 which is mainly due to fewer repairs being necessary on the Persian Gulf land lines.

The net result is a profit of £46,487 or 6.03 per cent., on the capital, against 6.57 realised last year.

The proportion of Indian traffic carried by the Indo-European route is about 18 per cent. higher than that on which the joint purse was based, but, on the other hand, the proportion of trans-Indian traffic carried by the Indo-European route is about 8 per cent. less than it should be.

Australasian traffic again shows a large falling off, the total value only being £332,441 against £361,590 last year.

The general working of the Department has been very satisfactory, and there was not any interruption of the land lines or cables which caused an interruption of traffic.

The mechanical and electrical condition of the cables is, considering their age, satisfactory.

CHAPTER XII.

EDUCATION, LITERATURE, AND THE PRESS.

EDUCATION.

EDUCATIONAL institutions in India are of two classes :—

EDUCATION.

(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 system of Madras, Bengal, and other provinces.

(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.

Bengal.

In Bengal the number of pupils in public institutions rose from 1,504,892 in 1897-98 to 1,546,243 in 1898-99, and the number of pupils in private institutions from 119,923 to 122,542; thus the total increase in the number of pupils under instruction was 44,660. The number of public institutions rose from 53,100 to 54,023, while that of private institutions fell from 11,413 to 11,078. The total number of scholars (1,668,785) represents 15·2 per cent. of the total population of school-going age (as against 14·8 per cent. in 1897-98), the boys (1,564,176) representing 28·6 per cent. (as against 27·8 per cent.) of the male, and the girls (104,609) 1·9 per cent. (the same proportion as in the previous year) of the female population of school-going age.

The total expenditure on public instruction amounted to £740,860, showing an increase of £11,360. This amount was contributed (roughly speaking) as follows :—From provincial revenues, 22·7 per cent.; district funds, 10·2 per cent.; municipal funds, 9 per cent.; fees, 44·9 per cent.; all other sources, 21·3 per cent. The expenditure was distributed as follows :—On University education, 11·4 per cent.; secondary schools, 33·6 per cent.; primary schools, 29·1 per cent.; special education, 4·7 per cent.; building and furniture, 5 per cent.; direction, inspection, and miscellaneous, 15·7 per cent.

The result of a year of material prosperity almost compensated, as regards the mere numbers of pupils, for the losses caused by the conditions of 1897-98, but the number of schools cannot for some time return to the figures for 1895-96. In the year under review all classes of public institutions, except middle schools and female schools, have gained both in number and strength. As regards the middle schools, it appears that vernacular education is losing ground, and that English schools, which lead more directly to various professions and employments, are gaining at the expense of vernacular institutions. There

has for three years been a steady decline in the number of female pupils in Bengal. Of the total number of pupils, male and female, under instruction in 1898-99, 69.6 per cent. were Hindus and 27.1 per cent. Muhammadans. These figures show that the number of Muhammadan pupils did not increase proportionately, although it exceeded the figures for 1897-98 by some 7,000.

EDUCATION.

There were 39 colleges at work during the year, of which 22 were unaided by Government. Out of 1,636 candidates for the B.A. degree, 416 passed. Government colleges passed 33.3 per cent. of their candidates, aided colleges 27.4 per cent., and unaided 20.8 per cent. The only organised school for sons of native chiefs and noblemen (the Nawab's Madrasah at Murshidabad) contained 56 pupils at the close of the year. Missionary institutions appear to have made some progress in the education of aboriginal tribes, especially in Chota Nagpur. There has been an appreciable gain in the number of advanced Arabic and Persian schools, and, upon the whole, Sanskrit schools maintain their position.

The total expenditure on education in the North-Western Provinces and Oudh amounted to £247,864, showing an increase of £2,929 on the expenditure of 1897-98. This sum was contributed in the following proportions: from provincial revenues, 19.15 per cent.; from local funds, 37.97 per cent.; municipal funds, 3.02 per cent.; fees, 22.38 per cent.; all other sources, 17.48 per cent. The outlay was distributed as follows:—University education, 16.8 per cent.; secondary schools, 37.3 per cent.; primary schools, 21.6 per cent.; special institutions, 2.9 per cent.; buildings and furniture, 10.9 per cent.; direction, inspection, and scholarships, 10.5 per cent.

North-Western Provinces and Oudh.

The number of public institutions in the provinces (6,944) showed an increase of 186, while the number of private institutions rose by 48 to 6,202.

The total number of pupils under instruction in the provinces was 378,084, showing an increase of 21,653 on the numbers of 1897-98 and representing 5.38 per cent. (as against 5.07 per cent. in 1897-98) of the population of school-going age. Of these pupils, 299,068 were in public, and 79,182 in private institutions. The 359,857 male scholars represent 9.87 per cent. of the boys of a school-going age, and the 18,393 female scholars form 0.54 per cent. of the girls. The proportions in the previous year were 9.32 per cent. of males, and 0.49 per cent. of females. As regards race and creed statistics, 75.43 per cent. of the pupils (as against 74.51 per cent.) were Hindus, and 21.52 per cent. (as against 22 per cent.) were Muhammadans. It is noticeable that among the Muhammadans the scholars represent 15.67 per cent. of boys of school-going age, and 0.91 per cent. of girls, while the corresponding percentages among Hindus were 8.70 and 0.24 per cent. respectively.

The increase in the total number of scholars occurred mainly amongst the boys at primary schools, but the number of girls at primary schools also increased appreciably. There was an increase of nearly £4,665 in the amount received from fees.

Collegiate institutions have been to some extent affected by the recent provision of collegiate education in certain Native States which formerly sent their students to the provinces. The death of Mr. Theodore Beck, Principal of the Muhammadan Anglo-Oriental College at Aligarh (following closely upon the death of Sir Saiyid Ahmed), inflicted an irreparable loss upon the college.

The growth of private enterprise in education has been a marked feature of recent years. Private institutions as a rule charge lower fees than public schools, and so attract pupils, but it remains to be seen whether they can compete successfully in examinations.

The year has on the whole shown progress, although there are no very marked results to report.

The total expenditure on education for the year in the Punjab was £214,710, showing an increase of £4,275 on the expenditure of 1897-98. This sum was contributed in the following proportions:—Imperial revenues, 3.9 per cent.; provincial revenues, 24.2; local funds, 19.5; municipal funds, 11.4; fees, 26.1; other sources, 14.8. The proportional expenditure was distributed as follows:—On university education, 7.7 per cent.; secondary schools, 36.82; primary schools, 17.42; special education, 5.02; direction, inspection, and scholarships, 14.78; building, furniture, &c., 18.18 per cent.

Punjab.

EDUCATION.

The number of public institutions (3,073) shows a decrease of 71, and the number of pupils attending them (181,446) a decrease of 8,544. The decrease occurred mainly in primary schools of the indigenous class for boys. In the number of private schools (5,075), there was an increase of 24, which must be set against a decrease of 312 in the preceding year, and the number of their pupils increased by 2,090 to 79,651. The total number of scholars under instruction was 261,097 (as against 262,551), of whom 238,667 were males and 22,430 females. The boys and girls represent 14·14 per cent. and 1·56 per cent. respectively of the male and female population of school-going age.

The number of Muhammadans under instruction (123,074) showed an increase of 655 over the number in the previous year, but there had then been a decrease of 6,118. The highest place in the last B.A. examination was taken by a Muhammedan. The percentages of children of a school-going age actually under instruction, classified by creed, stand as follows:—Muhammedans, 12·10 per cent. of boys, and 1·26 of girls; Hindus, 16·32 and 1·38 per cent.; Sikhs, 17·18 and 2·22 per cent. respectively. During the year under review there were 1,792 schools, with 87,511 pupils under the management of District Boards, and 316 schools with 34,632 scholars under municipal committees.

The 11 colleges of the province were attended by 1,458 students, the number having increased by 94. The B.A. degree was obtained by 108 out of 328 candidates. As regards Secondary Education, the Anglo-Vernacular schools show a slight advance. The proportion of agriculturists among pupils in secondary schools was 23 per cent. The decrease in the total number of primary schools and pupils has already been mentioned, but the steady decline in the number and strength of Zamindári schools in particular is noteworthy. The attendance in native girls' schools decreased, owing to the year being an auspicious one for marriages.

A continued improvement in conduct and discipline is reported in schools throughout the province, and physical training shows satisfactory progress.

Burma.

The total expenditure on education in Burma has risen from £89,586 to £96,962, the chief enhancement being under the heads of secondary schools and building grants. The expenditure has been met in the following proportions:—Provincial funds, 47·12 per cent.; local funds, 10·66 per cent.; municipal funds, 8·83 per cent.; fees, 20·69 per cent.; other sources, 12·7 per cent. The outlay was distributed as follows:—Arts colleges, 4·92 per cent.; secondary schools, 44·69 per cent.; primary schools, 18·72 per cent.; special education, 6·39 per cent.; direction, inspection, and scholarships, 14·68 per cent.; buildings, furniture, &c., 10·6 per cent.

The total number of schools has risen from 16,280 to 16,331, and that of scholars from 259,649 to 270,257. The public institutions numbered 4,686, with 143,006 pupils; the private 11,645, with 127,257 pupils. The boys under instruction (241,719) represent 41·46 per cent. of the male population of school-going age, and the girls (28,538), 5·09 per cent. of the female.

The number of students at the Rangoon College increased from 70 to 95. Out of 8 candidates for the B.A. examination, and 36 for the F.A., 7 and 18 respectively were successful. The examination results in secondary schools were, on the whole, disappointing, and female education has apparently shown some retrogression. The text-book committee has continued to do useful work.

There were in this year 26 schools for Europeans, with 1,900 pupils. Some advance was made in Karen education, but the progress of Muhammedan and Tamil schools is unsatisfactory.

Assam.

The total expenditure, direct and indirect, on education in Assam was £44,164, as compared with £44,000 in 1897-98. The direct expenditure fell from £32,302 to £31,510, while the indirect expenditure rose from £11,698 to £12,654. The expenditure was met from the following sources: provincial revenues, 30·95 per cent. of the total; local funds, 30·39 per cent.; municipal funds, 1·12 per cent.; fees, 19·36 per cent.; miscellaneous, 18·18 per

cent. Subscriptions from the public and contributions from the missions fell off. EDUCATION.
The expenditure was distributed in the following proportions: arts colleges, 62 per cent.; secondary schools, 29.69 per cent.; primary schools, 36.62 per cent.; special education, 4.42 per cent.; direction, inspection, and scholarships, 19.11 per cent.; building, furniture, &c., 9.54 per cent.

The total number of institutions was 3,368 (as against 3,389 in the previous year); of these, 3,086 (as against 3,107) were public and 282 (the same number as in the previous year) private. The total number of scholars rose from 96,925 to 99,823 (a total still considerably below that of the year 1896-97), of whom 91,810 (as against 89,156) were males, and 8,013 (as against 7,769) females. These figures represent 21.65 per cent. and 2.03 per cent. respectively of the boys and girls of school-going age. The number of Muhammedan pupils was 20,236 (as against 19,521 in the preceding year), representing 20.3 per cent. of the total number of pupils in the province.

The total number of students from the province reading in arts colleges in Bengal and Assam was 278, of whom 44 passed the F.A. and 18 the B.A. examinations.

The number of schools in British territory in the Central Provinces fell from 2,215 in the previous year to 2,094, and the number of pupils from 125,933 to 125,502. In the Native States the number of schools rose from 277 to 295, and the number of pupils from 14,165 to 15,474. The decrease in British territory represents a fall in the number of vernacular primary schools; 139 of these institutions had to be closed on account of the financial mismanagement of two district councils, which had previously exceeded their powers in devoting to education more money than was by rule available. Central Provinces.

The total expenditure on education amounted to £70,558 (as against £74,422). The sum of £64,968 (as against £63,176) was expended in British territory, derived from the following sources: provincial revenues, 35.1 per cent.; district funds, 22.4 per cent.; municipal funds, 11.9 per cent.; fees, 13.8 per cent.; other sources, 16.8 per cent. The proportional outlay was as follows: University education, 5.76 per cent.; secondary schools, 27.6 per cent.; primary schools, 38.47 per cent.; special education, 3.55 per cent.; direction, inspection, and scholarships, 14.86 per cent.; buildings, furniture, &c., 9.76 per cent.

The percentage of children under instruction to the population of school-going age was 7.5 in British territory and 4.8 in Native States; 7.2 throughout the Province. The male percentage (including Native States) was 13.34, the female, 1.15. In British territory, 40.1 per cent. of male Muhammadans of school-going age, and 2.2 per cent. of female were undergoing instruction. These figures show a decided advance. The statistics of female education (175 schools, with 11,183 pupils) show an increase of 4 schools and 333 pupils.

The progress of the Rajkumar College for sons of Chiefs, situated at Raipur, has been very satisfactory. Considerable attention has been devoted to physical training throughout the Province.

The year under report in Berar shews a partial recovery from the effects of famine. One consequence of the improved condition was a great increase in the number of marriages and a consequent decline in female education. The total number of institutions fell by 17 to 1,272, but the total number of pupils rose by 1,818 to 53,983. The 50,769 boys at school represent 22.59 per cent. of the male population of school-going age, and the 3,214 girls, 1.52 per cent. of the female. Only 7 schools (with 306 scholars) were classified as private. Berar.

The total expenditure on Public Instruction amounted to £28,158 (as against £28,908), of which about 50 per cent. was derived from Provincial Funds. The proportional outlay was as follows:—Secondary schools, 18.3 per cent.; primary schools, 59.1 per cent.; special education, 2.1 per cent.; direction, inspection, and scholarships, 13.8 per cent.; building, furniture, &c., 6.3 per cent.

There was a considerable decline as regards "indigent schools," which was apparently due to the high standard laid down for grants-in-aid. About 16.2 per cent. of the pupils in the Districts were Muhammadans. The education of low-caste Hindus shows some progress.

EDUCATION.
Bombay.

The total expenditure on education in Bombay fell from £491,778 in 1897-98 to £488,016, a decrease in the expenditure from Provincial Funds having been rendered necessary by the course of the plague. The total sum was contributed in the following proportions:—Provincial funds, 27·7 per cent.; local funds, 13·6 per cent.; municipal funds, 5·5 per cent.; fees, 20·6 per cent.; revenues of native states, 17 per cent.; all other sources, 15·6 per cent. The expenditure was divided as follows:—On university education, 6·7 per cent.; secondary schools, 26 per cent.; primary schools, 46·2 per cent.; special education, 6·9 per cent.; direction, inspection, and scholarships, 8·3 per cent.; buildings, furniture and miscellaneous, 5·9 per cent.

The total number of institutions was 12,639, the public institutions having fallen from 9,917 to 9,768, and the private risen from 2,762 to 2,871. The total number of pupils was 629,718, of whom 558,870 (as against 580,855 in the previous year) were in public institutions. The actual numbers of male and female pupils were 550,259 and 79,459; the respective percentages to population of school-going age were 26·36 (as against 27·12 in the previous year) and 4·06 (as against 4·21 per cent.)

The primary schools suffered from the results of the plague, especially in the Southern Division, and several aided indigenous schools in Sind were closed for inefficiency.

The success of the Elphinstone College was conspicuous. There is little to remark as regards female education, but attention may be called to the observation made by the inspector of the Central Division, that "in all but the largest cities, girls' schools are chiefly valued as *crèches*, in which the little ones are out of harm's way." Progress in Muhammadan education is very slow, and the special Urdu schools do not appear to be as efficient as Marathi schools.

Madras.

The total educational expenditure in the Madras Presidency rose from £459,842 to £475,132, of which sum £379,530 (as against £373,166) came under the head of direct expenditure. The increase thus fell mainly under the head of indirect expenditure, and it was contributed principally from private funds and fees. The total expenditure was contributed as follows: from provincial revenues, about 23 per cent.; local funds, about 12 per cent.; municipal funds, about 4 per cent.; fees, about 31 per cent.; other sources, about 30 per cent. The outlay was distributed in the following proportions: University education, 12·28 per cent.; secondary schools, 30·87 per cent.; primary schools, 29·72 per cent.; special education, 7·01 per cent.; direction, inspection, and scholarships, 9·43 per cent.; buildings, furniture, and miscellaneous, 9·69 per cent.

The total number of pupils under instruction rose from 828,560 to 840,047. Of these 715,763 were males, representing 27·08 per cent. of the male population of school-going age, and 124,284, representing a corresponding percentage of 4·60, were females. Of the total number of pupils, 727,671 were receiving instruction in public institutions, and 112,376 in private schools. The total number of institutions was 27,263 (of which 21,766 were public) as against 27,238 (of which 21,850 were public) in the preceding year.

There was a large fall in the number of candidates for the degree of B.A., and also in the number of students on the rolls of the Law College. There were 48,082 boys in the secondary stage of instruction, and 537,238 in the primary. A steady improvement in the condition of female education is reported, the number of girls at school having risen by 2·9 per cent. Eight female candidates passed the B.A. examination.

The total number of Muhammadan students rose from 100,295 to 101,894. Progress has been made in the education of Panchamas (low-caste Hindus), but there is a slight fall in the number (3,116) of children belonging to aboriginal tribes under instruction.

A general improvement in school discipline has been noted.

Coorg.

Since the year 1895-96 there has been a steady decrease in the number of pupils at school in Coorg, which cannot be attributed solely to the agricultural depression. A wide-spread panic on the vaccination question seems to have caused parents to keep their children at home.

The educational control of the province was, in the year under review, placed under the Director of Public Instruction, Madras. EDUCATION.

The number of schools fell from 120 (of which 79 were public) to 91 (of which 76 were public), and the total number of scholars from 4,328 to 4,105 (of whom 3,893, as against 3,996, were in public institutions). The 3,363 male scholars and 742 female represent respectively 23.37 and 6.41 per cent. of the boys and girls of school-going age.

The total expenditure on education fell from £2,604 to £2,474.

LITERATURE AND THE PRESS.

LITERATURE.

	English.	Bi-lingual: English and another language.	Other European Languages.	Sanskrit.	Arabic.	Persian.	Urdu.	Hindi.	Bengali.	Punjab.	Marathi.	Gujarathi.	Tamil.	Telugu.	Burmese.	Bi-lingual (Oriental): A Classical and a Vernacular Language.
Bengal	538	80	1	62	3	3	38	75	984	—	—	—	—	—	—	160, chiefly Sanskrit and Bengali.
N.W. Provinces and Oudh.	98	98	—	76	20	66	454	296	9	7	2	1	—	—	—	232, chiefly (a) Sanskrit and Hindi; (b) Arabic and Urdu.
Punjab	104	32	—	15	47	36	605	71	—	274	—	—	—	—	—	95, chiefly Persian or Arabic and Urdu.
Central Provinces	6	6	—	—	—	—	—	19	—	—	6	—	—	—	—	2, Sanskrit and Hindi.
Berar	1	—	—	—	—	—	—	—	—	—	16	—	—	—	—	—
Mysore	4	2	—	13	—	—	—	—	—	—	—	1	2	—	—	33, chiefly Sanskrit and Canarese.
Bombay	52	43	1	42	2	13	13	61	—	—	105	266	—	—	—	77, chiefly Sanskrit and Gujarathi or Marathi.
Madras	267	95	3	51	1	1	1	—	—	—	—	—	241	264	—	78, chiefly Sanskrit and Tamil or Telugu.
Burma	6	7	—	—	—	—	—	—	—	—	—	—	—	1	43	32, Pali and Burmese.

This table gives concisely the number of publications throughout India in European, Eastern classical, and the principal Indian vernacular languages. The number of bi-lingual and polyglot publications makes classification difficult, but it may be noted that books have been published in the following languages, as well as those given above:—Zend and Pahlavi (in Bombay), Prakrit (in Punjab and Central Provinces), Pali (in Burma), Chinese (in Burma), Tibetan (in Bengal), Uriya (in Bengal and Madras), Assamese (in Assam and Bengal), Kashmiri (in Bengal and Punjab), Sindhi (in Bombay and Punjab), Kanarese (in Madras, Bombay, and Mysore), Konkani (in Madras and Bombay), Malayalam (Madras), Pashto (Punjab), Nepalese (Bengal and N.W. Provinces), Garo, Khasi, Manipuri, Tipperah, Mundari, Musalmani-Bengali, and Santali (in Bengal), Kaithi (in N.W. Provinces), Marwari (Bombay and Punjab), Tulu (Madras), Kachin, Sgau-Karen, Talaing, Chin, and Shan (in Burma).

The number of publications received in the Bengal Library was 2,174 (as against 2,182) in 1897, 771 of these being periodicals. Complaint is again made of the systematic evasion by printers of the registration rules. There is little to notice in the numerous stories and plays published in the Bengali language. A critical essay on the Hindu Law of Inheritance as at present administered ("Hindu Vijnan Sutra," by Babu B. N. Ray) deserves attention. Most of the works published in English are educational. Twelve philosophical works in Sanskrit are recorded. In the Uriya language 161 books were published, of which nearly one-third were poems. The most important bi-lingual publications were Sanskrit-Bengali works on language, philosophy, and religion.

Amongst periodicals, the "Bhārati" has passed out of the hands of the two Bengali ladies who edited it, and has become more political in character, but it appears that there has been on the whole a slight increase in the number of Bengali women-writers. A journal specially intended for zenana ladies was

LITERATURE.
North-Western

started during the year. Some improvement in educational textbooks has taken place.

Provinces and
Oudh.

A large output of Urdu fiction is reported, and the translation of objectionable English novels into the vernacular is again remarked. The detective novel has made its way into Urdu literature, but religious works and verses are the most numerous classes, the former class including controversial tracts representing Christianity, Hinduism, Muhammadanism, Jainism, the Arya Somaj, Theosophy, and the Radha Swami sect. Most of the works on language, history, and law, are mere cram-books. It is noticeable that native papers never contain reviews of new books, and that there is little encouragement for authors.

Punjab.

The total number of books received rose from 1,074 in 1897 to 1,326 in 1898. Punjabi writing shows steady development, but Urdu is represented by 605 books. As in the North-Western Provinces, religion is the most popular subject, while poetry comes second. A life of the Amir Abdurrahman of Kabul (*Tazkira-i-Amir*) and a study of Sa'di (*Yadgar-i-Sa'di*) in Urdu deserve notice, while a versified collection of the lives of Sikh Gurus ("*Guru Partap Suraj Granth*") appears to possess considerable merit. A history of the Kapurthala State, a history of Muhammedan rule in India, and an account of the Graeco-Turkish war of 1897 ("*Jang-i-Turkey wa Yunan*") form an interesting addition to Urdu literature. The "*Himayat-un-Nisa*," an exposition of women's rights by a Muhammedan widow, marks a new development. The chief work in Punjabi appears to be a poem ("*Puran Bhagat*") by Kali Das.

Bombay.

The total number of publications registered was 1,135, against 1,036 in 1897. A Gujarathi translation of an English version of Fénelon's "*Télémaque*," a Marathi translation of Colonel Malleson's "*Akbar*," and a life of Bal Gangadhar Tilak in Marathi verse, may be noticed. An account of the Tilak trial in Marathi, written with the design of letting the public know "how far political agitation can be carried on without infringing the law," has some significance. Only 10 Marathi and 15 Gujarathi books were written by native graduates. The Parsi community appears to take considerable interest in Gujarathi literature.

Madras.

In Madras, the number of publications rose from 951 to 1,657. The "*Lady of the Lake*" has been translated into Malayalam prose, and there is a large output of original, if undistinguished, fiction in Tamil and Telugu. Religious publications are numerous.

Other provinces.

Assam produced 31 publications, all in the Assamese language. In Mysore the translation of five of Bankim Chandra Chatterji's Bengali novels into Canarese is noteworthy. There is little that calls for comment in publications in the Central Provinces and Berar, and nothing has been published in Coorg.

CHAPTER XIII.

EMIGRATION AND MIGRATION.

I. EMIGRATION.

EMIGRATION.

During the year 1898 the Port of Calcutta was opened for navigation to the Seychelles. The British colonies of Natal, Demerara, Jamaica, Trinidad, and Fiji, and the Dutch colony of Surinam, indented for labourers. The British colonies requisitioned 5,758 labourers (as against 7,024 in 1897), and four colonies were supplied with 5,444 during the year, 623 labourers being sent to Jamaica in February 1899. Mauritius made no indent in 1898. Surinam asked for 600 labourers and received 590. Calcutta.

The number of emigrants registered was 9,334, as against 12,315 in 1897, the decrease being ascribed to the greater prosperity of the agricultural population. Of the labourers recruited, 6 per cent. came from Bengal, 7 per cent. from Bihar, 55 per cent. from the North-Western Provinces, and 32 per cent. from Oudh. Of the 701 recruiters' licenses, 27 were cancelled for various reasons.

Of the 9,487 emigrants recruited, 7,439 reached Calcutta, making up, with the addition of 667 not despatched in the previous year, a total of 8,106 accommodated there.

Out of this total, 6,223 (of whom 5,350 were Hindus, and 873 Muhammedans) were despatched to the colonies, 38 per cent. going to Demerara, 22 per cent. to Natal, 20 per cent. to Trinidad, 9 per cent. to Fiji, and 10 per cent. to Surinam. Eight sailing ships and four steamers (as against seven and nine) were chartered to carry emigrants, the steamers being used for the Natal voyage only. The emigrants included 238 returned labourers, of whom 217 had served in British colonies. Of these re-enlisted emigrants 183 went to Demerara.

The number of the time-expired emigrants who returned during the year was 3,502 (as against 3,750). Five sailing ships and five steamers were employed to convey them. The number of deaths on the return voyages represented 1.82 per cent. The aggregate of the savings brought back amounted to Rs. 451,860, giving an average of Rs. 130 per emigrant, the largest average savings being those of the labourers from Fiji, nearly Rs. 230 per head. The French colony of Guadeloupe (emigration to which has ceased), repatriated 42 emigrants with average savings of Rs. 80 per head.

Agencies were maintained at Madras by the Governments of Natal and Mauritius. Madras. The Natal depôt admitted 6,356 persons, of whom 4,083 (as against 3,123 in 1897) actually emigrated, 2,369 of these being men and 969 women. Natal repatriated 320 labourers, with aggregate savings of £3,232. Mauritius did not requisition any coolies, but repatriated 548 emigrants, with aggregate savings of 940*l*. The average savings per head of returned emigrants were Rs. 210 for Natal and Rs. 30 from Mauritius.

At Negapatam 3,424 indentured emigrants were registered for the Straits Settlements, and 3,319 embarked (as against 3,063 and 2,962 in 1897). There was no emigration to French colonies, but 25 emigrants returned from Réunion, and six from Guadeloupe.

As regards free emigration, 15,339 British subjects embarked for the Straits Settlements (as against 18,719), and 142,300 for Ceylon (as against 166,186).

The number of persons returning to Madras from other provinces of India and from countries outside India was 216,901. Immigrants from the colonies are not distinguished from immigrants from Burma and Assam in the report. An examination of the statistics for the last 10 years leads to the conclusion that 84 per cent. of emigrants from Madras return to the Presidency.

Emigration from the port of Bombay was specially prohibited throughout the year by a notification under the Epidemic Diseases Act, but, by special arrangement, 289 labourers were allowed to leave for the Seychelles. Karachi was closed for the greater part of the year, but 9,479 employés of the Uganda railway, recruited in districts of Sind which were free from plague, were Bombay.

EMIGRATION.

allowed to leave the port. In December 1898 orders were issued that ships containing emigrants to Uganda should carry a doctor, and special attention was paid to the accommodation provided for emigrants.

The number of invalided and time-expired labourers that returned to the Presidency from Mombasa was 1,397.

Free emigration to East Africa continued throughout the year.

MIGRATION.

II. MIGRATION.

Assam.

The improved conditions of the year 1898 throughout the greater part of India led to a great fall in the number of persons migrating to Assam. The decrease, in fact, was one of 48 per cent., the number of labourers that entered Assam being 46,169 in 1898, as against 95,931 in 1897. The number of adult immigrants imported fell from 66,328 to 35,516. The decrease was very marked in the case of labourers from the North Western and Central Provinces, but Chota Nagpur and the Santhal Parganas contributed an increased number of labourers.

The "sardari" system of recruitment continued in favour; 12,080 labourers having been recruited under the Act by garden sardars, against 10,559 Act labourers recruited by contractors, (the latter figure showing a reduction of nearly 60 per cent. on the average of the last three years). Of the total number of 35,516 adults, 16,936 were engaged under contract in the recruiting districts, and 18,580 were brought to Assam outside the Act. Of the latter number, 5,703 entered into contracts at Dhubri, and 1,284 in the labour districts, while 11,593 remained "free immigrants." As regards the distribution of labourers, the Assam Valley received 20,839 "Act" and 3,133 "non-Act" adults, and the Surma Valley 1,800 "Act" and 9,744 "non-Act" adults.

The proportion of medical rejections of coolies at Dhubri was 6.6 per cent. (as against 8.1 per cent.).

The year under review was a healthy one, and the total mortality among immigrants during transit fell considerably. The birth-rate on the tea gardens fell, but the death rate (31.1 per mille) was the lowest on record. The number of gardens classed as unhealthy was 55 (as against 119 in 1897).

The total labour-population of the province at the close of the year was 634,519. The total number of contracts executed under the Act was 51,373, of which 28,737 were executed locally. The number of agreements dissolved by mutual consent was 2,000.

There was a decrease of 12 per cent. in the total number of criminal offences committed by the tea-garden population, and a decrease of 40.3 per cent. in the number of offences (other than desertion) under the Emigration Act. The number of adult deserters fell from 23,670 to 17,967. Convictions were obtained against 6.5 per cent. only of the deserters arrested.

The question of raising the minimum statutory rate of wages was under consideration in connection with the amendment of the Emigration Act (l. of 1882).

Burma.

The number of immigrants increased, considerably, as appears from the return of persons passing through the principal ports. At Rangoon the number of immigrants rose from 106,374 to 132,177; at Akyab from 15,925 to 16,407. No figures were this year available for Kyaukpyu, but at Moulmein the number fell from 644 to 596.

As regards "emigration," which consists chiefly of the return of immigrants, the numbers passing through the ports were as follows: Akyab, 14,972 (against 14,359 in the previous year); Rangoon, 91,033 (against 75,998); Moulmein, 743 (against 847).

Madras.

Only 269 emigrants to Assam were registered, against 1,044 in the preceding year. The number of passengers for Burma was 70,874; the number of persons returning from Burma, 44,087.

CHAPTER 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.

THE total trade of British India with other countries by sea and land during the five years ending on the 31st March 1899, was valued as follows:—

BY SEA.	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.
Private Imports :	£	£	£	£	£
Merchandise - - -	46,778,292	46,210,930	47,882,553	46,177,775	45,586,894
Treasure - - -	6,372,671	8,995,991	8,716,902	13,650,857	11,922,638
	53,150,963	55,116,921	56,579,455	59,828,632	57,509,532
Private Exports :					
Foreign Merchandise re-exported - - -	3,371,609	3,145,011	2,689,091	2,500,781	2,247,464
Indian Merchandise - - -	69,171,723	73,030,416	66,587,107	62,524,067	72,900,185
Treasure - - -	5,438,678	2,821,534	3,283,927	4,756,113	4,938,787
	77,982,010	78,996,961	72,560,125	69,780,961	80,086,436
Government Transactions :					
Imports { Stores - - -	2,241,037	2,413,572	2,882,363	2,920,248	2,480,791
Treasure - - -	14,800	6,000	6,140	36,221	7,771
Exports { Stores - - -	65,853	47,732	46,532	63,672	52,108
Treasure - - -	45,370	18,340	7,737	9,652	2,160
	2,367,060	2,485,644	2,942,772	3,029,793	2,542,890
TOTAL Trade by Sea -	138,500,033	136,599,526	132,082,352	132,689,386	140,138,858
BY LAND.					
Imports - - -	3,287,692	3,316,191	3,758,351	3,756,401	4,061,962
Exports - - -	2,386,132	2,820,198	3,291,381	3,287,798	3,526,483
GRAND TOTAL of Trade by Land and Sea -	139,623,857	142,735,915	139,132,084	139,683,585	147,727,303
Excess imports of treasure - - -	908,423	6,072,117	5,431,378	8,921,313	6,989,461
Net excess of exports over imports of merchandise, Government transactions, and treasure -	22,686,400	21,526,534	13,146,437	7,069,184	20,142,070
India Council Bills paid in India - - -	19,266,067	22,053,983	16,818,600	10,374,600	18,917,111*

The above figures show that the year 1898-99 was one of considerable prosperity, and that some of the ground lost during the two years of distress had been regained; but they also show how serious the check was, since the total of the private seaborne trade of the year only exceeds that of 1895-96 by 1.4 per cent., a small increase in three years in a country which is still under-

Foreign seaborne trade.

* The amount of Council Bills paid in India is stated in pounds, at Rs. 15 to the pound. As in previous years, the amount actually paid during the year in India is given; the Bills drawn and the Telegraphic Transfers granted by the Secretary of State on India during the year 1898-99 amounted to Rs. 280,764,000, yielding 18,692,377, sterling, at an average rate of 15.978 pence per rupee.

TRADE.

going development in every direction. Causes which contributed to the revival were, besides the good harvests, the cessation of the monetary stringency and the fixity of exchange; the rapid fall in July 1898 of the bank rate, which did not rise again above 7 per cent.; and the fact that the exchange rate remained steady at about 16*d.* per rupee. Particulars of the chief articles of private merchandise are as follows:—

Imports.	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.
	£	£	£	£	£
Cotton woven goods -	19,881,000	15,189,000	17,616,000	15,268,000	16,459,000
Metals and hardware -	4,231,000	5,464,000	4,681,000	5,112,000	4,406,000
Oils, chiefly petroleum -	1,481,000	2,091,000	2,293,000	2,765,000	2,368,000
Silk, raw and manufactured	1,543,000	1,958,000	1,495,000	1,213,000	1,439,000
Cotton yarns - - -	1,901,000	1,981,000	2,217,000	2,329,000	1,701,000
Sugar - - - - -	1,917,000	2,071,000	2,101,000	3,189,000	2,678,000
Machinery and mill work	1,628,000	2,158,000	2,340,000	1,907,000	2,039,000
Provisions - - -	1,043,000	1,190,000	1,025,000	1,137,000	1,021,000
Chemicals, medicines, dyes	1,244,000	1,441,000	1,260,000	1,374,000	1,342,000
Woollen goods - -	1,028,000	964,000	1,129,000	765,000	1,016,000
Liquors - - - -	972,000	1,131,000	1,097,000	1,059,000	1,099,000
Apparel - - - -	957,000	1,063,000	1,011,000	818,000	920,000
Railway material - -	1,038,000	1,014,000	1,775,000	1,917,000	1,925,000

The imports of merchandise were smaller than in 1897-98, owing chiefly to the partial cessation of the large imports of sugar, metals, and petroleum which marked the previous year. The imports of cotton, woven goods, and yarn together, which are always a fluctuating item, were rather higher.

Exports.	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.
	£	£	£	£	£
Raw cotton - - -	5,802,000	9,393,000	8,647,000	5,914,000	7,457,000
Rice (husked) - -	2,461,000	8,954,000	7,900,000	7,726,000	10,452,000
Oilseeds - - - -	2,801,000	6,478,000	5,341,000	5,729,000	7,898,000
Jute, raw and woven -	3,192,000	9,827,000	10,510,000	10,707,000	8,493,000
Opium - - - - -	6,043,000	5,639,000	5,349,000	4,066,000	4,751,000
Wheat - - - - -	1,710,000	2,609,000	557,000	895,000	6,480,000
Cotton yarns - - -	3,781,000	4,487,000	4,782,000	4,645,000	4,402,000
Tea - - - - -	5,037,000	5,110,000	5,417,000	5,373,000	5,363,000
Hides and skins - -	4,373,000	5,093,000	4,634,000	5,545,000	4,966,000
Indigo - - - - -	3,164,000	3,570,000	2,914,000	2,038,000	1,980,000
Coffee - - - - -	1,415,000	1,465,000	1,057,000	1,013,000	1,167,000
Cotton woven goods -	907,000	975,000	803,000	710,000	705,000
Wool, raw - - - -	918,000	902,000	827,000	905,000	835,000

The chief increases were, as was to be expected, in the exports of food grains. The crop of wheat was good, and prices were at an exceptionally high level in Europe, so that the exports rose far above the low figures of recent years; they were not, however, remarkably high in comparison with some of the years of the preceding decade. Much the same may be said of rice, the exports of which were larger, but not much larger, than in the years preceding the famine. The tea exports showed an increase of 4 per cent., though their value fell slightly. Japan again took about 36 per cent. of the raw cotton exported from India. The exports of raw jute, which were abnormally large in 1897-98, declined in the year under report, as the area of the crop was smaller.

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 82 per cent. in the year under report, owing to the inclusion of Japan and the countries using the Indian currency system, Ceylon, Aden, and Mauritius, among the gold-standard countries. The proportion of trade directly with European countries was 65 per cent. as in the

previous year, omitting the seven crores trade with Egypt, much of which really goes to Europe. The trade with the United Kingdom was 67 per cent. of the trade with Europe, and 44 per cent. of the total trade, against 47 per cent. in 1896-97. TRADE.

The value of India's trade with some of the chief countries has fluctuated as follows in the last five years :—

	Total Value.				
	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.
		£.	£.	£.	£.
United Kingdom - - -	56,627,000	55,536,000	55,356,000	51,212,000	59,257,000
France - - - - -	6,361,000	6,438,000	4,859,000	4,851,000	5,905,000
China - - - - -	10,239,000	10,503,000	10,645,000	9,279,000	9,697,000
Germany - - - - -	6,303,000	6,942,000	6,570,000	6,415,000	6,655,000
Straits Settlements - - -	5,155,000	5,523,000	4,781,000	4,649,000	5,320,000
Belgium - - - - -	3,775,000	4,456,000	3,642,000	3,649,000	4,620,000
Italy - - - - -	2,225,000	2,374,000	2,357,000	2,132,000	2,585,000
Ceylon - - - - -	2,601,000	2,809,000	2,618,000	3,447,000	3,341,000
Japan - - - - -	1,817,000	2,158,000	3,095,000	3,139,000	3,855,000
United States of America	4,633,000	4,702,000	4,190,000	4,931,000	4,500,000
Russia - - - - -	992,000	1,513,000	1,631,000	1,527,000	1,455,000
Austria-Hungary - - -	2,425,000	3,117,000	2,661,000	2,835,000	3,017,000

The trade with all countries, with the exception of Ceylon, Russia, and the United States, shows a substantial recovery from the depression of the preceding year, but the share of the United Kingdom is again a smaller proportion of the whole than in 1896-97 and previous years, owing partly to trade, which was formerly carried by way of the United Kingdom, having been diverted into other more direct routes.

The following figures show the proportionate share of each province in the foreign sea-borne trade in merchandise, and of the five chief ports in the total trade in merchandise and treasure combined :—

Provinces.	1896-97.	1897-98.	1898-99.	Ports.	1896-97.	1897-98.	1898-99.
Bengal - - - - -	43·18	43·83	40·81	Calcutta - - - - -	39·68	39·32	37·41
Bombay - - - - -	34·15	31·19	33·46	Bombay - - - - -	38·69	38·17	39·1
Madras - - - - -	10·04	10·67	9·08	Madras - - - - -	5·4	5·28	4·27
Burma - - - - -	7·92	8·78	9·53	Rangoon - - - - -	5·82	6·37	6·83
Sind - - - - -	4·76	5·53	7·12	Karachi - - - - -	4·52	4·95	6·38
Total - - - - -	100	100	100				

The greater part of the trade in treasure belongs to Bombay; in merchandise Calcutta was considerably ahead of Bombay, the former showing £49,000,000 and the latter £41,000,000 as the total value of their export and import trade. The net imports of treasure were £2,000,000 below those of the previous year, owing to a decrease in the silver imports which counter-balanced the considerable increase in the imports of gold.

There was a sensible increase in the frontier trade, which was favourably affected by the improved material condition of India and by the cessation of hostilities on the north-west frontier. Of the total of £7,588,445, thirty-seven per cent. crossed the north-west frontier, including Kashmir, while Nepal accounts for no less than 32 per cent. The latter trade is carried on, not so much with the Valley of Nepal, as with the rice lands which skirt the southern face of the mountains. Trade with Kashmir has increased in a satisfactory manner. The trade with Western China, so far as it is registered, grows very slowly; but there is reason to believe that a large part, perhaps half, of the frontier trade of Burma escapes registration. Land trade.

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TRADE.
Coasting trade.

The merchandise and treasure carried by coasting vessels is said to have represented a value of £22,080,455 during 1898-99, compared with £25,652,157 in 1897-98, a fall which was largely due to the cessation of the famine and the consequent return of the Burma rice to its usual markets in Europe.

MANUFACTURES.

MANUFACTURES.
General.

The domestic industries of India, such as weaving and spinning, pottery, brass-work, iron-work, and art work of many kinds, continue to be practised after ancient methods all over the continent of India. But Indian fabrics and products, made on a small scale by workers at their homes, have for years past been giving way before the cheaper cotton yarn and fabrics, and the iron or steel products of British factories. Meanwhile, without any protection, favour, or advantage other than is afforded by cheap Indian labour and by the production of raw materials in India, an important manufacturing industry has been growing up, and steam power factories are at work, among which those for spinning and weaving cotton, for spinning and weaving jute, for making paper, for husking and cleaning rice, for sawing timber, and for brewing beer, are the most important. Steam power is also largely employed in factories on tea gardens and indigo estates.

There were at the end of the year 1898-99 in British India and Native States 176 cotton mills worked by steam, containing 37,540 looms and 4,456,000 spindles, and giving employment on an average to 150,000 persons every day. The capital invested in the industry is estimated to be about £10,000,000. Five of the mills were not worked at all during the year; 75 of them were in Bombay city and 52 elsewhere in the Bombay Presidency, which possesses 72 per cent. of the mills, 80 per cent. of the looms, and 71 per cent. of the spindles in all India. The consumption of cotton in the mills is about 1½ millions of bales, or nearly half of the cotton produced in India. The outturn of yarn in recent years has increased as follows in British India:—

	Counts above 20s.	Lower Counts.	Total.
	Lbs.	Lbs.	Lbs.
1895-96 - - -	41,606,129	388,805,873	430,472,002
1896-97 - - -	54,657,671	364,538,729	419,196,400
1897-98 - - -	61,177,032	392,482,314	453,659,346
1898-99 - - -	61,763,170	440,853,815	502,616,985

The general result for all India, including such Native States as have imposed excise duties on cotton manufactures, is an increase of 10·76 per cent. in the total outturn of yarn for the year.

The Bombay Presidency produced 72 per cent. of all the yarn, Bengal 9 per cent., Madras nearly 6 per cent., the North-West Provinces 6 per cent., and the Central Provinces 4 per cent. The proportion of higher-count yarns, 12 per cent. of the whole, was smaller than in the previous year, although the actual amount increased. The industry had to a large extent recovered from the influence of the plague, but in the present year, 1899-1900, the condition of the market in China, and the recurrence of famine, have again had a bad effect on it. The production of woven goods by mills in India was 98,658,000 lbs., of which 82,366,000 lbs. were from the Bombay Presidency. There is hardly any weaving done by factories in Bengal; Madras and the Central Provinces contributed 6 and 5 per cent. respectively 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 39 per cent. of the production.

The number of jute and hemp mills was 33, containing 13,371 looms and 278,858 spindles, and employing a daily average of 94,540 persons. 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 £3,500,000. In 1879-80 the corresponding figures were 21 mills, 26,826 hands, 4,876 looms, and 69,456 spindles. There were four woollen mills at work at the end of 1898, containing 21,444 spindles and 588 looms, and producing goods valued at more than £200,000 a year. The fabrics consist chiefly of blankets, serges, and cloths worn by the Army and the police.

There were 122 rice mills for husking and cleaning rice, and about 65 large saw mills, most of which are in Burma. Of the nine paper mills in India, one at Gwalior was not worked during the year. The value of the paper produced in 1897-98 is stated at £407,000; most of the paper used in Government offices is now obtained from Indian mills; the value of papers imported into India in 1898-9 was £246,000 as compared with £215,000 in 1897-98. The paper factories employed 4,187 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 1898 there were 27 breweries at work, which produced during the year 5,897,000 gallons of beer and porter, or 468,000 gallons more than they yielded in the previous year. The Commissariat Department bought 2,855,000 gallons of this malt liquor, as compared with 2,589,000 gallons purchased in 1897, for the use of European soldiers. The largest brewery was at Murree in the Panjab Himalayas, and the output of that concern was over a million gallons in 1898. The quantity of beer, porter, and cider imported into India was 3,231,000 gallons in 1898-99, or more than one-half the quantity produced in the country.

Among other "large industries," which are shown in the Indian Returns for 1897, may be mentioned:—

Silk mills	7	Oil mills and wells	165
Soap factories	29	Flour mills	87
Tanneries	144	Ice factories	55
Iron and brass foundries	89	Pottery and tile factories	130
Sugar factories (large and small)	228	Bone-crushing factories	16
Coffee works	52	Tobacco and cigar factories	32
Cotton ginning factories, cotton presses, and jute presses	733	Silk filatures	67
Cotton and woollen spinning and weaving establishments, not classed as mills	21	Glass factories	7
Rope factories	17	Saltpetre refineries	1,899
Cutch and lac factories, large and small	142	Dye works	6
		Indigo factories, large and small	7,686
		Jute presses	120

The question of the feasibility of manufacturing iron and steel from Indian iron ores by means of Indian coal has recently formed the subject of a special inquiry, which was entrusted to Major R. H. Mahon, R.A. The report of that officer was favourable, and it was issued to, and reviewed by, many trade and other journals in the course of the year 1899. His main conclusions are that under the most promising conditions the industry would succeed, and that those conditions are that the ironworks should be in the neighbourhood of Calcutta, drawing most of the ore from the Madras ironfields and the coal from Bengal. He does not, however, deny that works started on other sites, such as Salem in Madras, or in the interior of Bengal, might be remunerative. The works would have to be planned on a large scale, with the most modern machinery, and the strictest economy in assembling the iron, coal, and lime would be a necessary element of success.

In the ensuing paragraphs the figures given are, wherever it is possible, those for 1898-99; but in some cases the information has not been received, and the figures for 1897-98 are given.

Bengal. Bengal contains jute mills, cotton mills, paper mills, collieries, iron and brass foundries, including the only large ironworks in India, and the largest pottery

MANUFACTURES.

factory in India, besides factories for lac, sugar, rope, indigo, and saltpetre, tanneries and foundries. The coal output amounted to 3,622,000 tons, or 500,000 tons more than, in 1897, and over 78 per cent. of the total output of coal in India. Seven collieries were opened in 1898, and the number of persons employed rose to 48,600. The mica industry and the large pottery works at Raniganj continued to do well. The progress of the Barrakur iron works is noted above, in the portion of this Statement which deals with mineral resources.

North-West Provinces.

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.

Punjab.

The chief industries of the Punjab are, two collieries, seven breweries, one woollen and four cotton mills, 84 cotton pressing and ginning factories, nine flour mills, 17 indigo factories, one large sugar concern, and 10 iron and brass foundries.

Burma.

The large industries of Burma are 81 rice mills, 52 timber mills, 11 petroleum wells and works, and four ironworks for working imported iron and brass, not for smelting iron ore. The average daily number of operatives employed in the Burma factories is stated to have fallen from 24,300 to 16,200, but this appears to be due to a different classification of persons employed in the rice mills in Rangoon. 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.

Central Provinces.

The only important manufacturing industry in the Central Provinces is cotton-spinning and weaving. There are six mills, besides ginning, cleaning, and pressing mills, including the Empress Mills at Nagpore, which is one of the most successful concerns of the kind in India, employing 3,300 hands, and having dealt with nearly 5,000 tons of cotton in the year 1898-99. At the other five mills the number of persons employed was nearly 4,100, and the amount of cotton worked up was 6,200 tons.

Assam.

The production of tea continues to be the first industry of Assam. The number of tea gardens at the end of 1898 was 818, with an area of a little more than a million acres, of which 276,000 acres were under tea plants. This is dealt with more fully in the chapter on Agriculture above. There were 11 sawmills engaged in the manufacture of tea boxes. There are coalfields at Lakhimpur and in the Naga hills, the former of which gave employment to 1,369 persons in 1898, and yielded 199,000 tons of coal.

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 1897 cleaned coffee to the value of £73,100. 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 £49,000 worth of cigars. Indigo is made on a small scale and of inferior quality

at some hundreds of vats, and was exported in 1898-99 to the value of £623,000, against £711,000 in the previous year. Sugar was made on a large scale at six factories, at some of which considerable quantities of rum were distilled. MANUFACTURES.

Chief among the industries of the Bombay Presidency is the cotton mill industry. It appears from the report of the Bombay Millowners' Association that in July 1899 there were 134 mills in the presidency, or one more than in the previous year; and that 82 of these were in the city of Bombay. The total number of spindles rose from 2,964,000 to 3,315,000, and the number of looms from 29,400 to 30,600. The average daily number of hands employed was 110,600, or 11,000 more than in 1898. The approximate quantity of cotton consumed was 210,000 tons. Six mills in Bombay city, and three elsewhere in the Presidency were in course of erection. In addition to the workshops belonging to the railways and the great steamship companies, 24 factories in Bombay and Sind turn out iron and brass work of all kinds. Among other large factories using steam are dye-works; woollen-weaving mills and wool-cleaning mills; 267 cotton ginning and cleaning mills; saw mills; paper mills; bone-crushing mills; rice-cleaning mills; flour mills; and mills for pressing oil. Bombay.

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, linseed, ground-nuts, and cocoa-nuts. Cotton-seed oil and cake are made on a small scale and to a limited extent.

The only large factory in Berar is the steam mill at Badnera, where yarn and cotton cloth are manufactured. It produced 6,270 bales of 400 lbs. of twist and yarn, and 2,545 of cloth, against 5,796 and 2,442 bales respectively in the preceding year. The number of persons employed in this factory was 1,215. There are altogether 31 steam cotton presses and 66 cotton ginning factories in the province. The two oilpresses at Amraoti produced 214,000 gallons of oil, or 10 per cent. less than in 1897-98. The domestic industries of Berar are the weaving of silk cottonpieces with embroidered borders, cotton carpets, coarse cotton cloth and garment pieces, turbans and blankets. E.

FACTORY ACT.

The present Indian Factory Act came into force on the 1st January 1892. FACTORY ACT.
The changes introduced into the previous law were, briefly,—

The law could be applied to establishments employing 20 hands or over, instead of only to those with 50 hands or over;

The minimum age for child labourers was raised from seven to nine years, and the maximum age from 12 to 14 years;

The maximum hours for child labour in any one day were reduced from nine hours to seven hours;

The hours of labour for women workers, which were unrestricted under the Indian Factory Act of 1881, were limited by the Act of 1891 to 11 hours a day;

Hours of rest during 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.

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FACTORY ACT.

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.

PROVINCE.	Number of Factories working, and liable to be inspected.	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 - - - - -	180	128,357	20,927	15,143	165,027	132	1	53	13	3	28	279	248	853
North-Western Provinces - - - - -	63	23,156	1,373	1,403	25,931	46	9	5	9	-	6	48	88	141
Punjab - - - - -	117	10,962	875	691	12,348	64	23	7	13	-	5	16	69	77
Burma - - - - -	132	15,999	110	72	16,181	126	3	3	-	9	9	89	58	121
Central Provinces - - - - -	46	8,219	2,515	446	11,179	23	20	-	3	-	-	9	19	28
Madras - - - - -	70	25,829	2,654	2,115	30,098	61	8	1	-	-	3	18	162	183
Bombay - - - - -	246	115,231	27,669	7,293	150,233	283	86	3	-	2	15	102	1,009	1,163
Assam - - - - -	11	1,183	426	109	1,723	11	-	-	-	-	-	2	-	2
Ajmere - - - - -	4	609	243	117	969	1	2	-	1	-	-	1	5	6
Berar - - - - -	98	5,165	3,711	144	9,020	27	71	-	-	1	2	4	14	20
TOTAL, 1898 - - - - -	1,056	334,594	60,603	27,532	422,729	744	233	62	37	15	66	537	1,714	2,316
TOTAL, 1897 - - - - -	931	335,702	60,271	25,573	421,545	722	172	46	38	14	61	520	1,724	2,314

Bombay.

Of the factories in the Bombay Presidency, 269 are cotton factories, employing an average daily number of 118,558 hands. The number in Bombay city at the end of the year was 136, in Khandesh 84, in Hyderabad 33, and in Ahmedabad 28. Of the total number, 154 factories were seasonal, while 191 were at work throughout the year. The average number of hands employed was 7 per cent. greater than in 1897, when great disturbance was caused by the fear of plague; but in Bombay city considerable difficulty was still experienced, and higher rates of wages had to be paid in many instances; and the plague and the competition of American cotton prevented a return to the conditions of the mill industry in 1896. All the factories excepting two were inspected, and recommendations made for the improvement of sanitation and ventilation, and for the fencing of machinery were promptly carried out. 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, but as stated above, there was some increase above ordinary rates in Bombay city. Most of the operatives up-country subsist on factory labour only for certain portions of the year, and it is the general opinion that this labour is found more lucrative than agriculture. Accidents in mills remained at about the same figure as in 1897; most of the serious accidents that occur are attributed to the negligence of the mill hands. The number of children employed in Bombay mills increased, but there is no reason to suppose that the rules on the subject have been infringed.

There was an increase of 13 in the number of factories at work in Bengal, where 84 mills and presses were engaged in the jute industry. Three factories were not inspected, but in the rest the results of inspections were generally satisfactory, and suggestions for improvement were readily adopted. The rules regarding the employment of women and children were duly observed. The plague scare of 1898 produced no serious diminution of labour except in Calcutta, and even there the effects seem to have been much smaller than was at the time believed. It was hoped that the question of a Saturday half-holiday in jute mills had been solved by an agreement of millowners to close their mills entirely on Saturday for six months; but the plan fell through, and no settlement has yet been made. Wages are regularly paid, and average per diem $2\frac{3}{4}$ annas for men, $1\frac{1}{4}$ annas for women, and 1 anna for children, which is generally higher than agricultural wages in the province.

In Madras the inspections of factories fell short of the prescribed minimum, FACTORY ACT. but the reports as to the sanitation and the fencing of machinery are satisfactory.

In Burma the number of operatives recorded as having been employed during the year fell 30 per cent., owing apparently to a change of classification of the employees in Rangoon rice mills. Almost all the factories in Burma are either saw mills or rice mills. All factories excepting five were inspected during the year, and the reports are generally good. Eight fatal accidents occurred at Rangoon.

CHAPTER XV.

FRONTIERS AND NATIVE STATES.

FRONTIERS AND FRONTIER STATES.

FRONTIERS AND
FRONTIER STATES.
Baluchistan.

In Baluchistan the year 1898-99 was comparatively uneventful. The agricultural season was poor, the province suffering from a series of bad years. The revenue of £57,000, however, was realized without much difficulty. The closing balance of the administration was reduced from £22,000 to £11,000. Some improvement was carried out in the organisation and strength of the tribal lines. The political atmosphere was troubled by raids across the Afghan border, by unrest among the Marris and Bugtis, many of whom emigrated to Afghanistan, and by crimes and outrages committed by the Waziris, and still more by the Largha Shiranis under the Punjab administration. For the pacification of the latter tribe an arrangement was effected before the end of the year for establishing a closer political control, which is expected to prevent further trouble in this quarter. In Kalat itself it was decided to disband the State troops. Disputes occurred in the Khan's family, and there were complaints on the parts of the zamindars of the proceedings of the Khan's agent. The Vakil was dismissed, and a new one appointed by the Khan. An agreement was also executed by him promising to redress grievances and to abide by the ancient customs of the country. In Mekran it was decided to introduce a form of tribal administration under Mir Mehrulla Khan, Raisani, as Nazim. In the tract under the charge of the Political Assistant at Chagai, the principal work was connected with the new trade route between Quetta and Seistan. The water supply was improved by cleaning out old and sinking new wells, a better postal service was established, a survey for a telegraph line was carried out; and, notwithstanding the unsatisfactory condition of frontier relations with Afghanistan and Kharan, the encouragement given to trade showed itself in an increase from £39,000 to £49,000 in the trade returns.

The Punjab
Frontier.

On the north-west frontier the year was one of settling down after the widespread disturbances of the preceding autumn and winter. The chief events were the conclusion of arrangements with the Afridis in November 1898 and with the Orakzais in January 1899, the payment by the Madda Khel of the Tochi of the balance of the fine of Rs. 10,000 imposed on them for the Maizar outrage, and the introduction of closer political control over the country of the Largha Shiranis on the Dera Ismail Khan border. Offences were rife in Waziristan, and a disturbance of considerable, though local, importance occurred in the corner between Bannu, Kohat, the Tochi and Kurram, where outlaws found a temporary Asatia. With the Afghan officials across the border, difficulties continued to arise from the want of reciprocal action on their part in the redress of grievances of the tribes living within the British sphere of influence. Raids and counter-raids have been not infrequent.

In the autumn of 1898 a large jirga of the Afridis met and accepted unconditionally the orders of Government on the subject of the Khyber Pass, which were as follows:—

First.—The Afridis by their own acts ruptured all agreements, forfeited all allowances, and forced the British Government to take and hold the Pass, which, as already announced by Sir William Lockhart, will be managed and controlled as the British Government think most desirable.

Second.—The Pass will be kept open for trade. The British Government will build a fort at Landi Kotal and posts between that and Jamrud, will keep up a good road or roads, and, if they want it, a railway, and will take such measures as they think fit to punish offences and preserve order on road and railway, in the fort and posts, and in the neighbourhood where necessary for their purposes.

Third.—The Afridis, will have no dealings with any power but the British. They will be left to manage their own affairs in their own country; but, in the Khyber Pass, they are responsible to the British Government that they will co-operate to preserve order and security of life and property on roads or railway and within the limits of the Pass.

Fourth.—The British Government will give allowances as formerly to the Afridis for discharging this duty, and will maintain a militia recruited from the Afridi and other tribes and commanded by British officers. The British Government do not undertake to always keep troops at Landi Kotal, but will make arrangements for supporting the militia if circumstances require.

Fifth.—Arrangements for trade in the Khyber will be made by the British Government, and the militia will be used for guarding traders.

Sixth.—The allowances granted by the British Government will commence to reckon from the date of the adhesion by the tribe to the terms settled by the Government of India, but they are subject to withdrawal for misbehaviour in the Pass, in British India, or against the friends or allies of Government.

In accordance with these conditions, a new militia corps, called the Khyber rifles, consisting of two battalions of 600 men with three British officers each, was constituted to take charge of the Pass, and the British regiments were withdrawn from Landi Kotal at the end of the year. The peace of the Khyber was satisfactorily preserved. An important change in the control of the Khyber was effected by transferring the political charge from subordination to the Punjab Government to the direct control of the Government of India.

In the Kurram district the principal offenders were the Chamkaunis. It was finally decided to punish their raids by a counter-raid, which was very successfully carried out. In the Bannu district operations were also undertaken against the Gumatti outlaws.

Proposals for the re-organisation of the Border Military Police and levies in Kurram and Waziristan were not carried into effect till after the close of the year. Of the rest of the tribes in relation with the Punjab Government there was nothing unusual to report during 1898-99.

Among the tribes in the Dir and Swat agency, which is under the Government of India, there was some fighting in Jandol, followed by an agreement, arrived at through the mediation of the Political Agent, between the Nawab of Dir and the Khan of Nawagai. There was no movement against the British officers or garrison, and the Chitral reliefs passed up and down the road without interference or a shot being fired. In Chitral itself, the feeling of the country was friendly, and tranquillity was maintained. Cultivation extended, and the year was fairly prosperous.

In Gilgit, which is a dependency of Kashmir, the harvests were scanty, and there was some distress. Better dispositions of the Kashmir troops were carried out, and it is to be noticed that the Babuzar Pass was used for the relief of a portion of the garrison.

Kashmir and Feudatories.

Of the Hunza and Nagar feudatories there is little to chronicle beyond the difficulty in carrying out the arrangements with the Chinese authorities for the cultivation of the Raskam lands of the Taghdumbash Pamir by Hunza people.

The financial position of the Kashmir State is indicated by the following figures:—

	Receipts.	Expenditure.	Surplus or Deficit.
	£	£	£
1897-98 (Accounts)	448,000	299,700	48,000
1898-99 (Revised Estimate)	420,300	449,300	29,000
1899-1900 (Budget Estimate)	459,500	427,200	32,300

The deficit shown in the State accounts for 1898-99 is only apparent, as the expenditure includes a sum of £33,900 for the purchase of Government securities, which should therefore not have been shown as expenditure. The financial position of Kashmir is very sound as the Durbar has a working balance of 30 lakhs of rupees, and an invested fund of 40 lakhs, and the surplus anticipated for the current year is nearly 3 lakhs. The revenue from land, customs, and excise is steadily progressive. The forest receipts were large, and a reduction

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in the number of trees to be felled is now considered prudent. There is again some tendency towards an increase in the expenditure on military works in Gilgit, and the improvement of the land revenue establishment and provision for re-settlement in the Kashmir valley and elsewhere are also causing increased outlay. Except in respect of the financial situation, no report on the administration of the State has been received in the past year.

The trade with Chinese Turkestan by the Leh and Ladakh route has fallen off greatly in the last three years from 62 to under 40 lakhs. This is attributed to the heavy taxation of *charas* on its entry into the Punjab, imposed on the recommendation of the Hemp Drugs Commission. The competition of Russian goods is also, no doubt, a cause. The Ladakh road is being gradually improved year by year.

Nepal.

Nothing occurred to disturb the friendly relations of Nepal with the Government of India. Of its administration no report is received.

Sikkim and Tibet.

Another year passed without progress being made towards the settlement of the Sikkim Tibet frontier or of the arrangements for the encouragement of trade, contemplated by the convention of 1890. The growth of trade with Tibet registered at Yatung is shown by the following figures which include treasure:

	Imports into British Territory.	Exports from British Territory.	Total.
	£	£	£
1893-94	23,920	23,107	46,027
1894-95	42,597*	41,117°	83,714*
1895-96	47,137	57,406	104,543
1896-97	52,709	59,201	111,910
1897-98	58,848	54,889	113,637
1898-99	74,735	67,846	142,581

* For eleven months only.

The year was not unfavourable in Sikkim, but owing to failure to collect the revenue within the year, there was a considerable deficit, the expenditure amounting to £6,000, against an income of £4,400.

Bhutan.

There is little information regarding Bhutan; but its administration, under the influence of the Tongsa Penlop, is exercised in a friendly spirit towards the British Government.

Assam Frontier and Manipur.

In Manipur the year was marked by a terrible epidemic of cholera in which 3 per cent. of the total population of the State perished. But for this, the year would have been wholly prosperous, as the crops were good, prices low, and the people peaceable and contented. The young ruler is being educated at the Mayo College. Meanwhile the State is being administered, and very successfully administered, under the superintendence of the Political Agent. A measure of disarmament is being gradually carried out. The income of the State was £23,000, and the year closed with a balance of £14,000.

Among the Assam frontier tribes the year 1898-99 passed mainly without incident. The blockade of the Abors was continued, and pending their submission they were prevented from occupying houses in the plains. There were some murder cases and disputes across the border, but no punitive operations were rendered necessary.

Lushai Hills.

The North and South Lushai Hills were amalgamated into one district under the Assam administration on the 1st April 1898. The new arrangements worked well, and the year was one of general peace and prosperity. The possession of arms is controlled, and the work of withdrawing unlicensed arms from the population was continued with success. Arrangements were satisfactorily made for the settlement of the district under the various petty chiefs. There was no difficulty in realising the house tax. The question of labour continued to be a difficulty, but it is reported that voluntary labour is year by year more freely offered.

In the adjoining Chin Hills the principal event of 1898-99 consisted in disarmament. Some opposition was encountered by a body of chiefs, known as the "Falam Council". Their obstruction was overcome by the deportation of several of them; thereupon the disarmament of the Falam subdivision, as well as of the other Northern subdivisions, was successfully accomplished. The disarmament of Lushailand and Manipur, to which references has already been made, will be important in checking a principal source of supply of unlicensed guns among the Chins. A small rising occurred early in the year, when a simultaneous attack was made by the tribesmen on the Yatlier outpost and on a Gurkha settlement between Falam and Minkin; the attacks were repulsed and the abortive rising promptly suppressed.

FRONTIERS AND
FRONTIER STATES.
Chin Hills (Burma).

The Pakokku Chin Hills are now administered as a Chin tract, instead of as a portion of the Pakokku district. A difficulty in its management arises from the absence of any recognised village or tribal unit. The Chiefs or headmen appointed by Government are merely collectors of tribute. On this frontier as well as on the upper Chindwin frontier and in the Arakan Hill Tracts the year was one of tranquillity.

These Hills were generally free from disorder during 1898-99. The delimitation of the Chinese frontier in this region was completed; and the tracts included under the agreement within the British border were taken under administration. Crime was less, and the work done by the British officers on tour was the more successful because generally uneventful. The only operation of a punitive kind undertaken was against the village of Matan where the chief had been guilty of raids and the enslavement of many neighbouring villagers. The operation was carried out without loss, and the necessary punishments inflicted. Difficulties were experienced from the apathy of the adjoining Chinese officials, who failed to co-operate in restraining or punishing raids and offences committed in British tracts from their side of the Border. Tribute was realised without trouble, and the condition of communications improved.

Kachin Hills
(N.E. Frontier of
Burma).

An important event for the Shan States during 1898-99 was the demarcation of the Chinese boundary affecting principally Kengtung in the Southern and Hsenwi in the Northern Division. Peace was unbroken. The progress of the Southern Shan States in material prosperity and civilised administration is described as continuous and highly satisfactory. This is almost equally true of the Northern States. The tribute, which is quinquennially assessed, and which for the Southern States had been increased from £13,300 to £15,000, was punctually paid, except in so far as it had been remitted in some of the Northern States with a view to its expenditure by the Sawbwas on the improvement of roads. Carts are reported in many parts to be replacing pack transport, and trade is everywhere increasing. In the Southern States, trade is shown to have increased from £30,000 in 1892 to nearly £600,000 in 1898. With the influx of Indians and Burmans on the new roads and railway works, it is also to be noticed that crime has increased. For the administration of civil justice in the Northern division a simple code of procedure has been prepared. The system of requiring the Chiefs to prepare budgets of revenue and expenditure is having a good effect. The Chiefs of the Southern States were encouraged by a durbar held at Taunggyi in May 1898, at which the superintendent delivered an address, pointing out to the Chiefs among other matters the improvements effected in their country, the principles of taxation they should adopt, the proper method of dealing with foreign residents and immigrants, of protecting trade, of registering arms, and of reporting and dealing with crime, the necessity of dealing with the vice of gambling so prevalent among the Shans, and the care that is required for the proper planting of trees and the preservation of forests.

Shan States.

The first census of the population of the Kengtung State was taken and gave a return of 172,566 inhabitants as compared with the previous estimate of 40,080.

Besides the demarcation of the Chinese frontier already alluded to there was nothing requiring record in the relations with the adjoining powers of China, France, and Siam on the Eastern border.

China, France,
and Siam.

NATIVE STATES.

NATIVE STATES.

The population of the Native States, including the Shan States, based on the census of 1891, may be taken at 67½ millions, and their aggregate revenue at 23 crores of rupees (£15,000,000), their aggregate payments to the Government of India amounting to £607,000. The number of their military forces, excluding Nepal, is now returned at 90,000, mostly ill armed and ill trained men. This total does not include the Imperial Service troops, organised to take part in military operations in line with those of the Indian army; of which the strength was on 1st July 1899, 17,554, as shown in the margin, the total in the previous year being 17,782. The maintenance of these troops costs the States concerned about £419,000, the outlay of the Indian Government on their organisation and inspection being about £14,000. They are described as generally efficient and ready for service. During the year 1898-99 the following changes were effected. The Bhurtpore Lancers were abolished, and it was decided by the Durbar to maintain in their place a transport corps of 300 carts and 600 mules. In Mysore the cavalry regiment is being reduced by 100 sowars, and a transport corps of 300 carts and 700 ponies is being organised.

Cavalry	7,387
Artillery	193
Sappers and Miners	338
Infantry	7,885
Camel Corps	494
Transport Corps (men)	1,167
Total	17,554

Imperial service troops.

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 1898-99 in complete harmony with the durbars and the political officers. The total number of cases reported to the Department fell from 1,152 in 1897 to 599 in 1898. The improvement is due in great measure to the more prosperous condition of the population, and cannot be expected to be maintained in the afflicted districts during the renewed famine of 1899-1900. In Rajputana the year 1898 was noteworthy for the suppression of a dangerous gang of dacoits in Dholpur. In Central India the greatest improvement took place in Gwalior, where the vigorous action of the Maharaja Scindia was rewarded by excellent results. The Department was also able to assist the Durbars of the smaller States in dealing with organised crime. In both these Agencies progress was made in the settlement of criminal tribes, and it may be hoped that the reclamation of these hereditary criminals will prove one of the most effective measures in the reduction of crime.

Hyderabad and the Assigned Districts.

In the Hyderabad Assigned Districts there was a larger surplus in 1898-99 than in any year since 1877-78, the income (£709,000) being the highest on record and the expenditure (£598,000) lower than in any of the last seven years. A sum of £31,487 was paid to the Nizam on account of the surplus of the province during 1898-99.

No report of the administration of the Hyderabad State is issued.

Mysore.

The administration of the Mysore State in 1898-99 was marked by a virulent outbreak of plague, of which there were 14,381 cases and 12,273 deaths, Bangalore and Mysore cities and the Kolar goldfields being the principal sufferers. The outbreak of plague had its effect on the financial situation causing a decline of receipts and a heavy special outlay. Altogether there was a deficit for the year of £150,000. Revenue heads yielded £90,000 less than in 1897-98, and the following charges of an exceptional character were included in the expenditure:—Plague administration, £50,000; extensions and improvements of the Bangalore and Mysore cities, £7,000; Damodar Dass' Charity Fund (an old outstanding obligation) £40,000; and capital expenditure on reservoirs and railways, £73,000, making a total of £170,000. The income of the State may be stated at £1,186,000 and the expenditure £1,331,000.

In consequence of the plague the annual meeting of the Mysore Representative Assembly was suspended; a short account of the administration of the State during the past year was, however, published in the Mysore Gazette for general information. NATIVE STATES.

The report for the year ended July 1895 is the last Administrative Report issued by the Baroda Durbar. In 1898-99 plague continued to prevail in certain parts of the State. Evacuation of places infected was the remedy principally resorted to. The agricultural season in the Baroda territories in Kathiawar was unfavorable, and there were vehement appeals from the cultivating classes for remissions of rent. In the Kadi division a serious disturbance occurred owing to the opposition of certain villagers to a survey of their lands which had been ordered by the Durbar. Finally the military as well as police were employed to enforce submission, and 13 of the rioters were killed and 10 wounded. The State mint recoined 14½ lakhs of rupees out of old Babasai and Siccai coins. There is some complaint owing to the low Exchange value of the Baroda rupee. Baroda.

The following is a Table of the Rajputana States, with their revenues converted into sterling at 1s. 4d. the rupee:— Rajputana.

STATE.	Area in Square Miles.	Population in 1891.	Actual or Estimated Revenue.
			£.
Udaipur (Mewar)	12,861	1,862,478	250,000
Dungarpur	1,440	165,400	15,811
Banswara, &c.	1,937	212,269	18,035
Pratapgarh	959	87,975	27,785
Jaipur	15,349	2,832,276	454,560
Kishangurh	874	125,516	40,563
Lawa	19	3,360	300
Jodhpur (Marwar)	37,445	2,521,727	343,307
Jaisalmer	18,039	115,701	12,744
Sirohi	1,066	188,977	26,524
Bikaner	23,090	831,953	142,961
Bundi	2,225	205,873	48,267
Tonk	1,415*	198,934*	81,650
Shahpura	406	63,646	19,757
Bharatpur	1,901	840,803	180,000
Dholpur	1,156	279,890	83,000
Karauli	1,220	156,587	34,489
Alwar, &c.	3,051	767,786	191,453
Kotah	3,803	529,267	168,395
Jhalawar	3,043	343,601	86,027
TOTAL	180,266	12,220,343	2,225,018

* Excluding the Tonk pergunnas in Central India.

Kunwar Bhawani Singh was installed in February 1899, as the Chief of the newly-constituted State of Jhalawar, with the title of Raj Rana and a salute of 11 guns. To Kotah were transferred the remaining portions of the old Jhalawar State. The Maharaja of Bikaner was invested with ruling powers in December 1898. The decoration of G.C.I.E. was conferred on the Maharaja of Karauli and that of C.B. on the Maharaj Rana of Dholpur and Maharaj Dhiraj Sir Pratap Singh of Jodhpur.

A failure of crops occurred in parts of Jodhpur, Bikaner, and Jaisalmir. Elsewhere harvests were good and prices low.

The question of currency reform is important in many of the Rajputana States. The difficulty is being solved in Pratapgarh by the substitution of the British rupee for the Salim Sahi rupee.

NATIVE STATES.

Settlement of land revenue is proceeding in a considerable number of the States. It is noticeable that in the arrangements in progress precautions are generally being taken to prevent the alienation of land to the non-agricultural classes.

Railway construction is active. A noticeable feature is the construction of lines in several States with money borrowed from other more opulent Chiefs. For instance, a loan of 25½ lakhs from Mysore enables the Jodhpur Durbar to construct its section of the Balotra-Shadipalli line. The Tonk section of the Guna-Baran railway is being made with the aid of a loan of 17 lakhs from Gwalior. Other new railways are in progress in Kotah, Bikaner, Mewar, and Jaipur. The open lines in Jodhpur gave a return during the year of 10½ per cent. on their capital outlay; those in Bikaner and Mewar yielded 4 and 3½ per cent. on their capital respectively. Irrigation works are also being pushed on, and in Jaipur and other States they have proved highly remunerative. The total public works outlay in the Rajputana States in 1898-99 is stated at £511,000.

Central India.

The States in this Agency enjoyed another prosperous season, with crops decidedly above the average, prices low, and health generally remarkably good.

The much respected Maharaja of Dhar died during the year and was succeeded by his adopted son. The young chief of Panna was installed during 1898-99 in succession to his father who had died in the previous year. The Raja of Rutlam was invested with ruling powers, and the Maharaja of Datia received the decoration of K.C.S.I.

The administration of Gwalior continues to be carried on with energy and success under the personal direction of Maharaja Scindia. An effective campaign was carried out during 1898-99 against the dacoits who infested his territory. Nine of their gangs were broken up, and hundreds of dacoits brought to justice. Currency reform was pushed on. Quantities of coins of local currencies were received and melted down and their place supplied by British rupees. The land settlements were revised in terms of the latter at rates acceptable to the cultivators. Other State contracts were dealt with in like manner; and it may be shortly expected that only the British rupee will be recognised.

Regarding Indore no satisfactory report can be made, and particulars of the administration have not been published.

The Governor-General's Agent calls attention to the improved administration of the Bhopal State under its new minister; he also refers favourably to the management of the Rewa State, and notices that the restoration of the Umaria coalfields to that State at the close of the year 1898-99 was very acceptable to its Maharaja and Sirdars.

Bengal.

Some changes were made in the Cooch Behar State council during the year, and during the Maharaja's absence from May 1898 to February 1899, on a visit to Europe, arrangements were made for the administration of the State by the council. After the close of the year the post of Superintendent of the State became vacant and was filled by a British officer lent by the Government of India. A number of laws were passed and came into force during the year. One of them made penal the killing of cows in the State. The season was a moderately favourable one in Cooch Behar, and public health during 1898-99 was good. The loan of 3½ lakhs for the payment of the Maharaja's debts has been repaid to Government, and 4 lakhs out of the railway loan of 10 lakhs have also been repaid. The expenditure of the year, including repayment of the latter loan, was £152,000; there was a surplus of revenue of £5,000.

In Hill Tipperah State the year was prosperous and healthy. The State debt appears to have been liquidated; and there was a balance in hand at the end of the year of £11,000; the income of the year was £47,000.

Revised *sanads* were granted during 1898-99 to the Chiefs of the Chota Nagpore Tributary Mahals defining their status, powers, and responsibilities, and fixing for 20 years the tribute of those States which were liable to tribute. The jurisdiction of Government officers in criminal matters was at the same time laid down by notification. The people in these States are very backward; education showed no advance, and the working of medical relief and vaccination was not altogether satisfactory. Questions of mining concessions and forest leases are growing in importance.

The Orissa Tributary Mahals are a more progressive group of States, and the Raja of Moharbhaj is stated to have maintained his reputation as an energetic ruler; but he has been warned against the danger of introducing a system of judicial administration too advanced for the requirements of the population. The forest rules adopted by him also appear to be too severe. The relations of the chiefs and the people generally appear to have been satisfactory. Public health was good, and there was a considerable advance in education as shown by the numbers of schools and scholars. Settlement operations are in progress in many of the States. The Orissa Tributary States had an aggregate revenue for the year of £134,000. NATIVE STATES.

The accounts of the State of Rampur show an income of £215,000 and an expenditure of £212,000 for the year ended September 1898. But this does not include large sums drawn from the treasuries and used presumably to meet the personal expenditure of the Nawab. The revenue system of the State, which depends on the sale of farming leases for short terms, has been condemned by the Lieutenant Governor, and the Nawab has been advised to introduce a regular system for the survey and settlement of the land revenue. In other respects also the affairs of Rampur are not considered satisfactory by the Lieutenant-Governor. The educational department, however, shows good results, and some of the other departments appear to be well managed. North-West Provinces.

The Tehri (Garwhal) State continues to be well administered. Its financial position is sound, with an income of over £20,000, a fair surplus, and a credit balance of over £50,000. Education is backward, and there is some dilatoriness in disposing of cases that come before the courts.

The following are the principal Punjab States and their areas, populations in 1891, and approximate revenues in 1898-99:— Punjab.

STATE.	Area in Square Miles.	Population in 1891.	Approximate Revenue in 1898-99.
			£.
Patiala	5,419	1,583,521	438,000
Bahawalpur	15,000	650,042	107,000
Jind	1,259	284,500	43,000
Nabha	928	282,750	47,000
Kapurthala	620	252,617	133,000
Mandi	1,000	166,923	28,000
Nahan (Sirmur)	1,066	124,134	34,000
Maler Kotla	167	75,755	20,000
Faridkot	643	115,040	24,000
Chamba	3,216	124,032	24,000

In November 1898 the Maharaja of Patiala was invested as a G.C.S.I. in recognition of his personal services and the excellent behaviour of his troops during the frontier campaigns. In respect, however, of the administration of his State, complaints have been frequent. There is a laxity evidenced by delays in dealing with correspondence; there are frequent petitions of villagers complaining of the exactions of officials, and there is financial disorder due to the Maharaja's excessive personal expenditure. During the year, Kanwar Ranbir Singh was appointed financial minister, and it is hoped that this step will lead to necessary financial reforms.

The Nawab of Bahawalpur died in February 1899, and has been succeeded by his eldest son, a minor. During the minority a British officer has been appointed superintendent of the State. The debts of the State are considerable, and the administration of the State has been in recent years starved to meet the ruler's personal extravagance.

In Jind the administration remained during the year in the hands of a council of regency, while the education of the young Raja was continued and satisfactory reports as to the progress made by the young chief were received. At the close of the year he has been invested with full ruling powers,

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subject to the advice for a time of a British officer. Meanwhile a large portion of the accumulated balance of the State is being invested beneficially in the construction of the Ludhiana-Dhuri-Jakhal railway.

The administration of Nabha under its Raja is as usual considered very satisfactory. That of Kapurthala is conducted with ability by Sardar Bhagal Singh, the Raja taking little interest in it. In Mandi affairs show no improvement, and the financial position is worse. A great loss befell the State of Sirmur (Nahan) in the death of the Raja, Sir Shamsheer Prakash, in October 1898; he was succeeded by his son, Raja Surendra Bikram Prakash, who is likely to follow in his father's footsteps, and who has for some years been taking a prominent part in the administration of his State. There was also a change of ruler in Faridkot, since the late Raja died in August, 1898. His successor was installed in December. He will for a time be controlled in regard to his administration by the Commissioner of Jullander. There was no change in Malar Kotia, which continues to be managed by the Nawab of Loharu. In the Simla Hill States affairs were on the whole satisfactory. As a consequence of the disturbances in Keonthal, referred to in last year's statement, a manager was appointed, and direct administration in this State, as also in Bashahr and Kumharsain, has proved a success. The Rana of Jubbal died during the year. During the minority of the new chief, the State is to be managed by the Wazir.

Central Provinces.

The only event of importance among the feudatory States of the Central Provinces was the murder in October 1898 of the Mahant of Chhuikhadan and his second son. The crime was successfully prosecuted and punished. The State owing to the minority of the successor passed under Government management. Owing to minorities, and in the case of Rehrakhol to the extreme old age and infirmity of the chief, a large proportion of these States are under management. Bamra, Raigarh, Khairagarh, Sonpur, Kankar, and Sakti are, however, administered by their own chiefs, and they are described as wisely administered. The relations of these chiefs with the political officers are excellent. Throughout these States the harvests of 1898-99 were generally good, and the seasons healthy. Public works were pushed on, and the administration proceeded quietly and smoothly on well-established lines.

In regard to famine administration in Kankar further investigation has relieved the State from many of the criticisms passed on it last year and recorded in last year's statement. There were, however, considerable defects in the conduct of affairs in that State which have since been removed. The total gross revenues of the 15 States subordinate to the Central Provinces Administration amounted in 1898-99 to £143,000.

The two important States of this presidency are Travancore and Cochin, the reports of which are drawn up for the Malayalam year, August 1897—August 1898. 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.	
	1896-97.	1897-98.	1896-97.	1897-98.	1896-97.	1897-98.
	£.	£.	£.	£.	£.	£.
Travancore - - -	1,653,000	1,907,000	590,000	595,000	647,000	609,000
Cochin - - -	200,000	114,000	139,000	227,000	297,000	308,000

The decrease of Cochin trade is due to a regulation which encouraged the landing of goods at British instead of Cochin ports. There was a considerable surplus in Cochin, but the large increase of revenue in Cochin shown above is mainly caused by an adjustment of old accounts. The system of accounts the State has suffered from laxity and irregularities, but a thorough ref