

EAST INDIA (PROGRESS AND CONDITION).

193

STATEMENT

EXHIBITING THE

MORAL AND MATERIAL PROGRESS AND CONDITION

OF

INDIA

DURING THE YEAR 1913-14.

FIFTIETH NUMBER.

(Presented pursuant to Act 21 & 22 Vict. c. 106, s. 53.)

India Office,
17 July 1915.

T. W. HOLDERNESS,
Under Secretary of State for India.

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P R E F A C E .

THE Statement exhibiting the Moral and Material Progress and Condition of India is presented to Parliament in each year in accordance with the requirements of the 53rd section of the Act for the better Government of India (21 and 22 Vict., cap. 106), which provides as follows:—"The Secretary of State in Council shall, within the first fourteen days during which Parliament may be sitting next after the first day of May in every year, lay before both Houses of Parliament an Account for the financial year preceding that last completed of the Annual Produce of the Revenues of India . . . and such Account shall be accompanied by a Statement prepared from detailed reports from each Presidency and District in India in such form as shall best exhibit the Moral and Material Progress and Condition of India in each such Presidency."

The Statement is prepared in the India Office from a large number of annual reports received from India. Many of these reports are compiled from information furnished by District and Political Officers, and are submitted to the Governments of the respective Provinces and to the Government of India for consideration and review before transmission to England; and some of them, which deal with the operations of important departments and require the careful consideration of the authorities in India, are not received at the India Office till about a year after the date of the period to which they refer. It is, therefore, seldom possible to present the Statement to Parliament earlier than the date mentioned in the Statute, *i.e.*, about thirteen and a half months after the close of the official year.

This year, owing to the War, the arrival of various Reports and Returns has been more than usually delayed.

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INDIAN CURRENCY AND WEIGHTS AND MEASURES.

Currency.—The silver rupee (containing 165 grains of fine silver and 15 grains of alloy and weighing in all 180 grains troy or 1 tola) was the sole standard of value until the 26th June 1893, when the Indian mints were closed to the unrestricted coinage of silver into rupees and it was notified that gold coin and bullion would be received at the mints in exchange for Government rupees at the rate of 7·53344 grains of fine gold for one rupee, being equivalent to a rate of exchange of 15 rupees per £1. In 1899 British gold coins were made legal tender side by side with rupees at that rate.

The Indian denominations with their British equivalents are—

Pie	=	$\frac{1}{2}$ penny.
Pice (3 pies)	=	1 farthing.
Anna (12 pies)	=	1 penny.
Rupée (16 annas)	=	1s. 4d.

A lakh (lac) is 100,000 rupees and a crore is 100 lakhs.

Weights and Measures.—The weights adopted in Government transactions and by the railway companies are as follows :—

1 tola	=	180 grains	=	11·66 grams.
1 chittak (5 tolas)	=	900 "	=	58·32 "
1 ser (16 chittaks)	=	$2\frac{1}{2}$ troy lb. (or $2\frac{4}{5}$ lb. avoird.)	=	933·10 "
1 maund (40 sers)	=	100 " " (or $82\frac{2}{3}$ " ")	=	37·32 kgms.

CHAPTER I.

ADMINISTRATION AND LEGISLATION.

Administration.

The following were the holders of the most important appointments connected with the administration of India at the end of the year under review :—

I. In London.

Secretary of State.—The Most Hon. the Marquess of Crewe, K.G.

Permanent Under Secretary of State.—Sir T. W. Holderness, K.C.B., K.C.S.I.

Parliamentary Under Secretary of State.—Mr. Charles Roberts, M.P.

Members of the Council of India.—Lieut.-Col. Sir D. W. K. Barr, K.C.S.I.; Sir F. O. Schuster, Bart.; Sir T. Morison, K.C.I.E.; General Sir C. C. Egerton, G.C.B., D.S.O.; Sir J. D. La Touche, K.C.S.I.; Sir Krishna Gobinda Gupta, K.C.S.I.; Sir J. Thomson, K.C.S.I.; Sir S. W. Edgerley, K.C.V.O., C.I.E.; Mirza Abbas Ali Baig, C.S.I.; L. Currie.

II. In India.

Governor General of India.—The Right Hon. Baron Hardinge of Penshurst, G.C.B., G.M.S.I., G.C.M.G., G.M.L.E., G.C.V.O., I.S.O.

Members of Council.—General Sir Beauchamp Duff, G.C.B., K.C.S.I., K.C.V.O., C.I.E., Commander-in-Chief (extraordinary); Sir R. W. Carlyle, K.C.S.I., C.I.E.; Sir S. H. Butler, K.C.S.I., C.I.E.; Sir Syed Ali Imam, K.C.S.I.; W. H. Clark, C.S.I., C.M.G.; Sir R. H. Craddock, K.C.S.I.; Sir W. S. Meyer, K.C.I.E.

Governor of Madras.—The Right Hon. Baron Pentland, P.C., G.C.I.E.

Members of Council.—Sir J. N. Atkinson, K.C.S.I.; Pazhamanheri Sundaram Sivaswami Aiyar, C.S.I., C.I.E.; Sir H. A. Stuart, K.C.V.O., C.S.I.

Governor of Bombay.—The Right Hon. Baron Willingdon of Ratton, G.C.I.E.

Members of Council.—Sir R. A. Lamb, K.C.S.I., C.I.E.; C. H. A. Hill, C.S.I., C.I.E.; Prabhaskar Pattani, C.I.E. (temporary).

Governor of Bengal.—The Right Hon. Baron Carmichael of Skirling, G.C.I.E., K.C.M.G.

Members of Council of Governor of Bengal.—Sir F. W. Duke, K.C.I.E., C.S.I.; P. C. Lyon, C.S.I.; Nawab Saiyid Shamsul Huda.

Lieutenant Governors.—United Provinces of Agra and Oudh, Sir J. S. Meston, K.C.S.I.; Punjab, Sir M. F. O'Dwyer, K.C.S.I.; Burma, Sir H. Adamson, Kt., K.C.S.I.; Bihar and Orissa, Sir C. S. Bayley, K.C.S.I., I.S.O.

Members of Council of Lieutenant Governor of Bihar and Orissa.—E. A. Gait, C.S.I., C.I.E.; E. V. Levinge, C.S.I.; Maharaja Bahadur Sir Rameswar Singh, K.C.I.E., of Darbhanga.

Chief Commissioners.—Central Provinces, Sir B. Robertson, K.C.S.I., C.I.E.; North-West Frontier Province, Lieut.-Col. Sir G. O. Roos-Keppel, K.C.I.E.; Assam, Sir Archdale Earle, K.C.I.E.

Creation of a Legislative Council for the Central Provinces.—Steps were taken during the year for the constitution of a Legislative Council for the Central Provinces. The first meeting of the Council took place on the 17th August 1914.

Public Services Commission.—The Royal Commission on the Public Services in India continued its inquiries during the year under review.

(Legislation.)

Legislation.**I. In England.—Nil.****II. In India.**

Between the 1st April 1913 and the 31st March 1914 the following enactments received the assent of the Governor-General of India:—Eleven Acts passed by the Council of the Governor-General for making laws and regulations, four by that of Madras, six by that of Bombay, seven by that of Bengal, two by that of the Punjab, two by that of the United Provinces of Agra and Oudh, two by that of Burma, and four by that of Bihar and Orissa. Six regulations were 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. 33.

The following are the measures referred to:—

Acts of the Governor-General's Council.

The Code of Civil Procedure (Amendment) Act (No. I. of 1914) was passed to enable the High Courts in the Presidency towns to extend to the Presidency Small Cause Courts such provisions of the Code as are not inconsistent with the express provisions of the Presidency Small Cause Courts Act, and to remove doubts as to the validity of certain rules already promulgated by the High Courts.

The Destructive Insects and Pests Act (No. II. of 1914) gave power to Government to prohibit the import of articles likely to cause infection to crops.

The Indian Copyright Act (No. III. of 1914) applied, with certain modifications and additions, the Copyright Act of 1911 (1 & 2 Geo. V. c. 46) to British India.

The Decentralization Act (No. IV. of 1914) carried out certain recommendations of the Royal Commission on Decentralization, by amending numerous enactments in order to provide for the delegation of various powers and functions to lower authorities.

The Negotiable Instruments (Amendment) Act (No. V. of 1914) was passed to validate the practice of endorsing negotiable instruments in such a way as to make them payable to two or more payees jointly, or in the alternative to one or some of several payees.

The Provincial Small Cause Courts (Amendment) Act (No. VI. of 1914) excluded from the cognizance of Presidency Small Cause Courts certain suits which, though of small pecuniary value, practically involved a criminal charge, and which were triable by summary procedure without right of appeal, upon the facts.

The Indian Telegraph (Amendment) Act (No. VII. of 1914) was passed to enable the possession and working of wireless apparatus to be regulated more strictly than was possible under the Act of 1885.

The Indian Motor Vehicles Act (No. VIII. of 1914) consolidated the law in the various provinces of India by repealing the Provincial Acts and providing a uniform law for the whole of British India, with a view to promoting the convenience of motorists and giving increased facilities for motor travel. The provisions of the Motor Vehicles International Circulation Act, 1912, were re-enacted in this Act.

The Local Authorities Loans Act (No. IX. of 1914) consolidated and amended the law relating to the borrowing powers of local authorities.

The Repealing and Amending Act (No. X. of 1914) made formal amendments in certain enactments and repealed certain others which had become obsolete.

The Indian Companies (Amendment) Act (No. XI. of 1914) supplemented Act VII. of 1913 in respect of certain matters relating to the internal management of companies.

Acts of the Provincial Legislative Councils.

Madras.—*The Madras Abkari (Amendment) Act (No. 1 of 1913)* contains provisions for controlling denatured spirit and the bottling of liquors for sale, and makes the provisions of the Act specifically applicable to the products of the coca plant.

(Provincial Legislative Councils.)

The Madras Irrigation Cess (Amendment) Act (No. II. of 1913) legalised the levying by Government of water cess from tenants as well as landholders, and empowered landholders to recover the cess from their tenants. The Act also limits the period in which it shall be legal to levy the cess.

The Madras District Municipalities and Local Boards (Amendment) Act (No. III. of 1913) legalised the practice of farming-out the collection of fees leviable on markets, cart-stands, slaughter-houses, &c.

The Hindu Transfers and Bequests Act (No. I. of 1914) empowered Hindus to make gifts and bequests in favour of unborn persons.

Bombay.—*The Bombay Court of Wards (Amendment) Act (No. II. of 1913)* was passed to extend the protection given to landholders by the Bombay Court of Wards Act, 1905, to holders of pensions and cash allowances to which the Pensions Act, 1871, applies.

The Bombay Port Trust (Amendment) Act (No. III. of 1913) made statutory provision for the maintenance, &c., of a sinking fund for the repayment of borrowings by the Port Trusts, and also gave power to the Government of Bombay to sanction loans of not more than five lakhs of rupees, repayable in not more than 30 years, larger loans requiring the previous assent of the Governor-General in Council.

The Bombay Land Revenue (Amendment) Act (No. IV. of 1913) was passed with the object of making the liability for payment of land revenue coincide with the ownership of land, and to remove the unintentional existing divergence between right and liability which had resulted from the fact that a large number of registered occupants had lost their interest in the land.

The Bombay District Police Act, 1890, and Bombay City Police Act, 1902 (Amendment) Act (No. V. of 1913) contains provisions for strengthening the power of the police to prevent disorder and to maintain public safety at places of public amusement, &c.

The City of Bombay Municipal (Amendment) Act (No. VI. of 1913) conferred on the Bombay Corporation powers to enable that body to take certain measures for the repression and extermination of malaria.

The Prince of Wales' Museum (Amending) Act (No. VII. of 1913) re-vested in Government a portion of land not required for the museum, but which it was desirable to use for a road improvement.

Bengal.—*The Bengal Board of Revenue Act (No. II. of 1913)* altered the constitution of the Board of Revenue which now normally consists of one member only.

The Bengal Public Demands Recovery Act (No. III. of 1913) consolidated and amended the law relating to the recovery of public demands.

The Bengal Public Gambling (Amendment) Act (No. IV. of 1913) was passed to deal with "cotton-figure" gambling. It extended the meaning of the word "gaming" so as to enable Government to deal with this and other forms of public gambling. The Act also places restrictions on betting on races.

The Bengal Laws Act (No. I. of 1914) extending to Eastern Bengal certain Bengal enactments and to Western Bengal certain enactments previously in force only in Eastern Bengal and Assam and repealed certain other laws no longer required.

The Bengal Municipal (Sanitary Officers) Act (No. II. of 1914) provided for the appointment of sanitary officers in municipalities in the *mufassal*.

The Doveton Trust Act (No. III. of 1914) abolished the institution known as the Doveton College and placed its property and funds under Government management, for application, as nearly as possible, in the manner contemplated by the founders of that Institution.

The Calcutta Municipal (Loans) Act (No. IV. of 1914) was passed to remove certain defects in the provisions of the Calcutta Municipal Act, 1899, relating to loans.

Punjab.—*The Punjab Excise Act (No. I. of 1914)* consolidated and amended the law relating to intoxicating liquors and drugs in the Punjab. It was based on the recommendations of the Excise Committee of 1906 and followed the lines of recent legislation in Bengal and the United Provinces.

The Punjab Fisheries Act (No. II. of 1914) was passed to give Government more extended powers to make rules for the protection of fish in selected waters.

(Provincial Legislative Councils.)

United Provinces.—*The United Provinces Local Rates Act (No. I. of 1914)* repealed and re-enacted, with numerous amendments, the Local Rates Act, 1906. The amendments were rendered necessary owing to concessions made by the Government of India by which appropriations of local rates for police purposes were discontinued.

The United Provinces Town Areas Act (No. II. of 1914) made provision for the sanitation, lighting, and improvement of town areas in the United Provinces of Agra and Oudh, and replaced the Bengal Chaukidari Act of 1856, which had become obsolete. The new Act, in accordance with the recommendations of the Decentralization Commission, empowered the Local Government to provide by rules for administrative powers being exercised by the local *panchayat*.

Burma.—*The Burma Land and Revenue Amendment Act (No. I. of 1913)* obviated the necessity for obtaining the prior sanction of the Government of India to certain rules made by the Local Government under the Lower Burma Land and Revenue Act, 1876, and the Upper Burma Land and Revenue Regulation, 1889.

The Burma Village Amendment Act (No. I. of 1914) was passed to check the practice of carrying deadly weapons at *pwes* (public dramatic performances).

Bihar and Orissa.—*The Bihar and Orissa Board of Revenue Act (No. I. of 1913)* is in similar terms to the corresponding Bengal Act and provides for a Board of Revenue consisting normally of one member only.

The Orissa Tenancy Act (No. II. of 1913) consolidated and amended the greater part of the law relating to the law of landlord and tenant in Orissa.

The Chota-Nagpur Rural Police Act (No. I. of 1914) re-enacted the Act of 1887 bearing the same name, and incorporated certain amendments which the experience of the working of that Act had shown to be necessary or desirable.

The Bihar and Orissa Ferries (Amendment) Act (No. II. of 1914) enables a District Magistrate to cancel a ferry lease in default of payment of rent, without having to await the approval of the Commissioner of the Division.

Regulations.

The British Baluchistan Laws Regulation (No. II. of 1913) consolidated and amended the Regulations declaring the law in force in British Baluchistan.

The Angul Laws Regulation (No. III. of 1913) consolidated and amended the laws providing for the peace and good government of the Angul district in the Orissa Division.

The Upper Burma Registration Amendment Regulation (No. IV. of 1913) repealed the Upper Burma Registration Regulation of 1897 with a view to the extension of the Indian Registration Act, 1908, to Upper Burma.

The Coorg Noxious Weeds Regulation (No. I. of 1914) made provision for the eradication of destructive weeds in Coorg.

The Ajmer Repealing and Amending Regulation (No. II. of 1914) made numerous changes in the local Regulations and was enacted to enable certain new administrative arrangements to be introduced.

The Ajmer Alienation of Land Regulation (No. III. of 1914) provided for the control of the alienation of agricultural land in Ajmer-Merwara with a view to checking the growing indebtedness of agriculturists. It followed the lines of similar legislation in the Punjab.

CHAPTER II.

JUSTICE AND POLICE.

(For further details see *Statistical Abstract for British India, Tables 21 to 42.*)

Civil Justice.

Bengal.—The number of original suits instituted in the mufassal courts in 1913 showed a small decrease on the figures for 1912, but there was an increase in the number of suits disposed of. There was a general increase in the average duration of suits. The total number of appeals pending at the end of 1913 was 10,916, a decrease of 181 on the figures for 1912. Results of eight appeals to the Privy Council were received during the year: the decisions of the High Court were affirmed in seven instances and reversed in one.

Assam.—The number of original suits instituted in the Province showed a further increase, as did also the number of suits pending, in spite of an increase in the number disposed of. There was a general increase in the average duration of suits. There was also a considerable increase from 559 to 1,064 in the pending files of the civil appellate courts, but in the High Court the number of cases pending at the end of the year was 158, or 25 less than at the end of 1912. The results of the appeals decided were less favourable to the lower courts than in 1912.

North Western Provinces.—The total number of suits instituted during the year was 121,412, as compared with 121,403 in the previous year. The one noticeable feature was the drop of 1,455 in mortgage suits, and institutions under this head have now shown a progressive decrease for the last three years. The total number of suits before the courts rose from 146,132 to 146,797, and the number of suits decided was 124,026 as against 125,262 in 1912. The average duration for all courts was 89 days for contested, and 44 for uncontested, suits, as compared with 79 and 38 days respectively in 1912. The number of appeals from civil courts for disposal again showed an increase, being 13,242, as against 12,245 in 1912, and the number disposed of rose from 8,123 to 8,457. There was an increase in the number of cases pending at the end of the year from 4,804 to 5,641, but the number of appeals pending for over three months fell from 3,016 to 2,638.

Oudh.—There was in 1913 a decrease from 65,288 to 59,516 in the number of institutions. This figure is the lowest since 1908. The average duration of suits rose from 32 to 39 days in uncontested, and from 65 to 72 in contested, suits. The total number of appeals for disposal again showed an increase as did also the disposals. The pending file at the end of the year had increased from 541 to 723.

Central Provinces and Berar.—The total number of suits instituted in 1913 was 100,200, an increase of 120 over the number for 1912. There has been a further satisfactory reduction in the number of pending suits both in the Central Provinces and in Berar. The number of institutions of appeals again rose as did the number of pending files in the appellate courts in spite of increased disposals.

In the Central Provinces the average duration of suits was 133·4 days in contested cases and 67·0 in uncontested, compared with 166·3 and 78·9 respectively. The Berar figures were much higher, but showed a great improvement, being 212·5 days in contested cases and 93·5 in uncontested cases, the figures for 1912 being 269·5 and 129·0 respectively.

Punjab.—The total number of suits instituted in 1913 was 191,702, a decrease of 8,000 from the 1912 figure. The average value of a suit rose from Rs. 169 to Rs. 186. Litigation shows a downward tendency in the districts of the Central Punjab, where the co-operative movement is most firmly established. The average duration of suits again rose considerably. There was an increase in the number of pending files in the appellate courts from 1,732 to 1,916, though the number of cases disposed of was 2,025 as against 1,657 in 1912.

Bombay.—The total number of civil cases decided during the year in Bombay was 316,033 as against 296,330 in 1912. The total number of suits instituted in all the

(Civil Justice.)

Courts was 153,452 as against 136,083. The percentage of suits for money or moveable property fell from 79·9 to 78·7. There were 206,031 suits for disposal before all the Courts, and 55,818 were left pending at the close of the year; the corresponding figures for 1912 were 193,621 and 46,763 respectively. Of the total number of suits disposed of after contest and on reference to arbitration judgment was given for plaintiff in whole or in part in 83·9 per cent., and for defendant in 16·1 per cent. of cases. The average duration of contested suits fell from 222 to 210 days, and of uncontested suits from 96 to 95. 7,230 appeals were presented during the year: 6,421 were decided, and the number of arrears at the close of the year was 7,011 as compared with 6,202 in the previous year. The average duration of appeals was 343 days as against 312 in 1912.

Madras.—The total number of suits instituted in Madras in 1913 was 482,940, as against 484,622 in 1912. In the Presidency town one suit was instituted for every 26 persons, this ratio being the same as in the previous year. In the suits disposed of in 1913 the percentage of plaintiffs, who succeeded in obtaining decrees for the whole or part of the relief claimed, was 75·17. The total number of appeals preferred was somewhat greater than in 1912, and considerably over the average for the five years 1907–11. There was a further increase of arrears in the City Civil Court in which the average duration of contested suits rose very considerably during the year.

Burma.—In Lower Burma the number of original suits instituted fell from 49,942 in 1912 to 43,350 in 1913, and in Upper Burma from 22,823 to 20,357. The decrease under the head "Suits for Money or for Moveable Property" was greater than the net decrease under all headings. The good paddy season is the cause assigned for the decrease in Lower Burma. Suits for immoveable property, on the other hand, attained the record figure of 1,838. The reason given is the rise in the price of paddy land. In Lower Burma the average duration of suits was slightly shorter in contested cases than in 1912, but greater in uncontested cases, and in both classes of cases in Upper Burma. Appellate work in Lower Burma was done promptly, and in Upper Burma, where the volume of cases for disposal was almost doubled, all but four appeals were disposed of.

Bihar and Orissa.—The number of original suits instituted was 171,650, a decrease of 4,367 from the figures of 1912. There were 265,080 suits for disposal, and of these 177,654 were decided, an increase of 13,909 over the figures for 1912. Of the contested suits 80·9 per cent. were decided in favour of the plaintiffs. There was a marked increase in the duration of suits tried. The pending file of original suits at the close of the year was reduced from 89,273 to 87,428. Appellate arrears, on the other hand, rose from 5,283 to 5,980.

North-West Frontier Province.—The total number of suits instituted was the largest yet recorded, the figures for suits for money and moveable property being 21,077, as against 20,167 in 1912. The increase was confined to suits of a petty nature, and a very large percentage of the suits brought were of a speculative nature, nearly 33 per cent. of the contested cases being decided against the plaintiffs. The average duration of original contested suits was 46 days, as compared with 44 days in 1912, and in uncontested cases it arose from 21 to 24 days. The increase is due partly to congestion in the Divisional Court, Peshawar, and in the Munsifs Court at Dera Ismail Khan, where the number of petty cases was very large.

Coorg.—In Coorg the number of suits filed (2,682) was the highest figure during the past decade. The total value of suits was 1·26 per cent. more than that of the previous year, and the average value was the same as in 1912, viz., Rs. 92. The number of arrears fell from 359 in 1912 to 306; and there were 15 cases pending in the appellate courts at the close of the year.

Crime and Police.

Madras.—In 1913 crime again increased, though, fortunately, to a much lesser extent than in the preceding year. At the same time, though prices did not advance, they maintained the same high figure as in 1912. The total number of true cases of grave crime rose from 34,408 in 1912 to 35,059 in 1913. The number of murders was 689, the highest figure on record. On the other hand, there has been an

(Crime and Police.)

appreciable decrease in the number of dakaities, mainly in consequence of certain wandering gangs having been brought under the operation of the Criminal Tribes Act in the course of the year. In the districts in which this Act was introduced there was, moreover, a decrease of crime under nearly all heads, though more especially in respect of gang crime and theft with violence. There were again several serious riots. Investigation was refused in 1·8 per cent. as compared with 1·5 in 1912 of the cases reported during the year, the number being 180,091. A larger amount of property was lost than in either of the two previous years, but the percentage of recovery was better.

The total sanctioned strength of the police was on the last day of the year 32,815, or 51 in excess of the number on the corresponding date of the previous year. Recruiting continued to be generally difficult, owing to the demand for labour and the higher wages offering in other fields of employment. In most districts there was a deterioration in the physique of the recruits. The percentage in the force of illiterates was 11·5 as against 11·8; the enlistment of illiterates has now been confined to the Agency tracts and the Armed Reserves. The new class of directly recruited sub-inspectors is proving itself a more intelligent, reliable, and straightforward body of men than the old station-house officers, but, mainly owing to their defective practical training, they are lacking in detective ability. Casualties were again less numerous, but the number both of resignations and of desertions showed an increase on 1912. The decrease in the percentage of departmental punishments continued, probably owing to the extensive use of the system of deferred punishments. The cost of the Department rose from £590,503 to £610,713.

Bombay.—There was a marked diminution of crime in 1913, the number of cognisable cases reported amounting to 36,950, as compared with 41,342 in the previous year. The fall, which was common to all classes of crime and extended to all parts of the Presidency, is ascribed to a variety of causes, chief among these being the good agricultural conditions and the vigorous action taken under the provisions of the Criminal Tribes Act. Complaints for disposal, including those pending from previous years, totalled 43,074 as against 47,198 in 1912, and all but 3,040, in which investigation was refused, remained for investigation. At the close of the year the ratio of cases pending to cases for disposal was 10·2 as compared with 12·3 in 1912 and 13·5 in 1911. True cognisable cases actually disposed of totalled 27,303 during 1913 as against 28,447 in 1912. The proportion of undetected cases to true crime disposed of in the entire Presidency including Sind was 40 per cent. in 1913, as against 42 per cent. in the three preceding years. Although crime decreased, the value of property stolen in cognisable offences during the year under review increased from £77,426, the figure for 1912, to £79,232. At the same time, however, the percentage value of property restored improved to 36·2 as compared with 34·7 in 1912.

The total strength of the police force of the Presidency was, at the close of the year, 24,235 as against 24,124 in 1911, and the total cost £455,868, an increase of £1,113, for which Sind is entirely responsible. The ratio of punishments to the actual strength of the force fell slightly to 12·5 per cent., while that of rewards increased. The percentage of literates in the force of the entire Presidency stood at 55·2 as against 53·98. Recruiting continued difficult, owing mainly, it is stated, to the inadequacy of the pay offered, and there was again a slight increase in the number of resignations during the year. The health of the force showed an improvement on the previous year. Reports from practically all districts testify to a continued improvement in the moral standard of the force and the quality of their work.

Bengal.—Political crime was again an important feature of the year. The number of political cases increased to 14, the figures for 1912 and 1911 being 12 and 13 respectively. An active vendetta, carried on by the anarchist group against the police, resulted in the murder at different times of two subordinate police officers and two informers, but in no case were the offenders brought to justice. Two important political cases were disposed of during the year. One of these was the Comilla case, in which the 12 accused who were sentenced to seven years' rigorous imprisonment each for assembling with the purpose of committing dakaiti, appealed to a higher court. The appeal was dismissed against all the accused except two, who were acquitted. The second was a conspiracy case at Barisal, chiefly remarkable for the revelations of the systematic attempts made by the anarchist party to exploit the

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schools in Bengal. In the issue 12 of the accused pleaded guilty to conspiring to wage war against the King and received appropriate sentences, the charge against the remainder being then withdrawn. With regard to crime generally, the number of true cases reported amounted to 50,859 as against 49,236 in 1911, every head showing an increase except rioting, coining, and murder. The rise, however, was not general, a large number of the districts showing a decrease.

Though the number of recruits was greater than in 1912, difficulty in recruitment still obtains, and will probably continue until there is an improvement in pay. The general health of the force continued to be indifferent. Only 23 cases of alleged serious ill-treatment or torture were reported to Government as against 62 in the preceding year, and of these not more than 2 ended in conviction, 9 resulting in acquittal, and 12 being dismissed. The actual expenditure for the financial year 1913-14 was £501,787 as against £439,399 in 1911; and the sanctioned strength of the subordinate police, excluding the Criminal Investigation Department was, on 31st December 1913, 20,146 as compared with 19,142 in the previous year.

United Provinces.—The rains of 1913-14 were, on the whole, a failure in the United Provinces, and agriculture suffered correspondingly. These conditions were naturally reflected in the crime statistics, and although the rise in the total volume of reported crime was hardly appreciable, there was a considerable increase in serious offences against the person and property. The rise in the number of murders from 508 to 641, the latter figure probably constituting a record for the United Provinces, was especially remarkable. Dakaiti cases likewise increased by 44 on the previous year. The percentage of cases in which investigation was refused has further declined from 34—last year's figure—to 33·6, but the proportion of uninvestigated cases is still considered too high. An unsatisfactory feature of the year's work is the continued decline in the percentage of convictions in cases investigated by the police. In 1913 the figure was only 41·4. During 1913 vigorous action was taken under the Criminal Tribes Act, with results that became manifest towards the close of the year. The general standard of conduct and work among the police continued to improve. The number of departmental punishments fell from 696 to 647 in the case of the men, and there were comparatively few charges of ill-treatment and extortion. Here as elsewhere, however, in India, the service is unpopular chiefly owing to inadequacy of pay. The number of literates in the force increased slightly, but still remains low. The percentage of admissions into hospital rose from 18 to 27.

Punjab.—The steady increase in crime, which for many years past has been shown in the police records of the Punjab, received a slight check in the year under review, the number of true cognizable cases (excluding the figures for the new Delhi province) being 47,846 as against 48,256 for 1912. The diminution, however, is entirely in offences against property, and one of the gravest features of the year is the large increase in the number of murders, of which there were 625 true cases as compared with 511 in 1912. The number has more than quadrupled in the last 50 years. Notwithstanding, therefore, the slight decrease in crime on the whole the situation still remains very serious. Police working was, on the whole, more successful than in 1912, and the percentage of cases convicted to cases tried rose from 65 to 68. There was an increase of 276 in the sanctioned strength of the force, and a rise in police expenditure of £4,373 to £372,900. The number of judicial and departmental punishments showed little change from the previous year. The number of educated men in the force increased by 296, and of the lower ranks 33½ per cent. could, at the close of the year, read and write. The directly recruited class of sub-inspectors showed here as elsewhere a lack of detective ability.

Assam.—The number of true cases in Assam rose from 10,687 in 1912 to 11,777. In serious crime the increase amounted to 693 cases, of which the Assam Valley was responsible for 403. In the sphere of political crime the quiescence of the previous year was broken by a dastardly attempt to assassinate the Sub-divisional Officer, Maulvi-Bazar, by means of a picric-acid bomb. Through its premature explosion, the would-be assassin himself met his death, but all attempts to establish his identity had up to the end of the year failed. There was also a large increase in the circulation of seditious literature during the year.

The total sanctioned strength of the force rose during the year from 3,271 to 3,418, and the cost of the Department rose by £11,759 to £154,952. The discipline

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of the force continued to be unsatisfactory, and recruitment was as usual difficult, but the increased pay now sanctioned will probably improve matters in this respect.

Central Provinces and Berar.—An early cessation of the monsoon of 1913 led to a deterioration of the economic conditions in the latter part of the year and to the creation of a certain amount of distress among the people. The effect of these factors is noticeable in the year's statistics of crime. Thus, although there was a considerable increase in the total number of reported cases, minor offences against property were responsible for far the greater part of the rise and the increase in serious crime was only moderate. The number of murders rose from 188 to 225 and of riots from 192 to 266. Co-operation between the people and the police for the disclosure and investigation of crime continued to improve.

The sanctioned strength of the force was slightly increased during the year and the cost of the Department rose by £6,400 to £227,000. Recruiting was more active than in previous years, but the class of men who joined the service were still not satisfactory. Some improvement may be expected from the increase of pay sanctioned for head constables, but this is only a half measure and cannot be more than partially effective. The number of punishments inflicted during the year showed a considerable increase, and no less than 10 officers and 166 men were dismissed as against 3 officers and 124 men in 1912.

Burma.—The unsatisfactory conditions noted in the report for 1912 showed little sign of betterment in the year under review. Though there was a slight improvement in the statistics of crime the total volume was still alarmingly large, while the difficulty in maintaining the rank and file of the police force at its sanctioned strength was, if anything, intensified. The number of true cases of cognizable crime declined by 1,468 to 41,299, but the decrease was mainly in minor cases, violent crimes standing at the high figure of 1,438, or only 69 less than for the year 1912. With regard to the strength of the force it is reported that the shortage amounted to 992, or nearly 7 per cent., an increase of 189 on the figures for the previous year. Moreover, in order to prevent a still further decline in numbers it has been found necessary to accept recruits below the former standard, both in physique and character. The causes of the trouble are partly low pay, but more especially defective housing and poor prospects. To remedy the latter evil promotion has now been sanctioned from the ranks to fill 30 per cent. of the vacancies in the grade of sub-inspectors instead of only 15 per cent. as heretofore. The large number of dismissals and removals from this service—525 as compared with 557 in 1912—is due chiefly to the necessity of accepting inferior recruits. Otherwise the conduct and discipline of the force was satisfactory. The percentage of literates among the men, viz., 86, is certainly high, and the results of the training of the recruits are good. The efficiency of the Burma Military Police maintained the same high standard as formerly, and excellent work was again rendered by the force on the north-eastern frontier.

Bihar and Orissa.—The total number of cognizable crimes reported during the year 1913 was 60,026, representing a slight increase on the corresponding figures for 1912. Dakaities declined from the high figure 136 in 1912 to 113, while true cases of murder increased from 157 to 200. The proportion of police cases ending in conviction to cases decided was for all classes 89 per cent., and the same percentage was recorded for cases investigated by the police as compared with cases reported.

The work and conduct of the force gave evidence of steady if slow improvement. With regard to complaints of oppression the new rules framed during the year had the effect of securing for them still more attention than hitherto, and they are now generally made the subject of magisterial enquiry. The sanctioned strength of the subordinate staff on the 31st December 1913 was 13,522 against 12,899 in 1912. The percentage of literacy was approximately 57.

North-West Frontier Province.—The fall in cognizable crime which took place in 1912 was not maintained in the year under review, the figures showing an increase of 335 true cases. Burglaries and thefts accounted for almost the whole of this rise, while dakaities, on the other hand, decreased by 23 cases. Among the dakaities, however, were two very serious cases, the first an attack on Khainabad Station, the second the holding up of the Down Calcutta Mail at Jahangira Road Station by an armed gang, on which occasion four persons, including the European driver and guard, were shot dead. Kidnapping cases increased from 35 in 1912 to 48.

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The Arms section of the Criminal Investigation Department was again very successful in its operations against professional rifle thieves. As regards the working of the ordinary police it continued to deteriorate, the proportion of convictions to true cases investigated having still further declined to the low figure of 33·2 per cent. The sub-inspectors showed little detective power, chiefly owing to their inexperience and want of local knowledge. The supply of recruits was insufficient to make good the wastage among the men, and the latter is so great that out of a total sanctioned number of 3,503 constables 39 per cent. had less than three years' service and 81 per cent. less than 10 years. The number of punishments, judicial and departmental, showed little change from the previous year.

Coorg.—The number of cognizable offences reported (573) was 17 in excess of the number for the previous year. There was a rise under breaches of special and local laws, but a decrease under minor offences against property. The percentage of convictions obtained in cognizable cases investigated by the police was 85·18 against 84·52 in 1912. The percentage of property recovered out of the total amount stolen, which in 1912 had shown a sharp rise to 70·61, fell to 46·38. The conduct of the force, which was slightly larger than in 1912, was on the whole satisfactory; and there were only six illiterates in Canarese as compared with five in 1912.

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Bombay.—The total number of criminal cases disposed of during 1913 was 160,789 as compared with 167,245 during 1912, and the total number of offences reported was 163,994, a decrease of 8,109. The number of cases returned as true was 157,659, or 96·1 per cent. Cases under the Indian Penal Code related chiefly to offences of hurt, criminal force and assault, theft, mischief, criminal trespass and criminal intimidation, insult and annoyance. Among the cases returned as true, there were three offences against the State, and one relating to the army and navy. The number of cases affecting human life was 823, and of these 316 were murder cases, as against 291 in 1912. Of the 240,603 persons brought to trial 44·1 per cent. were acquitted or discharged, and 51·4 per cent. convicted, as compared with 44·9 and 50·4 per cent. respectively in the previous year; 4·1 per cent. remained under trial, and ·4 per cent. died, escaped, or were transferred. The number of original regular cases disposed of was 154,262 as against 159,039 in 1912. 65 persons were sentenced to death as compared with 67, while 251 as against 183 were condemned to transportation. In 46 per cent. of the appeals, the appeals were rejected and in 16·5 per cent. the sentences were reversed.

Madras.—The total number of original cases instituted in criminal courts in 1913 was 362,737, or 4,647 more than in 1912; the total number of appeals preferred was 9,837, or 316 more than in 1912, and 307 more than the average for the past quinquennium. The rise was fairly general. In the Presidency Magistrates' Courts, the total number of cases instituted was 60,649; only 57 cases were pending at the end of the year, and only 5 persons in custody. The number of cases committed to the High Court was 47 against 53 in 1912, and no case was pending at the end of the year. In the High Court the Government appealed against the acquittal of 57 persons, the quinquennial average being 73. The percentage of successful appellants was 9, as against 22 in the Sessions Courts and 33 in the Magistrates' Courts. Death sentences on 88 persons were referred for confirmation; of these, 45 were confirmed, 27 modified, and 16 reversed.

Bengal.—352,287 criminal offences were reported in Bengal during the year, an increase of 19,318 on the figures of 1912. Of this increase, by far the greater part was due to cases under special and local laws. Of the total number of cases under inquiry, 288,095 were found to be true and 245,052 were brought to trial, the corresponding numbers for 1912 being respectively 269,372 and 229,832. In the High Court 511 appeals against sentences of courts of session were decided, and of these 410 were upheld and 28 only reversed. Of the total number of cases brought to trial, 112,200 were in the courts of the police and municipal magistrates in the Presidency town, being 9,444 more than in the previous year. In the courts of session there was an increase in all classes of criminal work; in the High Court, on the other hand, in appellate and revisional work only. No Special Bench under

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Act XIV. of 1908 was constituted during the year. There were again numerous cases in which sentences of whipping were passed illegally in contravention of the provisions of the Whipping Act of 1909.

Assam.—During the year 41,767 offences were reported to the criminal courts, against 39,174 in 1912; of these 32,092 were under the Penal Code, all the districts, except Lakhimpur, reporting an increase. The percentage of complaints rejected or cases struck off as false again declined slightly. 19,520 cases were brought to trial as compared with 17,422 in the previous year, and in those decided by magistrates, 34·2 per cent. of the persons tried under the Indian Penal Code were convicted, the corresponding percentage in 1912 being 37·1. In the High Court, 6 appeals were pending, 116 appeals preferred during the year, and 117 disposed of, leaving four pending at the close. In only nine of the appeals disposed of were the original convictions reversed. As regards reference under paragraph 374, Code of Criminal Procedure, seven cases involving seven persons were referred to the High Court, and one case was pending; seven were decided, two of the accused being sentenced to death, and four to transportation for life. In the remaining case the accused died before it was disposed of. Of 210 cases of application for revision disposed of by the High Court, the orders of the lower courts were affirmed in 107, and reversed in 72, cases.

Punjab.—There was an appreciable reduction in 1913 in the number both of reported offences and true cases, and an improvement in the proportion of cases which were actually brought to trial. The general situation, however, in regard to crime remained much the same in 1913 as it was in 1912, and so far as criminal administration is concerned there was still much to be desired. The proportion of persons convicted to those brought to trial was 26 per cent., which, though 4 per cent. better than the figures for 1912, is still extraordinarily low. The average duration of both original cases and appeals was unduly high. The number of persons dealt with by the Chief Court on appeal and revision rose from 953 and 3,154 to 1,262 and 3,855 respectively. In 239 of the appeal cases the original sentence was reversed. The number of murder references disposed of by the Chief Court rose from 103 to 165. The sentences on 147 out of the 231 persons involved were confirmed. Altogether the work of the Chief Court was exceptionally heavy during the year. The regulations with regard to the trial of frontier crimes continued to work well.

North-West Frontier Province.—The number of offences admitted to have occurred in 1913 was practically the same as in 1912, but cases under the Indian Penal Code showed a slight decrease. A satisfactory feature of the year's work was the substantial increase of the complaints dismissed *in limine*. For offences under the Indian Penal Code 21,977 persons were tried during the year, but only 4,757, or little more than one-fifth were convicted. Capital sentence was passed by the Sessions Judges on 59 persons, against 48 in 1912, and in 42 cases the sentences were confirmed by the Judicial Commissioner. The average duration of all cases again increased, the returns for 1911, 1912, and 1913 being respectively 8, 9, and 10 days.

North-Western Provinces.—Under the Indian Penal Code the total number of offences reported was 109,837 as against 109,303 in 1912, and of cases returned as true 79,917 as against 79,633. The number of persons under trial was 147,863 as against 145,864 in 1912. So far, therefore, as the total volume of crime is concerned, the failure of the monsoon in 1913 produced little effect. The satisfactory increase of the previous year in the number of cases brought to trial under the Act for the Prevention of Cruelty to Animals was more than maintained. The percentage of persons convicted to persons under trial remained at 41 in Courts of Magistrates, but fell from 72 to 70 in Courts of Session. The working of the system of trial by jury was not considered satisfactory by the Sessions Judges of Allahabad and Benares, the only two judgships where the system is in force. There was a decrease in the number of appellants before the High Court, and the number of totally successful appeals continued low. A few changes in the criminal administration were introduced from 1st April 1913 as a result of the report submitted by the Committee presided over by the late Mr. Richard Greeven. The good work performed by Honorary Magistrates was again conspicuous.

Oudh.—There was a slight increase in the offences reported and returned as true and brought to trial, under the Penal Code and a slight decrease in those under the

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Code of Criminal Procedure, and other special and local laws. There was an increase of not less than 35 per cent. in offences affecting human life. The increase recorded in 1912 in the number of false and vexatious accusations was not maintained. In Magisterial Courts the percentage of appellants whose sentences were confirmed fell from 71 to 65. In Sessions Courts the percentage rose from 75 to 78. Five appeals were filed by Government from orders of acquittal against 10 persons. With regard to 3 persons the appeals were dismissed, 3 were convicted, and in the case of the remaining 4 a retrial was ordered.

Coorg.—The number of cases brought to trial totalled 2,964, or 698 more than in 1912, and the number of offences reported (3,143) increased by 654. Thirteen persons were found guilty of heinous crime, and three of them were convicted of murder, one being hanged and the other two transported for life. Three appeals against convictions were heard by the Judicial Commissioner; the sentence in one case was confirmed, and the other two were pending at the end of the year.

Central Provinces and Berar.—According to the new method of calculation introduced in 1913 the total number of offences reported in the Central Provinces and Berar rose from 39,820 to 44,332, but this large increase of 11·4 per cent. is out of proportion to the increase in cases returned as true, which only amounted to 7·6 per cent. Offences under the Indian Penal Code numbered 32,940 as against 29,785 in the previous year. As regards original jurisdiction, the percentage of persons convicted to the total number whose cases were disposed of increased from 38·1 (the correct figure of the previous year) to 39·2. These figures are, however, misleading, as resort is often made in minor cases to the criminal courts for the purpose of extorting damages. If only cases of a really criminal nature are taken into account, the percentage of convictions stands much higher, and, moreover, showed a satisfactory rise for the year 1913. The number of appeals by convicted persons to the Superior Court fell from 257 to 388; in 89·5 per cent. of the appeals disposed of the finding, and in 75·8 per cent. the finding and sentence of the Lower Courts were confirmed. In the Courts of Session and in the District Courts the percentages of appellants whose sentences were upheld were respectively 72·3 and 61·3, against 66·2 and 59·9 in 1912. In nine cases the local Government appealed against the acquittal of 11 persons. Six cases affecting seven persons were decided during the year. In one case the appeal was withdrawn, in one it was dismissed, in one case a re-trial was ordered, and in the remaining three cases the accused were convicted.

Burma.—As already noted, the total volume of crime in 1913 remained alarmingly large, and such decrease as did take place was confined almost entirely to minor offences. A reference made to Sessions Judges and District Magistrates as to the causes of the continuous growth of crime and criminal habits among the Burmese led to the submission of many interesting reports, but unfortunately the officers consulted showed considerable diversity of opinion as to the origin of the evil. But it is generally admitted that profound changes, moral, social, and economic, must infallibly ensue if a comparatively primitive people are suddenly introduced to all the ideas, resources, and luxuries of a more advanced civilisation. At the same time it was pointed out that, although the crime statistics of Burma compare unfavourably with those of other Indian provinces, a survey extending back over a number of years reveals no increase of serious crime in proportion to the population, and that in Lower Burma there has even been a slight improvement. In the actual working of the Criminal Courts in 1913 there were no very salient features. There was a decrease in the number of miscellaneous cases under the bad livelihood sections of the Criminal Procedure Code. Better judgment was, however, shown in their employment in Upper than in Lower Burma, as although fewer cases were also instituted in the former, the percentage of successes was much higher, rising approximately to 80.

Bihar and Orissa.—There was a slight decrease in the number of criminal offences reported, both under special and local laws and under the Penal Code. The proportion of the number of cases which were found to be false and of complaints dismissed to the number reported was slightly smaller than in 1912. In the Magistrates' Courts 48·9 per cent. of the persons accused, and in the Courts of Sessions 59·5 per cent. of the persons tried, as against 49·4 and 61·6 per cent. in 1912, respectively, were convicted. In the appellate jurisdiction the High Court decided 301 appeals against sentences of Courts of Session, and upheld in 236, and reversed in 26 instances the

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orders passed. The percentage of appellants entirely unsuccessful was 71, against 75·2 in 1912. In the Sessions Courts the results of admitted appeals were less favourable, and in the Magistrates' Courts the results of appeals more favourable, on the whole, to appellants. Eighteen references for confirmation of the death sentence were decided during the year. In the case of nine out of the 26 persons concerned the death sentence was confirmed; in 11 the sentence was commuted, and 2 persons were acquitted. Four out of five appeals by the local Government against orders of acquittal were dismissed. In the remaining case a retrial was directed.

Jails.

The variations of the jail population in British India during the last five years are shown in the following table :—

	1913.	1912.	1911.	1910.	1909.
Jail population of all classes on 1st January -	101,908	91,876	102,991	104,015	104,413
Admissions during the year - - - -	492,308	492,820	470,513	479,243	493,592
Aggregate - - - -	594,216	584,696	573,504	583,258	598,005
Discharged during the year from all causes -	488,677	482,786	481,622	480,268	493,999
Jail population on 31st December - -	105,539	101,910	91,882	102,990	104,006
Convict population on 1st January - -	89,287	79,668	91,505	92,880	92,130
Admissions during the year - - - -	160,851	159,424	152,396	155,519	160,999
Aggregate - - - -	250,138	239,092	243,901	248,399	253,129
Released during the year - - - -	154,494	147,292	151,936	155,338	157,715
Transported beyond seas - - - -	1,566	1,382	1,138	1,106	828
Casualties, &c. - - - -	2,053	2,084	2,222	2,304	2,705
Convict population on 31st December - -	92,913	89,287	79,668	91,505	92,879

The daily average number of prisoners, which had steadily decreased since 1908, rose slightly in 1913 to nearly the figure of 1911. The fall in 1912 was, however, largely attributable to the release of convicts and civil prisoners on the occasion of the Delhi Durbar. The increase in 1913, was distributed among all provinces except the United Provinces of Agra and Oudh and Coorg, in which the figures continued to show decreases.

More than one-half of the total number of convicts received in jails during the year came from the classes engaged in agriculture and cattle tending, over 132,000 out of 160,000 are returned as illiterate.

The percentage of previously convicted prisoners was 17·29 as against 16·45 in 1912, while the number of youthful offenders fell from 726 to 626. The following table shows the nature and length of sentences of convicts admitted to jails in 1912 and 1913 :—

Nature and Length of Sentence.	1913.	1912.
Not exceeding one month - - - -	43,300	44,080
Above one month and not exceeding six months - - - -	61,580	62,026
" six months " " one year - - - -	29,245	27,643
" one year " " five years - - - -	21,384	20,551
" five years " " ten " - - - -	2,280	2,336
Exceeding ten years - - - -	312	235
Transportation beyond seas :—		
(a) for life - - - -	1,148	1,050
(b) for a term - - - -	759	724
Sentenced to death - - - -	870	761

The number of offences committed by convicts fell notwithstanding the increase in the daily average population. The figures for the different provinces are given in the following table :—

STATEMENT EXHIBITING THE MORAL AND MATERIAL

(Jails.)

Province.	1913.			1912.		
	Daily Average Population.	Offences dealt with by Criminal Courts.	Offences dealt with by Superintendents.	Daily Average Population.	Offences dealt with by Criminal Courts.	Offences dealt with by Superintendents.
Madras - - - - -	9,046	9	10,581	8,875	8	10,690
Bombay - - - - -	9,534	42	20,944	8,905	14	20,733
Bengal - - - - -	10,612	7	25,578	10,092	16	21,776
United Provinces - - - - -	19,790	22	30,287	20,350	33	30,870
Punjab - - - - -	12,571	30	31,261	11,099	35	33,689
Burma - - - - -	15,761	23	28,461	15,291	33	34,236
Assam - - - - -	1,698	20	2,376	1,625	15	2,227
Central Provinces and Berar - - - - -	3,191	16	13,690	2,816	21	14,671
Bihar and Orissa - - - - -	6,332	7	15,968	5,926	7	16,210
North-West Frontier Province - - - - -	1,426	—	1,011	1,090	2	885
Coorg - - - - -	50	—	14	53	2	28
Ajmer-Merwara - - - - -	271	—	198	242	1	226
Total - - - - -	90,282	176	180,369	86,364	187	186,241

The total number of corporal punishments again showed a decrease from 409 to 361. The total number of cases in which penal diet (with and without solitary confinement) was prescribed was 7,568 as compared with 8,808 in the preceding year.

Total expenditure rose from £539,075 to £571,364, and total cash earnings decreased from £98,872 to £97,819; there was, consequently, an increase of £33,342 in the net cost to Government. Excluding Coorg, the provinces in which the average cost of maintenance was highest were, in the order named, Bengal, the Central Provinces, Assam, Bombay.

The improvement in the health condition of Indian jails was maintained in 1913. The death rate declined from 16·74 per mille in 1912 to 15·52 in 1913, the lowest ever recorded for Indian jails. The admissions to hospital were somewhat higher at 56,607 as against 54,098 in 1912, and the daily average number of sick rose from 2,401 to 2,565. The chief causes of sickness were malaria, abscess, ulcer and boil, and dysentery; and of death, tubercle of the lungs, dysentery and pneumonia. Cases of tubercle of the lungs decreased in all provinces except in the Punjab, the North Western Frontier Province and Assam. The death rate from this disease fell from 3·18 per mille in 1912 to 2·94 in 1913. With regard to malaria the striking improvement recorded in 1912 was not quite maintained. The admission ratio in the North West Frontier Province was particularly high. There were increases also in Bengal, Assam, the United Provinces and Bombay. On the other hand, Burma, Bihar and Orissa, the Central Provinces and Madras, record lower malaria admission figures than they have ever done before. Dysentery was again responsible for more deaths in Bengal than any other single cause, and it is the subject of a special inquiry which is being carried out under the auspices of the Indian Research Fund Association.

CHAPTER III.

FINANCE.

FORM OF ACCOUNTS.	CAPITAL OUTLAY ON PUBLIC WORKS.
REVENUE AND EXPENDITURE.	DEBT.
PROVINCIAL FINANCE.	CURRENCY AND EXCHANGE.
HOME CHARGES.	BANKS.

(For further details, see *Statistical Abstract for British India, Tables 44 to 89 and 97.*)

Form of Accounts.

The accounts of the Government of India show the transactions in India in rupees ; the totals of these transactions are then converted into pounds, at the rate of Rs. 15 = £1 : the sterling transactions in England are next stated : and the last two sets of figures are added together, so as to show in pounds the combined transactions in India and in England. The comparatively small sums which have to be brought to account owing to the fact that the remittances to defray the net expenditure in England are not effected at exactly sixteenpence to the rupee are included in a single line under the head of Exchange.

Revenue and Expenditure.

The Gross Revenue and Expenditure of British India in 1912-13 and 1913-14 were as follows :—

	1912-13.	1913-14.
	£	£
Revenue - - -	86,862,598	85,207,175
Expenditure - - -	83,754,964	82,894,752
Surplus -	<u>£3,107,634</u>	<u>£2,312,423</u>

In these figures all receipts are included in the total of revenue and all outlay in the total of expenditure, with the one exception that the working expenses of railways and the surplus profits paid to certain railway companies are treated not as expenditure but as a deduction from Revenue. The financial position of the Government can, however, be much better appreciated by reference to the following table of Net Revenue and Expenditure, in which the interest charges as well as the working expenses of the Railways, the interest charges and working expenses of Irrigation Works, the cost of the cultivation and manufacture of opium, and the charges against other revenue-earning departments (excluding cost of collection) are treated as deductions from revenue, and the receipts of spending departments are treated as deductions from expenditure.

(Revenue and Expenditure.)

NET REVENUE.

	1912-13.		1913-14.		Increase (+) or Decrease (-).	
	£	£	£	£	£	£
Land Revenue. &c. :						
Land Revenue - - - -	20,519,247		20,621,481		+ 102,234	
Forest - - - - -	2,146,667		2,219,936		+ 73,269	
Tributes from Native States.	419,367		412,618		- 6,749	
		23,085,281		23,254,035		+ 168,754
Opium : Net Receipts -	—	4,515,685	—	606,348	—	- 3,909,337
Taxation :						
Salt - - - - -	3,077,118		3,182,501		+ 105,383	
Stamps - - - - -	5,009,774		5,260,120		+ 250,346	
Excise - - - - -	8,199,349		8,790,777		+ 591,428	
Provincial Rates - - -	551,071		179,688		- 371,383	
Customs - - - - -	7,049,254		7,410,846		+ 361,592	
Income Tax - - - - -	1,731,167		1,936,772		+ 205,605	
Registration - - - - -	480,984		517,976		+ 36,992	
		26,098,717		27,278,680		+ 1,179,963
Commercial Undertakings :						
Post Office - - - - -	235,869		318,191		+ 82,322	
Telegraph - - - - -	68,178		7,344		- 60,834	
Railways - - - - -	4,303,354		4,789,533		- 486,179	
Irrigation - - - - -	1,109,289		1,264,981		+ 155,692	
		6,216,690		6,380,049		+ 163,359
Mint - - - - -	—	345,016	—	207,211	—	- 137,805
Exchange - - - - -	—	100,879	—	119,741	—	+ 18,862
Total Net Revenue £		60,362,268		57,846,064		- 2,516,204

NET EXPENDITURE.

	1912-13.		1913-14.		Increase (+) or Decrease (-).	
	£	£	£	£	£	£
Debt Services (excluding amounts charged under Railway Revenue Account and irrigation.	—	336,827	—	163,534	—	- 173,293
Military Services :						
Army - - - - -	18,348,723		18,585,733		+ 237,010	
Marine - - - - -	392,259		423,303		+ 31,044	
Military Works and Special Defence Works.	824,484		887,077		+ 62,593	
		19,565,466		19,896,113		+ 330,647
Collection of Revenue -	—	6,514,157	—	6,684,914	—	+ 170,757
Civil Services :						
Civil departments - - -	15,353,908		16,525,913		+ 1,172,005	
Miscellaneous civil charges.	4,261,904		4,750,966		+ 489,062	
Civil works (including railways and irrigation works charged to revenue).	5,708,322		6,795,087		+ 1,086,765	
		25,324,134		28,071,966		+ 2,747,832
Famine Relief and Insurance	—	1,000,000	—	1,000,000	—	—
Provincial Adjustments :						
1. Charge against Revenue of the year arising from increase of provincial balances.	—	4,514,050	—	—	—	—
2. Diminution of the charge against Revenue of the year, owing to expenditure being met from provincial balances.	—	—	—	282,886	—	- 282,886
Total Net Expenditure charged against Revenue.		57,254,634		55,533,641		- 1,720,993
Surplus (+) or Deficit (-)		+ 3,107,634		+ 2,312,423		- 795,211

(Revenue and Expenditure.)

Thus there was in 1913-14, as compared with 1912-13, a decrease of net revenue of £2,516,204 which is more than accounted for by the decline under opium and a decrease in net expenditure of £1,720,993. Detailed explanations of the figures of revenue and expenditure are annually laid before Parliament in the Financial Statement of the Government of India and in the Explanatory Memorandum by the Secretary of State.

Provincial Finance.

Under the system of decentralisation of finance, begun by Lord Mayo in 1870 and subsequently developed by successive stages, the Government of India assigns to the Provincial Governments the whole or a fixed share of the revenue collected by them under certain heads. From the revenue so assigned the Provincial Governments are required to meet the whole of the expenditure within their respective provinces under certain heads, and a portion of the expenditure under other heads. The revenue retained by the Government of India for its own purposes and for meeting the expenditure incurred by the Secretary of State in England is described in the accounts as Imperial, and that which is assigned to the Provincial Governments is described as Provincial. The expenditure is similarly classified. The Provincial Settlements, by which the classification into Imperial and Provincial of the various items of revenue and expenditure and the ratio of division of the divided heads are governed, have been placed on a quasi-permanent basis with the object of giving to the Provincial Governments an expanding revenue with as large an interest as possible in the careful collection of it and in economy of expenditure. The principal heads of revenue which are wholly Imperial are Opium, Salt, Customs, Post Office, Telegraph, Mint, and Railways; the principal divided heads being Land Revenue, Irrigation, Stamps, Excise, Assessed Taxes, and Forests. Of Heads that are wholly Provincial the chief are Forest and Registration. On the expenditure side of the accounts the charge for Military Services and the charges under certain minor heads (Territorial and Political Pensions, Ecclesiastical, &c.) are entirely Imperial; "General Administration" is divided; most other important heads of expenditure are provincial.

The net revenue of 1912-13 and 1913-14 and the expenditure charged against the revenue of those years were divided into Imperial and Provincial as follows:—

	1912-13.			1913-14.		
	Imperial.	Provincial.	Total.	Imperial.	Provincial.	Total.
	£	£	£	£	£	£
Net Revenue -	31,973,700	28,388,568	60,362,268	31,791,279	26,054,785	57,846,064
Net Expenditure -	28,866,066	28,388,568	57,254,634	29,478,956	26,054,785	55,533,641

The equilibrium between Provincial Revenue and Provincial Expenditure, which is shown in these figures, is due to the fact that, if the Provincial Governments spend less in any year than their income, the saving is added to their balances and treated in the general accounts prepared by the Government of India as though it had been spent, and that similarly excess expenditure by Provincial Governments, being met from their balances, is not charged in the accounts prepared by the Government of India against the revenues of the year. In 1912-13 the Provincial Governments added to their balances the sum of £4,514,050, in 1913-14 they drew on their balances to the extent of £282,886.

Contribution by each Province towards Expenditure of the Central Government.

The following table shows for each province separately the amount by which the total revenue collected therein (whether classified in the accounts as Imperial or Provincial) exceeds or falls short of the total expenditure incurred therein, and thus indicates the extent to which each province contributes towards the expenditure of the Government of India and the Secretary of State, or draws upon the general revenues:—

(Provincial Finance.)

Provinces, &c.	1912-13.		Provinces, &c.	1913-14.	
	Excess of Revenue.	Excess of Expenditure.		Excess of Revenue.	Excess of Expenditure.
	£	£		£	£
Bengal - - -	6,500,805	—	Bengal - - -	5,385,947	—
Bihar and Orissa - - -	323,737	—	Bihar and Orissa - - -	498,647	—
Assam - - -	—	82,167	Assam - - -	77,441	—
United Provinces - - -	1,904,029	—	United Provinces - - -	1,304,477	—
Punjab - - -	1,453,432	—	Punjab - - -	1,716,428	—
Burma - - -	2,184,079	—	Burma - - -	2,637,242	—
Central Provinces and Berar. - - -	125,042	—	Central Provinces and Berar. - - -	278,576	—
Madras - - -	4,318,692	—	Madras - - -	4,972,022	—
Bombay - - -	6,026,471	—	Bombay - - -	5,482,927	—
North-West Frontier Province. - - -	—	445,846	North-West Frontier Province. - - -	—	499,166
India, General - - -	106,652	—	India, General - - -	—	87,063
England - - -	—	19,302,292	England - - -	—	19,455,055
Net result - - -	Surplus £3,107,634		Net result - - -	Surplus £2,312,423	

Home Charges.

The net expenditure in England chargeable to revenue, as shown in the preceding table, may be classified under the following principal heads :—

	1912-13.	1913-14.
	£	£
Interest and management of debt, and payment of interest and annuities on account of railways and irrigation works.	10,940,421	10,948,386
Payments in connection with Civil Departments in India - - -	157,671	98,850
India Office (excluding pensions) - - - - -	203,253	205,657
Army and marine effective charges - - - - -	1,141,881	1,127,512
Stores of all kinds charged against revenue - - - - -	1,345,907	1,528,334
Furlough allowances - - - - -	994,480	1,046,122
Non-effective charges (pensions and gratuities) - - - - -	4,518,679	4,500,194
Total - - - - -	£ 19,302,292	19,455,055

Capital Outlay on Public Works.

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

	1912-13.	1913-14.
	£	£
Amount supplied by State borrowing or from the Cash Balances, without being charged against the Revenue of the year :—		
State Railways - - - - -	8,799,563	10,448,533
Irrigation Works - - - - -	1,408,329	1,282,262
Capital raised through Railway Companies - - - - -	13,333	34,667
Amount defrayed from Revenue :—		
Provincial and local Railways - - - - -	4,266	1,414
Protective Railways - - - - -	41,411	8,576
Protective Irrigation Works - - - - -	426,501	491,424
Other Irrigation Works* - - - - -	45,291	98,864
Total Direct Outlay by the State - - - - -	10,738,694	12,365,740
Outlay by companies guaranteed or subsidised by Government - - - - -	1,083,376	1,823,070
Branch lines not on firm guarantee - - - - -	58,951	179,233
Total Capital Outlay on Railways and Irrigation - - - - -	£ 11,881,021	14,368,043

* Excluding capital outlay on the minor works, which is met from revenue.

Debt.

Amount of Debt.—The debt of India on the 1st April 1913 was :—

	£
In England - - - - -	179,179,193
In India, Rs. 1,42,83,64,790, equivalent, at 1s. 4d. the rupee, to - - - - -	95,224,319
Total - - - - -	£274,403,512

1913-14.—In England £500,000 India bonds and £1,281,200 Railway debenture bonds were discharged during the year. No fresh debt was raised.

In India a 3½ per cent. rupee loan of 3 crores was issued in July 1913 at an average price of Rs. 96 : 8 : 8.

The total debt outstanding on 31st March 1914 was as follows :—

	£
In England - - - - -	177,064,757
In India, Rs. 1,45,68,55,790, equivalent, at 1s. 4d. the rupee, to - - - - -	97,123,719
Total - - - - -	£274,188,476

Classification of the Debt.—The total debt is classified in the accounts as (1) Public Works Debt, (2) Ordinary Debt. The amount entered as belonging to the former category is the equivalent of the total capital expenditure which has been incurred by the State on public works, together with the amount advanced to railway companies for capital expenditure; the "Ordinary Debt" consists of the remainder of the debt. In any year in which, owing to the use of surplus revenue or deposits for the construction of public works, the capital expenditure of the year exceeds the amount of debt incurred in the year, the effect of this system of classification is to cause a decrease to be shown in the amount of the Ordinary Debt.

The classification of the debt outstanding on the 31st March 1913 and the 31st March 1914 was as follows :—

	1913.	1914.
	£	£
(a) Permanent debt :—		
Debt for railways - - - - -	211,832,819	221,984,419
Debt for irrigation works - - - - -	37,552,030	39,440,938
For initial expenditure on the new capital at Delhi - - - - -	119,886	567,020
Total of public works debt - - - - -	249,504,735	261,992,377
Balance, being ordinary debt - - - - -	24,898,777	12,196,099
Total permanent debt on 31st March	274,403,512	274,188,476
(b) Temporary debt incurred on security of India bills :—		
Debt for railways - - - - -	Nil.	Nil.
Debt for general purposes - - - - -	Nil.	Nil.
Total debt (permanent and temporary) on 31st March - - - - -	£274,403,512	£274,188,476

The borrowing powers of the Secretary of State for India in Council are regulated by Acts of Parliament, the last being the East India Loans (Railways and Irrigation) Act, 1910, under which powers were granted to borrow in the United Kingdom, as and when necessary, up to £25,000,000 for the purposes of Indian public works.

(Currency and Exchange.)

Currency and Exchange.

Currency Legislation.—Up to 1893 the standard of value in India was silver, the rupee (180 grains of silver, eleven-twelfths fine) and the half rupee being full legal tender for the payment of debts, and the mints being open to the receipt from the public of silver for coinage without limit. In view of the embarrassment arising from the depreciation in the sterling value of silver it was decided in 1893, in accordance with the recommendation of Lord Herschell's Committee, that silver should no longer be coined on presentation by the public, but the right was given to the public to demand from Government rupees in exchange for gold at the rate of 15 rupees for £1 without limit of amount. Silver thus ceased to be the standard of value in India (though it is still used as before as the chief material of currency); and the exchange value of the rupee ceased to coincide with the price of silver. In 1898 a Committee was appointed, under the chairmanship of the late Lord Wolverhampton, then Sir Henry Fowler, to consider certain proposals made by the Government of India for the completion of the policy adopted in 1893. Sir Henry Fowler's Committee reported in 1899, and recommended that the decisions reached on the recommendations of Lord Herschell's Committee in 1893 should be maintained, and that the English sovereign should be declared legal tender in India at the rate of one sovereign to fifteen rupees (*i.e.*, 1s. 4d. to the rupee). These recommendations were accepted by the Government. Since 1898–9 the exchange value of the rupee has remained steady at about 1s. 4d. In 1913 a Royal Commission on Indian Finance and Currency was appointed under the Chairmanship of the Right Hon. Austen Chamberlain, M.P. The Commission, which reported early in 1914, generally approved the measures taken since the date of Sir Henry Fowler's Committee for the maintenance of the exchange value of the rupee. The report, containing a number of recommendations on particular aspects of Indian currency, is now under consideration, though a decision on the main questions raised is likely to be deferred in view of the abnormal conditions arising out of the war.

Gold Standard Reserve.—From the 1st April 1900, the net profit from the coinage of rupees has been held as a special reserve, apart from the ordinary revenue. Up to 1906 practically the whole amount was remitted to England and applied to the purchase of British Government securities, the interest realised being added to the fund and invested, but in that year it was decided that a portion of the reserve should in future be held in silver in India. In 1907–08 and 1908–09 half the profits on coinage were applied to capital expenditure on railways. The sums shown in the marginal table represent the amount of the profits on coinage in the years from 1900–01 to 1913–14 credited to the reserve under the arrangements above described. In June 1912 it was decided that the interest on investments and the profits on coinage thereafter received, except profits retained in India for bringing up the silver branch of the Reserve, to a sum of £4,000,000 should be held in gold at the Bank of England until the amount so held reached £5,000,000, and that no portion of the profits on coinage should be used for railway purposes until the total sterling assets of the Gold Standard Reserve amounted to at least £25,000,000. The Royal Commission on Indian Finance and Currency has made certain recommendations regarding the Gold Standard Reserve. The more important of these proposals are reserved for decision hereafter, but in August 1914, in accordance with the Commission's recommendation, the silver branch of the Reserve was abolished, and the six crores of rupees held therein were exchanged for a corresponding amount in gold (£4,000,000) from the Paper Currency Reserve.

The constitution of the Reserve on the 31st March 1914 was as follows:—

	£	
Sterling securities held in England (market value)	-	17,165,069
Cash held in England on account of the Reserve	-	24,962
Gold held at the Bank of England	-	4,320,000
Rupees held in India on account of the Reserve	-	4,000,000
Due to the Fund from Treasury balances in India	-	22,199
Total	-	<u>£25,532,230</u>

(Currency and Exchange.)

Exchange and Remittance.—During the years 1911-12, 1912-13, and 1913-14 the sale by the Secretary of State of bills and telegraphic transfers on India was as follows:—

1911-12, £27,058,550	at an average rate of 1s. 4·083d. per rupee.
1912-13, £25,743,710	” ” 1s. 4·058d. ”
1913-14, £31,200,827	” ” 1s. 4·070d. ”

The regular demand for the bills and telegraphic transfers sold by the Secretary of State is due to the fact that they enable merchants and bankers to make the payments in India which are required mainly in consequence of the normal excess of India's exports over her imports.

Coinage.—The silver coinage at the Indian Mints was:—

	1912-13. Number coined.	1913-14. Number coined.
Rupees - - - -	187,529,154	121,360,506
Half-rupees - - - -	4,894,669	4,548,200
Quarter-rupees - - - -	11,863,433	20,635,238
Eighth-rupees - - - -	19,420,777	22,200,975
British Dollars (for export to Hong Kong)	5,672,075	1,566,693
” ” subsidiary pieces -	444,628	191,802
Ceylon subsidiary pieces -	-	2,600,000

The value of the copper, bronze, and nickel coinage during the two years was as follows:—

	1912-13. £	1913-14. £
Copper - - - -	5,519	2,000
Bronze - - - -	127,897	139,029
Nickel - - - -	165,733	193,000

Paper Currency.—Under the Indian Paper Currency Act, 1910 (II. of 1910), which consolidated and amended the law relating to Paper Currency, Notes of the following denominations, viz., Rs. 5, Rs. 10, Rs. 50, Rs. 100, Rs. 500, Rs. 1,000, and Rs. 10,000 are issued to the public. The issue of 20-rupee notes has been discontinued.

There are seven currency circles having their headquarters at Calcutta, Cawnpore, Lahore, Bombay, Karachi, Madras, and Rangoon respectively.

Prior to the passing of the Paper Currency Act of 1910 the 5-rupee note alone was legal tender throughout India and payable at any office of issue in the country; notes of higher value were legal tender only within the currency circles in which they were issued. The Act of 1910 “universalised” notes of a denominational value of 10 and 50 rupees, and thus marked an important stage in the development of the paper currency system of India. The 100-rupee note was also made universal from the 1st April 1911. A reserve is held against the notes equal to their full value in (1) gold (2) silver, and (3) securities (value taken at cost price). The law in force during the period in review provided that securities of the Government of India and of the British Government might be held as part of the reserve up to a limit of £9,333,300 (Rs. 14,00,00,000),* of which the British Government securities might not exceed £2,667,000 (Rs. 4,00,00,000); the remainder of the reserve must be held in gold or silver coin or bullion. On the 31st March 1914 the value of the total amount of notes in circulation was £44,078,400, being less by £1,906,800 than on the corresponding date in 1913. Excluding the notes held in the reserve and other treasuries (£m. 6·6) and by the Presidency Banks at their Head Offices (£m. 4), the active circulation among the people on 31 March 1914 was £m. 33·3,

* By the Indian Paper Currency Amendment Ordinance, 1915, power was taken to raise the total amount of the securities that might be held in the reserve from Rs. 14,00,00,000 to Rs. 20,00,00,000. This Ordinance is of a temporary character only. Owing to the prevalence of exceptional conditions no decision has yet been taken on the recommendations of the Royal Commission on Indian Finance and Currency, who, *inter alia*, have recommended an increase in the fiduciary portion of the Indian Paper Currency Reserve.

(Currency and Exchange.)

as compared with £m. 31·5 on 31 March 1913. The constitution of the Paper Currency Reserve was as follows :—

	£
Gold - - - - -	21,056,900
Silver coin - - - - -	13,689,900
Silver bullion - - - - -	—
Securities of the Government of India - - - - -	6,666,700
Securities of the British Government - - - - -	2,666,600
	44,080,100
<i>Deduct</i> amount due on bills drawn by one circle on another - - - - -	1,700
	£44,078,400

Banks.

The Presidency Banks.—The three Presidency Banks of Bengal, Madras, and Bombay are bodies corporate, constituted under the Presidency Banks Act of 1876. This Act, as modified by subsequent Acts, regulates the constitution and management of the banks and prescribes the kind of business that they may undertake. The most important statutory restrictions are that they may not borrow out of India, nor draw, discount, buy, or sell bills of exchange, or other negotiable securities payable outside India or Ceylon, except that, when they receive interest, or the proceeds of the sale of securities, on behalf of their principals, they may draw bills of exchange or grant letters of credit, payable out of India, for the purpose of remitting such interest or proceeds at the risk of the principals. The effect of these restrictions is to prevent the Presidency Banks from dealing in foreign exchanges or otherwise employing their capital out of India.

The Presidency Banks, in accordance with the provisions of agreements into which the Government of India has entered with them, act as bankers for the Government of India, paying and receiving money on its behalf and managing the public debt; they receive in return a fixed annual payment, and a commission on the amount of the public debt which they manage. The Government also undertakes to keep a minimum balance at each bank, or, failing this, to pay interest on the deficiency.

The following table shows the extent of the business of the Presidency Banks on 31st December 1914 :—

	Bank of Bengal.	Bank of Madras.	Bank of Bombay.
	£	£	£
Paid-up capital - - - - -	1,333,333	500,000	666,667
Reserve - - - - -	1,333,333	506,667	733,333
Public deposits - - - - -	1,601,420	607,009	1,248,000
Other deposits - - - - -	14,113,878	5,079,917	7,275,596

Banks registered under the Indian Companies Act.—The number of joint stock companies registered as engaged in banking or loan operations in India, on 31st March 1913, was 513. The majority of these companies consist of societies with a relatively small capital.

In the autumn and winter of 1913–14 there was a banking and commercial crisis of some severity in Northern and Western India, and among the more important institutions that failed were the People's Bank, the Credit Bank, and the Indian Specie Bank. The question of the future regulation of banking methods in India is engaging attention.

CHAPTER IV.

LAND REVENUE.

LAND TENURES.		REVENUE ASSESSMENTS, &C.
LAND LEGISLATION.		COLLECTION OF THE REVENUE.
REVENUE SURVEYS, SETTLEMENTS, &C.		WARDS' AND OTHER ESTATES.

(For further details see *Statistical Abstract of British India, Tables 45 to 49 and 122.*)

The present chapter deals with Land Revenue (including revenue from Capitation Tax, Fisheries, &c.) and with subjects appertaining thereto. From time immemorial a share of the produce of the land has been the chief source of public revenue in India. Land revenue is still the mainstay of the Government, constituting about 36 per cent. of the total net revenue that accrues to the Indian Exchequer.

Land Tenures.

Owing to its far-reaching social and political effects the proper administration of the land revenue has always been one of the chief problems of the Indian Government, and during the early years of British rule the best methods of assessment were keenly debated. In 1793 Lord Cornwallis introduced into Bengal a permanent settlement, by which the demand of the State was fixed and made for ever unalterable. Other systems were gradually evolved, and at length over the greater part of India a system of periodical settlements was established, under which the State demand is revised at recurring periods of 20 to 30 years, the latter period prevailing in all the larger provinces except the Punjab and the Central Provinces, where settlements are usually made for 20 years, and in Burma, where the term of 20 years is now being adopted. At these settlements careful surveys are made of all holdings and records of rights in the land. Under the system of periodical revisions of the land assessment the State secures a share in the increased rental value arising from the general progress of the community. Of late years measures have been taken to exempt improvements from assessment, and generally to make the enforcement of the rights of the State as little burdensome as is possible to the revenue-payer. Periodical revision also affords the opportunity of reducing the assessment in villages or tracts which have declined in prosperity, and of correcting inequalities arising from any cause.

When the revenue is assessed by the State, permanently or temporarily, on an individual or community owning an estate, and occupying a position identical with, or analogous to, that of a landlord, the assessment is known as *zamindari*; where the revenue is imposed on individuals who are, or who represent, the actual occupants of holdings, the assessment is known as *ryotwari*. Under either system there may be rent-paying sub-tenants. In southern India, where most of the land is held by petty occupiers direct from the State, the occupiers have the right to retain their holdings so long as they pay the revenue due from them. In both the permanently and temporarily settled districts of northern India laws have been passed to safeguard tenant rights. The permanently settled districts, in which all holdings are *zamindari*, cover most of Bengal and Bihar, and parts of Madras and the United Provinces. As regards temporarily settled districts, *zamindari* estates, held by proprietary groups or large individual proprietors, are chiefly found in the Punjab, the United Provinces, the Central Provinces, and Orissa, while in Bombay and Sind, Burma, Assam, Berar, and two-thirds of Madras the system of *ryotwari*, or peasant proprietors, prevails.

The appended table gives the acreage of the surveyed areas in which the various tenures prevailed during 1912-13. The figures include waste and uncultivated areas as well as cultivated lands, and merely indicate the extent to which the two systems respectively prevail.

(Land Tenures.)

Figures in Thousands of Acres, omitting 000.

Province.	Ryotwari (Peasant Proprietors).	Zamindari (Individual Proprietors or Village Communities).		Total.
		Permanently settled.	Temporarily settled.	
Burma	108,714	—	—	108,714
Assam	25,910	3,930	1,466	31,306
Bengal	—	39,211	11,269	50,480
Bihar and Orissa	—	41,452	11,760	53,212
United Provinces of Agra and Oudh	—	7,541	60,793	68,334
Punjab	—	—	61,856	61,856
North-West Frontier Province	—	—	8,438	8,438
Bombay	44,876	—	3,753	48,629
Sind	30,257	—	—	30,257
Central Provinces	1,856	—	40,612	42,468
Benar	9,147	—	—	9,147
Madras	61,577	29,179	—	90,756
Ajmere-Merwara	—	974	797	1,771
Coorg and Manpur*	1,044	—	—	1,044
Total	283,381	122,287	200,744	606,412

* Manpur is an isolated British *pargana* in Central India.

It will thus be seen that about 47 per cent. of the total area is held by peasant proprietors, while 20 per cent. is held by permanently settled, and 33 per cent. by temporarily settled, *zamindari* proprietors.

Tenant Right and Land Legislation.

Bengal, Bihar and Orissa, and Assam.—Throughout the major part of Bengal and Bihar the relations between landlord and tenant are governed by the Bengal Tenancy Act, which continued to work satisfactorily. Landlords still tend to withhold rent receipts, and an inquiry as to the best way of preventing this was made in Bihar. The levy of illegal exactions in the form of cesses in addition to rents has by no means ceased, but the tenants are gradually learning to know their rights and to resist illegal demands. Settlement operations and the gradual preparation of a Record of Rights for the Province have taught tenants their rights and privileges, and the general spread of education tends to the same result. During 1913-14 there were not many cases of serious friction between landlord and tenant, though the preparation of the Record of Rights, which is now in progress, cannot fail in some degree to cause strained relations for the time being. A modification is contemplated of the law relating to the transferability of occupancy holdings without the landlord's consent. Chota Nagpur was given in 1908 a special agrarian law of its own, passed to amend and codify the existing laws. It is said to be working well. The special Tenancy Bill introduced for Orissa previous to the partition of 1912 was passed in May 1913, with certain amendments.

United Provinces.—Owing to the protection afforded by the Agra Tenancy Act there has been a growth in the area occupied by tenants of 12 years' standing. Out of 20½ million acres held by ordinary tenants 14,288,498 acres were protected (that is, the landlords are debarred from arbitrary ejection) on 30th September 1913—an increase of 154,836 acres in the year. The number of suits for ejection against tenants not thus protected shows an unsatisfactory tendency to rise. In Oudh, where no length of occupation confers occupancy right, the number of suits for ejection is becoming a matter for still more serious consideration.

The Bundelkhand Alienation of Land Act, 1903, which is framed on the lines of the Punjab Land Alienation Act, continues to work satisfactorily. Its object is to place restrictions on the sale or other permanent alienation of land by the agricultural castes to the non-agricultural classes. Sales of land as between agriculturists and non-agriculturists showed considerable net transfer of land to the possession of the former in the districts to which the Act applies. Attempts to evade the Act were few. An amending Bill is under consideration which will extend the restrictions on alienation to further districts.

(Tenant Right and Land Legislation.)

Punjab.—The Punjab Land Alienation Act of 1900 was designed to protect hereditary agricultural tribes from expropriation by money-lenders. Its effect in preventing the permanent transfer of land from agriculturists to non-agriculturists is undoubted, as shown by the figures for sales. The anxiety of all classes to be notified as agricultural tribes disposes of the allegation that credit has been impaired. On the contrary, the money-lending classes are beginning more freely to provide money for the land under approved forms of security. Evasions of the Act by non-agriculturists employing a dummy transferee are on the decrease.

North-West Frontier Province.—The Punjab Alienation of Land Act, 1900, as modified by the North-West Frontier Province Regulation No. I. of 1904, and as amended in 1908, has now been operative for nine years in three districts. The Act is appreciated by the zamindars and its operations appear to be beneficial.

Madras.—The difficulties in the working of the important measure for defining and regulating the position of tenants in the *zamindari* areas, known as the Madras Estates Land Act of 1908, are settling down as its provisions are getting to be better understood. Under this Act the status of occupancy ryot is recognised and both occupancy and non-occupancy ryots are protected from ejection and enhancement of rent. The relations between landlord and tenant are on the whole fairly satisfactory.

Bombay.—The extension of the Deccan Agriculturists' Relief Act in 1905 from four selected districts to other parts of the presidency, has induced the cultivator to adopt sounder methods. Its working has been fortified by the restrictions imposed in certain parts on the alienation of land by the special tenure created by the Act of 1901. The ease with which the tenant can obtain outside employment has greatly strengthened his position as against the landlord.

During 1912-13 conciliators under the Deccan Agriculturists' Relief Act were abolished, and, as the result of an inquiry into its working, an amending Act is in contemplation.

Revenue Surveys and Settlements and Land Records.

For the purpose of land revenue assessment revenue surveys are necessary. Cadastral maps showing the holdings are prepared, and corresponding field registers are made showing from whom the revenue assessment is to be realised, and also the amount of such assessment. The record also usually exhibits the existing rights in, and encumbrances on, the land. As the revenue records are carefully revised at short intervals a very extensive and complete system of registration by public entry is being built up, and transfers of land are easily attested. Settlements (or re-settlements) in new or in temporarily settled areas are always in progress. In consequence of improved methods the period occupied in the process is much shorter than formerly, and involves comparatively little harassment of the people.

Bengal.—The preparation of a complete survey and record of rights for the permanently settled area was inaugurated in 1891. Out of the total area in Bengal (including temporarily settled land) of about 64,000 square miles to which the Bengal Tenancy Act applies, the record had by September 1913, been completed for 10,921 square miles (including two entire districts) and was in course of preparation in 15 districts for a total of 12,496 square miles. In permanently settled tracts (where the record is for the purposes of general well-being and not for assessment of revenue), three-fourths of the cost is recovered from the landlords and tenants concerned. The programme for the year was fully carried out in most cases. The work is nearing completion in Faridpur and Jalpaiguri. The cost was considerable in the earlier stages, but, with experience, extensive economies have been effected. The experiment of printing the record has proved a conspicuous success. In some districts there is considerable hostility to the settlement on the part of big land-owners, who have hitherto been able to treat as a dead letter the provisions of the Tenancy Act against the enhancement of rent; but among the Rayats it is generally welcomed.

Minor settlement operations were carried on under the supervision of district officers in 15 districts.

Bihar and Orissa.—The same programme for a complete Record of Rights, to cover permanently settled estates as well as temporarily settled, is being carried out here

(Revenue Surveys and Settlements and Land Records.)

as in Bengal. Of the whole area (about 78,000 square miles) for which such record is required, only about 16,500 remained to be dealt with on 30th September 1913, and in about half this area operations were in various stages of progress. During 1912-13, 4,259 square miles were completed, the programme of the year having been practically carried out in full. An approximate programme of operations for the next 20 years has been prepared. The reform of the system of cess-revaluation is under consideration.

Assam.—Survey operations in Assam are under the same direction as those in Bengal for the present. By the end of 1913-14 cadastral survey and preparation of Record of Rights were complete in over a quarter of the area of the plains district, but the latter includes much waste land for which they are not at present required.

United Provinces.—During 1912-13 the regular settlement of Etawah and Fatehpur continued. The revision of Allahabad settlement was undertaken during the year. Operations were sanctioned or in progress in Naini Tal and Pilibhit, besides certain quinquennial revisions in Bundelkhand. The village maps are being brought up to date and, in order that they may be kept so, *patwaris* are receiving special instruction in methods of revision. Thus it is hoped to dispense with re-survey at the next settlements.

Punjab.—Settlement operations were in progress in ten districts. The final report of Amritsar and Gujranwala were submitted during the year. The total increase in assessments sanctioned during the year amounted to £75,320 and in almost all cases have exceeded the estimate. The increase is greatest in Lyallpur, where 237,580 acres have been re-assessed at an enhanced rate of £22,000 as against a previous £5,000. This is owing to the development of the Lower Chenab Colony. Other large increases occur in Ferozepore, Lahore, Sialkot, and Hoshiarpur.

North-West Frontier Province.—The land tenures and assessment methods of the Frontier Province resemble generally those of the Punjab. Records of Rights were reported in 1912-13 to be in good condition: the Land Records Staff was chiefly employed on mutation work.

Burma.—All the 32 districts proposed for revenue settlement have now come under supplementary survey. The remaining five districts are hilly and sparsely populated, and it has been decided that settlement is not at present necessary. The area under supplementary survey (51,452 square miles) increased in 1913-14 owing chiefly to estuarial accretion in Pegu. New settlements were introduced in Insein, Amherst, and Yamethin, and in three other districts where, according to the usual policy in cases of enhanced assessment, intermediate rates had at first been applied, full rates were introduced. Owing to the very low rates of the first settlements, revisions always produce an enhanced demand. The total rural assessments (£2,159,458) showed an increase of £54,132 over 1912-13. The urban area continued to expand. Special staffs were employed on revision and extension surveys in two districts in each case. The cost of the settlements completed during the year was 4½ per cent. of the assessment.

Central Provinces and Berar.—Revision operations took place in five districts, and correction of maps and records preparatory to settlement in four more. The Berar staff was increased in view of the extra work in connection with the introduction of the new Record of Rights.

Madras.—Six survey parties were at work during 1912-13 in seven districts. They dealt with 2,140 square miles—mostly revisional survey. Five settlement parties continued their operations. The aggregate land revenue demand of the districts either newly settled or re-settled is £3,586,838, an increase of £712,232 on the demand prior to settlement or re-settlement. The cost of the settlement operations up to the end of 1912-13 has been £1,254,996. The Land Records Department was, as in previous years, mainly confined to measures preliminary to maintenance.

Bombay.—The survey and settlement officers were engaged in measurement, classification, and other work of a routine character. An important feature was the extensive programme of measuring subdivisions. Good progress was made with the Record of Rights, which has been completed for Government villages in the Presidency proper, but is still in process of compilation for alienated villages and for Sind. A new edition is being prepared.

Revenue Assessments and Incidence.

Land revenue is realised in the form of an annual payment of cash, the assessment rates being subject to no alteration during the term of a settlement, though the amount leviable in any year may vary according to the area actually cultivated or to the condition of the harvest. Except in Bombay (where the assessment is not fixed in terms of produce), the land revenue is assessed so as to represent a share, not of the gross, but of the *net* produce (or net assets). In the zamindari, or landlord settlements, that widely prevail in Northern India, the cultivating tenant pays rent to a landlord. Of this rent the Government usually takes rather less than 50 per cent. as land revenue.

	Incidence (in Rupees and Annas) of Land Revenue Assessment in fully assessed Areas.	
	Per Acre of cultivated Area.	Per Head of Population.
	1912-13.	1912-13.
	Rs. a.	Rs. a.
Upper Burma - - -	1 13	2 3
Lower Burma - - -	2 13	—
Assam - - - - -	—	1 3*
Bengal - - - - -	1 1	11
Bihar and Orissa - - -	9	8
Agra - - - - -	1 13	1 8
Oudh - - - - -	1 15	1 8
Punjab - - - - -	1 8	—
North-West Frontier Province - - -	15	—
Sind - - - - -	2 16	—
Bombay - - - - -	1 9	2 7
Central Provinces - - -	10	1 1
Berar - - - - -	1 5	3 0
Madras - - - - -	2 1†	1 10†

* Figures for 1910-11.

† Figures for 1908-9.

The incidence of land revenue in fully assessed cultivated areas is shown in the marginal table. The most noticeable features are the low rates in the permanently settled areas and in the Central Provinces. In Madras and Sind the land revenue rates include the charges for irrigation.

It is certain that the Government now takes a very much smaller share of the gross product than was customary in pre-British days. The incidence of ordinary land revenue for all British India in 1913-14 works out at 1s. 8d. per head of the population.

The Government makes liberal reductions of assessments in cases of local deterioration, where such reductions cannot be claimed under the terms of settlement.

Collection of the Revenue.

The fluctuations in the gross land revenue receipts (exclusive of those credited to irrigation) in past years may be seen from the following table :—

Year.	Land Revenue Receipts (excluding those due to Irrigation).	Variation (Average of Five Years, 1881-5 = 100).
	£	
1881-5 (five years' average) - - - - -	14,748,000	100·0
1886-90 " " (annexation of Upper Burma) - - -	15,445,000	104·7
1891-5 " " - - - - -	16,522,000	112·0
1896-1900 " " (includes two famines) - - -	17,217,000	116·7
1900-5 " " - - - - -	18,483,000	125·3
1906-11 " " - - - - -	20,096,000	136·3
1911-12 (single year) - - - - -	20,765,000	140·8
1912-13 " " - - - - -	21,282,000	144·3
1913-14 " " - - - - -	21,392,000	145·1

The general increase in land revenue is attributable to a variety of causes—to the inclusion of new territory (as Upper Burma); to the bringing of new land under cultivation as in Lower Burma, the Central Provinces, Sind, and the Punjab; to the inclusion of Berar since 1st October 1902; and to the progress of settlements and re-settlements, which, owing to the generally enhanced values of land, usually result

(Collection of the Revenue.)

in additions to the land revenue. Irrigation canals have enabled the cultivable area to be greatly extended, especially in Sind and the Punjab. The land revenue is usually paid punctually, and it is seldom necessary to have recourse to imprisonment, sales of land, or other processes for the recovery of arrears.

The land revenue receipts in 1912-13 and 1913-14 were made up as follows:—

	1912-13.	1913-14.
	£	£
Ordinary land revenue - - - - -	20,380,505	20,658,326
Assessment of alienated lands, less quit-rents* - - - - -	654,700	650,077
Sale of proprietary right of Government in land† - - - - -	317,173	154,032
Capitation tax, or house tax levied in lieu thereof‡ - - - - -	649,987	666,880
Sale of waste lands and redemption of land revenue - - - - -	26,930	61,501
Recovery of survey and settlement charges§ - - - - -	86,993	132,493
Fisheries and other receipts - - - - -	704,425	752,640
	£22,820,713	£23,075,949
<i>Deduct</i> portion of land revenue due to irrigation - - - - -	1,538,245	1,684,374
Total land revenue - - - - -	£21,282,468	£21,391,575

The charges in 1913-14 included £1,750,159 for district administration, £512,978 for survey and settlement charges, £973,611 for land records, and £747,946 direct charges of collection. The total charges were £3,986,422.

The total advances made by Government to cultivators during 1913-14 amounted to £1,418,514, and the total amount of advances outstanding at the close of the year was £3,162,135. The advances made during the year were chiefly for the relief of agriculturists, but partly for the improvement of land and for loans to co-operative credit societies.

The progress of the land revenue will now be reviewed province by province. The figures are taken from the land revenue reports relating to the agricultural year, while those given above are from the corrected Accounts of the Government of India, and relate to the financial year.

Bengal.—The land revenue of Bengal remains fairly constant, as most of the province is under permanent settlement. The revenue demand for 1913-14, excluding arrears, amounted to £1,807,970, including £1,436,437 from 91,604 permanently settled estates, £105,874 from 3,072 temporarily settled estates, and £265,659 from 2,161 estates under the direct management of Government. The percentage of total collections on total demand (including arrears) was 94·87 per cent. Remissions were trifling. The number of estates, &c. which became liable to sale for non-payment of Government revenue fell to 12,467, of which only 811 were actually sold. Under the Certificate Act of 1913, 53,808 certificates were filed for recovery of arrears of revenue (exclusive of cess), compared with 69,677 in 1912-13; payment was generally secured on issue of notices or on attachment of property, but actual sale was necessary in 1,576 cases, and warrants were issued in 733 cases, 19 defaulters being imprisoned. Advances under the Loans Acts amounted to £27,165.

Bihar and Orissa.—The total current demand was £998,370, viz., £711,930 from permanently settled, and £172,636 from temporarily settled estates, and £113,804 from estates held by Government. The percentage of total collection on total demand (including arrears) was 98·04. Proceedings under the sale laws included 368 sales (out of 9,308 estates which became liable to sale), while under the Public Demands Recovery Act, 31,027 certificates (excluding those for cesses) were filed; in 2,382 cases recourse to sale was necessary, and 12 persons were imprisoned. Advances under the Loans Acts amounted to £37,669.

Assam.—Land revenue demand (current) was £481,437, of which 96·22 was realised. Demand notices were issued to 58,582 persons; sales were effected in 763 cases. Advances amounting to £20,787 were made under the Agriculturists' Loans Act. No advance was made under the Land Improvement Act.

* Mostly from Bombay.

† Mostly from Punjab.

‡ Mostly from Burma.

§ From Bengal and Bihar and Orissa.

(Collection of the Revenue.)

United Provinces.—The land revenue demand in 1912-13 (the latest year for which information is available) was £4,323,812. About £16,300 was remitted or suspended, and the collections were short of the demand by only £137. Other sources of revenue, not strictly classed as land revenue, are the occupiers' rate (receipts, £579,376) and the owners' rate (receipts, £12,278), which constitute payments for irrigation, besides cesses, &c. Advances under the Loans Acts amounted to £201,353—a large increase, due to a large demand for funds to purchase cattle and seed for *Rabi* and sugarcane sowings. Advances for permanent improvements increased owing chiefly to expenditure on wells. The repayment of loans was most satisfactory. The number of coercive processes continued to decrease owing to continued good years and to reforms in the use of the various processes. There was a particularly satisfactory decrease in the severer processes. Only 13 sales of unmoveable property took place.

Punjab.—The fixed land revenue demand stood in 1913-14 at £1,414,636; 96·2 of the current demand was collected. Re-assessment of canal areas and increased cultivation has yielded a considerable increase of "fluctuating" land revenue, the demand for which varies with the crop. There was a decrease in receipts from sales of Government estates, owing to decreased sales of proprietary rights to Lower Chenab colonists. Although the total number of coercive processes against *lambardars* showed an increase, there was practically no resort to the severer processes. Loans under the Acts amounted to £39,083, the greater part being loans for land improvement; loans for agricultural relief were not much in demand.

North-West Frontier Province.—In 1912-13 the fixed Land Revenue demand amounted to £123,574, of which 96·85 per cent. was collected. Advances to agriculturists decreased. The system of fluctuating assessment continues to work well in Dera Ismail Khan.

Central Provinces and Berar.—In the Central Provinces in 1912-13 the current land revenue demand was £642,727, an increase over 1911-12, due mainly to new settlements; in Berar it was £607,785. Save for remissions it was collected in full. Advances to agriculturists amounted to £41,585. Demand notices numbered 1,641, resulting in one imprisonment and eight sales. Miscellaneous land revenue increased by over £9,000, chiefly owing to increased receipts from manganese royalties.

Burma.—The land revenue demand rose to £1,930,022, being £51,695 more than in 1912-13, the rise being due to a second exceptionally prosperous year in succession, extension of cultivation, and revision of assessments. Remissions amounted to £13,676 only. Coercive processes showed a decrease under practically all heads. Besides land revenue proper, several minor heads are included under land revenue—the capitation tax levied in Lower Burma (amounting in 1913-14 to £380,232), *Thathameda* or household tax in Upper Burma (amounting to £257,949), fishery revenue (£223,276), and miscellaneous (£274,105). The number of persons assessed to capitation tax and of households assessed to *Thathameda* was 1,422,317 and 847,295 respectively. Of the miscellaneous revenue £223,412 was from royalties on petroleum, rubies, jade, and amber.

Madras.—In 1912-13 the total current demand, including cesses, water-rates, miscellaneous, &c., was £5,006,946, of which £332,356 was from permanently settled estates and the greater part of the rest from Ryotwari land. A generally favourable season and the introduction of enhanced assessments in certain districts caused an increase over 1911-12. Remissions granted on account of the season fell from £70,682 to £21,816. Current collections amounted to 98·8 per cent. of current demands. The number of coercive processes continues to decrease. In 1912-13 1,113,240 demand-notices were issued, and the number of sales was 1,973.

Bombay and Sind.—The aggregate demand in 1912-13 was £2,164,685 in the Presidency proper and £685,048 in Sind. Remissions showed a great decrease, chiefly in the Central and Southern Divisions, and collections amounted to an increased percentage of the demand. Advances to agriculturists showed a large decrease, chiefly owing to the restoration of normal conditions in Gujarat after the scarcity of 1911-12, and the heavy advances made in 1911-12 were recovered with ease, the joint bond system of making these advances thus proving successful.

(Wards' and other Estates.)

Wards' and other Estates.

Wards' Estates.—Courts of Wards have been established in most of the larger provinces. Primarily intended for the protection of the Government revenue, they are also beneficial to the interests of the owners, and recent changes in the law have been largely made in the owners' interests. Before 1899, the Courts had power to assume the management of estates of minors, of persons physically or mentally incompetent to manage their own property, or of persons declared by the local Government, at their own request, to be disqualified for its management. Since that year various amending Acts have been passed in the several provinces conferring on Government further powers of putting estates under the control of the Courts without consent of the owners when the latter are in a special degree unqualified for their proper management. In other respects the general effect of the new Acts is to increase the powers of the Court of Wards with regard to the management of the properties under its charge and the discharge of encumbrances, and to prevent disqualified proprietors from creating new charges without the knowledge of the Court. The duty of the Courts is to manage the estates under their charge in the interests 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.

At the end of the last agricultural year for which complete figures were available there were 764 estates under management in the eight provinces that have Courts of Wards. The gross income of the estates was about £3,000,000.

Other Estates.—In Bengal there were 2,161 Government estates under direct management, with a current revenue demand of £265,659. In Bihar and Orissa there were 281 Government estates under direct management, paying an annual revenue of £113,804, at the close of 1913-14. In the United Provinces the number of Government estates at the end of 1913-14 was 606, most of them being very small properties in Jhansi and Oude. In Bombay proper at the end of 1912-13 there were 640 estates under the management of the Talukdari Settlement Officer, and 273 encumbered estates under a special manager in Sind.

CHAPTER V.

REVENUE FROM TAXATION AND OPIUM.

SALT.	CUSTOMS.
EXCISE.	INCOME TAX.
PROVINCIAL RATES.	REGISTRATION.
STAMPS.	OPIUM.

(For further details see *Statistical Abstract for British India*, Tables 43, 45 to 47, 50 to 58, and 61 to 66.)

Of the eight heads of revenue dealt with in this chapter, seven comprise the tax revenue of India, and furnish about 43 per cent. of the total net revenue of the Indian Government. To this the chief contribution is made by excise, the yield of which has increased in recent years, mainly on account of higher rates of duty and stricter supervision. Next come customs and stamps, both of which have benefited by the great progress in trade and industry. The salt revenue has diminished, owing to reductions, amounting to 60 per cent., in the rate of duty since March 1903. Receipts from income tax and registration are increasing.

Salt.

General.—From time immemorial a tax on salt has been a source of revenue in India. The salt revenue is now raised by a duty on all salt imported into, or manufactured in, India. The general rate of duty, which stood at Rs. 2½ per maund (about ½d. a pound) from 1888 to 1903, was reduced to Rs. 2 in 1903, to Rs. 1½ in 1905, and finally to Re. 1 in 1907. The rate in Burma, for imported salt, was at the latter rate throughout. This rate is therefore now universal, save for locally-produced salt in Burma (which, till 1911, paid 8 annas, and now pays 12 annas per maund), and certain other insignificant exceptions.

Year.	Issues of Salt in 100,000 Maunds.	Gross Revenue in 000 £.
1902-3	374	6,184
1909-10	465	3,320
1910-11	461	3,176
1911-12	482	3,391
1912-13	480	3,334
1913-14	490	3,445

Exemption from duty is granted under certain conditions for salt used in manufacturing processes. The reductions in duty from 1903 to 1907, and increased facilities for transport, have made salt cheaper than ever before, and greatly enhanced consumption, though not sufficiently so to make good the sacrifice of annual revenue. The table shows approximately the consumption of salt for 1902-3 (the last year of the unreduced duty) and for the five years ending 1913-14. It includes figures for Burma, which are partly estimated. It also shows the gross revenue.

The revenue in 1913-14 increased to £3,445,305, of which nearly 30 per cent. was derived from imported salt. The charges amounted to £364,580, exclusive of £251,426 paid under treaties in the form of compensation, principally to Native chiefs who have assigned their salt sources to the Government of India.

Salt affairs in Upper India are controlled by the Northern Indian Salt Department, which is under the direct administration of the Government of India. The maritime local Governments have their own salt departments. As regards Bihar and Orissa, Bihar is under the Northern Indian Salt Department, but Orissa has its own.

The principal sources of salt supply are the sea coast, especially in Madras and Bombay, where salt is manufactured by the evaporation of sea water; the salt lakes and pits of Rajputana; the salt mines of the Punjab and North-West Frontier Province; and importations from abroad, which supply most of Bengal, Assam, and Burma. The duty is levied on salt at the place of manufacture, or at the port of importation, before it passes into consumption. Some of the salt sources belong to, or are worked under the direct control of, the various local governments; others are owned or leased by private individuals. The salt supply of India is not, therefore, a Government monopoly, and the importation of salt is unrestricted. Manufacture is

(Salt.)

not allowed where the circumstances are such as to render proper collection of the duty impracticable, as, for instance, on the coast of Bengal.

Northern India.—The salt sources under the control of the Northern India Salt Department comprise: (1) the Rajputana sources, including the Sambhar Lake and the 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. The most important sources are the Sambhar Lake and the Mayo mine. The gross revenue of the Northern India Salt Department in 1913-14 was £809,511, or £31,360 more than in 1912-13, while the total charges amounted to £90,053. The total quantity issued by the Department for consumption was 10,333,719 maunds, as compared with 10,297,232 maunds in 1912-13. The following table shows the issues to, and prices in, provinces and states mainly supplied by the Department:—

Province or State.	Amount issued during 1913-14.	Average Retail Price per Maund.		Average Consumption per Head.
		1912-13.	1913-14.	
	Maunds.	Rs. A. P.	Rs. A. P.	Lbs.
North-West Frontier Province - - -	586,637	1 8 7	1 8 0	8·55
Punjab - - - - -	2,925,861	1 9 11	1 9 10	9·16
United Provinces - - - - -	4,064,135	2 0 11	2 1 11	9·65
Bihar - - - - -	249,112	2 2 1	2 2 7	11·85
Central Provinces and Berar - - -	324,699	2 6 4	2 5 11	12·86
Rajputana - - - - -	1,168,210	1 14 8	1 13 8	} 10·29
Central India - - - - -	917,468	2 0 7	1 15 3	

The average retail prices were thus lower in 1913-14 in most of the provinces and States enumerated.

The Department issued 44,166 licences for the manufacture of saltpetre and other saline substances in 1913-14. The refineries produced 442,208 maunds of refined saltpetre.

The number of persons arrested for offences against the salt law was 267, of whom 123 were released. Of 128 persons convicted 16 were imprisoned.

Bengal.—The salt consumed in Bengal is imported from abroad or from other parts of India. In the littoral districts salt production is prohibited, owing to the difficulty of preventing illicit manufacture. The quantity of salt imported in 1913-14 was 15,608,456 maunds, as against 14,669,306 in 1912-13. The average wholesale price of salt, including duty, at the chief marts of Bengal was about Rs. 2.1.4. per maund; as compared with Rs. 2.1.9 in 1912-13. The average retail prices in the saliferous tracts (for which alone information on this point is given) varied, as in previous years, from 9 to 16 pies a seer. The net amount of salt consumed in the province rose to 7,227,250 maunds. The number of persons convicted of offences against the salt law was 3, as against 6 in 1912-13; there has been a considerable decrease in these offences of late due to wide distribution of shops for the sale of licit salt, systematic patrol, and the better condition of the people. The imports of salt from the United Kingdom continued to decline relatively to the total imports of the province.

Orissa.—There is no direct import of foreign salt into Orissa; the total quantity imported from other parts of India (chiefly Madras) was 1,345,163 maunds, as against 1,410,948 in 1912-13, when consumption was abnormal owing to the influx of people during the Car festival. The average wholesale price for the entire province of Bihar and Orissa was Rs. 2.2.4 per maund. The number of persons convicted for offences was 16.

Madras.—There are two systems of salt manufacture in Madras, under one of which the salt is manufactured by Government, whilst under the other the Government levies an excise duty and allows the manufacturers to make such arrangements as they please for the disposal of the salt. Of the 65 factories worked during 1913-14, 45 were under private and 20 under Government management. The quantity manufactured was 9,481,071 maunds, against an annual average outturn of 11,478,083 maunds for the previous five years, the decrease being due to heavy rains and to the

(Salt.)

non-working of several factories owing to the existence of large stocks. The duty-paid salt imported by sea from Bombay decreased from 1,375,541 maunds to 1,284,770. Issues for home consumption fell from 12,047,588 maunds to 11,860,895; but salt revenue rose owing to larger realisation on account of credit sales in 1912-13. The incidence of taxation amounted to 3 annas 8 pies per head of population as against 3 annas 9 pies in 1912-13.

Bombay.—The salt supply of Bombay comes from the Pritchard salt brine works, owned by the Government (Baragra salt), from sea-salt works on the coast, and from abroad, chiefly from Goa. The sea-salt works

—	Total Issues.	For Local Consumption.
	Maunds.	Maunds.
Baragra salt -	2,933,132	605,513
Sea salt -	9,275,869	2,726,426
Imported salt	355,008	246,382
Total -	12,564,009	3,578,321

excepting one, at Dharasna, worked by the Government are owned by, or leased to, private individuals. The bulk of the Baragra salt is exported to the United Provinces, the Central Provinces, and Central India; while the Madras Presidency and its States, Hyderabad, Mysore, Calcutta, and the Central Provinces, take large amounts of sea salt. The conditions of the year were favourable. The marginal table shows the issues of salt from each source in 1913-14. The consumption per head

was 13·3 lbs., as against 12·7 lbs. in 1913-14. The average price has remained pretty constant throughout the Presidency. The number of offences fell from 159 to 143. They were mostly of a very trivial kind. Thirty-one fish-curing yards were open at the end of the year. For a second year in succession the fishing season was poor, and the fish brought to be cured (217,558 maunds) was about the same as in 1912-13. The issue of denaturalised salt duty free has been sanctioned for manuring purposes.

Sind.—The Sind salt supply is derived chiefly from the sea-salt works at Maurypur, and in smaller quantities from salt deposits at Saran and Dilyar on the edge of the desert, and from importation. The quantity of salt sold fell in 1913-14 from 430,921 maunds to 420,201 maunds. The average amount consumed per head of the population fell from 10·52 lbs. to 10·43 lbs. As in Bombay, the fish-curing season was a poor one, and the quantity of salt issued for this purpose decreased.

Burma.—One rupee per maund is levied on salt imported into Burma. All salt locally manufactured formerly paid an excise duty levied by a composition rate on vessels used for boiling brine; but a system of levying duty on actual output has now been introduced into all districts where any large quantity is produced, and has proved financially successful. As the result of an inquiry into the salt industry, it was decided to suppress the manufacture where it was of slight proportions, to concentrate it wherever it should be continued, to combine the Salt with the Excise Department, and to enhance the excise duty by 25 per cent. The latter two changes were duly effected, and the local industry proved itself so well able to support the enhanced duty that the duty was raised a further 20 per cent. with effect from 1st January 1914. The duty on actual output, where it is in force, has thus been raised to 12 annas per maund. The other changes are being introduced gradually. The total estimated consumption of the province amounted to 2,506,243 maunds in 1913, as against 2,361,816 maunds in 1912. The estimated local output was 819,636 maunds, as against 839,653 maunds in 1912; imports rose from 1,740,166 maunds to 1,808,036 maunds. The average retail price was Rs. 3.0.8 per maund.

Excise.

Excise revenue is derived from the manufacture and sale of intoxicating liquors, opium, and other drugs—principally hemp.

The declared policy of Government with regard to alcohol is to minimise temptation for those who do not drink, and to discourage excess among those who do. With this aim the tax upon liquor is raised to as high a rate as possible, care being taken that the retail price does not reach so high a point as to stimulate illicit practices or drive the consumer to substitute deleterious drugs for alcohol or a more for a less harmful form of liquor.

(Excise.)

The whole question of excise administration as regards alcohol was reviewed by a committee in 1905,* whose recommendations included advances in taxation in many cases, the further concentration of distillation, the extended adoption of the contract distillery system, and improvements in the preventive and other establishments employed. Action to effect these improvements has been taken in all provinces and, when necessary, legislation has been carried out to enforce the Committee's recommendations. The subject has recently been reviewed at length by the Government of India and Local Governments, and papers on the subject were published in 1914.†

The country liquor manufactured in India is mostly distilled from a base either of molasses or Mahua flowers. The Mahua tree (*Bassia Malabarica*) is common in the Central Provinces and the plains of Central India.

Under the contract distillery system above referred to the monopoly of supply of a given area is given out on contract, the contractor issuing his liquor at the rate of still-head duty in force, and supplying vendors at a fixed rate determined by tender over and above this duty, while the right of retail vend is sold, usually by auction, up to a sanctioned number of shops. The distillation is carried out by the contractor's staff in Government distillery buildings under the supervision of a Government expert, and the issue of spirit is effected under strict Government control. In the Punjab the contractors of the licensed distilleries also undertake the retail vend of the spirit through their agencies. In a few districts, mostly inaccessible, the old "out-still" system prevails, distillation under old-fashioned methods being carried out locally under licence. Otherwise the whole of India is gradually being brought under the contract system. By this system the dangers of unrestricted competition for the supply of liquor, and the attendant difficulties of proper supervision are avoided, while the largest possible proportion of the monopoly profits, both on wholesale and retail supply, are secured to Government. The danger of high vend-fees and low still-head duties is that this gives a wide margin of profit per gallon for the retailer and leads him to push sales. On the other hand a high still-head duty is only practicable when there is adequate security against illicit distillation. Thus as the preventive system becomes more efficient, the weight of taxation is transferred from vend-fees to still-head duty.

The number of retail spirit shops is being steadily reduced throughout India. Objections are invited from the public before any new retail shop is licensed, and the location of all the shops comes periodically under review by advisory committees in all the towns of any size.

Fermented liquors are taxed mainly by means of licenses for manufacture and retail trade. In Madras and Bombay a fixed tax per tree is levied on trees tapped for toddy. Spirits and beer manufactured in India on European lines are taxed at the same rate as the customs duties on similar liquors imported from abroad.

Opium, which is a common form of household drug, is usually taken in the form of pills or dissolved in water. Opium smoking is now far less common than it was; it is subject to legal restrictions which are being made more stringent according to the policy announced by the Government of India in August 1912 in pursuance of a resolution on the subject passed by the Shanghai International Opium Commission of 1909. The Excise Revenue on opium is chiefly derived from duty and vend-fees. Hemp cultivation is restricted and controlled, and here again a duty and vend-fees are levied. Charas—the most concentrated and harmful form of hemp drug—is imported from Yarkand. It is now prohibited in some districts, and elsewhere is subject to a high duty.

The growth of the Excise Revenue in recent years is due largely to higher rates of duty and stricter excise control, and does not indicate a corresponding increase of consumption, although a moderate increase has occurred through the expansion of population and the greater prosperity of the country as a whole.

The habit of cocaine-taking has of recent years become common among certain classes in the larger towns of Burma, Lower and Eastern Bengal, Bombay, and the United Provinces. Legislation has been enacted rendering any person found in possession of the smallest quantity without a licence liable to punishment, and large

* For the Report of the Committee, and for the orders passed by the Government of India thereon, see Parliamentary Papers Cd. 3327 and 3816, and House of Commons Papers 142 and 209 of 1907. For the later papers, see Cd. 7524 and 7604 of 1914.

(Excise.)

quantities of smuggled cocaine have been seized by the officers of the Excise and Customs Department, a special staff in some towns having been appointed for watching this illicit trade; but owing to the high prices obtained for the drug, and the ease with which it can be passed into the country, a large quantity of cocaine has been successfully disposed of by smugglers. It is hoped that the cessation of trade with Germany, the country from which most of the smuggled cocaine has been exported, will effect a marked and permanent reduction in the consumption of this noxious intoxicant. Various unofficial bodies are doing their best in towns and in rural districts to discourage indulgence in intoxicants. In Bombay arrangements are made to provide counter-attractions for mill-hands and other workmen on festival days when drinking has in past years been indulged in: this is a far more helpful method of combating intemperance than the mere delivery of lectures and issue of pamphlets calling attention to the evils of alcohol.

The following table shows the Excise Revenue for 1912-13 and 1913-14 under the different heads, as given in the Finance and Revenue Accounts:—

Year.	Licence and Distillery Fees and Duties for the Sale of Drugs and Liquors.					Other Duties, &c. on Indian Consumption of		Fines, Confiscations, Miscellaneous.	Total Revenue.	Charges.	Net Revenue.
	Foreign Liquors, &c.	Country Spirits.	Toddy and Panchwal.	Opium and its Preparations.	Other Drugs.	Opium.	Ganja, &c.				
1912-13 -	£ 312,154	£ 4,534,745	£ 1,396,188	£ 330,368	£ 505,531	£ 808,296	£ 303,173	£ 27,464	£ 8,277,919	£ 428,571	£ 7,849,348
1913-14 -	£ 335,063	£ 4,820,313	£ 1,507,994	£ 377,086	£ 546,630	£ 914,401	£ 360,895	£ 32,018	£ 8,894,300	£ 437,529	£ 8,456,771

	£	A sum of £882,770 was yielded by customs duties on excise-
1893-4 -	3,971,000	able liquors imported into India during the year. The revenue
1903-4 -	5,291,000	from liquors and drugs (<i>i.e.</i> , total excise revenue less charges, <i>plus</i>
1910-11 -	7,423,000	customs duties on exciseable liquors) for 1893-4, 1903-4, and the
1911-12 -	8,015,000	last four years is given in the margin. In 1913-14 it amounted
1912-13 -	8,689,000	to about 9d. per head of the population affected.
1913-14 -	9,339,000	

The number of retail shops and the excise receipts, as compared with the population, are shown in the following table, province by province:—

PROVINCE.	Population of Excise Area.	Number of Persons per Retail Shop licensed in 1912-13 for the Sale of				Net Excise Receipts per 10,000 of Population in Rupees.
		Country Spirit.	Country Fermented Liquor.	Opium and its Preparations.	Narcotic or Intoxicating Drugs, other than Opium.	
Bengal - - - - -	45,329,247	35,413	13,458	51,161	21,908	3,253
Bihar and Orissa - - - - -	34,490,084	10,824	4,560	61,589	20,640	3,089
Assam - - - - -	6,622,431	34,854	213,627	16,681	25,768	7,767
United Provinces - - - - -	47,182,044	10,079	15,844	43,247	13,648	2,691
Punjab - - - - -	19,548,126	25,520	88,851	21,841	36,952	3,430
North-West Frontier Province - - - - -	2,251,292	68,221	—	32,161	30,840	1,479
Burma - - - - -	10,534,808	65,843	9,764	84,958	—	6,800
Central Provinces and Berar - - - - -	13,916,308	3,806	26,609	13,166	12,459	7,983
Madras - - - - -	41,430,193	4,893	2,832	54,585	77,295	8,374
Bombay - - - - -	16,113,051	7,887	822	20,631	28,103	11,610
Sind - - - - -	3,513,435	14,459	878,358	15,685	9,295	6,485

The marginal tables attached to the following accounts of excise administration in the different provinces give the total excise revenue for 1912-13 and 1913-14 according to the departmental returns. In some cases the issues of drugs to Native States are included:—

(Excise.)

Bengal.—Enhanced rates of duty on country spirit came into force from April 1913; a further enhancement for most districts has been sanctioned to take effect from April 1914. The rate of duty on charas has been raised from Rs. 12 to Rs. 30 per ser.

Gross Receipts from	1912-13.	1913-14.
	£	£
Country spirits - - -	427,346	465,111
Foreign liquors and rum -	38,158	40,840
Fermented local liquors, toddy, and rice-beer.	86,384	89,496
Opium - - -	158,421	182,871
Hemp drugs - - -	204,672	244,953
Miscellaneous - - -	2,296	2,597
Total - - -	917,277	1,025,868

Licensing boards have been constituted for all municipal areas in the Calcutta district, and advisory boards have been appointed for all other municipal and rural areas. A number of shops have been closed on the advice of these committees, and others have been closed by departmental action. A marked reduction has been made in the number of temporary licences granted on occasions of local fairs.

The settlements for licence fees for the sale of opium and ganja showed a decided increase, due, in the case of opium, to the restriction of issues, which enabled shopkeepers to raise their retail prices without fear of competition, and in the case of ganja to the fixation of upset prices at the auctions.

The total consumption of spirits from central distilleries showed a decrease as compared with the issues in 1912-13, in spite of the fact that the Chittagong district was supplied for the first year from a central distillery in 1913. The decrease in consumption was not spread over the whole province. It is attributable to the high prices charged by the retail sellers in consequence of the rise in duty and, in the neighbourhood of Calcutta, to an increased consumption of foreign liquor.

The withdrawal of the privilege of brewing pachwai for domestic purposes free of licence from the aboriginal settlers in the 24 Parganas was naturally unpopular with those affected, and involved a number of prosecutions for illegal manufacture. The increase in the duty on ganja and enhancement in the licence fees for its sale led to a decrease in the consumption in those districts in which increased consumption had been noticed in previous years.

The number of persons arrested in Calcutta for offences connected with cocaine was large, and opium smuggling is still not uncommon.

The Excise Intelligence Bureau co-operated with the bureaux in other provinces in the work of disseminating information regarding all suspected offenders against the Excise Law.

Bihar and Orissa.—Those portions of the Champaran and Muzaffapur districts which had hitherto been served from out-stills were included in the area supplied by central distilleries. The out-still system is still in force in three whole districts and parts of four others.

Gross Receipts from	1912-13.	1913-14.
	£	£
Country spirits - - -	360,449	374,519
Foreign liquors and rum -	2,165	2,375
Fermented local liquors, toddy, and rice-beer.	93,130	99,302
Opium - - -	81,030	100,439
Hemp drugs - - -	153,697	172,172
Miscellaneous - - -	2,901	1,852
Total - - -	693,372	750,659

The issues from central distilleries showed a slight increase in comparison with the issues of the previous year, but this was not proportionate to the enlargement of the area to which supplies were issued. The decrease in consumption is due to the enhancement of retail prices following on the raising of the duty and to local scarcity in parts of Bihar. In some parts of Bihar tari is taking the place of country spirit during the hot-weather season. The issue of 50° U.P. spirit

was discontinued from the Ranchi Distillery with the object of preventing the acquisition by aboriginal drinkers of a taste for strong alcohol. The duty on ganja was raised, and the consumption was slightly reduced as a result. The duty on opium was also raised in certain districts, but the consumption increased by 34 maunds. This increase chiefly occurred in the littoral districts of Orissa, from which smuggling is suspected. A further restriction on the issues in these and the adjoining districts is contemplated.

The illicit use of cocaine is steadily on the increase. Special measures were taken to deal with the smuggling of the drug, but the supply continues in spite of frequent convictions of smugglers.

(Excise.)

Assam.—The hill districts in Assam are supplied from out-stills. In the area

Gross Receipts from	1912-13.	1913-14.
	£	£
Country spirits - - - -	93,824	102,111
Opium - - - - -	182,554	194,498
Other drugs - - - - -	45,836	52,653
Other liquors and miscellaneous	1,255	1,357
Total - - - -	323,469	350,619

served by central distilleries the consumption rose by 5·8 per cent.; the increase is due to the prosperity of the year and the influx of foreign labour. The consumption both of opium and ganja was also larger than in the preceding year. The number of opium shops is being reduced and the introduction of minima retail prices is under contemplation. A number of cases of opium-smuggling to Burma through

Chittagong have been detected; precautionary steps are being taken to check any development of this trade. Municipal boards have been utilised as advisory bodies in connection with the location of excise-shops, and it is proposed to extend the system to the local boards in rural districts.

United Provinces.—The series of good harvests in preceding years led to a marked increase in the receipts from licence fees for the sale of county spirits. The bidders' expectations were not, however, realised, for the failure of the Kharif harvest led to a

Gross Receipts from	1912-13.	1913-14.
	£	£
Imported liquors, &c. -	17,606	20,820
Fermented local liquors -	22,102	22,619
Country spirits - - - -	560,426	591,877
Opium - - - - -	79,946	83,299
Other drugs - - - - -	160,406	168,304
Miscellaneous - - - -	649	681
Total - - - -	841,135	887,600

decided fall in the consumption during the latter part of the year. Stillhead duty was raised during the year, and it is proposed to raise it further. The demand for tari is increasing in the hot season in some districts, and tari is to this extent taking the place of country spirits. The consumption of ganja again increased. It is due to the breaking up of monopolies amongst the retail traders and consequent cheapening of retail prices. Ganja may be taking the place of charas to

some extent and is substituted for county spirits in times of scarcity. Enhancement of the duty is under consideration.

Useful assistance was rendered in Benares by members of the local temperance society in the suppression of illegal cocaine traffic.

Punjab.—In February 1914 the new Punjab Excise Act came into force. The Act enhances the penalties in the case of several offences against Excise laws and

Gross Receipts from	1912-13.	1913-14.
	£	£
Imported liquors, &c. -	28,376	30,533
Fermented local liquors	198	257
Country spirits - - - -	271,723	293,842
Opium - - - - -	78,989	85,729
Other drugs, &c. - - -	46,654	50,066
Miscellaneous - - - -	84	151
Total - - - -	426,024	460,578

in other ways strengthens the hands of the authorities. The increased consumption of country spirits is due to an increase in the general prosperity. The number of licences were reduced during the year. There was a marked increase in the consumption of beer, both foreign and India-brewed; the consumers are mostly men of the middle class. The issues of charas fell during the year, but those of bhang increased. Cocaine-taking is prevalent in the towns of Lahore and Amritsar, and in the Amballa district. Illicit distillation is still common in the

grain-growing districts of the Central Punjab, but, owing to the activities of the excise staff, is on the decrease.

(Excise.)

North-West Frontier Province.—The issue rate of opium and the duty on charas were raised during the year. Afghan opium has now been entirely replaced by Ghazipur opium, except in the Peshawar district; its entire prohibition is under consideration. A small Excise Intelligence Bureau has been established and has done good work in checking the smuggling of opium from Afghanistan. There was a decrease in the amount of charas imported.

Gross Receipts from	1912-13.	1913-14.
Imported liquors -	2,585	2,466
Country spirits -	6,106	6,744*
Opium -	7,057	8,929
Other drugs -	8,475	5,196
Miscellaneous -	3	6
Total -	24,226	23,341

* Besides £7,890 duty on spirits imported from the Punjab and United Provinces and credited to these Provinces.

Burma.—The contract distillery system has been extended and now subsists in 15 districts; illicit distillation is decreasing as the system extends. The consumption of opium showed a marked decline during the year, and it is claimed that a generation of Burmans is growing up for whom the opium habit has no attraction. Cocaine is smuggled through Rangoon and taken in large quantities in the Pegu and Irrawaddy divisions: Ganja is prohibited in Burma, but both this drug and opium are smuggled in, despite the efforts made to prevent this. An increased demand for foreign and rice-beers is evident. The regulation of the manufacture of rice-beer has resulted in a great improvement in the quality of the brew, adulteration and fortification having practically ceased.

Gross Receipts from	1912-13.	1913-14.
	£	£
Imported liquors, &c. -	77,650	74,251
Fermented liquors -	180,368	194,470
Country spirits -	27,568	40,687
Opium -	248,748	236,151
Miscellaneous -	7,099	10,595
Total -	541,433	556,154

Central Provinces and Berar.—The contract distilling system was extended in two more districts and now covers 80 per cent. of the area of these provinces. The excise revenue shows the large increase of ten lakhs due principally to a rise in licence fees, especially those for the sale of country spirit. The rise is attributed to the general prosperity resulting from good seasons and to the rise of the retail price of country spirit. The consumption of country spirits declined slightly, more particularly in Berar, owing to the reduction of licences and the steady enhancement of retail prices in accordance with the rise in the duty. It may be found necessary to enforce maximum prices to meet this tendency. The revenue realised from tari increased slightly: this was mainly due to the elimination of persons interested in the sale of country spirits from the auctions of tari licences. Minimum prices had to be fixed in one or two places to prevent rate-cutting by rival opium-sellers in their efforts to attract custom. Some efforts are being made by individuals and societies to encourage temperance. Some castes now distribute sweetmeats at social gatherings at which liquor was formerly distributed, but this is probably done to effect economy owing to the increased cost of liquor rather than to promote abstinence. Fifty-eight country-spirit shops were closed during the year: it is doubtful whether any further reduction can be effected without danger of a rise in the amount of illicit distillation. Ganja consumption increased; some of the poorer classes appear to be abandoning country spirits for ganja on account of the rise in the retail price of the former.

Gross Receipts from	1912-13.	1913-14.
	£	£
Country spirits and tari -	526,209	576,740
Opium -	128,569	139,959
Hemp drugs -	49,309	53,947
Miscellaneous, including foreign liquors -	2,913	4,318
Total -	707,000	774,964

(Excise.)

Madras.—The contract distillery system was extended to British Cochin. The duty on country spirit was slightly increased during the year. The number of shops

Gross Receipts from	1912-13.	1913-14.
	£	£
Imported liquors, &c. -	37,080	46,002
Country spirits -	963,812	1,067,561
Fermented liquors -	1,030,251	1,121,540
Opium -	114,819	130,856
Other drugs -	48,277	57,532
Miscellaneous -	7,673	10,581
Total -	2,201,912	2,434,072

licensed for the sale of country spirit was reduced to the large extent of 416. It is doubtful whether this reduction had any effect on the consumption. It is true that the year's consumption only slightly exceeded that of the previous year, but heavy rain and floods and consequent bad harvests and plague, together with increased duties, are chiefly responsible for the reduction of the consumption in the districts affected. The amount of foreign liquor imported into the Presidency increased by 13 per cent. In the Tanjore district country-brewed beer is gaining

in favour among moderate drinkers and displacing country spirit to a slight extent. The revenue realised from tari considerably exceeded that of the previous year. It is attributed to keen competition among the bidders for licences. Although the revenue from opium increased by nearly two and a half lakhs, the consumption declined and several shops were closed. The increase is due to enhancement of issue prices and greater competition for licences. The consumption of ganja rose during the year: this was to some extent due to the smuggling of ganja into Mysore, and the question is receiving attention. The Excise Laboratory did good work during the year and the information disseminated from the Excise Intelligence Bureau has proved of great value to local officers in dealing with organised smuggling.

Bombay.—The marginal table includes figures for Sind. The main feature of the

Gross Receipts from	1912-13.	1913-14.
	£	£
Imported liquors -	19,123	19,693
Country spirits -	1,065,268	1,102,332
Toddy -	133,077	137,549
Opium -	105,542	124,683
Other drugs -	83,577	93,470
Miscellaneous -	5,661	2,193
Total -	1,412,248	1,479,920

year was an increase in Excise Revenue, accompanied by a falling off in consumption. The contract supply system now prevails throughout all the province except one district and parts of a few others. For selling licences the fixed fee system has been substituted for auction as the general rule. This system is stated to work well, so far as regards administration, though financially it means a loss of revenue. The rival merits of the two systems are still under consideration. Duty on spirits and maximum selling prices were raised in many districts. There was a large

increase in the consumption of toddy, which, in some districts, seems to be taking the place of country spirits.

The consumption of ganja has slightly increased, but that of charas has decreased owing to the prohibition of its sale in many districts during the year. Important seizures of cocaine were made in the port of Bombay; the traffic in this drug is practically confined to one or two big towns. There was a considerable decrease in the sales of opium.

Provincial Rates.

Since 1904-5 many cesses levied under the head of Provincial Rates have been abolished. In 1907-8 a further reform was adopted by the exclusion from the Imperial accounts of the transactions of District Boards and of certain other local funds, which are raised locally, mainly for local purposes, and chiefly managed by local bodies. The revenue from Provincial Rates amounted in 1913-14 to £180,210, as against £552,149 in 1912-13. The decrease is due to the surrender to district boards of the Public Works cess in Bengal and Bihar and Orissa. The only other considerable item is the appropriation by the United Provinces from local rates for the payment of rural police in the Agra Province. This also has been discontinued with effect from the beginning of 1914-15.

(Stamps.)

Stamps.

The stamp revenue is derived from two great classes of stamps. Judicial or court fee stamps are provided for by the Court Fees Act (VII. of 1870), which imposes fees on plaints, petitions, and other documents, with specified exceptions, filed before civil, criminal, or revenue courts; non-judicial stamps by the Stamp Act (II. of 1899), which imposes duties on commercial transactions recorded in writing, such as conveyances, bonds, cheques, bills of exchange, receipts, and the like. The revenue from the former class increases with the growth of litigation, and that from the latter class with the development of trade and industry. In 1913-14 the revenue grew under both heads. The marginal table gives the gross stamp receipts for 1912-13 and 1913-14. Over one-fourth of the revenue is derived from Bengal.

Gross Receipts from	1912-13.	1913-14.
	£	£
Sale of court fee stamps -	3,373,681	3,518,012
Sale of commercial and other stamps.	1,620,433	1,707,946
Fines and miscellaneous -	75,001	92,335
Total -	5,069,115	5,318,293

Customs.

Special import duties are levied on malt liquors, wines, spirits, arms and ammunition, salt and salted fish, opium, tobacco, and silver. The duties levied on alcoholic liquors were raised by the Indian Tariff (Amendment) Act of 4th March 1910 (No. VIII.). They are now: ale, beer, &c., 3 annas per gallon; liqueurs, perfumed spirits, &c., Rs. 13 per gallon; spirit used in drugs, medicines, or chemicals, Rs. 7:13:0 per gallon; other spirit, Rs. 9:6:0; sparkling wines, Rs. 3:12:0; and other wines, Re. 1:8:0 per gallon. Tobacco is dutiable at various rates, which were raised in 1910 but reduced again in 1911, the enhanced duties not having proved as productive as was expected. Salt is dutiable at Re. 1 per maund, and silver at 4d. per ounce. Petroleum pays 1½ annas per gallon, and iron and steel generally 1 per cent. *ad valorem*. General import duties, which had been abolished in 1882, and were re-imposed in 1894, are levied at the rate of 5 per cent. *ad valorem*. For as many articles as practicable tariff valuations are fixed, and these are revised from time to time, a general revision being made in December of each year. The chief articles on the free list are railway materials, machinery which is worked by power other than manual or animal labour, grain and pulse, living animals, coal, jute, raw cotton, raw wool, books, gold and unset precious stones. On the revival of general duties in 1894 cotton goods were at first exempted, but in December 1894 a 5 per cent. *ad valorem* duty was imposed on imported cotton goods and yarns, while an excise duty of equal amount 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 and thread, 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 imported from abroad or manufactured in India at power mills, the products of handlooms being exempted. A duty is levied on exported rice and rice-flour at the rate of 3 annas per maund of 82½ lbs. of unhusked rice (about 4d. per cwt.). Jute exports from Calcutta and Chittagong bear a small duty for the benefit of the town, and there is a trifling export duty on tea which goes to a committee representing the tea-trade; but the proceeds of these duties do not enter the Government accounts. The last of the countervailing duties imposed from 1899 onwards on sugar from certain countries were withdrawn in 1912.

(Customs.)

The appended table shows the amount of the customs receipts in 1894-5 and 1895-6, when the changes above-mentioned took effect, and also those for the four most recent years :—

	1894-5.	1895-6.	1910-11.	1911-12.	1912-13.	1913-14.
Sea Customs, import duty :	£	£	£	£	£	£
Arms, ammunition, &c. - - - - -	10,126	11,403	10,326	9,638	14,276	13,646
Liquors - - - - -	406,355	440,669	798,909	825,067	831,764	882,770
Petroleum - - - - -	213,118	270,782	402,222	496,729	463,526	468,125
Cotton manufactures - - - - -	256,631	776,483	935,290	1,029,886	1,271,026	1,407,608
Silver bullion and coin - - - - -	230,557	231,859	1,077,882	644,401	715,165	657,227
Other metals - - - - -	135,078	168,641	349,266	337,952	350,440	482,962
Sugar - - - - -	630,450	686,725	411,233	306,259	476,576	607,755
Other articles - - - - -			1,324,593	1,373,307	1,521,040	1,614,609
Export duty on rice - - - - -	594,017	609,581	851,076	885,865	962,720	839,131
Miscellaneous - - - - -	6,694	1,770	22,741	26,890	33,551	35,960
TOTAL Sea Customs - - - - -	2,483,026	3,197,913	6,183,538	5,935,994	6,640,084	7,009,793
Land Customs - - - - -	15,884	13,397	27,432	33,871	36,933	37,270
Excise duty on cotton manufactures	6,897	40,632	281,772	320,300	371,077	357,512
Miscellaneous - - - - -	10,773	18,672	18,485	19,107	18,200	20,643
TOTAL NET CUSTOMS REVENUE	2,516,580	3,270,614	6,511,227	6,309,272	7,066,294	7,425,218

The receipts from import duties in 1913-14 showed an increase, owing to the growth of trade.

Income Tax.

The Income Tax Act (II. of 1886), applicable to the whole of India, took the place of local Acts under which various licences were required for the exercise of trades or industries. Its principal provisions are that all incomes from salaries and pensions or from interest on securities, if amounting to Rs. 2,000 per annum, shall pay 5 pies in the rupee (equal to 6½d. in the £); that incomes less than Rs. 2,000 shall pay 4 pies (5d. in the £); that companies shall pay 5 pies in the rupee on their net profits; and that incomes under Rs. 2,000 derived from other sources shall pay according to a graded scale from Rs. 20 on an income of Rs. 1,000 to Rs. 42 on Rs. 1,999, and 5 pies in the rupee on incomes of Rs. 2,000 and upwards. All incomes of less than Rs. 1,000 (£66⅔) a year were exempted by an amending Act (XI. of 1903), which substituted that taxable minimum for the former limit of Rs. 500. The tax is not levied on incomes from land or agriculture. Military salaries of less than Rs. 500 a month (£400 a year) are exempt.

The gross revenue from income tax in 1913-14 was £1,950,250, as compared with £1,742,397 in 1912-13. The proportion or revenue derived from the different sources (shown in the margin) varies but little. The number of persons assessed to income tax is only a small fraction of the population, the total in 1911-12 being 288,988. A large proportion of the revenue is collected in Calcutta and Bombay. Income tax receipts have increased with the increase in profits and salaries resulting from commercial and industrial activity, as well as through improved administration.

1913-14.

	£
Ordinary collections - - - - -	1,555,075
Government salaries and pensions	318,399
Interest on Government securities	59,776
Other items - - - - -	17,000
£1,950,250	

Registration.

General.—Offices exist in every district for the registration of documents, and for keeping copies thereof. *Ad valorem* fees are charged for registration, and a small fixed fee for searching the records. For registration purposes, documents are divided into (a) those the registration of which is compulsory, or necessary to the validity of the deed, and (b) those which are registrable or not at the option of the holder, though

(Registration.)

liable, if unregistered, to be superseded by registered documents, subject to the equitable doctrine of notice. In the former class are instruments of gift of immovable property, or other non-testamentary documents which affect rights in such property of a value of Rs. 100 and upwards, and, with certain exceptions, annual or longer leases. Optionally registrable documents include those relating to immovable property not comprised in the above-mentioned classes, deeds affecting movable property, wills, and other documents. As regards transfers of immovable property, however, the situation is affected, except in the Punjab and Upper Burma, by the Transfer of Property Act (IV. of 1882), as amended by Acts of 1885 and 1904. Under the provisions of the Act of 1904 the registration of mortgages of immovable property of a lower value than Rs. 100, previously optional, was made compulsory. Practically all deeds transferring immovable property have now, therefore, to be registered. Mortgages form the largest class of instruments registered. Documents relating to the sale, mortgage or lease of immovable property, compulsorily registrable, comprise the great majority of all registrations. The number of optional registrations has steadily declined, partly owing to the operation of the amending Act of 1904.

The gross registration receipts in 1913-14 were £518,962, as compared with £482,022 in 1912-13, and the cost of the registration offices was £255,453. During the three years ending 1913-14 the receipts, which had received a check in the two preceding years, have rapidly increased. New registration offices have been established, and there has been a steady improvement in the efficiency of the local sub-registrars. Fluctuations in the volume of registration, especially in the number of deeds evidencing mortgages and sales, may be due, on the one hand, to bad harvests, high prices, and declining credit, or, on the other, to increase in the value of lands, settlement operations, the development of new land, the expansion of trade, and improvement of credit. There is every reason to believe that the latter causes are responsible for the steadily increasing number of documents brought for registration in recent years. In 1913 the number of compulsory registration transactions showed an increase in every province except Madras and Bombay, in which provinces there was a slight decrease. The increase is attributed to the progressive rise in the value of land, both agricultural and building, in Bengal, the United Provinces, and the Punjab, to extension of canal irrigation in the Punjab and the North-West Frontier Province, to wider knowledge of the law respecting registration and to extension of facilities for registration in Burma, to the high rate of food prices in Assam, and to the extension of railways and improvement of credit due to good seasons in the Central Provinces.

Opium.

General.—The opium revenue has hitherto been raised partly by the levy of duty on opium exported from Native States to China, and partly by a monopoly of the production of the drug in an area now confined to certain districts in the United Provinces, where opium is grown for internal use in India and for export to those foreign countries or colonies where its use is permitted. Since December 1913, however, the export of opium from Native States to China has been discontinued, and the revenue from this source has ceased. The area sanctioned for opium cultivation in the United Provinces in 1913-14 was about 167,000 acres, as against about 203,000 in 1912-13. The cultivator of opium (known as Bengal opium) in these monopoly districts must hold a licence, and is granted advances to enable him to prepare the land for the crop. He is required to deliver the whole of his outturn of crude opium at a fixed price to Government agents, by whom it is despatched to the Government factory at Ghazipur. The supply of prepared opium required for consumption in India, "excise opium," is made over to the Excise Department, and Rs. 8½ per seer is credited to opium revenue for the amount thus consumed. The chests of "provision" opium, for export, are sold by auction at monthly sales in Calcutta. The price obtained at the Calcutta sales, less the cost of production, is the revenue from Bengal "provision" opium. The export of Bengal opium to China ceased at the beginning of 1913. Opium (known as Malwa opium) is grown in Baroda and in some of the Native States of Rajputana and Central India. The Government of India interfere in no way with its production or local consumption; but Malwa opium may not pass into British territory, whether for export by sea or for consumption, without a pass, which is no longer granted.

(Opium.)

Towards the end of 1906 edicts were issued by the Chinese Government ordering that within 10 years the growth and the consumption of opium in China should be suppressed. In 1907 an agreement was made with China for an annual reduction of the total amount of opium exported by India; in 1911 it was further agreed that, of the annual exports thus limited, only a certain quantity, to be reduced annually, should be certificated for export to China, and provision was made for an earlier cessation of the export to China in the event of the native Chinese production being suppressed before the expiration of the period of 10 years. In 1913 the sale of opium thus certificated was suspended, and it has since been decided that the trade with China shall not be resumed.

The opium revenue and expenditure during recent years have been as follows:—

	1907-8.	1908-9.	1909-10.	1910-11.	1911-12.	1912-13.	1913-14.
Opium Receipts:*							
Sales of Bengal opium - - -	£ 4,401,988	£ 4,234,444	£ 4,546,147	£ 7,245,574	£ 4,990,982	£ 3,320,382	£ 1,270,478
Duty on Malwa opium - - -	620,480	1,398,780	724,140	8,720	693,274	1,473,310	27,500
Excise opium, and miscellaneous -	222,518	251,564	264,396	267,668	277,023	330,900	317,900
Total - - - - -	5,244,986	5,884,788	5,534,683	7,521,962	5,961,278	5,124,592	1,624,878
Opium expenditure - - - - -	1,669,441	1,236,083	1,110,155	1,246,657	729,452	599,729	1,012,440
Net opium Revenue - - - - -	£ 3,575,545	£ 4,648,705	£ 4,424,528	£ 6,275,305	£ 5,231,826	£ 4,524,863	£ 612,438

* Exclusive of the licence fees and duty on opium consumed in India, amounting in 1913-14 to £1,291,487 included under Excise.

Bengal.—The area cultivated with the poppy in the Ganges Valley in recent years

Year.	Acres.	No. of Chests produced for Export.	No. of Chests sold for Export.	Average Price in Rs.
1910-11 -	380,700	15,000	37,560	2,892
1911-12 -	217,700	14,000	26,330	2,790
1912-13 -	194,500	14,000	17,890	2,784
1913-14 -	*	*	9,000	2,120

* Figures not available.

is shown in the margin, together with statistics of opium produced and sold for export. The area sown in 1912-13 was considerably less than the sanctioned area for the year, owing to the disheartening effects of two bad seasons in succession. The price of crude opium was raised by 25 per cent. in July 1913. The average outturn per acre slightly decreased. 11,253 chests

of Malwa opium were purchased by the Department, and Excise opium is being made out of a blend of Malwa and Benares opium.

Bombay.—The Bombay Opium Department was abolished from 1st January 1914 owing to the stoppage of export to China. For the nine months April-December 1913 the total exports amounted to 2,705 chests. There was no revenue from pass duty, as the whole of the duty on opium exported during the year had been realised in the previous year, and the receipts realised during 1913-14 (£29,338) consisted almost entirely of sale proceeds of the right of export.

No auction sales of the right to export were held during 1913-14, and the Government of India have taken over the 12,100 chests which, owing to the stoppage of these sales, remained undisposed of out of the allotment fixed for export to China in 1913.

(Season and Crop Reports.)

CHAPTER VI.

AGRICULTURE.

The present chapter gives an account of the conditions prevailing in each province during the agricultural year 1913-14, together with some information regarding the outturn of agricultural produce and the progress of co-operative credit societies. An account of the working of the Agricultural and Civil Veterinary Departments is given in Chapter XIII.

Season and Crop Reports.

Bengal.—Heavy rains in June waterlogged the jute crops, especially in Western Bengal, and injured the rice crop. Spring crops showed an improvement. The total cropped area was 28½ million acres. The sugar-cane crop fell short of the previous year. Harvest prices were generally higher, that of jute constituting a record.

Bihar and Orissa.—There were severe floods in Patna Division in August, and the winter crops were damaged by floods in Patna and Orissa, but on the whole they were fair. Spring crops were, generally speaking, good. Sugar cultivators did well. A noticeable feature was the large export of cattle to Bengal. Prices ruled high.

Assam.—Rainfall for the most part of the year was in excess, prejudicially affecting several crops in different areas. Cropped area increased and new land was reclaimed in Sibsagar. The autumn and winter rice crops were less than the bumper yields of 1912-13, and there was a considerable rise in the price of rice.

United Provinces.—The year was abnormally dry, both the western and eastern currents failing to bring anything like normal rainfall except to Gorakhpur and Benares divisions. Both autumn and winter crops suffered severely. The area sown for the former was almost normal, but the crops came to nothing; the cropped area for winter crops declined by 21 per cent. The population, however, were well prepared to meet the situation as, owing to a previous series of good years, they had reserves of grain and money; the distress was undoubtedly less acute than in the previous bad year (1907-8); the chief hardship took the form of a fodder famine, and the cattle suffered accordingly. A saving factor was the comparative excellence of the cotton crop and the high prices fetched by cotton. The beneficial practice of early sowing of cotton with irrigation is spreading. Another crop which suffered comparatively little from the draught was barley, and the area under barley showed an actual increase. The cultivators showed great energy in sowing spring-crops in places where no crop could be sown without preliminary watering; the percentage of wheat crop irrigated rose from 43 to 63.

Punjab.—Here, despite the early withdrawal of the monsoon, conditions were favourable for both autumn and spring crops except in the south-east of the province. The total matured area was in excess of the previous year. Cotton yielded 73 per cent., and wheat 15 per cent., above normal. The price of food-grains (except wheat) rose, chiefly owing to the famine in the United Provinces. The quinquennial cattle census shows a general increase in stock. Bullocks are replacing buffaloes for draught purposes as the cultivators, with increased prosperity, become able to afford the former more efficient animal.

Punjab Canal Colonies.—In the three older colonies (Lower Chenab, Lower Jhelum, and Chunian) conditions now approximate more or less to those in ordinary districts. The tightening up of water supply as a preparation for what may come when the triple canal project comes in force has been carried out satisfactorily and with a minimum of inconvenience to those concerned. The system by which certain grantees hold their land under condition of breeding horses, mules, or camels has proved most satisfactory since the conditions have been more strictly enforced, and the demand for remounts consequent on the war has been well met. There have been considerable purchases of proprietary rights; but there is a tendency in some parts for the

(Season and Crop Reports.)

purchasers to sell or mortgage their lands, especially among military grantees who wish to return to their native districts. Assessments in the Lower Chenab Colony have resulted in an increased demand, but there was no fall in the market value of land. Of a total allottable area in these three colonies of 2,583,000 acres, all but 180,000 have been allotted.

In the new colonies of the triple canal project, 146,000 acres have been allotted in the Lower Bari Doab Colony, and preparations have been made for the colonization of nearly 40,000 acres in the Upper Chenab Colony. Good progress has been made in the laying out of towns, markets, and roads.

North-West Frontier Province.—The total cropped area was above normal, both irrigated and non-irrigated areas showing a rise, and the yield for almost all the crops except millet was above normal. Wheat, barley, and cotton did particularly well. The quinquennial census of cattle showed a general rise of agricultural stock. Prices were high but easier than in the previous year.

Central Provinces and Berar.—The autumn crops suffered from lack of rain, and some of the spring crops suffered from rain at harvest time: both were below normal. The cropped area decreased slightly. The total crop is estimated at three-fourths normal.

Burma.—The year was fair, though not as good as 1912-13. The rainfall was somewhat ill-distributed, and the Chindwin and Irrawaddy did not rise sufficiently. The cropped area increased—cotton, tobacco, and rubber appear to be gaining in popularity. The outturn of rice was estimated at 88 per cent. of normal. The year was a healthy one for stock.

Madras.—The S.W. monsoon was somewhat defective; the N.W. monsoon was fair, but there were serious floods. The total cropped area was above normal, but the outturn of most crops was below. Choram, ragi, and cotton, however, showed an improvement on 1912-13. The area under groundnut was almost double that of 1912-13, and cotton also is growing rapidly in popularity; sugar cane did badly.

Bombay.—The season on the whole was a fair one, except in parts of some Deccan districts, where there was some distress. In Sind, damage was done by heavy rains. The total cropped area was about the same as in 1912-13, cotton and oilseed having increased and cereals decreased. The outturn of food-grains was about the same as in 1912-13 in the Presidency proper, but showed some falling-off in Sind. Cotton did well, but its price fell. Its cultivation is steadily extending.

Agricultural Produce.

(For further details see Statistical Abstract for British India, Tables 119 to 123.)

The following table shows the area under the principal crops, in British India, and their territorial distribution, for 1913-14. The cropped area is always greater than the area of cultivated land, owing to double cropping. The figures (which are preliminary) represent thousands of acres:—

Province.	Rice.	Wheat.	Barley.	Other Food Grains (chiefly Millet) and Pulses.	Total Food Grains and Pulses.	Oilseeds.	Sugar Crops.	Cotton.	Jute.	Total cropped Area.	Net cropped Area after deducting Area cropped more than once.
Bengal	19,735	144	91	1,602	21,575	1,805	277	26	2,716	28,699	24,269
Bihar and Orissa	—	—	—	15	4,880	331	38	35	101	6,419	5,907
Assam	4,755	—	—	—	—	—	—	—	—	—	—
United Provinces	6,140	6,377	4,377	15,964	32,858	784	1,389	1,548	—	38,769	32,638
Punjab	800	8,473	970	9,438	19,681	1,179	411	1,826	—	27,328	26,984
N. W. Frontier Province	44	1,031	291	1,040	2,406	156	32	60	—	2,838	2,829
Burma	10,331	24	—	1,610	11,965	1,482	40	300	—	14,674	14,148
Central Provinces and Berar.	4,986	2,533	—	10,373	17,892	2,348	20	4,802	—	25,812	24,479
Madras	10,678	25	3	18,735	29,440	3,177	162	2,697	—	36,344	34,181
Bombay and Sind	2,768	1,840	50	17,218	21,576	1,376	63	4,231	—	29,180	28,132
*Minor Areas	88	29	69	222	308	37	—	60	—	543	503
*Total	60,320	20,476	5,844	76,217	162,966	12,675	2,432	15,665	2,817	212,556	194,066

* Figures for Minor Areas are for 1912-13.

(Agricultural Produce.)

The chief crops under "other food grains and pulses" are various kinds of millets (including 13 million acres in Bombay and 11 million acres in Madras), grain, and maize (the two latter chiefly grown in Northern India). Of other non-food crops the principal is tobacco, chiefly grown in Bengal, Madras, and Bihar and Orissa.

Particulars for 1913-14 regarding some of the more important staples of Indian agriculture are given below. The figures are derived from returns of crop forecasts, and they include Native States as well as British India.

Rice.—Nearly one-third of the cropped area in British India is under rice. The provinces for which statistics are given in the table below ordinarily include 93 per cent. of the Indian rice crop. The figures are in thousands (omitting 000). Although Bengal is the principal producer of rice, Burma is the largest exporter. The foreign exports of rice are subject to an export duty of three annas per maund (about 6s. 10d. per ton). India produces almost half the rice of the world, and the rice exports in 1912-13 constituted

Province.	Area in thousands of Acres.			Yield in thousands of Cwts.		
	Average of five years to 1911-12.	1912-13.	1913-14.	Average of five years to 1911-12.	1912-13.	1913-14.
Bengal - - -	20,390	20,639	19,708	179,066	167,119	147,411
Bihar and Orissa - - -	16,906	16,196	16,275	151,300	119,390	162,931
Madras - - -	10,323	10,944	11,032	—	88,693	84,319
Burma - - -	7,422*	9,966	10,133	63,193*	90,023	84,820
United Provinces - - -	6,008	6,811	6,062	—	39,951	25,280
Assam - - -	—	4,272	3,831	—	38,957	26,775
Bombay - - -	1,576	1,624	2,389	14,012	16,398	24,245
Sind - - -	1,089	1,088	1,071	7,656	8,091	6,846
Coorg - - -	81	83	82	986	1,067	705
Total - - -	—	71,623	70,583	—	569,689	563,332

* Relates only to principal rice-growing districts of Lower Burma.

a record. The 1912-13 crops, however, having been somewhat below the average, the exports for 1913-14 show a falling off. Prices fell away owing to slackening of the exceptional demand in the Far East.

Wheat.—Wheat occupies usually about 10 per cent. of the whole cultivated area.

Province.	Area in thousands of Acres.				Yield in thousands of Tons.		
	Average of five years to 1911-12.		1912-13.	1913-14.	Average of five years to 1911-12.		1913-14.
	Acres.	Tons.	Acres.	Tons.	Acres.	Tons.	
Punjab - - -	9,483	9,316	9,177	3,282	2,989	3,428	
United Provinces - - -	6,302	7,382	6,373	2,547	2,938	2,205	
Central Provinces and Berar.	3,233	3,743	3,383	826	1,062	683	
Bombay - - -	1,677	1,735	1,789	389	543	444	
Sind - - -	483	487	481	122	204	114	
Bihar and Orissa - - -	1,255	1,270	1,342	440	529	583	
North-West Frontier Province.	1,048	879	992	241	195	259	
Bengal - - -	151	146	144	39	51	51	
Central India - - -	2,215	2,805	2,684	402	936	492	
Hyderabad - - -	1,040	851	702	69	48	43	
Rajputana - - -	945	906	622	212	219	122	
Elsewhere - - -	34	4	8	3	1	3	
Total - - -	27,866	29,524	27,697	8,572	9,715	8,427	

The bulk of it is sown in autumn and reaped in April and May. The area under wheat has greatly expanded with the extension of irrigation. More than half of it is in the Punjab and the United Provinces, and rather more than half in each of these provinces is irrigated. The marginal table shows the area and yield of wheat, the figures being in thousands (omitting 000). The year was on the whole favourable in the important wheat-growing provinces, except in parts of the United Provinces, and the Central Provinces, where the crop suffered through drought.

(Agricultural Produce.)

The exports of wheat and wheat-flour are subject to great fluctuations, as the marginal figures show. The export demand for wheat has led to an extension of cultivation. This is very beneficial to India, partly because the crop is a profitable one, and partly because in years of scarcity the rise in prices renders the grain available for home consumption. In a famine year, the export falls to a trifling quantity. The wheat exported in one financial year is drawn mainly from the crop of the previous year, and the heaviest shipments are from May to August. The 1912-13 season was not a very good one, and the exports declined considerably.

	Wheat.	Flour.
	Tons.	Tons.
1904-5	2,150,000	51,700
1905-6	937,500	44,950
1906-7	801,400	40,900
1907-8	880,500	37,200
1908-9	109,750	30,100
1909-10	1,050,600	35,100
1910-11	1,266,100	40,200
1911-12	1,361,200	51,500
1912-13	1,660,200	68,500
1913-14	1,202,200	79,400

Sugar.—The area under sugar was reported to be 2,519,800 acres in 1913-14, and the yield was estimated at 2,262,600 tons. Both area and yield were somewhat less than in 1912-13, though above the average for the five previous years. The drought in the United Provinces (which produce about half the total yield) accounts for the decrease. The figures, however, are not very reliable, as in many large sugar-growing areas no accurate records are available, and sugar-cane is often grown in small and irregular clumps whose extent is not easily estimated. To the sugar-cane

Countries.	1911-12.	1912-13.	1913-14.*
	Tons.	Tons.	Tons.
Java - - -	408,000	466,000	578,000
Mauritius - -	85,000	150,000	136,000
Austria-Hungary -	12,000	53,000	74,000
Other Countries -	2,000	6,000	7,000
Total - - -	507,000	675,000	795,000

* 16 Dutch Standard and above only.

cane in the raw state and of the unrefined sugar or *gur* is consumed as food, but the increasing demand for refined sugar, which is supplied chiefly from abroad, is prejudicially affecting the *gur* industry. The question of improving methods of cultivation and of manufacture both of *gur* and refined sugar is receiving careful attention. Imports of sugar (including confectionery and molasses) are given in the margin. The large increase in the imports from Java is remarkable. There are now no countervailing duties.

Tea.—The marginal table furnishes an estimate of the cultivation and the production of tea in India during the years 1911 to 1913. The bulk of the plantations are in Assam and Bengal; the figures for other provinces are less reliable. Since 1885 the area under cultivation has doubled, and the production has increased four-fold. During 1913 the tea gardens employed 572,533 persons permanently and 94,379 temporarily. The capital invested by joint stock

Province.	Area in thousands of Acres.			Production in thousands of Lbs.			
	1911.	1912.	1913.	1911.	1912.	1913.	
Assam - - -	503	362	368	179,053	198,798	199,722	
Bengal - - -		150	156	64,654	70,524	80,109	
Bihar and Orissa -		2	2	285	269	311	
United Provinces -		8	8	8	2,535	2,657	2,579
Punjab - - -		9	9	9	1,489	1,931	2,130
Southern India -	53	59	64	20,510	23,615	22,245	
Burma - - -	2	2	3	76	83	154	
Total - - -	575	592	610	268,602	297,879	307,250	

companies in tea production is returned at £17,906,210, and, in addition, a large but

(Agricultural Produce.)

unknown quantity of private capital is invested.

Countries.	1911-12.	1912-13.	1913-14.
	Millions of Lbs.	Millions of Lbs.	Millions of Lbs.
United Kingdom	192·9	198·4	209·0
Russia - -	26·4	33·1	33·4
Australasia - -	10·0	9·4	9·7
Canada - -	10·6	11·4	11·6
China - -	5·1	9·2	11·0
Ceylon - -	4·3	4·2	3·9
Turkey-in-Asia -	3·1	4·4	2·8
United States -	3·1	2·3	1·9
Other Countries-	5·4	6·2	6·2
Total - -	260·9	278·6	289·5

The average price realised in Calcutta in 1913-14 was 8·25*d.* per lb. as compared with 7·67*d.* per lb. in 1912-13. The exports of Indian tea by sea during the last three years are returned as shown in the margin. About 2 million pounds were also exported by land, chiefly to Afghanistan.

The growing appreciation of the superior richness and strength of Indian tea is shown by the increased imports into this country. In 1875 the United Kingdom drew 86 per cent. of its supplies from China and 13 per cent. from India, while in 1913 of the tea retained for home consumption only 3·1 per cent. came from China and 56·5 per cent. came from India.

Jute.—India has a virtual monopoly of the production of jute, which is grown almost

—	Area in Acres.	Outturn in Bales of 400 lbs. each.
Average, 1908 to 1912	2,950	7,905
Year 1913 - -	2,911	8,893
Year 1914 - -	3,359	10,444

exclusively in Bengal, Bihar, and Assam. The marginal table (000's omitted) gives the figures for these provinces. In 1913 the crop was damaged by excessive rain, and the estimated yield for 1914 shows a considerable increase, especially in the Western Bengal area. Prices, which have been rising ever since 1909, reached the record average figure of £4 14*s.* 8*d.* per bale for 1913 owing to the shortage of that year.

The total Indian mill consumption of raw jute in 1913-14 was estimated at

Year.	Raw Jute.		Jute Manu- factures.	Total Exports.
	Quantity.	Value.	Value.	Value.
	Tons.	£	£	£
1911-12 -	810	15,038	10,672	25,710
1912-13 -	876	18,034	15,247	33,281
1913-14 -	768	20,551	18,849	39,400

4,435,000 bales as against 4,967,000 bales in 1912-13. Exports while falling in quantity rose in value. In addition there was a large export of jute manufactures which, owing to the boom in the jute trade rose to nearly double the figure of three years ago (*see* marginal table, omitting 000). Of the raw jute exports in 1913-14, 38 per cent. went to the United Kingdom, 21 per cent. to Germany, and 15 per cent. to the United States.

Cotton.—One of the most important crops for the grower, the Indian manufacturer, and the exporter, is cotton. The estimated area and yield of cotton in India are returned as shown in the table below for the last three years. The figures are in thousands (omitting 000). About half the total product is from Bombay and the Central Provinces. The estimated output of the 1913-14 season constitutes a record, being 13 per cent. more than in the previous year.

(Agricultural Produce.)

Province.	1911-12.		1912-13.		1913-14.	
	Area (Acres).	Yield (Bales).	Area (Acres).	Yield (Bales).	Area (Acres).	Yield (Bales).
Bombay - - - - -	5,121	599	6,064	1,324	6,351	1,397
Central Provinces and Berar - - - - -	4,648	913	4,493	910	4,715	961
Madras - - - - -	2,878	335	2,414	471	2,593	513
Punjab - - - - -	1,582	241	1,575	373	2,053	594
United Provinces - - - - -	921	251	1,158	428	1,586	484
Sind - - - - -	316	124	296	123	332	133
Burma - - - - -	186	32	233	46	288	50
Bihar and Orissa - - - - -	88	19	92	19	86	19
Bengal - - - - -	63	25	51	21	51	13
North-West Frontier Province - - - - -	56	12	56	13	59	14
Assam - - - - -	36	11	35	10	33	12
Ajmere-Merwara - - - - -	27	12	50	26	57	15
Hyderabad - - - - -	3,234	300	2,888	300	3,653	400
Central India - - - - -	1,400	228	1,314	206	1,426	273
Baroda - - - - -	665	96	762	196	749	175
Rajputana - - - - -	263	73	393	123	470	132
Mysore - - - - -	101	17	151	19	93	16
Total - - - - -	21,615	3,288	22,028	4,610	24,595	5,201

The exports of raw cotton from India in recent years have been as shown in the margin (000's omitted). The bulk of the Indian cotton exported goes to Japan and Western Europe. Very little goes to England, as Lancashire requires a finer class of cotton than India can as yet readily supply. The exports of 1913-14 showed an expansion as the result of favourable crops in the last two years. Prices started high in 1913 and rose still higher.

—	Quantity.	Value.
1911-12 -	Cwts. 7,329	£ 19,684
1912-13 -	7,377	18,890
1913-14 -	10,626	27,362

Oil Seeds.—The area under, and the yield of, the main oil-seed crops of India are given approximately in the margin. The figures are in thousands (omitting 000).

Seed.	Average of Five Years to 1911-12.		1912-13.		1913-14.	
	Area.	Yield.	Area.	Yield.	Area.	Yield.
Rape and mustard -	Acres. 6,157	Tons. 1,077	5,956	1,235	5,941	1,043
Sesamum - - - - -	5,226	455	4,980	472	5,119	408
Linseed - - - - -	3,457	422	4,125	529	2,997	382
Groundnut - - - - -	890	482	1,366	670	1,663	732

The rape and mustard-seed crop is grown chiefly in the United Provinces, the Punjab, and Bengal; linseed in the United Provinces, the Central Provinces, Bihar, and Hyderabad; sesamum (til or jinjili) in the United Provinces, the Central Provinces, Bombay, Madras, and Hyderabad;

while the groundnut area lies in Madras, Bombay, and Burma.

Exports of seeds have been as shown in the margin for the last three years (in 000 cwts.). Linseed goes chiefly to the United Kingdom (3,146,000 cwts.), and France (2,309,000 cwts.). Belgium took 1,977,000 cwts. of rape seed. Groundnuts go chiefly to France. The large exports of 1913-14 represent the excellent crop of 1911-12. The 1912-13 and 1913-14 crops were less good.

Seed.	1911-12.	1912-13.	1913-14.
Linseed -	Cwts. 10,440	7,090	8,277
Rape - -	4,710	4,357	4,980
Cotton -	4,073	2,611	5,687
Sesamum -	1,896	1,557	2,243
Groundnuts -	3,828	4,867	5,558
Castor - -	2,404	2,213	2,698
Other sorts -	1,336	1,155	2,109
Total -	30,014	24,537	31,652

(Co-operative Credit Societies.)**Co-operative Credit Societies.**

These societies were started by Government as an experiment in order that the poorer classes, and more particularly the cultivators, might be enabled to borrow money at reasonable rates, and might, at the same time, learn self-help and self-dependence.

The Co-operative Credit Societies Act of 1904 was passed in order to remove these societies from the operation of the general law; it conferred on them certain privileges, and laid down certain broad lines of guidance. In 1912 an amending Act was passed in the light of eight years' further experience. The 1912 Act covers all co-operative societies (the 1904 Act only dealt with credit societies), it recognises central unions, or federations of societies, which, since 1904, had become an important part of the movement, and differs in certain other respects from the 1904 Act. While imposing certain conditions necessary for the safe working of the societies and for the preservation of their co-operative character, the Act leaves as much as possible to the discretion of the local Government, and the types of society favoured in the different provinces vary widely.

The provincial registrars of co-operative societies are officials, and official aid is given in various ways, though loans by Government were never very extensive, and form a steadily decreasing proportion of the total working capital. Aid is also enlisted from non-official gentlemen of local influence, and in most provinces is more readily forthcoming than at the beginning of the movement. The accounts of every society must be annually audited by a person approved by the Registrar. The latter also has a certain discretion as to granting applications for registration, and, in view of the extraordinary popularity of the movement, it has been found advisable in most provinces to adopt a restrictive, rather than a stimulating, policy in dealing with applications.

The two main difficulties which were foreseen in the case of village societies were those of proper supervision (obviously necessary in view of the prevailing illiteracy) and the provision of funds. Both these difficulties have been met by the "central societies" referred to above. These are of various kinds, the type most generally approved being the "Central Banking Union" which prevails in Bengal and is being largely adopted elsewhere. These unions are federations of village societies; they maintain a staff of trained inspectors who are supplementing, to an increasing degree, the inspecting work of the official staff, and they also act as banks for their affiliated societies, forming a medium between the latter and the open money market. It is through their access to money markets beyond their own localities that the village societies obtain their chief advantage over the local money-lender. In Bombay there is a central co-operative bank for the entire province with a Government guarantee. Others, without such guarantee, are being formed in other provinces.

The village societies are almost all on the unlimited liability basis, and therefore have to exercise considerable discrimination in admitting members. They may not distribute their profits among members save with the sanction of the local Government, but in some provinces (*e.g.*, Burma, the United Provinces, and the Punjab) it has been found that societies formed on a share-basis answer best. Dividends, however, may not in those provinces be distributed until 10 years after the first share-payment. In other provinces the strict Raiffeissen rule is observed, and profits on working (beyond what is required for the reserve) go to the reduction of interest on loans to members.

The rates of interest charged by village societies vary from 9½ per cent. in Bombay to 15 per cent. in Burma and Bengal: the average rate is far below that charged by money-lenders—indeed, the money-lenders are being forced to lower their rates by the competition of the societies. It is estimated that the loans of credit societies to their members represent a saving to the agriculturist of more than 10 per cent. in interest charges. The interest paid by the societies on deposits is usually 6 to 9 per cent. In many districts the money-lenders themselves invest in these societies, and in some places it is said that the hoards of the villagers are being drawn upon for the same purpose.

Of the purposes for which loans are required the most important is payment of old debts. In many cases the society is able to arrange a composition between its members and the money-lender, so that the amount actually repaid does not represent the entire burden from which the villager is thereby freed. Hostility to the co-operative movement on the part of the money-lenders is, in many parts, keen and systematic;

(Co-operative Credit Societies.)

but elsewhere they have themselves been drawn into it. The purchase of plough-cattle stands next in importance among the objects for which loans are taken. Surprisingly little is drawn for uneconomic purposes such as expenses of ceremonial.

The educative effect of the movement in the villages is considerable. The societies are in close touch with the Agricultural Departments, and are much utilised by the latter for assisting demonstrations, distributing seed, &c. In some cases they have begun to interest themselves in primary education, village sanitation, and other matters of local interest. Their efforts at settling disputes between members have led to an appreciable decrease in litigation. Membership of a society is regarded as a certificate of good position.

The urban credit societies, chiefly formed among salary earners, form a small but increasing part of the movement. These are chiefly limited liability concerns. There are also co-operative societies, in town and country, formed for objects other than credit—e.g., for purchase of seed or manure, or, in the case of weavers and other artizans, of raw material for their trade; and for marketing the goods of members. But these ventures represent a more advanced stage of education in co-operation than the credit societies, and their development is comparatively slow. In Burma, cattle insurance societies have proved a great success.

The astonishing rapidity with which the movement has spread is shown by the following table, which gives the figures for British India together with Mysore and (for the last two years) Baroda. (It should be recollected that the present policy in almost every province is to check any too rapid extension of the movement):—

At end of Year.	1905-6.	1906-7.	1907-8.	1908-9.	1909-10.	1910-11.	1911-12.*	1912-13.	1913-14.
Total No. of members.	28,629	90,844	149,160	184,889	230,698	314,101	403,318	573,536	744,226
Total working capital.	£ 32,000	£ 158,000	£ 294,000	£ 538,000	£ 827,000	£ 1,358,000	£ 2,238,000	£ 3,562,000	£ 5,145,000

* Figures for 1911-12 exclude Mysore.

The following table shows the position of the principal provinces as regards the movement:—

	Central Societies.		Non-Agricultural Societies.		Agricultural Societies.	
	No. of Societies.	Total Membership.	Working Capital.	Total Membership.	Working Capital.	
Madras - - -	16	21,694	£ 101,459	77,902	£ 371,995	
Bombay - - -	6	26,525	131,011	40,470	190,142	
Bengal - - -	40	14,352	86,006	71,282	294,107	
Bihar and Orissa - - -	12	12,377	9,935	37,270	89,686	
United Provinces - - -	55	5,755	29,162	99,891	338,068	
Punjab - - -	38	3,263	56,910	155,250	869,795	
Burma - - -	96	3,414	40,946	29,889	217,726	
Central Provinces - - -	38	1,778	6,419	34,313	171,749	
Assam - - -	9	1,672	14,824	11,536	19,389	
Elsewhere - - -	19	18,864	78,306	42,019	130,789	
Total - - -	329	109,694	554,978	599,822	2,693,446	

Of the total capital of the agricultural societies, £596,503 represents share capital and deposits of members, £1,865,824 loans and deposits of non-members and other societies, £163,681 reserve, and £64,837 loans from Government.

The following is a brief account of the working of the movement in the principal provinces:—

Bengal.—In 1913-14 the total membership of agricultural societies rose from 43,000 to 71,000, and their working capital nearly doubled. Special attention was paid to the organisation of central banking unions; even in districts where the movement was still in an initial stage, as it is found that these unions are excellent

(Co-operative Credit Societies.)

agencies for organising and propagating the movement in such cases. Non-official help is much more freely forthcoming now that the movement has achieved popularity. The central banks are reducing their rates of interest on loans to affiliated societies—in most cases to 9–10 per cent., and there has been a consequent reduction in the rates charged by societies to their members. The most usual rate is now 15 per cent., and further reductions are probable. A scheme has been put forward for a provincial bank. The agricultural societies in Bengal are of the strict Raiffeissen type and do not have shares or dividends. Comparatively little attention has as yet been paid in Bengal to the development of co-operative production and distribution.

Bihar and Orissa.—The total membership rose from 31,000 to 51,000. In Orissa the movement has to contend against the hostility of a large class of money-lenders; in the backward parts of Chota Nagpur good work is being done by missionaries and other non-officials. In South Bihar alone are the local influential classes throwing themselves into the work. The Central Societies, which, at the end of the year numbered 12, are progressing in efficiency. A Provincial Co-operative Bank has been founded. It operates on a credit from the Bank of Bengal and deals, as yet, only with Central Societies.

Assam.—The number of agricultural societies increased by 60 during the year, and the number of members increased by 2,700. Some of the societies have purchased cane-crushing machines which are hired out to members and others at differential rates.

United Provinces.—The failure of the monsoon severely tested the co-operative societies of the United Provinces, members having had to borrow extensively to replace the plough-cattle lost through lack of fodder and to purchase seed. The societies stood the test admirably. The directors of the central societies, early foreseeing the coming strain, adopted a cautious policy, and they were fortunately able to raise additional capital on favourable terms, while the village societies had very fair reserves in hand. Government advances were also made to members in some districts on the recommendation of their societies. As a result, it is believed that all genuine requirements of members were met. The financial position of the societies remains sound, and it is anticipated that a couple of normal years will suffice to remove all traces of the strain which the societies have undergone. The formation of new societies was, in the circumstances, deliberately discouraged, and caution as to admitting new members was enjoined on existing societies. Nevertheless, the total number of members rose from 107,000 to 116,000. The central societies employ a well-paid supervising staff, numbering 117 trained inspectors. Societies are paying more attention to improvement of agricultural methods. An experimental cattle insurance society has been started, and the subject of cattle insurance is being carefully studied.

Punjab.—Here the movement has been more extensive than in any other province. Owing to the failure of several large joint stock banks the policy during 1913–14 has been to strengthen the position of existing societies rather than to encourage new formations. The strain of the financial crisis was met by the co-operative banks and societies with remarkable success; naturally receipts were affected and deposits withdrawn to a larger extent than usual, but this was to meet urgent calls and was not due to any wide spirit of mistrust in the stability of the societies. The working capital rose from £700,000 to £1,200,000 and the membership from 133,780 to 160,892. There are 38 central societies, including 18 central banks, whose functions are purely financial, and 20 unions which also exercise supervision. The loans overdue from members of agricultural societies show a decrease, but the amount is still excessive. It is estimated that the amount of indebtedness already cleared off by means of co-operative societies is £667,000. Agricultural societies are beginning to take up co-operative trading. It has been found that where the movement has made way, interest in primary education has greatly increased, and litigation has been checked by the appointment of local Panchayats to settle minor disputes.

Central Provinces and Berar.—Here also the effects of the financial crisis was felt, but nevertheless there was a gratifying progress, the number of members rose from 28,396 to 42,222, and the working capital from £230,000 to £430,000. The newly started Central Bank worked well, and its loans to the central societies were recovered in full. The Provincial Union is gradually strengthening the non-official element in

(Co-operative Credit Societies.)

the control of the movement. A successful feature is the establishment in Berar of co-operative seed-farms for the propagation of Government "Roseum" cotton seed among members. There are also societies for cattle-breeding, and cotton-ginning, and a dairy society, while the central banks maintain depôts for the sale of agricultural implements.

Burma.—The number of societies rose from 804 to 1,155, although the official policy is to limit rather than to encourage new formations. There are 67 unions and 4 central banks of which the principal is the Upper Burma Central Bank. Supervision is maintained by the unions over the societies, the cost being met by a rate raised from the affiliated societies. There are 57 cattle insurance societies, whilst distribution societies have been formed for the sale of agricultural produce direct to Rangoon exporters, the supply of railway sleepers, the financing of silk-weaving and other objects. In the Mon Canal tract societies have been formed on Government initiative and with financial support in connection with a canal colony scheme.

Madras.—The number of societies rose from 1,078 to 1,333. There was a marked growth in urban societies, including town banks, stores, and building societies. Almost all these worked at a profit. Of the loans granted by agricultural societies, 53 per cent. was granted for productive purposes and 44 per cent. for repayment of debts. Four new non-credit societies were started for the purposes of raising pure cotton, purchasing ploughs, cattle food, &c. There were 16 central societies, all of which save one recorded increased transactions. The collection of interest, current and arrears, is not altogether satisfactory, especially in agricultural societies. The remedy for this appears to be for the central banks to devote a larger part of their resources to the support of an adequate staff of inspectors.

Bombay.—The membership of all societies has risen from 46,221 to 66,707. Government loans to agricultural societies now amount to 6½ per cent. only of the total working capital compared with 9 per cent. of the previous year. In Bombay, as in the Punjab, the credit of the lesser Joint-Stock Banks was shaken by numerous failures in the year, but in spite of this the paid-up share capital of the Central Co-operative Bank was increased, and a considerable proportion of the profits were carried to the reserve fund. A need is felt for more intermediary institutions to fill the gap between the Central Bank and the agricultural societies. The official staff has at present to perform supervisory duties which might with advantage be undertaken by Union societies. Societies have been started for the collection and distribution of selected seed and for the storage of grain and fodder, and are doing well; a movement is on foot to establish Co-partnership Housing Societies. It has been found that societies composed entirely of uneducated sharers are impracticable, and those that were formed have been wound up.

(Forests.)

CHAPTER VII.

FORESTS.

(For further details see *Statistical Abstract of British India*, Tables 59, 60, and 125.)

General.—Systematic conservancy of the Indian forests is based on the Forest Act of 1878, which gave the Government powers of dealing with private rights in the forests of which the chief proprietary right is vested in the State. Special forest enactments have also been passed for some provinces, and a staff of trained forest officers has been organised. Forest administration is based upon the principle that State forests should be administered for the public benefit; they are worked, therefore, with a view to combining all reasonable facilities for their use by the public with the protection necessary for their preservation as sources of fuel and timber and as retainers of moisture in the soil. The forests are classified as “reserved,” “protected,” or “unclassed.” In the reserved areas the control of the Forest Department is more complete than in the protected or unclassed forests. In the latter, the area of which cannot be precisely stated, are included large tracts of unoccupied waste, especially in Burma, much of which will probably become agricultural land. Among the most important measures of conservancy are the prevention, so far as possible, of the fires which are liable to devastate the forests, the plantation and reproduction of timber and firewood, the maintenance of a supply of seed-bearing trees, and the regular reproduction of timber of the more valuable kinds. About half of the reserved forests is at present worked under regular working plans. At present the reserved (including leased) forests cover an area of about 97,000 square miles; and there is scope for further reservation in Assam and Burma. Outside the reserves there are about 142,000 square miles of State forests, including 8,500 square miles of protected forests. Some part of this will eventually be brought within the “reserve” area. In thus creating a “reserve” the fullest consideration is given to claims of persons who have hitherto exercised rights in the area concerned. The forests dealt with in this chapter are, almost exclusively, State forests; there are also areas under the management of district officers and of local bodies. The limited areas of private forest, except where they have been leased to the Government, are being gradually exhausted. 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 licence. Outside the reserves, the country folk are generally allowed to obtain from the State forests timber, bamboos, firewood, and grass for their own use without charge; inside the reserves, persons specially licensed are allowed to extract timber or other produce, on payment of fees, though all rights recognised by the forest settlements are preserved to the public. Offences against the forest laws consist chiefly of illicit grazing and unauthorised felling or removal of produce. 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 minor forest produce. The gross revenue derived from forests in 1913–14 was £2,229,872, including £445,353 and £1,633,378 received for timber and other produce removed from the forests by Government agency and by consumers (or purchasers) respectively. The charges amounted to £1,174,488, leaving a net revenue of £1,055,384. Some of the Native States, such as Kashmir, Mysore, Travancore and Baroda, have also organised a systematic forest administration, from which they derive a considerable revenue. The following table shows the area in each province under the Forest Department and the net revenue derived therefrom:—

(Forests.)

	Forest Area on 30th June 1913.			Percentage of Total Area of Province under Forest.	Net Revenue for financial Year 1913-14.
	Reserved.	Protected.	Unclassed.		
	Sq. Miles.	Sq. Miles.	Sq. Miles.		£
Bengal	4,871	1,711	4,030	13	65,100
Bihar and Orissa	1,723	1,056	—	3	9,100
Assam	4,381	—	18,290	46	12,500
United Provinces	4,117	30	29	4	121,100
Punjab	2,205	5,200	1,311	9	29,100
North-West Frontier Province	236	—	—	2	9,100
Central Provinces and Berar	20,572	—	—	20	82,200
Burma	27,023	—	106,592	79	486,500
Madras	18,641	—	825	14	82,300
Bombay	11,967	495	—	10	167,600
British Baluchistan	313	—	472	1	—
Coorg	520	—	—	33	—
Ajmer-Merwara	142	—	—	5	—
Andamans	156	—	2,015	69	—
Total	96,867	8,492	133,564	23	1,053,380*

* Includes revenue and expenditure for areas directly under the Government of India, and general charges in India and England.

The following paragraphs treat of forest administration in each Province for the year ending 30th June 1914 :—

Bengal.—The Bengal forest areas lie in the Sundarbans, the Chittagong hill tracts, and in the extreme north of the Rajshahi Division. Working plans have been, or are being, provided for 4,982 square miles. Protection against fire was successfully conducted, only 5,764 acres, or 1½ per cent. of the protected area, having been burnt.

Forest offences have been showing an increase, but this is attributed to greater vigilance on the part of the staff. In 1913-14 such offences numbered 2,171.

Arrangements have been made for the extraction of bamboos for paper-pulp in Darjeeling district by agreement with an agency, and work is to be commenced in April 1916. Similar negotiations are proceeding for the Chittagong hill tracts.

The yield of timber was 7·9 million cubic feet, as against 6·1 in 1912-13, the increased outturn being owing to arrears from the previous year. Practically all the timber (except for Government and railway requirements) is extracted by private agency, sections of standing wood being sold by auction or tender, except in Chittagong and the Chittagong hill tracts where it is still sold at fixed royalty rates. About thirty elephants were secured. The surplus revenue continues to increase.

Bihar and Orissa.—Working plans are in force over the whole area for which they are at present required. The year was a favourable one for fire protection, and there was a gratifying diminution of malicious firing in Singhbhum, where this offence was rife in the previous year. The outturn of timber was 1·5 million cubic feet, and of fuel 16 million cubic feet, and nearly 10 million bamboos were extracted. Minor products include mica, iron, and chrome ore.

Inquiries as to the effect on water supply of the denudation of forest areas show that in many localities denudation is proving prejudicial. It is proposed to take action to prevent this, principally by taking over the management of forest areas included in estates managed under the Encumbered Estates Act, as the acquisition of land for reservation under the Forest Act is costly.

Assam.—There is at present little systematic working save in the *Sal* forests of the Western Circle Reserves. The forest staff has at present more than enough to do in examining the enormous "unclassified" areas of which the silvicultural conditions are little known, and of which a large part still awaits survey. Proposals are now under consideration for extensive additions of waste lands to the reserved area. Communications are in need of improvement, but satisfactory progress is being made. Demand for timber is improving, and private enterprise is superseding departmental agency in extraction. The outturn of timber was 6·8 million cubic feet, and of fuel 7·8 cubic feet. The royalty on tea-box timber has been temporarily remitted to enable the local mills to compete against foreign enterprise. Minor produce includes lac, rubber, and ivory. 136 elephants were caught in the year. In view of depletion

(Forests.)

of numbers, a scheme has been introduced by which elephant *mahals* will be closed eight years out of ten. The surplus revenue of the Department showed a slight increase.

United Provinces.—The settlement of the Kumaon Circle is proceeding and will, it is anticipated, be completed in 1916. Any profits from the Kumaon forests will not be merged in the provincial revenues, but will be expended on objects of local utility. Afforestation of waste lands as fuel and fodder reserves is in progress, especially in Bundelkhand. The resin industry has expanded remarkably; there are two distilleries whose net profit during 1913-14 amounted to £3,742. The new distillation plant is a great success. Depôts have been made for treating railway sleepers with creosote on a larger scale than has hitherto been attempted in India. The drought of 1913-14 killed many trees, and resulted in an increase of the area damaged by fire, which rose from 59,251 acres in 1912-13 to 62,513 acres. Forest offences also increased owing to the scarcity. The outturn of timber, however, was good, being 9½ million cubic feet. The outturn of fuel and minor produce also showed an increase. The surplus revenue decreased owing to exceptional expenditure in the Kumaon Circle. The question of grazing is one of some difficulty, as some areas are deteriorating through excessive grazing incidence. Owing to the scarcity of fodder, large numbers of cattle were admitted in 1913-14 into the closed blocks.

Punjab.—The area under the Forest Department has been reduced, chiefly by the giving up of almost 400 square miles for colonisation. Further similar disforestation measures are in progress, and over 1,200 square miles will be similarly disforested in the next two or three years. Working plans exist or are being compiled for all except 164 square miles of the forests requiring them. Offences against forest laws show a serious rise—from 9,956 in 1912-13 to 11,951—mostly unauthorised fellings and illicit grazings. Partly this is due to increased activity of the forest staff, but also to the curtailment of grazing area due to the spread of canal cultivation. The progress of silvicultural operations must necessarily entail stricter supervision. The area burnt amounted to under 1 per cent. of the area protected. A new resin factory is being erected in place of the old one, with an up-to-date French plant capable of dealing with 40,000 maunds of crude resin annually. The old factory was only at work for the first eight months of the year. Resin-tapping was confined to two divisions and resulted in a supply of 15,144 maunds during 1913. It is hoped to substitute contract for departmental agency for tapping shortly. The outturn of timber was 5·8 million cubic feet as against 7·9 million in 1912-13, the decrease being due to an overstocked market.

North-West Frontier Province.—The total outturn of timber was 3·4 million cubic feet, as against 2·9 million only in 1912-13. Sales of standing trees have greatly developed during the last few years. Owing, however, to a rise in the expenditure, the financial surplus decreased.

Central Provinces and Berar.—The forest area decreased by nearly 900 square miles, chiefly owing to disforestation. Working plans are sanctioned or under preparation for all except 309 miles of the Reserved area for which they are considered necessary. Progress was made in constructing cheap but serviceable roads, the want of which is keenly felt. Forest offences increased chiefly owing to the dryness of the season. The financial surplus showed a satisfactory increase. In this Province by far the largest item of forest revenue is grazing fees and fodder grass. The receipts from the latter greatly increased owing to the large export of fodder to the United Provinces, where there was a scarcity. The number of cattle grazing decreased by 280,000; but this cannot be ascribed to the new grazing rules, as four-fifths of the increase occurred in Berar, where the old rules are still in force, and where it was due to the disforestation of numerous small patches.

Burma.—New reserves, aggregating 285 square miles, were notified during the year. Of the 114,111 square miles of unclassed forest it cannot be estimated how much is timber-bearing area and how much is mere waste land. The unclassed forests and reserves are open to grazing. Cases of unauthorised fellings showed an increase attributed to the exhaustion of supplies from the unclassed forests. The area protected from fire decreased by 25 per cent. owing to the abandonment of such protection in moist forests and certain other areas. 297,000 tons of teak were extracted (of which 244,000 were extracted by private agencies), as against 255,000 in

(Forests.)

the previous year. Roads and buildings are urgently needed, but the necessary funds are not forthcoming.

Madras.—The reserved area was increased by 222 square miles. More attention was paid to working plans than in previous years, and many, if not all, the existing working plans are to be overhauled. Forest offences rose from 29,892 to 31,777. It is hoped that the policy of relaxing control over small scattered reserves and entrusting grazing areas to Panchayats will lessen the number of offences. Successful experimental cultivation of sandal, mahogany, and other timbers was carried out in various districts. There was a substantial increase in the output of timber, fuel, and bamboos. In accordance with the recommendations of the Forest Committee of 1912, orders were given at the commencement of the year for the starting of 50 Panchayats with jurisdiction over 24,000 acres of reserves. The first batch of trained rangers passed out of the Coimbatore College.

Bombay.—Working plans are still required for 1,533 square miles. The number of Forest offences was slightly in excess of 1912-13. The year was unfavourable for fire protection owing to the general abundance of grass fodder, which meant that less grass than usual was removed from the forests; in Sind there was also a considerable amount of deliberate incendiarism. Experiments in lac culture were carried out in the Central and Sind circles. Extraction of timber by departmental agency is little practised except in the Southern Circle, where there are two Government sawmills. The financial result of the year's working showed a surplus of £167,705 as against £153,338 in 1912-13—the increase being chiefly due to the favourable condition of the timber market. The total outturn of timber was 6,344,965 cubic feet, and of fuel 43,074,067 cubic feet.

Coorg.—The total outturn of timber (including Sandalwood) was 394,545 cubic feet as against 370,632 in 1912-13. "Spike" disease in sandal trees is still virulent, though it has not spread to any new area. The prices fetched for sandalwood again constituted a record. The campaign against Lantana continues vigorously.

Andamans.—The policy of development to be adopted in the north and middle island is still under discussion. Survey was begun in the latter island during the year. It is proposed to make a rough exploration of the Little Andaman and some of the Nicobar islands. The rubber experiments are promising. The outturn of timber was 740,000 cubic feet, as against 594,000 in 1911-12, the increase being due to delays in selling during 1911-12. Revenue shows a steady tendency to increase. A new sawmill is to be procured, the present one being inefficient.

Imperial Forest Research Institute.

The work of the Institute comprises tuition and research in silviculture, forest economy, zoology, botany and chemistry. During 1913-14 investigations were undertaken in connection with working plans, the cultivation of the "sal," tree-diseases, &c., while the Forest Economist, Chemist, and Botanist were engaged in inquiring into the production and utilisation of many kinds of forest produce, such as antiseptics for railway sleepers, matches, tea-boxes, &c., grasses for paper pulp, resin, tan-barks, and other products, and the Zoologist studied *sal* insect pests in the United Provinces and elsewhere.

In the Forest College on the 30th June 1914 there were 72 students attending the Rangers' classes and 29 attending the recently formed Provincial Service Class.

(Mineral Production.)

CHAPTER VIII.

MINERAL PRODUCTION AND MINING.

(For further details see *Statistical Abstract for British India, Table 222; "Quinquennial Review of the Mineral Production of India during the years 1904 to 1908" in Records of Geological Survey, Vol. XXXIX., 1910.*)

Mineral Production.

General.—During recent years much has been done to develop the mineral resources of India. The minerals that have been chiefly worked are those which can be consumed by direct process on the spot, or which, owing to their abundance and cheapness, are suitable for export in the raw state. The output of minerals in India (including Native States) has shown a marked increase in recent years, the estimated value of that for the four years, 1910 to 1913, is given in the margin (building and road-making materials being excluded). In 1913 coal rose 10 per cent. in quantity and 15 per cent. in total value. Manganese and petroleum also showed considerable increases. The most important minerals are coal and gold, the production of which in 1913 was valued at £3,798,137 and £2,291,916 respectively, followed by manganese ore, £1,211,034, petroleum, £1,034,586, and salt, £472,045. These estimates of values relate to all production for which returns are available, but as they represent in some cases spot values, in others values at the sea-ports, they cannot serve for comparison with the production of other countries, but only for the comparison of one year with another in India itself.

Coal.—Coal is the most valuable mineral product worked, and is by far the largest supporter of labour. The production during 1906–11 averaged 11,722,222 tons; in 1912 it rose to 14,706,339, and 1913 to 16,208,009 tons. The marginal table shows the territorial distribution of the output for 1912 and 1913. The areas not enumerated include the Punjab, Baluchistan, and Bikanir, in which production has hitherto been fluctuating and not very progressive. Bihar produces about 65 per cent. of the coal won in India, the Jherria coal-field (opened in 1893) providing in 1913 8,608,000 tons—over half the total output, the Raniganj 5,328,000 tons, and the Giridih 807,000 tons.

	1912.	1913.
	000 tons.	000 tons.
Bengal	4,306	4,650
Bihar and Orissa	9,126	10,228
Hyderabad	482	552
Central Provinces	234	236
Assam	297	271
Central India	150	149
Other places	111	122
Total	14,706	16,208.

The exports of Indian coal, 757,486 tons, were 139,708 tons less than those of 1912. Ceylon, the Straits Settlements, and Sumatra are the principal markets. Thus the amount of the increased production absorbed in India must have been over 1½ million tons, to which may be added an increased import of 84,000 tons. This points to a considerable expansion of industry.

The price at the pit's mouth in 1912 (the last year for which figures are available) was 4s. 6d. per ton. The coal now being worked is near the surface, and labour is cheap; as a consequence Indian coal has a lower value at the pit's mouth than that of any other country.

The average number of persons daily employed in coal mines during 1913 rose from 121,392 to 133,042. As a result of improved mining methods, the output per head has grown from 89 tons in 1904 to 116 tons in 1913, but even this is a somewhat low degree of efficiency, if tested by European standards. The labourers include chiefly landless day labourers. In some old established centres a mining caste is being evolved, and allotments of land are made to miners.

Gold.—The production of gold amounted to 595,761 ounces, valued at £2,291,916, compared with 590,555 ounces, valued at £2,271,806, in 1912. By far the greatest part of the gold (559,198 ounces) came from the Mysore gold-fields. The only gold produced in British India is from the Ananapur district, Madras.

(Mineral Production.)

Petroleum.—The amount in 1913 reached the record figure of 278 million gallons, valued at £1,034,586. Since the introduction of European drills the production of petroleum in Burma has rapidly risen. The deeper sands which have recently been tapped at Yenangyaung have led to a considerable increase of the production of this field which, in 1911, had shown a falling off. In 1913 this increase was maintained, despite a falling off in the average production per well, by increased activity and the introduction of improved methods. The Myingyan fields also showed a considerably increased output.

The petroliferous areas in the Punjab and N.W. Frontier Province were investigated during 1913: the results were not encouraging.

Manganese.—Manganese ore is now chiefly obtained from extensive deposits in the Central Provinces, Madras, Bihar, Mysore, and Bombay. There was a considerable

	1912.	1913.
	Tons.	Tons.
Central Provinces	414,542	649,307
Madras - - -	117,246	96,296
Bombay - - -	43,538	40,914
Mysore - - -	29,293	10,501
Bihar and Orissa -	27,173	11,215
Central India -	5,652	6,814
Total -	637,444	815,047

rise in the amount produced (see table in margin), and the value increased from £884,000 to £1,211,034. This is the highest figure reached since 1907, when the Russian output fell away owing to the war with Japan. The ores worked are for the most part exceedingly rich, as the high cost of transport renders the working of the lower-grade ores unprofitable for export, though they might profitably be worked if a steel industry existed in India. There is no smelting plant in the chief producing centres, and the ore is shipped in bulk exactly as mined, to be smelted in the United

Kingdom, Germany, or the United States.

Salt.—The production of salt in India (excluding Aden) in 1913 was 1,299,282 tons, as compared with 1,311,015 tons in 1912. An account of salt production in India is given on pages 31 to 33.

Saltpetre.—14,462 tons were produced as against 14,793 in 1912, chiefly in Bihar, the United Provinces, and the Punjab.

Mica.—India has for many years been the leading producer of mica, turning out more than half the world's supply. The output returns for mica are unreliable, but the amount exported (62,474 cwts. in 1913) shows a rapid and continuous increase. The mines are chiefly situated in Bihar and Madras.

Tungsten.—The wolfram deposits of Burma have been considerably developed of late, and the district of Tavoy is now the largest producer of wolfram in the world. The output in 1913 was 1,688 tons (value £127,763) as against 1,671 tons (value £115,200) in 1912.

Rubies.—The output of the Burma Ruby Mines Company was 278,706 carats, valued at £55,542, as against 323,245 carats, valued at £69,547 in 1912. The figures include small quantities of sapphire and spinel.

Other Minerals.—These include iron-ore (the production of which rose from 366,000 to 580,000 tons in 1912, the latest year for which full figures are available, owing to the activity of the recently-started Tata Iron and Steel Company), lead, chromite, tin-ore, and monazite, the working of which is being rapidly developed in Travancore.

Mining Concessions.

Since Rules were issued in 1899 to govern the grant of exploring and prospecting licences and of mining leases, the number of concessions in lands in which the mineral rights have been retained by Government (exclusive of Native States) has rapidly increased. The concessions granted in Government lands fell, however, in 1913 from 622 to 495 (383 prospecting and 53 exploring licences and 59 mining leases), chiefly owing to the diminution of the rush for wolfram in Tenasserim, and to fewer

manganese applications in the Central Provinces. In some areas, including nearly all the coal-bearing land in Bengal, mineral rights have been conceded permanently with the surface ownership.

Under revised Rules which were issued in 1913, the "Exploring licence" has been abolished. Prospecting licences for a limited period may be granted to persons holding certificates of approval from the local Government. Such licences carry a right to a mining-lease, or, in the case of precious stones, to the first offer of a mining lease that the Government of India may think fit to make. The area let to a single lessee is limited. Rights in respect of petroleum and of certain metals of importance in the manufacture of armaments may be granted only to British subjects.

In practically all Native States the mineral rights belong to the respective rulers, and concessions are granted for mining and prospecting under rules that involve a certain amount of supervision by the Government of India.

Inspection of Mines.

The Indian Mines Act, 1901, applies to the whole of British India, and regulates all mineral workings which are either true mines worked underground, or open pits, quarries, or excavations more than 20 feet deep or any part of which extends beneath the superjacent ground.

The number of mines of all kinds coming under the Act in 1913 was 1,426, of which 602 were coal mines, including 365 in Bihar and Orissa, 632 mica mines, including 547 in Bihar and Orissa, and 60 manganese mines. The mines gave employment to an average daily number of 181,260 persons (as against 164,302 in 1912), of whom 111,946 were men, 62,961 women, and 6,353 children; 116,492 worked underground. The labour material is very unformed, possesses little skill, and requires constant supervision.

There were 136 fatal accidents, causing 211 deaths, during the year 1913, an increase of 26 in the deaths as compared with 1912. Of the deaths from accidents, 185 occurred in coal mines. Sixty of the accidents are ascribed to misadventure, 28 to the fault of the management, and the rest to the fault of the workmen or subordinate officials. The death-rate per thousand employed in coal mines rose from 1.32 (average of previous four years) to 1.39. Supervision is very much better than it used to be. There is, however, still room for improvement in this direction.

Twenty-two prosecutions were instituted in 1913, resulting in the conviction of 17 persons.

Mining Education, &c.

Progress in mining education is being maintained, and the need for it is still urgent. The number of students taking the Mining Course at Sibpur College at the beginning of the session 1913-14 was 16. In the 1913 examination two gained diplomas. A proposal is on foot to move the Mining Department of Sibpur College to Dhanbaid, close to the Jherria coal-field. Lectures were delivered at five centres in the Bengal coal-fields under lecturers appointed by the Mining Educational Advisory Board. There were 360 registered students and, in June 1913, 17 qualified for certificates. The Mining and Geological Institute of India, which was inaugurated at the end of 1905, now has 308 members.

(Introductory.)



CHAPTER IX.

MANUFACTURES.

<p>INTRODUCTORY. GOVERNMENT AND INDUSTRIAL DEVELOPMENT. LARGE INDUSTRIES.</p>	<p>FACTORY LEGISLATION. FACTORY INSPECTION. PATENTS AND DESIGNS.</p>
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(For further details see *Statistical Abstract for British India, Tables 218 to 221.*)

Introductory.

Although there is, as yet, practically no factory population in India such as exists in European countries, consisting of persons trained from their youth to one particular class of work and dependent on that for their livelihood, the advance of organised industries is profoundly affecting the condition of a large part of the population for whom factories offer an alternative employment to agriculture. In parts of Bombay it is reported that, owing to the demand for labour in the cotton mills, wages are no longer determined by agricultural conditions.

Government and Industrial Development.

In recent years there has been much discussion in India regarding the advantages of encouraging manufactures for the purpose of securing greater diversity of occupation in a country that so largely depends on agriculture. The movement for promoting home industries, known as the *swadeshi* movement, has, in its legitimate forms, received official support. There are standing orders that stores required by Government shall, as far as practicable, be purchased in India, and preference is given to articles manufactured in India from Indian materials (or from imported materials), provided that the quality is sufficiently good and the price not unfavourable. Measures have been taken to restore and develop technical trades and industries; surveys of industrial conditions in almost all the major provinces have been published, besides various monographs on particular industries. Scholarships for the higher commercial and technical training of Indians abroad are offered by the Government and by private associations. In Madras, the United Provinces and Bengal the Directorship of Industries is a separate appointment. In Madras a leather expert has been appointed to superintend a leather-trade school; there is also a Dyeing school. In the United Provinces aid to the amount of £1,504 was given by Government to eight weaving-schools which trained 175 persons during 1913-14; there is also a sugar-engineering expert. In Bengal the silk industry has received special attention; the weaving school at Bankura has been made a permanent institution, and weaving classes are gaining in popularity, and a scheme has recently been started for the revival of cottage industries in the Central Provinces, especially weaving, tanning, and shoemaking.

Industrial conferences are held, some convened by the Local Governments, and others non-officially, such as the annual Indian Industrial Conference.

Large Industries.

In this chapter attention must be mainly confined to the larger industries, concerning which alone statistical information is available. By far the most important of these are the cotton and jute manufacturing industries, which have made rapid progress in recent years, as the following figures show:—

(Large Industries.)

Year.	Cotton Mills.*				Jute Mills.			
	No.	Paid-up Capital.	Looms.	Spindles.	No.	Paid-up Capital.	Looms.	Spindles.
		£				£		
1883-4	71	5,428,000	15,412	1,842,184	23	2,124,000	6,139	112,650
1888-9	98	6,166,000	19,288	2,504,666	25	2,599,000	7,419	151,207
1893-4	125	7,504,000	26,876	3,338,229	27	2,701,000	9,180	191,228
1898-9	158	10,070,000	34,775	4,261,520	33	3,821,000	13,421	279,482
1903-4	187	10,428,000	41,997	4,900,106	38	4,954,000	18,400	376,718
1908-9	212	12,604,000	69,791	5,623,542	56	7,413,000	29,525	607,458
1909-10	223	12,725,000	74,757	5,780,124	60	7,674,000	31,418	645,862
1910-11	230	13,437,000	78,984	5,961,950	58	7,667,000	33,169	682,527
1911-12	234	13,799,000	81,899	6,040,760	59	7,953,000	32,027	677,519
1912-13	241	14,045,000	85,676	6,100,632	61	7,977,000	34,033	708,716

* The figures in this table relate to British India only (Native States and Pondicherry being excluded).

Cotton Mills.—The 266 cotton mills at work in all India in 1912-13 included 104 exclusively spinning, and 21 exclusively weaving mills. The majority of the mills, viz., 176, were in the Bombay Presidency, and they contained 70 per cent. of the spindles and 77 per cent. of the looms. Bombay City contained 85 mills and Ahmedabad 59. The industry is to a large extent in the hands of Indians.

The outturn of yarn in recent years in British India is shown in the margin. The mills of the Bombay Presidency produced nearly 75 per cent. of the total;

Year.	Counts Nos. 1 to 25.	Above No. 25.	Total.
Average :	Million Lbs.	Million Lbs.	Million Lbs.
1896-7 to 1900-1	423.9	20.1	444.0
1901-2 to 1905-6	537.4	39.9	577.3
1906-7 to 1910-11	555.4	53.6	608.9
Year 1911-12	531.7	59.2	590.8
" 1912-13	589.1	61.5	650.6

Madras, the United Provinces, Bengal, and the Central Provinces, each between 5 and 7 per cent. Yarns of counts above 25 are spun chiefly in Bombay and Madras. Imports of yarn amount to only about 7 per cent. of the Indian production, of which a very small proportion is of counts under 25. The remarkable activity of the cotton industry in 1905-6 was followed by a decline in prosperity during 1906-7. Revival of the demand from China—the principal market for Indian yarn—during 1908-9 and 1909-10 was more than counteracted by the

unprecedented rise in the price of raw material, and the total output continued to decrease until 1911-12. In that year, however, there was a revival, but this was not maintained in 1913-14 owing to famine in the United Provinces and the Bank failures of the autumn.

Owing to the vicissitudes of the spinning business increased attention has been devoted to weaving, which has greatly extended, the figures showing an almost

Year.	Grey.	Other kinds.	Total.
Average :	Million Lbs.	Million Lbs.	Million Lbs.
1896-7 to 1900-1	80.6	11.3	91.9
1901-2 to 1905-6	109.9	25.0	134.9
1906-7 to 1910-11	154.1	40.0	194.1
Year 1911-12	193.0	59.1	252.1
" 1912-13	196.1	71.5	267.6

continuous increase, until 1913-14, when the above-mentioned adverse conditions caused a contraction in the output. The production of woven goods in recent years in British India only is given in the margin. Weaving is concentrated to an even greater degree than spinning in the Bombay mills, which in 1912-13 produced about 87 per cent. of the total output of cloth; the Central Provinces, the United Provinces and Madras, each between 3 and 4½ per cent. As the marginal table shows, there is a decided

tendency to increase the output of other and finer fabrics than grey and bleached goods; in Madras the greater part of the output is of the finer kind. About 7 per cent. of the cotton piece-goods produced was exported.

(Large Industries.)

Jute Mills.—While the cotton mills are largely owned by Indians and are mainly situated in Western India, jute mills are nearly all concentrated in Bengal in the vicinity of Calcutta, and are mostly in the hands of British firms. As will be seen from the statistical table above, the jute industry is of smaller dimensions than the cotton industry, but it has enjoyed almost uninterrupted and increasingly rapid progress, the number of looms and spindles having nearly doubled in the last decade. The production of the mills (as seen by the increase in exports) has increased even faster than the number of looms and spindles. The number of persons employed in 1912-13 was 204,092. The paid-up capital employed by these mills, including debentures, was £9,972,000, of which about 3 millions represent sterling capital. In 1913-14 the prosperity of the jute trade continued to increase.

Woollen Mills.—There were six woollen mills at work at the end of 1913, containing 1,084 looms and 38,943 spindles, and producing goods valued at about £374,000 for the year. The growth of the industry is slow, but, since 1907, has been regular. The fabrics consist chiefly of cloth for the army and the police. The produce of Indian mills represents only a small share of the total trade in woollen goods, for, although the demand for woollen goods in India is not very large, certain varieties can be produced much more easily and cheaply by European mills. There are many small hand-loom factories for weaving carpets and rugs, whose production is in the aggregate extensive.

Paper Mills.—There were seven paper mills at work at the end of 1913, producing during the year about 60 million lbs. of paper, valued at £535,800. Most of the official foolscap, blotting paper, notepaper, and envelopes is now obtained locally; but the development of paper-making in India has been checked by the competition of cheap wood-pulp paper from Europe.

Breweries.—At the end of 1913 there were 21 breweries, which produced during the year 3,654,000 gallons of beer. Eight of these are in the Himalayas. The largest brewery is at Murree, and its output was 528,000 gallons. The quantity of beer imported in 1913-14 was 4,626,000 gallons.

General Remarks.—The total number of factories returned as registered under the Act in 1913 was 2,888, including factories belonging to the State and to local bodies. Of the 1,317 factories for the ginning, cleaning, and pressing of cotton there were 453 in the Central Provinces and Berar, 428 in Bombay, 170 in the Punjab, and 131 in the United Provinces. In Bombay about 211,000 operatives were employed in different branches of the cotton industry. In Madras and the Central Provinces and Berar, as in Bombay, cotton weaving and spinning are the principal industries. In Bengal there is an increasing number of jute presses. Silk filatures are found chiefly in Bengal and indigo and lac factories in Bihar and Orissa. Flour mills are most numerous in the Punjab and sugar factories in the United Provinces and Bihar. Rice mills and saw mills are most numerous in Burma, rice and teak being the two principal products of the province. They are mainly in European hands and are the only large industries in Burma organised and worked by western methods. Printing presses are numerous in Bombay, and Madras. Iron and brass foundries (including engineering workshops) number 30 in Bengal and 22 in Bombay. The Tata Iron and Steel works in Chota Nagpur commenced work early in 1912 and have since been considerably expanded. Their pig-iron has found a market in Japan and some has been bought by America. A marked feature in Madras and the United Provinces is the erection of many small power plants for purposes of agriculture and rural industries.

Factory Legislation.

Act XII, of 1911, which came into force on 1st July 1912, regulates the working of factories in India. It extends to all factories employing 50 hands and upwards in any part of the year, and may by order of any Provincial Government be extended to factories employing 20 hands and upwards. With the exception of Burma no Provincial Government has extended the law to the smaller factories, in fact the inspecting establishment has difficulty in dealing thoroughly with the larger factories. The minimum age of employment for children is 9 and the maximum 14. Every child before employment has to obtain a certificate of age and physical fitness from a surgeon appointed by Government. The hours of daily employment for children are limited to 7, and to 6 in all textile factories; those of women to 11. In textile factories

(Factory Legislation.)

the daily working hours are restricted to 12, whilst in all factories a cessation of work is compulsory for a period of not less than half an hour at intervals not exceeding six hours. No women or children may be employed after 7 p.m. or before 5.30 a.m. except in factories, for which a system of shifts has been approved. The requirements as to the grading of machinery are somewhat more strict than in the United Kingdom owing to the fact that the operatives are in many cases persons not habituated to the use of machinery.

The staff of factory inspectors has been recently increased and numbered 14 in 1914 (of whom five were in the Bombay Presidency). A separate staff is appointed for the inspection of steam boilers.

Factory Inspection.

The statistics of the factories during 1913 are as follows :—

	No. of Factories working and liable to be inspected.	Average No. of Hands employed daily.		No. of Persons convicted of breach of Act.	No. of Accidents reported.
		Children.	Adults.		
Bengal	347	28,485	313,335	16	1,181
Bihar and Orissa	34	662	28,912	—	406
Assam	15	193	2,629	—	9
United Provinces	215	1,864	55,818	30	342
Delhi	12	3	957	—	13
Punjab	224	792	30,917	3	231
North West Frontier	5	—	—	—	—
Burma	424	1,079	61,987	1	375
Central Provinces	177	2,103	24,161	20	141
Berar	310	451	22,127	3	31
Madras	365	6,000	72,764	12	398
Bombay	743	14,219	251,756	32	1,596
Ajmere-Merwara	17	349	13,537	—	108
Total	2,888	56,200*	878,900*	117*	4,831*

* Figures for North West Frontier Province not available.

The number of factories brought under the Act increased in 1913 by 178. The new factories are chiefly rice-mills in Madras and cotton-presses and ginning-factories in Bombay. In Madras decorticators for shelling ground-nuts have been erected in some numbers in cotton-ginning factories. Difficulty is being experienced in recruiting sufficient skilled labour for the jute-mills in Calcutta and the neighbourhood and for the cotton-mills in Bombay. In Bengal several jute-mills have built improved accommodation near or on their premises for their mill hands, and in Bombay the Improvement Trust is co-operating with the mill-owners in the same direction.

In Bombay cotton-mills the rates for piece-work have been increased to compensate the workers for the reduction in the hours of labour involved by the introduction of the new Act. In the Punjab the newly-appointed inspector has been busy in dealing with a large number of irregularities discovered in the ginning-factories of that Province.

Most of the accidents reported were not serious and many were not due to contact with machinery.

Patents and Designs.

In view of the growing volume of patent work a new Patent and Designs Act, assimilating the Indian law more closely to that of the United Kingdom, was passed in March 1911, and came into force in January 1912. As compared with the Act previously in force (Act V. of 1888) it provides a simpler, more direct, and more effective procedure in regard to the grant of patents and to their subsequent existence and operation, and reduces the fee for the registration of designs. It encourages the inventor, while giving better protection to him and to the public.

(Patents and Designs.)

The subjects of the patents applied for in 1912 were chiefly chemical appliances and preparations, railways, electric contrivances, bicycles, spinning and weaving machines, and building materials.

The following are the principal statistics for patents for the latest years available :—

	Total Number of Applications		Number of Applications from		
	Received.	Accepted.	Indians.	Other residents in India.	Persons not resident in India.
1911 - - -	807	528	64	142	601
1912 - - -	678	437	50	120	308

There were 333 designs registered as against 77 in 1911.

(Foreign Seaborne Trade.)

CHAPTER X.

TRADE.

(Detailed information regarding the Trade of British India is annually furnished in three Parliamentary Bluebooks; Tables of the Trade of British India, Review of the Trade of India, and Statistical Abstract for British India, Tables 136 to 184.)

Foreign Seaborne Trade.

This section deals only with the trade of British Indian ports, and excludes the trade of certain native States on the west coast, the trade of French and Portuguese possessions, and the contents of registered letters.

The foreign seaborne trade of India has greatly increased during the last 30 years,

Year.	Imports.	Exports of Indian Merchandise.
Average—	000£	000£
1880-1 to 1884-5 - -	33,754	52,964
1885-6 " 1889-90 - -	40,798	59,168
1890-1 " 1894-5 - -	45,647	67,623
1895-6 " 1899-1900 - -	46,956	69,100
1900-1 " 1904-5 - -	55,745	87,336
1905-6 " 1909-10 - -	77,281	111,874
For the year 1910-11 - -	86,236	137,081
" 1911-12 - -	92,383	147,879
" 1912-13 - -	107,332	160,899
" 1913-14 - -	122,165	162,800

as the marginal figures relating to private merchandise show (values in thousands of pounds at 15 rupees to the pound). The percentage growth has been greater in imports, though the actual increase has been larger in exports.

The foreign seaborne trade of British India during the five years to 31st March 1914 was as follows:—

	1909-10.	1910-11.	1911-12.	1912-13.	1913-14.
	£	£	£	£	£
Imports:					
Private Merchandise - - - -	78,040,286	86,236,011	92,383,255	107,332,470	122,165,288
Government Stores - - - -	3,727,226	2,901,152	3,653,703	3,753,985	5,373,350
Total Merchandise - - - -	81,767,512	89,137,163	96,036,958	111,086,455	127,538,638
Treasure, Private - - - -	24,950,716	26,444,723	35,614,729	34,132,002	24,413,630
" Government - - - -	64,933	45,853	32,503	7,089,166	4,546,136
Total Treasure - - - -	25,015,649	26,490,576	35,647,232	41,221,168	28,959,766
Total Imports - - - -	106,783,161	115,627,739	131,684,190	152,307,623	156,498,404
Exports:					
Private Merchandise:					
Foreign Produce and Manufactures - - - -	2,259,090	2,840,700	4,018,100	3,160,044	3,118,219
Indian ditto - - - -	122,997,605	137,080,646	147,879,063	160,899,289	162,800,999
Government Stores - - - -	55,428	53,056	96,041	86,221	85,775
Total Merchandise - - - -	125,312,123	139,974,402	151,993,204	164,145,554	166,004,993
Treasure, Private - - - -	4,262,221	4,745,327	6,907,746	4,697,193	4,701,390
" Government - - - -	3,807	5,956	8,191	2,390,651	20,533
Total Treasure - - - -	4,266,028	4,751,283	6,915,937	7,087,844	4,721,923
Total Exports - - - -	129,578,151	144,725,685	158,909,191	171,233,398	170,726,916
Total Seaborne Trade - - - -	236,361,312	260,353,424	290,593,381	323,541,021	327,225,320
Net Exports of Merchandise - - - -	43,544,611	50,837,239	55,956,246	53,059,099	38,466,355
Net Imports of Treasure - - - -	20,749,621	21,739,293	28,731,245	34,133,324	24,237,843
Net excess of Exports (balance of trade) - - - -	22,794,990	29,097,946	27,225,001	18,925,775	14,228,512

The failure of the monsoon, the banking crisis in the autumn of 1913, and a glut in the piece-goods market were all adverse to Indian trade, which, however, continued to expand, though not so rapidly as in previous recent years.

(Foreign Seaborne Trade.)

Principal Imports and Exports.—The following table shows the values of the chief articles of merchandise imported and exported during the last three years:—

Principal Imports.				Principal Exports (Indian Merchandise)			
Articles.	1911-12.	1912-13.	1913-14.	Articles.	1911-12.	1912-13.	1913-14.
	000£	000£	000£		000£	000£	000£
Cotton goods (including twist and yarn).	33,047	40,548	44,200	Cotton, raw - - -	19,684	18,890	27,362
Metals - - - -	9,473	10,328	14,683	Rice - - - -	19,366	21,704	17,738
Sugar - - - -	7,960	9,519	9,971	Jute, raw - - -	15,038	18,034	20,551
Railway material - -	2,958	4,269	6,690	„ manufactures -	10,672	15,247	18,849
Machinery and millwork	3,041	3,611	5,172	Seeds - - - -	18,720	15,140	17,117
Mineral oils - - -	2,818	2,502	2,744	Wheat and wheat-flour	9,430	12,514	9,590
Hardware - - - -	2,084	2,279	2,632	Hides and skins -	9,286	10,914	10,632
Woollen goods - - -	2,272	2,039	2,568	Tea - - - -	8,631	8,863	9,983
Silk manufactures -	1,769	2,035	2,068	Opium - - - -	8,726	7,481	2,280
Provisions - - - -	1,292	1,566	1,649	Cotton manufactures-	6,519	8,134	8,080
Raw cotton - - - -	1,391	1,483	182	Barley - - - -	1,498	3,705	1,044
Liquors - - - -	1,293	1,422	1,491	Wool, raw - - -	1,724	1,756	1,670
Glass and glassware -	1,029	1,169	1,297	Metals and ores -	1,050	1,479	1,463
Spices - - - -	1,029	1,087	1,155	Lac - - - -	1,343	1,409	1,311
Apparel - - - -	1,027	1,074	1,140	Pulse - - - -	1,346	1,119	711
				Coffee - - - -	897	1,044	1,024

Imports of Merchandise.—These show an increase under all the most important heads except raw cotton—a proof of the increasing purchasing power of the people. It may be remarked that the principal articles of import are not the prime necessities of life (unless cotton is so regarded), but either conventional necessities, luxuries, or articles like machinery calculated to enhance the efficiency of production. The enormous increase of late years in the imports of cotton goods has been partly owing to a growing demand, but also to over-production in England, and resulted in a glut in the piece-goods market in the autumn of 1913. The increased import of implements (agricultural and other), machinery (especially textile machinery), and metals all point to the increasing activity of Indian industries. The curtailment of hours under the recent Factory Act is said to be stimulating the use of more efficient machinery in textile mills. Imports of railway material, if we include imports by Government, show an increase of nearly £3½ millions.

Exports of Indian Merchandise.—The table brings out clearly the immense preponderance of raw agricultural produce amongst Indian exports, and the figures fluctuate widely according to the character of the season. Food grains as a whole fell off. The unfavourable season of 1912-13 caused a large contraction of rice exports, which was further enhanced by a falling off in the demand from the Far East. The wheat exports also fell off owing to an unfavourable season, and the recent remarkable development in the export of secondary grains (barley and others) was not maintained. Cotton and jute, however, expanded remarkably, and raw cotton exports constituted a record, prices being high and the crop abundant. Raw jute exports fell off in quantity, but fetched record prices. The exports of manufactured jute expanded and good profits were made. Seed exports were a record as regards quantity, but, owing to heavy crops in other parts of the world, prices declined. Tea exports again constituted a record.

Further details with regard to the trade in some of the principal agricultural products are given in Chapter V.

Re-Exports.—The value of foreign merchandise re-exported from India is relatively small, and the trade is not progressive. Of the total in 1913-14, £1,040,000 worth of cotton goods, shipped chiefly to the Persian Gulf, Arabia, East Africa, &c., formed about a third.

Trade by Countries.—In the following table imports are classified according to the countries whence they were consigned to India, and exports to the countries to which they were consigned, *i.e.*, to the countries of final destination so far as known. This system was introduced in 1907-08, before which year they used to be shown according

(Foreign Seaborne Trade.)

to the countries containing the port of shipment or discharge. The chief result of the change is that a large mass of imports previously shown as coming from Belgium is now correctly shown as coming from Germany.

The share of the United Kingdom in the total trade of 1913-14 in private merchandise was 40·7 per cent.; that of Germany was 9; of China, 3·7; of France, 4·8; of the United States 6·2; of Belgium, 3·8; of Japan, 6·4. Taking imports and exports separately, about 64 per cent. of the import trade (exclusive of Government stores) and 24 per cent. of the export trade was conducted with the United Kingdom. In consequence, however, of the re-exports of Indian produce, the proportion retained in England is considerably lower. The proportion of the trade assignable to other parts of the British Empire cannot be stated accurately, since the large transactions with Ceylon, the Straits Settlements, and Hong Kong, which are chiefly distributing centres, are really for the most part trade with foreign countries. As regards the self-governing Dominions, the largest trade was done with Australia (£3,343,000).

The value of India's trade in private merchandise with the chief countries, for the last three years, has been as follows (in thousands of pounds):—

Countries.	Imports from			Exports to		
	1911-12.	1912-13.	1913-14.	1911-12.	1912-13.	1913-14.
	000£	000£	000£	000£	000£	000£
United Kingdom - - -	57,635	67,628	78,388	40,055	41,226	38,901
Germany - - - - -	5,969	6,869	8,441	15,106	16,622	17,613
China (including Hong Kong)	1,643	2,011	1,792	12,240	13,684	9,024
United States - - -	3,527	3,469	3,194	10,445	12,586	14,567
Belgium - - - - -	1,542	2,029	2,839	8,905	8,778	8,064
France - - - - -	1,427	1,453	1,794	9,176	10,524	11,813
Japan - - - - -	2,318	2,711	3,187	11,163	12,489	15,130
Straits Settlements - -	1,985	2,057	2,282	5,857	6,129	4,523
Austria-Hungary - - -	1,771	2,352	2,860	5,076	4,856	6,673
Ceylon - - - - -	461	504	539	5,695	6,119	6,027
Italy - - - - -	839	1,048	1,464	4,225	4,629	5,262
Mauritius - - - - -	1,277	2,159	1,685	973	925	862
Turkey - - - - -	416	380	385	1,724	1,695	2,030
Java - - - - -	6,314	6,359	7,163	2,851	2,168	1,297

The trade with China consists mainly in the exportation thereto of cotton yarn, raw cotton, tea, and jute goods, while silk and silk goods are imported. Germany sends chiefly cotton goods, woollen goods, steel, iron, copper and other metals, hardware, dyes, machinery, oils, glassware, paper, &c. in exchange for raw cotton and jute, raw hides and skins, rice, oilseeds, &c. She buys over twice as much as she sells to India. Belgium takes raw cotton, oilseeds, manures, manganese ore, jute, wheat, &c. in exchange for iron, steel, dyes, glass and china, cotton goods, &c. France buys large quantities of raw jute and cotton, wheat, coffee, hides and skins, and oilseeds, and sells apparel, silk and woollen goods and liquors. The United States buys large quantities of hides and skins, jute, lac, seeds, and manganese ore, and sells mineral oil, hardware, machinery, cotton goods, and iron and steel.

Trade of Chief Ports.—The table in the margin shows the proportionate share of the five chief ports in the private trade with foreign countries in merchandise only. The value of the exports from Calcutta was greater through increases under jute and hides. Opium, food-grains, and oilseeds declined. Imports increased under all the important heads, particularly cotton goods, metals and machinery, especially jute machinery. Imports into Bombay increased under all the chief heads, except raw cotton (which, during the two previous years, had been imported in abnormal quantities).

Exports generally showed an advance, except opium. In Karachi an increase in imports (especially cotton manufactures, sugar, and machinery) was more than counterbalanced by a decrease in exports (especially wheat and barley).

Port.	1912-13.		1913-14.	
	Per Cent.	Per Cent.	Per Cent.	Per Cent.
Calcutta -	38·8	39·0		
Bombay -	28·4	30·5		
Karachi -	11·7	9·9		
Rangoon -	8·9	7·6		
Madras -	4·4	4·9		

(Foreign Seaborne Trade.)

Treasure.—The net import of gold fell from £22,668,000 in 1912-13 to £15,549,000, that of silver from £11,466,000 to £8,689,000; the fall being chiefly due to smaller requirements for coinage. The apparent absorption of gold by India has increased largely in the last two years.

Land Frontier Trade.

The statistics of land frontier trade shown in the margin include a great deal of trade that is not strictly foreign. Owing to difficulties of registration accurate returns are impossible, but there is a considerable trade with Afghanistan, Nepal, Western China, Tibet, Bhutan, and Siam. The principal exports from India are cotton yarn and manufactures (chiefly foreign), metals, and provisions; and the chief imports into India rice and other grains, provisions, fruits, living animals, wool, hides and skins, oilseeds, and timber.

Year.	Imports.	Exports.	Total.
	000£	000£	000£
1911-12	6,920	5,885	12,805
1912-13	7,660	6,986	14,646
1913-14	8,013	6,280	14,293

Coasting Trade.

The trade in merchandise carried by coasting vessels amounted to £45,627,000 in 1913-14, or about 8 per cent. more than in 1912-13. This amount is arrived at by adding to the value of the goods carried from one British Indian port to another the sum of the imports and exports in the trade between British and non-British ports in India. The increase in 1913-14 is due to large shipments of rice from Burma to Calcutta in view of the partial crop failures in Upper India. The trade is handicapped by the high rate of coasting freights.

Shipping.

During 1913-14 the number of steamers and sailing vessels with cargoes and in ballast which entered from and cleared to all countries was 8,617, with a tonnage of 17,386,408 as compared with 17,484,391 in 1912-13. Of the total, 99 per cent. was steam tonnage. Tonnage under the British flag represented about 75 per cent. of the whole. The number of vessels under the principal flags is given below :—

Nationality.	1909-10.	1910-11.	1911-12.	1912-13.	1913-14.
British - - - -	4,722	4,751	5,117	5,129	4,951
German - - - -	455	419	472	509	559
Austro-Hungarian - - -	220	208	213	245	285
Japanese - - - -	63	77	121	198	191
Norwegian - - - -	95	104	134	131	80
Italian - - - -	81	84	83	90	73
French - - - -	56	56	58	47	60

Freights.

The following statement gives minimum quotations for typical rates of freight per ton from the chief Indian ports to London for each of the last five years, taking in each case the month when the largest quantity of the commodity is ordinarily shipped :—

	1910.	1911.	1912.	1913.	1914.*
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Calcutta—Rice - - -	1 0 0	0 18 9	1 6 3	1 12 6	1 1 3
Wheat - - - -	1 1 3	1 0 0	1 10 0	1 6 3	1 1 3
Linseed - - - -	1 0 0	1 2 6	1 12 6	1 6 3	1 2 11
Tea - - - -	1 12 6	1 12 6	1 15 0	—	1 15 0
Jute - - - -	1 6 3	1 12 6	1 17 6	—	1 3 9
Bombay—Cotton - - -	0 16 6	0 15 0	1 0 0	1 0 0	- 14 0
Wheat - - - -	0 14 6	0 15 6	0 19 0	1 0 6	- 13 5
Seeds - - - -	0 15 0	0 16 0	1 2 0	—	- 14 4
Karachi—Wheat - - -	0 14 6	0 17 0	1 1 0	0 18 6	- 12 8
Rangoon—Rice - - -	—	1 3 6	1 12 6	1 5 0	—

* Average for first three months of the year.

(Merchandise Marks Act.)

Working of the Merchandise Marks Act.*(For further details, see Statistical Abstract for British India, Table 185.)*

The Indian Merchandise Marks Act (IV. of 1889) was passed to prevent the fraudulent sale of goods bearing false trade marks or false trade descriptions (as of origin, quality, weight, or quantity). The Act also requires that all piece-goods must be stamped so as to show the length of each piece in yards. Altogether 2,800 consignments were detained under the Act in 1913-14; 52 of these were cases of counterfeit trade marks, 1,861 of false trade description as to origin of manufacture, 502 of other false trade descriptions, and 385 of incorrect or deficient stamping of length of piece goods. The goods were released with fine in 1,635 cases, and without fine after compliance with Custom House orders in 1,160 cases.

Joint Stock Companies.*(For further details, see Statistical Abstract for British India Tables 216, 217.)*

At the beginning of 1913-14 there were 2,499 joint stock companies at work in British India with a paid-up capital of £47,797,424. The increase during the year was, in number, 89; and, in capital, £1,773,000. The paid-up capital has doubled since 1900-01. The companies are most numerous and important in the provinces of Bengal and Bombay, which each possess 38 per cent. of all the paid-up capital, while the share of Burma, which comes next, was 8 per cent. of the whole. The average of paid-up capital is highest in Burma, where it amounts to £31,200, while in Bombay it is £30,900. In Madras the average is low, as 232 money-lenders, mostly carrying on a small business, are registered under the Companies Act. The distribution of paid-up* capital among registered companies of the different classes was as follows:—

	£		£
Banking loan and insurance	5,742,289	Mills and presses	- 18,375,488
Trading and shipping	- 11,139,986	Tea and planting	- 2,813,146
Mining and quarrying	- 7,676,131	Other industries	- 2,050,384

As will be seen, the largest aggregate paid-up capital, constituting nearly two-fifths of the total, was invested in cotton, jute, and other mills and presses; and about 50 per cent. of the capital of such undertakings was invested (mostly in cotton mills and presses) in Bombay Presidency. Over a third of the capital of trading companies is invested in railways and tramways. The capital invested in mining companies has quadrupled in the last eight years.

At the end of 1912 there were, so far as is known, 350 companies which carried on work with sterling capital exclusively, or almost exclusively, in British India, but which were registered elsewhere, and their paid-up capital amounted to £73,503,468, besides £43,484,448 debentures. The railways and tramways represented £34,175,825 paid-up capital and £37,468,351 debentures. Of the rest the sterling capital (including debentures) invested in the tea industry was about 16 million; in mines, 9 million; in jute mills, 5 million; in rice mills, 2 million; and in cotton mills, £400,000. Thus, while the railway, mining, and tea concerns are mainly financed from abroad, the great bulk of the mill and press companies are registered in India. The new Companies Act came into force 1st April 1914.

* Share capital only. The total value of the debentures issued amounted in June 1913 to £6,305,800.

CHAPTER XI.

PUBLIC WORKS.

General.

The operations included under the head of "Public Works" are of three kinds, viz., Railways, Irrigation, and Buildings and Roads. The Railway Department is an Imperial service under the control of the Government of India, or of the Railway Board, in so far as the powers of the Government of India have been delegated to it. The establishment employed on irrigation and on buildings and roads is subdivided according to Provinces, and controlled by the local administrations, in subordination 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 railways 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.

The following statement of the total receipts and expenditure under the three heads of "Railways," "Irrigation," and "other Public Works" for 1913-14 is compiled from the Finance and Revenue Accounts:—

—	Receipts.	Expenditure.		
		—	Charged to Revenue.	Not charged to Revenue.
	£	Railways :	£	£
Railways :		Construction and other capital outlay	—	10,483,200
State Railways - -	37,546,135	" from Famine Relief Grant	8,576	—
<i>Deduct :</i>		" charged to Provincial Revenues.	1,414	—
Working Expenses - -	19,572,745	On Revenue Account - -	12,836,101	—
Surplus profits paid to Companies, &c.	440,857	Irrigation :		
	17,532,533	Construction - - -	—	1,282,262
Subsidised Companies (Government share of surplus profits, &c).	93,101	" from Famine Relief Grant	491,424	—
Total - - -	17,625,634	On Revenue Account - -	3,531,867	—
Irrigation - - -	4,713,159	Other Public Works :		
Other Public Works - -	298,640	Civil Works - - -	7,008,624	—
TOTAL - - -	22,637,433	Initial expenditure on new capital at Delhi.	—	447,134
			23,878,006	12,212,596

The expenditure charged against revenue includes the following items of "Interest on Debt":—Railways, £6,887,842; Irrigation, £1,304,846.

Of the permanent public debt on the 31st of March 1914, £221,984,419 is classed as incurred for railways and £39,440,938 for irrigation.

(General.)

The amount paid under the head of "Annuities in purchase of railways," which is included in the Railway Revenue Account is £3,379,581, of which £869,165 represents capital redeemed.

The following statement shows the strength of the superior engineer and upper subordinate establishments as they stood on the 30th June in 1913 and 1914:—

		Irrigation and Buildings and Roads.	Railways.	Total.
Civil Engineers (including Military Officers)	1913	744	183	927
	1914	755	186	941
Upper Subordinates -	1913	1,155	63	1,218
	1914	1,189	61	1,250

Railways.

(For further details see *Statistical Abstract for British India, Tables 44 to 47, 68-9, 71, 74 to 78, 126 to 134.*)

Financial Results to the State.—In the financial year 1913-14 there was a net gain of £4,789,533. The table below is taken from the Finance and Revenue Accounts of the Government of India for 1913-14.

	India.	England. (Sterling converted at £1=Rs. 15.)	TOTAL.
REVENUE.			
Railways—	£	£	£
State railways—(Gross traffic receipts)	37,545,905	230	37,546,135
<i>Deduct:</i>			
Working expenses	19,572,745	—	19,572,745
Surplus profits paid to companies	440,857	—	440,857
Net receipts	17,532,303	230	17,532,533
Subsidised companies—(Government share of surplus profits and repayment of advances of interest).	16,331	76,770	93,101
Total	£ 17,548,634	77,000	17,625,634
EXPENDITURE.			
Railway Revenue Account—			
State Railways—			
Interest on debt	3,357,109	3,530,733	6,887,842
Annuities in purchase of railways	—	3,379,581	3,379,581
Sinking funds	—	191,707	191,707
Interest chargeable against companies on advances	239,803	175,500	415,303
Interest on capital deposited by companies	229,839	1,722,577	1,952,416
Subsidised companies—			
Land, &c.	55,146	—	55,146
Miscellaneous railway expenditure	— 45,894	—	— 45,894
Total	£ 3,836,003	9,000,098	12,836,101

In the figures of expenditure are included all charges falling on the Government for interest on 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, Scinde Punjab and Delhi, Great Indian Peninsula and Madras railways, through the agency of sinking funds and annuities, and of that portion of the Oudh and Rohilkund railway debt incurred in excess of the money raised through the agency of the "Discount" Sinking Fund. The figures also include charges for control, for land required by the companies, and for miscellaneous items, such as headquarters establishment and surveys.

Statistical Results of Working.—The statistical results of working the various classes of railways during 1913-14 are given in the following table. The aggregate net earnings of all Indian railways, including steamboat service and suspense items, but excluding indirect charges, produced a return of 6.19 per cent. on the total capital outlay on open lines, against 6.48 per cent. in the previous year:—

(Railways.)

Class.	Length of Line open on the 31st March 1914.	Total Capital Outlay on Open Lines to the 31st March 1914, including Steamboat and Suspense.	Total Number of Passengers carried.	Total Weight of Goods carried.	Gross Earnings, including Steamboat Service.	Working Expenses, including Steamboat Service.	Net Earnings, including Steamboat Service.	Percentage of Net Earnings on Capital Outlay on Open Lines.
	Miles.	£	No.	Tons.	£	£	£	
<i>All Gauges.</i>								
State lines worked by the State -	7,264	88,996,933	101,270,800	18,288,000	9,900,600	5,517,000	4,383,600	—
State lines worked by companies*.	18,810	204,811,867	262,544,400	51,362,000	27,772,667	14,134,134	13,638,533	—
Branch line companies' railways assisted under "rebate" terms.	1,388	5,814,200	14,927,100	1,995,000	775,800	388,400	387,400	—
Branch line companies' railways assisted under "guarantee" terms.	32	201,467	466,300	114,000	82,333	16,200	16,133	—
District Boards' lines - - -	166	494,867	4,123,400	306,000	89,400	53,200	36,200	—
Assisted companies' lines - - -	2,047	12,667,333	44,999,300	5,030,000	1,621,067	722,133	898,934	—
Unassisted companies' lines - - -	74	238,600	883,300	426,000	26,733	14,400	12,333	—
Lines owned by Native States and worked by companies.	1,060	3,969,533	7,818,100	629,000	384,067	204,267	179,800	—
Lines owned by Native States and worked by State railway agency.	258	1,055,133	5,285,600	1,012,000	221,600	113,733	107,867	—
Lines owned and worked by Native States.	2,172	5,040,600	9,410,900	1,729,000	740,467	364,533	375,934	—
Companies' lines guaranteed by Native States.	721	5,430,067	4,449,200	1,234,000	732,533	373,000	359,533	—
Lines in foreign territory - - -	74	1,337,000	1,589,500	488,000	93,133	52,600	40,533	—
TOTAL OF ALL RAILWAYS, 1913-14	34,656	330,057,600	457,717,900	82,613,000	42,390,400	21,958,600	20,436,800	6.19
Ditto 1912-13	33,599	313,939,667	436,697,500	86,977,000	41,139,133	20,788,267	20,350,866	6.48

* The Birur-Shimoga, Hindupur, and Mysore-Nanjangud railways are included with the Mysore State railway under this classification, as separate figures for these lines are not available.

It will be observed that, with an increase of 1,057 miles, or 3.14 per cent. in the open mileage, as compared with 1912-13, the gross earnings increased by £1,251,267, or 3.04 per cent., and the working expenses by £1,165,333, or 5.61 per cent., resulting in an improvement of £85,934 in the net earnings.

Mileage opened and under construction.—The total railway mileage opened, under construction, and sanctioned for construction during the year was as follows:—

Gauge.	Miles opened.	Miles sanctioned for construction.	Total Mileage under construction or sanctioned at the close of the Year.
5' 6" gauge - - -	420	294	932
3' 3 3/8" " - - -	164	435	821
2' 6" " - - -	455	200	578
2' 0" " - - -	14	25	112
Total - - -	1,053	954	2,443
Add correction of mileage -	4		
Net total addition to open mileage -	1,057		

Important Works completed and in progress.—Full particulars in regard to the works completed and in progress during 1913-14, and projects for new lines under consideration during the year, are given in the Administration Report on Indian Railways for 1913-14, published as a Parliamentary Paper. A few details of the more important works of the year are, however, given below.

Among the lines opened during the year were:—

North Western Railway, Jullundur-Hoshiarpur Branch.—This branch line traverses a rich part of the Punjab and connects with the main line at Hoshiarpur, the only district headquarter in the province not already provided with railway communication. The undertaking promises to be very remunerative.

Bayana-Agra Railway.—This line gives the Bombay, Baroda and Central India Railway access to Agra, which now has two broad-gauge routes to Bombay. It affords access to the historical town of Fatehpur Sikri.

Bengal and North Western Railway, Benares-Allahabad Branch.—This branch connects the main line with Allahabad, thus securing the connection of Allahabad with the metre-gauge railway system. It opens up a rich riverain track and is important for pilgrim traffic.

(Railways.)

Eastern Bengal Railway, Singhjani-Fulchari Extension.—This line forms a most important link completing a new line of communication between the northern section of the Eastern Bengal and Bengal and North-Western Railways on the one side and the Dacca section of the Eastern Bengal Railway on the other. The traffic has already exceeded all expectations.

Indo-Ceylon Connection.—This line of through communication between India and Ceylon, an important engineering work, will probably attract most of the steam traffic which has hitherto passed between Tuticorin and Colombo. The new railway lines in India and Ceylon are linked up by a steam ferry service between Dhanushkoti on the Indian side and Talaimannar in Ceylon. The passage occupies two hours.

Narrow Gauge Extensions.—Of these the chief is the Trans-Indus (Kalabagh-Bannu) Railway, the export traffic on which has already become extremely heavy.

Eastern Bengal Railway.—Work on the Lower Ganges Bridge, near Sara, proceeded rapidly during the year.

Great Indian Peninsula Railway.—It is expected that the lines comprised in the Itarsi-Nagpur Railway project of 226 miles, forming part of a through north and south broad-gauge connection, will be opened to traffic about the close of 1916.

Rapid progress was made with the construction of the Bombay overhead connecting a short but important urban line.

Oude and Rohilkund Railway.—The Cawnpore-Banda railway was nearly completed.

Burma Railways.—The section of the Southern Shan States Railway between Yinmabin and Aungban was considerably advanced.

Among the lines under construction during 1913-14 may be mentioned the following:—

Bhairab Bazar-Tangi Extension of the Assam-Bengal Railway.—This forms a link with the Dacca section of the Eastern Bengal Railway.

Burdwan-Howrah Chord.—The construction of this line, which is urgently required to relieve the congestion between the coal-fields and Calcutta, was begun in September 1913.

Rolling-Stock.—Owing to the congestion of traffic on some lines there has been a demand for additional rolling-stock. Special trucks are being provided for unusual bulky loads.

Improvements in passenger accommodation have been continued, and practically all carriages are now provided with communications with the train staff. All the carriages on State-worked lines are to be fitted with electric light instead of gas. Refreshment rooms and cars for Indians have been increased in number.

Rail motors for passengers have been placed on two lines. Locomotives are being fitted with super-heaters, and experiments are being made in Western India with oil fuel from the Persian oil-fields.

Improvement of Open Line Equipment.—Capital funds are being devoted to the provision not only of extra rolling-stock, but of stronger permanent-way, additional tracks, enlarged marshalling yards, workshops, and other works incidental to an increase in the carrying capacity of the main through routes, particularly those leading to the ports of Calcutta, Bombay, and Karachi.

Accidents.—The number of passengers killed during 1913-14 was 268, and the number injured 815. The more serious accidents included one on the Great Indian Peninsula railway, in which 33 persons were killed and 20 seriously injured, and one on the East Indian railway, in which 23 passengers were killed and 23 injured.

Of the railway servants 480 were killed and 845 injured.

Railway Staff.—The total number of railway servants at the end of 1913-14 was 633,694, including 7,988 Europeans, 10,437 Anglo-Indians, and 615,269 Indians.

Strikes.—Strikes occurred during the year on three railways, the Madras and Southern Mahratta, the Bombay, Baroda and Central India, and the Great Indian Peninsula, but were not of long duration.

Contracts.—The financial instead of the calendar year has been generally adopted for the accounts of Indian railways in order that adequate financial control over expenditure may be better ensured by eliminating the difficulties which arose from railway working expenditure estimates being regulated by calendar years while the

(Railway

Government budget grants were necessarily allotted according to the Government financial years ending on 31st March.

An important agreement was made on 24th October 1913 with the Bombay Baroda and Central India Railway Company, establishing a new basis for the working of that railway by the company. Details are given in the annual Administration Report on Railways in India for 1913-14.

New Construction financed by Private Enterprise, District Boards, and Native States. Owing to the difficulty of providing adequate amounts for new construction from Imperial funds, private enterprise has been encouraged by the offer of what are called branch line terms, which were revised in November 1913, and now provide either the grant of a rebate by the parent line from its net earnings from traffic brought in by the feeder railway sufficient to make up 5 per cent. on the paid-up capital, or a firm guarantee from Government of $3\frac{1}{2}$ per cent. on the paid-up capital.

Feeder lines are also being financed to an increasing extent by District Boards and by Native States. All local governments in British India are now empowered to legislate for the levy by District Boards of a special railway cess not exceeding 3 pice per rupee of land revenue.

Aerial Ropeways.—Some proposals have been received for the construction of the ropeways, which are likely to find favour in mountain districts where the cost of railway construction is high.

Irrigation.

(For further details see *Statistical Abstract for British India, Tables, 44-7, 68-9, 74 to 76, 121, and 135.*)

The class of works dealt with by the Public Works Department under the head Irrigation may be roughly divided into canals and tanks, though these two kinds of works are frequently used in combination. The works under the former head take, in most cases, 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. They have been utilised on the largest scale and with the most successful results in the United Provinces, the Punjab and Sind, and the deltas of the large rivers in the Madras Presidency. 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 Southern India, where irrigation is largely dependent on storage works. In the Madras Presidency alone there are some 60,000 tanks. These works are for the most part of native origin; but much has been done under the British Government in improving old tanks, and in constructing new works in Madras, the Bombay Déccan, Ajmere-Merwara, and the Central Provinces. 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. The method remains the method of irrigation more extensively used in India than in any other country, 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 amount available for the construction of protective works from the grant for famine relief and insurance is now supplemented by a further grant from revenue. This supplementary grant was first made in 1911-12. The cost of constructing the "minor" works, as well as the sums annually required for their working and maintenance, are met from ordinary revenues, and for the greater part of this class of works distinct capital and revenue accounts are not kept.

Speaking generally, the "major" class includes the works of the greatest engineering importance, which have been constructed, or, as in the cases of a few

(Irrigation.)

The following statement gives a general view of results obtained from working the canals for which full accounts are kept for 1911-12, 1912-13, and 1913-14 :—

	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 - - -	41,100,185	4,499,123	1,338,761	3,160,362	7.69	15,242,939
Minor Works - - -	4,396,422	344,676	151,774	192,902	4.39	1,716,506
Total for 1913-14 - -	45,496,607	4,843,799	1,490,535	3,353,264	7.37	16,959,445
Total for 1912-13 - -	43,442,253	4,543,262	1,449,296	3,093,966	7.12	16,490,160
Total for 1911-12 - -	41,510,000	4,116,000	1,390,000	2,725,000	6.6	17,099,000

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 irrigation receipts consist largely of "occupiers' rates, and are not supplemented by "owners' rates, as in the United Provinces, nor, with a few exceptions, by a share of the land revenue. In Sind, where nearly a quarter of the total cultivable area is dependent on the artificial supply of water, the revenue of the canals consists almost entirely of the share of the land revenue allotted to irrigation. In the United Provinces 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 owners' rate, which is directly levied, it falls upon the owner of the land.

The immense systems of 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 some of the larger irrigation canals, it cannot be said that, on the whole, they have met with success. In many cases the traffic receipts 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 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. Each account opens with a statement showing the general results for 1913-14 of working all the irrigation and navigation systems for which full accounts are kept as compared with the results of the previous year.

Bengal :—

	Capital Outlay to end of Year.	Gross Receipts.	Expenditure.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area irrigated.
	£	£	£	£		Acres.
Major works - - -	740,574	16,425	20,610	— 4,185	—	80,179
Minor works - - -	786,630	31,022	34,610	— 3,588	—	—
Total for 1913-14 - -	1,527,204	47,447	55,220	— 7,773	—	80,179
Total for 1912-13 - -	1,512,803	53,446	53,650	— 204	—	80,958

The major works in Bengal are the Midnapur Canal, for irrigation and navigation, and the Hijili Tidal Canal for navigation only. All the minor works are for navigation purposes. There were decreases in receipts in 1913-14, due chiefly to the silting up of certain navigation canals.

(Irrigation.)

Bihar and Orissa :—

	Capital Outlay to end of Year.	Gross Receipts.	Expenditure.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area irrigated.
	£	£	£	£		Acres.
Major works - - - -	4,111,907	171,091	93,036	78,055	1.89	854,433
Minor works - - - -	346,144	1,253	5,000	— 3,747	—	—
Total for 1913-14 - -	4,458,051	172,344	98,036	74,308	1.89	854,433
Total for 1912-13 - -	4,415,515	156,846	95,950	60,896	1.57	968,856

Amongst the major works are included the Orissa and Sone canals, both of which are productive works, for irrigation and navigation, and the Tribeni and Dhaka Canals, protective irrigation works, which were completed in 1913-14. The minor works include irrigation canals and a navigation canal, the Orissa Coast Canal.

Bombay including Sind :—

	Capital Outlay to end of Year.	Gross Receipts.	Working Expenses.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area irrigated.
	£	£	£	£		Acres.
Major works - - - -	4,551,892	294,242	128,512	165,730	3.61	1,425,100
Minor works - - - -	917,174	131,480	44,668	86,812	9.46	911,269
Total for 1913-14 - -	5,469,066	425,722	173,180	252,542	4.62	2,336,369
Total for 1912-13 - -	5,129,590	388,022	169,276	218,746	4.26	2,244,299

In the Bombay Presidency, excluding Sind, the water system does not, as a rule, admit of the construction of large irrigation works. The rivers or streams are mostly small and more or less dependent on the rainfall, and a constant supply cannot be obtained from them without the aid of reservoirs or tanks. The year on the whole was very favourable, the irrigated area showing a considerable increase.

In Bombay proper work was continued on the Nira Right Bank Canal, the biggest protective work hitherto undertaken in India, its cost being estimated at £1,718,000. This work is designed to afford effective relief to the "famine district" of Sholapur and should bring 190,000 additional acres under irrigation. Of the other works in progress, the Godaveri project was approaching completion. Work progressed on the Pravara Canals project. A larger acreage was irrigated by the Nira Left Bank Canal, the largest in the Deccan.

In Sind the success of irrigation depends on the regular rise of the River Indus, and there is constant demand for water from the canals. This fact, and the comparatively inexpensive nature of inundation canals, account for the favourable results generally obtained from the working of irrigation canals in the province. In 1913-14 the inundation was not altogether satisfactory.

Burma :—

	Capital Outlay to end of Year.	Gross Receipts.	Working Expenses.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area irrigated.
	£	£	£	£		Acres.
Major Works - - - -	1,610,515*	98,881	33,009	65,872	5.16†	279,488
Minor Works - - - -	265,379	95,495	16,003	79,492	29.95	489,570
Total for 1913-14 - -	1,875,894	194,376	49,012	145,364	7.75	769,058
Total for 1912-13 - -	1,736,476	175,818	56,457	119,361	6.87	738,672

* Includes £335,409 for the Twante navigation canal under construction.

† Irrigation works only.

²¹⁸⁵ In Lower Burma there are no large irrigation works, but there is expenditure on river embankment and drainage works and navigation canals.

(Irrigation.)

In Upper Burma all three major works in operation (*i.e.*, the Mandalay, Shwebo, and Mon canals) irrigated a larger area than in 1912-13. In the cases of the Mandalay and Mon canals the area irrigated exceeded the maximum irrigable area shown in the estimates for those works. There was a fall in the area irrigated by minor works. Work on the construction of the Ye-u canal made good progress. The construction of the Twante navigation canal was continued.

Central Provinces and Berar :—

—	Capital Outlay to end of Year.	Gross Receipts.	Working Expenses.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area irrigated.
	£	£	£	£		Acres.
Major Works - - -	1,113,654	9,606	5,210	4,396	0·39	49,157
Minor Works - - -	26,110	89	—	89	—	2,051
Total for 1913-14 - -	1,139,764	9,695	5,210	4,485	0·39	51,208
Total for 1912-13 - -	834,051	6,530	5,611	919	0·11	31,815

Irrigation from works constructed by the State is still a novelty to the people of the Central Provinces and Berar, and it is therefore necessary to offer its benefits on the most liberal terms. The early cessation of the monsoon created a considerable demand for irrigation, while causing a shortage in the supply of water available. The total area irrigated largely increased. Excellent progress was made with the construction of the Tendula, Wainganga, and Mahanadi canal systems, and with several large tanks. The Mahanadi canal is estimated to cost about £662,000 and to irrigate 360,000 acres, yielding a net revenue of over 8 per cent. per annum, while the Wainganga canal is expected to cost about £254,000, to irrigate some 79,000 acres, and to yield a net revenue of about 5·3 per cent. each year.

Madras :—

—	Capital Outlay to end of Year.	Gross Receipts.	Working Expenses.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area irrigated.
	£	£	£	£	£	Acres.
Major works - - -	6,036,242	764,291	204,139	560,152	9·28	2,194,904
Minor works - - -	1,297,288	53,173	28,229	24,944	1·92	124,011
Total for 1913-14 - -	7,333,530	817,464	232,368	585,096	7·97	2,318,915
Total for 1912-13 - -	7,267,468	823,649	206,935	616,714	8·49	2,342,674

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. 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 snow on distant mountain ranges.

For a great number of these smaller works no accounts are kept, and consequently the figures given in the above table afford a very incomplete picture of the work done. The actual expenditure on all irrigation works during the year amounted to over £526,000, and the receipts to £1,761,700. The total area irrigated was 7,143,200 acres.

About 50 per cent. of the area of cultivation, 2½ million acres, of all works to be investigated under the Tank Restoration scheme had been investigated up to the end of the year.

Two schemes of vast magnitude were still under the consideration of the Government of India at the end of the year, *viz.*, the Kistna reservoir project, estimated to cost about £5½ millions and to bring over 700,000 additional acres under irrigation, and the Cauvery reservoir project, which provides for new irrigation of about 400,000 acres, and is estimated to cost over £2½ millions.

(Irrigation.)

North-West Frontier Province:—

—	Capital Outlay to end of Year.	Gross Receipts.	Working Expenses.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area irrigated.
	£	£	£	£		Acres.
Major works (1913-14) - -	1,431,847	61,548	21,590	39,958	2·79	243,016
Major works (1912-13) - -	1,197,068	58,791	22,120	36,671	3·12	245,580

A large proportion of the canals in this province are privately owned. There were three Government major works in operation at the end of 1913-14, and the profits on the Lower Swat River and Kabul River canals were very satisfactory. As the Paharpur canal fails to pay 4 per cent. on the average on the sum at charge, further capital expenditure thereon will, with effect from 1913-14, be met from ordinary revenues. Work on the construction of the Upper Swat River canal, which was begun in 1907, was almost completed. Part of the canal consists of a long tunnel through the Malakand range. This canal has cost £1,328,000, and irrigates over 152,600 acres in kharif and 229,000 acres in rabi season. About 40,500 acres of the gross area commanded are in the tribal territory across the frontier. The canal was opened on 14th April 1914.

Punjab:—

—	Capital Outlay to end of Year.	Gross Receipts.	Working Expenses.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area irrigated.
	£	£	£	£		Acres.
Major works - - - -	13,627,864	2,315,968	587,401	1,728,567	12·69	6,878,024
Minor works - - - -	39,468	8,944	5,953	2,991	7·58	58,519
Total for 1913-14 - -	13,667,332	2,324,912	593,354	1,731,558	12·67	6,936,543
Total for 1912-13 - -	12,993,529	2,192,484	585,587	1,606,897	12·37	7,044,171

Good results were achieved under unfavourable conditions; the figures of revenue for the year exceeded all previous records. The higher receipts from a smaller irrigated area are mainly due to the increase of indirect receipts from land revenue in the newly assessed colony tracts. Excluding the Upper Chenab and Lower Bari Doab canals, which, though opened for irrigation, were not completed, the return on capital was over 22 per cent. The Lower Chenab canal shows remarkable results, a net revenue of 42 per cent. being realised. Rapid progress was made with the Triple Canal Project, but neither the Upper Chenab canal nor the Lower Bari Doab canal can work to full advantage until the Upper Jhelum canal, which will complete the project, has been finished. A project estimate has been made in connection with the Sutlej Valley project, a vast scheme for improving the supply of the existing inundation canals dependent on the Sutlej and for extending the benefits of irrigation to the desert regions south of the river. The cost is estimated at £6,000,000, and the irrigable area at three million acres. Measures are being devised to prevent the water-logging of low-lying land.

United Provinces of Agra and Oudh:—

—	Capital Outlay to end of Year.	Gross Receipts.	Working Expenses.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area irrigated.
	£	£	£	£		Acres.
Major works - - - -	7,875,689	767,071	245,253	521,818	6·63	3,318,817
Minor works - - - -	254,133	12,476	8,681	3,795	1·49	131,086
Total for 1913-14 - -	8,129,822	779,547	253,934	525,613	6·46	3,449,903
Total for 1912-13 - -	7,919,145	676,044	244,505	431,539	5·45	2,696,769

All the tracts commanded by the canals were stricken with drought and the demand for water was intense through both seasons. Nowhere was the supply fully equal to the demand.

(Irrigation.)

Experience has yet again shown the urgent necessity of a weir to control the available supply of water in the Ganges, and also of further storage reservoirs in Bundelkhand. The Ganges weir at Bhimgoda is by far the most important work now under construction, and good progress was made with the preliminary work on this great dam which is to cost about £267,000.

Buildings and Roads (Civil).

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 lighthouses, 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 the head of Civil Works, the expenditure on which is chiefly met from provincial resources. The classification of this expenditure for 1913-14 under the various heads is shown in the following table :—

	Central Provinces and Berar.	Burma.	Assam.	Bengal.	Bihar and Orissa.	United Provinces of Agra and Oudh.	Punjab.	North-West Frontier Province.	Madras.	Bombay.	India General.	Total.
Imperial -	£ 77,724	£ 24,271	£ 2,805	£ 110,429	£ 13,848	£ 76,214	£ 41,637	£ 218,934	£ 31,058	£ 56,687	£ 256,705	£ 910,312
Provincial*	458,919	674,107	441,162	681,244	554,917	800,262	646,300	—	1,099,315	793,598	—	5,949,824
Total	536,643	698,378	443,967	791,673	568,765	876,476	687,937	218,934	1,130,373	850,285	256,705	6,860,136

* Includes expenditure by the Civil Department in addition to that by the Public Works Department.

Expenditure by Civil Officers from Imperial Funds	£ 47,304
Expenditure in England	£ 101,184
Grand Total	£ 7,008,624

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 they have recourse to the professional skill of the Public Works officers.

The following short account of Civil Works for the year 1913-14 is given under the heads of the different provinces in which the expenditure was incurred :—

Assam.—Improvements were made to official residences, and buildings for judicial, medical, educational, police, and other services were under construction. A sum of over £170,000 was spent on roads and bridges.

Bengal.—The buildings completed or in progress included salt golas at Chittagong, the Central Telegraph Office at Calcutta, additions and alterations to several court-houses, jails, post and telegraph offices, and police buildings, and the construction or extension of educational and hospital buildings, official residences, &c.

Systematic measures were undertaken for the improvement of roads in the Duars.

Bihar and Orissa.—In 1912-13 preliminary investigations were made and estimates amounting to £623,407 were submitted for the establishment of a permanent capital for the Local Government at Bankipore, near Patna. Pending the construction of the capital the seat of the Local Government has been temporarily located at Ranchi, and estimates amounting to nearly £100,000 were put forward for temporary works at Ranchi and Bankipore.

Bombay.—The total expenditure during 1913-14 was £969,850.

The most important works in progress chargeable to Imperial Funds are the new Custom Houses at Bombay and Karachi. Good progress was made with the Museum of Western India and the Science Institute at Bombay, and the Science Institute at Ahmedabad was completed.

Under Provincial works, considerable sums were spent on educational buildings, including hostels for students, £72,000 on police buildings, £39,000 on land revenue buildings, and £68,000 on medical buildings. Large amounts were expended on drainage and waterworks.

A total sum of £163,000 was spent on communications.

(Buildings and Roads (Civil).)

Burma.—The total expenditure, £888,400, was the highest recorded for many years. It was partly defrayed from a special Imperial grant, devoted chiefly to the replacement of old wooden bridges by permanent structures. The chief buildings in progress included the new Customs House and Telegraph Office at Rangoon, and extensions were made to the new General Hospital, Rangoon.

Central Provinces and Berar.—The year was one of exceptional activity and there was a record total expenditure on civil works of £510,000, of which about £243,000 was on original provincial works. The buildings included the large new post office at Nagpur and other post and telegraph offices, forest and excise buildings, official residences at Nagpur and elsewhere, law courts, schools and colleges, &c. The expenditure on communications amounted to £189,000, of which about £80,000 was for original works. Large sums were again spent on causeways and bridges with the object of keeping all important lines of communication open throughout the year.

Delhi.—A committee called the Imperial Delhi Committee was appointed to supervise the construction of the new Imperial Capital. Their work in 1913-14 consisted mainly in the preparation of the project based on the reports of the Town Planning Committee sent out from England in 1912. The design of Government House and the principal secretariat buildings was entrusted to Mr. E. L. Lutyens and Mr. H. Baker, the architects selected for the purpose. During 1913-14 works were undertaken to improve the roads to cope with the traffic. A 2' 6" gauge railway was also constructed to serve the more important work sites. An arboricultural nursery was established for the trees required in the new capital, and the manufacture of bricks on a large scale was commenced. The acquisition of land, begun in 1912, was almost completed, and the site was levelled. The total expenditure up to the end of the year was £567,000.

Madras.—Among the works completed during the year were the new Legislative Chamber at Fort St. George, the court-house at Guntur, and the Collector's office at Vizagapatam. Good progress was made with the works connected with the Forest College, Central Farm, Agricultural College, and Research Institute at Coimbatore. The re-organisation of the Madras police force has necessitated the erection of many police buildings and the works under execution numbered 200.

Under the head of Communications good progress was made on the Indravati Bridge. A number of other bridge works were also in hand.

North-West Frontier Provinces.—The works completed or in progress during the year included additions and alterations to Government House, Peshawar, and new barracks at Landi Kotal and Wana. Great progress was made in improving the Khyber roads and the Hazara trunk road into Kashmir. The expenditure on works in 1913-14 amounted to £219,559.

Punjab.—There have been pressing demands for many years for more and better Government buildings and for improved communications in this rapidly progressing province. The expenditure on public works amounted to about £611,000, the highest figure yet attained. This total included £326,000 for provincial civil works, £33,300 for educational buildings and £30,000 for medical buildings, £27,300 for the Imperial Legislative Council Chamber at Simla, and instalments of the cost of hydro-electric and water supply schemes at Simla. The outlay on communications was about £141,000, of which £63,000 was on works and the remainder on repairs.

United Provinces.—The expenditure during the year decreased from about £753,000 in the previous year to £720,000. Imperial works in progress include the Forest Research Institute at Dehra Dun and new post offices for Allahabad, Lucknow, and Agra. The new High Court buildings were begun and several other judicial buildings and many police stations were begun or completed. The year was notable for activity in the erection of Government educational buildings, including seven new high schools, and a school of arts and crafts at Lucknow.

Five bridges were completed and good progress was made with the through metalled road from Agra to Cawnpore. The King Edward Memorial Sanatorium at Bhowali and the King George's Medical College and Hospital at Lucknow were completed. The Law College of Allahabad University was opened.

Eighty miles of new metalled road were constructed during the year and 71 miles of new avenues were planted.

(Post Office.)

CHAPTER XII.

POST OFFICE AND TELEGRAPHS.

(For further details, see *Statistical Abstract for British India*, Tables 45 to 47, 90 to 96, and 98 to 100.)

The complete amalgamation of the Indian Post Office and Telegraph Departments has been sanctioned by the Secretary of State, with effect from 1st April 1914.

Post Office.

Financial Results.—The receipts and charges of the Post Office for the last three years, as shown in the Finance and Revenue Accounts, have been as follows:—

Year.	Receipts.	Expenditure.	Net Revenue (+) or Deficit (-).
	£.	£	£
1911-12 - - -	2,134,279	2,008,470	+125,809
1912-13 - - -	2,262,436	2,026,567	+235,869
1913-14 - - -	2,410,210	2,092,019	+318,191

Extent of Postal Operations.—The extent of the operations of the Post Office and their development during the last three years are shown in the following tables:—

Year.	Post Offices.	Letter Boxes.	Postal Officials.	Length of Postal Lines.
	No.	No.	No.	Miles.
1911-12 - - -	18,801	48,122	92,755	153,950
1912-13 - - -	18,789	48,524	92,870	154,493
1913-14 - - -	18,946	49,131	93,955	155,806
Increase in 1913-14 as compared with 1912-13 - -	+157	+607	+1,085	+1,313

The general correspondence returns, of which a summary is given below, show an increase exceeding 35 millions of articles (excluding money orders) for 1913-14 as compared with the figures for 1912-13. Of the additional articles letters accounted for about 11 millions and postcards for over 20 millions. The new and larger postcards, first issued in 1912-13, were in great demand.

Year.	Letters and Postcards.	Newspapers.	Parcels.	Other Postal Articles.	Total.
	No.	No.	No.	No.	No.
1911-12 - - -	850,889,587	52,612,161	10,598,068	51,292,914	965,392,730
1912-13 - - -	891,950,285	54,956,826	11,593,563	56,287,771	1,014,788,445
1913-14 - - -	923,016,143	56,422,275	12,667,172	57,816,390	1,049,921,980
Increase in 1913-14 over 1912-13 - -	+31,065,858	+1,465,449	+1,073,609	+1,528,619	+35,133,535

Alterations in Postal Arrangements during 1913-14.—During the year the maximum weight of inland post pattern packets was raised from 80 to 200 tolas. Several new postage stamps were issued.

Amount of Postal Matter dealt with.—The total number of articles received for delivery, including money orders, was over 1,080 millions, of which, it is estimated, 99·79 per cent. were actually delivered or paid, as compared with 99·75 per cent. in the preceding year.

In 1913-14 the receipts of postal articles (excluding money orders) at the dead-letter offices were 9,706,858; of this number, 7,548,447 articles were either delivered to addressees or returned to senders, and 2,158,411 could not for various reasons, such as the absence of an address, be similarly treated. This last figure is only ·21 per cent. of the total number of articles received for delivery.

(Post Office.)

Foreign Correspondence.—The total number of letters, postcards, and packets sent and received by the foreign post was 69 millions as against 64 millions in 1912-13. India received 28 millions from, and despatched 15 millions to, the United Kingdom, while the receipts from other countries were 12 millions, and the despatches thereto 13 millions. Taking newspapers and book and sample packets alone, 14 out of 19 millions received came from the United Kingdom and two out of seven millions despatched were sent thither. The number of foreign parcels sent and received rose from 889,781 to 994,921, of which more than half were exchanged with the United Kingdom.

Insurance, Value Payable Post, Money Orders, and Savings Bank.—Information regarding these branches of the work of the Post Office can be most conveniently given in a tabular form:—

	1912-13.	1913-14.	Increase or Decrease.
Insurance of Letters and Parcels:—			
Number of articles insured - - - -	2,706,436	2,941,204	+ 234,768
Receipts from Insurance Fees - - - -	£57,961	£63,333	+ £5,372
Number of claims admitted - - - -	111	133	+ 22
Net payment in respect of claims - - - -	£801	£1,303	+ £502
Value Payable Post:—			
Number of articles sent - - - -	8,815,915	9,572,023	+ 756,108
Value specified for recovery (approximate) - - - -	£7,333,300	£8,333,300	+ £1,000,000
Money Orders:—			
Value of Ordinary Inland Orders issued in India - - - -	£28,750,753	£30,906,571	+ £2,155,818
" Telegraphic Money Orders issued in India - - - -	£2,845,147	£3,215,812	+ £370,665
Value of Foreign Orders issued in India - - - -	£703,271	£740,866	+ £37,595
" " " paid " - - - -	£2,555,157	£2,784,397	+ £229,240
Savings Bank:—			
Number of Post Offices transacting Savings Bank business at end of year.	9,460	9,824	+ 364
Number of accounts in Post Office Savings Banks - - - -	1,566,860	1,638,725	+ 71,865
Amount of Deposits at beginning of year - - - -	£12,599,030	£13,740,967	+ £1,141,937
" New Deposits during year - - - -	£7,498,071	£7,323,066	- £175,005
" Interest credited " - - - -	£374,698	£412,731	+ £38,033
" Withdrawals " - - - -	£6,730,832	£6,031,732	- £699,100
Amount of Deposits at end of year - - - -	£13,740,967	£15,445,031	+ £1,704,064
Securities held on behalf of Depositors at end of year - - - -	£595,980	£728,687	+ £132,707

Offences.—During the year under review there were 25 cases in which the mails were plundered by highway robbers, of which 13 were in British territory and 12 in Native States. The figures for the preceding year were 12 and 7 respectively.

The number of postal officials found guilty of criminal offences was 485. The defalcations and losses amounted to £2,957, as compared with £2,738 in 1912-13.

Sale of Quinine.—To facilitate the supply of the drug, especially in cases of malaria, quinine is sold at Post Offices throughout India. In 1913-14, 12,059 lbs. were given to the Post Office for distribution, as compared with 10,694 lbs. in the preceding year.

Telegraphs.

The following statement refers to the whole of the telegraph system under the direct control of the Government of India, but excludes that of the Indo-European Telegraph Department, for which, as usual, a separate account is given. The system on 31st March 1914 consisted of 81,593 miles of line and 321,801 miles of wire and cable.

Among events of interest during 1913-14 was the opening of the new central telegraph office at Calcutta. The success of the co-operative credit society established for the staff of the central telegraph office at Calcutta has led to the formation of

(Telegraphs.)

similar societies in the Bombay, Madras, Agra, and Lahore offices. The effect of cable laid between Penang and Colombo with an extension to Aden has been to divert from India a great deal of traffic hitherto exchanged between countries east and west of India. At the same time, however, the cable companies concerned have agreed to a reduction of 4d. a word in the rates for telegrams exchanged between India and Europe from May 1914.

The following statement shows, for a period of five years, the progress that has been made in extending public telegraphic communication :—

Year.	Capital Expenditure.	Miles of Line.	Miles of Wire.	Miles of Cable.	Offices open to the Public.		
					Departmental, Ordinary and Postal combined.	Railway and Canal.	Total.
	£						
During 1909-10 - - -	167,955	2,712	5,613	— 30	104	148	252
„ 1910-11 - - -	147,555	1,993	4,566	89	94	— 54	40
„ 1911-12 - - -	226,972	1,740	7,197	8	99	217	316
„ 1912-13 - - -	225,707	2,277	7,795	8	160	113	273
„ 1913-14 - - -	247,811	2,731	10,767	18	281	2,205	2,486
To end of 1913-14 - - -	8,112,719	81,143	313,699	450	3,396	6,944	10,340

A general view of the operations of the Department in 1913-14, in comparison with those of the four previous years, will be gained from the following statement :—

Year.	Number of Paid Telegrams during Year.	Gross Receipts, including State but excluding <i>pro forma</i> Revenue.	Charges.	Net Receipts.	Return on Capital.
		£	£	£	
1909-10 - - - - -	12,084,697	795,828	807,519	— 11,691	—
1910-11 - - - - -	13,090,228	840,517	791,833	48,684	·66
1911-12 - - - - -	14,671,819	934,813	821,624	113,189	1·48
1912-13 - - - - -	15,449,071	1,001,972	854,776	147,196	1·89
1913-14 - - - - -	16,596,697	1,106,400	922,000	184,400	2·27

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 recent years the Department has had to meet heavy expenditure, *e.g.*, on the erection and upkeep of wireless telegraph stations, for which there is at present very small return.

Class of Telegram.	1912-13.		1913-14.	
	No.	Value.	No.	Value.
Inland State - - - - -	1,130,721	£ 65,746	1,276,738	£ 78,077
Foreign State - - - - -	13,144	5,117	13,593	4,997
Total State - - - - -	1,143,865	70,863	1,290,331	83,074
Inland Private - - - - -	12,712,201	474,701	13,661,663	509,896
Foreign Private - - - - -	1,593,005	171,228	1,644,703	168,110
Total Private - - - - -	14,305,206	645,929	15,306,366	678,006
Total State and Private - - - - -	15,449,071	716,792	16,596,697	761,080

Deferred foreign telegrams in plain language at half rates are growing rapidly in popularity, having increased in number by 58 per cent., while foreign press telegrams increased in number by 15 per cent.

(Telegraphs.)

The interruptions in 1913-14 were in no case of a very serious character.

As regards radio-telegraphy, there are now 17 wireless stations in India, seven of which are situated inland. Two were opened during the year, at Quetta and Peshawar, and others are under construction. The stations worked well, except for atmospheric disturbances during the summer months.

At the close of 1913 the number of telephone exchanges established by the Telegraph Department was 180 and by telephone companies 13. The gross rental obtained from telephone services was £49,633, as against £45,090 in 1912. Rates were revised. Royalties paid to the Department by the companies in 1913 amounted to £5,523.

Indo-European Telegraph Department.

The system of telegraph lines and cables connecting the terminus of the Indo-European Company's telegraphs at Teheran and that of the Turkish telegraph lines at Fao with the Indian telegraph system at Karachi is controlled by the Indo-European Government Telegraph Department, and consists of 1,948 knots of cable, 2,724 miles of line, and 7,174 miles of wire. This also includes a cable from Jask to Muscat, 219 knots in length.

The Department also maintains a line from Teheran to Meshed, 568 miles, which is the property of the Persian Government. By an agreement dated 4th January 1913 with the Persian Government the Department undertook to reconstruct and maintain the Persian telegraph line from Borasjoon on the Shiraz-Bushire line to Ahwaz and Mohammerah, with the branch line from Ahwaz *via* Shushtar to Dizful.

The financial results of working the Department, as compared with the three preceding years, were as follows:—

Year.	Capital Outlay to end of Year.	Gross Receipts.*	Expenditure.	Net Receipts.	Percentage of	
					Net Receipts to Capital.	Expenditure to Gross Receipts.
	£	£	£	£		
1910-11	999,966	121,687	74,749	46,938	4.69	61.43
1911-12	1,002,539	131,822	72,710	59,112	5.90	55.16
1912-13	984,855	134,130	96,455	37,675	3.82	71.91
1913-14	1,008,097	131,130	77,454	53,676	5.32	59.07

* This represents the revenue of the Department after adjustments made in accordance with the provisions of the Joint Purse arrangement.

The number of messages transmitted during the year amounted to 383,079, as compared with 397,179 in 1912-13. All but 3,740 of these were commercial and private telegrams.

Under the Joint Purse Agreement, the share of the Department was £136,133, as against £137,802 in 1912-13. The amount paid into the Joint Purse for the year under review was £80,271.

The Departmental receipts from the Australasian Message Fund for 1913-14 amounted to £7,702, being £607 more than in 1912-13, and an increase of £1,467 on the receipts for 1889, on which the original Australasian Message Fund was based.

There were no total interruptions stopping traffic between Karachi and Bushire in 1913-14. The Bushire-Teheran section was totally interrupted once owing to abnormal floods, the interruption extending over 2½ days. Between Teheran and London the interruptions aggregated 10½ days. There were no interruptions to the Fao-Bushire cable, but on the Turkish route west of Fao interruptions occurred to the total extent of 16½ days, the lowest figure recorded in the last five years.

Acts of wilful damage to the lines were less numerous than in 1912-13, and the general condition of the country districts during the year was better, though still very unsatisfactory.

(Board of Scientific Advice.)

CHAPTER XIII.

SCIENTIFIC DEPARTMENTS.

GENERAL. BOARD OF SCIENTIFIC ADVICE. SURVEY OF INDIA. OTHER SURVEYS. METEOROLOGICAL DEPARTMENT.	AGRICULTURAL DEPARTMENTS. CIVIL VETERINARY DEPARTMENT. ARCHÆOLOGICAL DEPARTMENT. MEDICAL RESEARCH INSTITUTES.
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General.

Owing to the progress made in recent years in the application of science to various branches of the work of Government, a special chapter is now necessary for dealing not only with surveys, but also with other scientific departments that have been established by the Imperial or Provincial Governments for the conservation and development of the natural resources of the country. In 1913-14 expenditure on Scientific Departments amounted to about £827,000, against which must be set about £100,000 for receipts. The great bulk of the expenditure was for agricultural and veterinary work and for survey work.

The Board of Scientific Advice.

This Board includes the heads of the Meteorological, Geological, Botanical, Forest, and Survey Departments, representatives of the Agricultural and Civil Veterinary Departments, and other scientific authorities whose special attainments may be useful. It was established in 1902 to co-ordinate official scientific inquiry, to ensure that research work is distributed to the best advantage, and to advise the Government of India in prosecuting practical research into those questions of economic or applied science on the solution of which the agricultural and industrial development of the country so largely depends. The programmes of investigation of the various departments are annually submitted to the Board for discussion and arrangement, and an annual report is published on the work done, as well as a general programme of research for the ensuing year. The reports and the programmes formulated are communicated for consideration to an Advisory Committee of the Royal Society, who from time to time furnish valuable suggestions and advice. The Board held its 25th meeting in November 1913.

Survey of India.

The work of the Survey of India Department falls under various heads, namely, the trigonometrical survey, topographical and forest surveys, special surveys and explorations, and map production. Cadastral surveys are now carried out by the Provincial Land Records and Settlement Departments. The latest available information on most of these matters relates to the year ended 30th September 1913. The total cost of the Department for that year was about £225,000.

In 1904 attention was drawn to the defective state of the topographical survey maps, and a Committee was appointed to report on the subject. To overtake the arrears of revisional survey and to secure that the map of India should be brought up to date and revised at proper intervals, they recommended a considerable increase of establishment and an increased expenditure of £210,000 a year for the next 25 years. They also made recommendations for altering the size and improving the quality of the maps. After further inquiry the Government of India decided that a scale of 1 inch to the mile would ordinarily be sufficient, reserved forests and special areas being surveyed on the scale of 2 inches to the mile, and the $\frac{1}{2}$ -inch scale employed for waste and barren tracts. Of the total of 1,821,600 sq. miles included in the programme, 311,885 sq. miles were completed by September 1913.

During the year ending September 1913 field operations were carried on by 19 survey parties. A large amount of exploration on the North East frontier was carried out during 1911-12 and 1912-13.

(Survey of India.)

The triangulation party continued the principal triangulation of the Sambalpur series and completed 2,455 square miles of secondary triangulation. Tidal operations were carried on at nine stations. One party was employed on pendulum observations, one on levelling, and one on magnetic survey. A base line party was instituted in March 1913.

The total area surveyed topographically was 52,425 square miles. Forest surveys were carried out in five provinces.

Two hundred and twenty-two sheets of the 1-inch map were published, making a total published of 878 out of an entire programme of 6,328. The total number of maps issued was 327,311.

Other Surveys.

Geological—The first object of the Geological Survey Department is the preparation of a general geological map of India, and this work was continued during 1913 by surveys in Bombay, Burma, Rajputana, Central India, Kashmir, and the Central Provinces. Various economic investigations, which form an increasingly important part of the Department's work, were conducted. These included investigation of marble and sandstone quarries for the purpose of building Imperial Delhi, the examination of the Korea coal-field in the Central Provinces, of petroliferous localities in the Punjab and North-West Frontier Province, of pitchblende areas in the Gaya District, &c.

Botanical.—The botanical survey is under the direction of the Superintendent of the Royal Botanic Gardens, Calcutta. There is also an Economic Botanist to the Botanical Survey. The economic botanists of the Provincial Government are associated with this Department. Much botanical work is done by forest officers and others outside the Department.

Zoological survey work is carried on by the Indian Museum, and marine survey work is under the Royal Indian Marine, who possess two specially-equipped vessels for the purpose.

Meteorological Department.

The work of the Meteorological Department falls into two parts, the directly useful, and the purely scientific, aiming at the ascertainment of facts that shall be of practical utility in future. The scientific work includes the experimental and theoretical examination of the physical processes, on the earth or in the sun, which determine the weather. The practical work consists chiefly in the collection and distribution of current weather information. The area under observation by the Department embraces not only India but the whole of the Arabian Sea and Indian Ocean, the Persian Gulf, Persia, Arabia, Chinese Turkestan, and Tibet. There were 289 observation stations (of which 48 were non-departmental) at the close of 1913-14, ranging from the well-equipped observatories at Kodaikanal, Madras, Bombay, Alipore (Calcutta), Allahabad, and Lahore, to small stations at which observations of temperature, rainfall, and snowfall only are recorded. The Department inspects their working and collects the results; it also studies the meteorology of the Indian Ocean by means of the logs of vessels arriving at Indian and other ports, and conducts seismographic observations. A series of investigations of the upper air, calculated to extend over a period of 10 years, has been started. Balloons fitted with recording apparatus are employed. Special investigations comprised wind observations, solar and terrestrial radiation observation, sunshine observations, seismological observations, barometric observations, and observations of underground temperature. The actual rainfall of the last ten years compared with the normal will be found in the annual *Statistical Abstract of British India* (Table 118). Daily, weekly, and monthly weather reports, as well as seasonal forecasts and storm warnings, are issued. Proposals are on foot for re-organising the system by which 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. Meteorological information is now supplied from wireless coast stations to ships that ask for it. The new arrangement by which vessels on certain routes supply similar reports to the Department is working satisfactorily. The system of flood warnings to canal, civil, and railway officers, to military officers, and to private firms continued to be useful, and 2,287 such warnings were issued during 1913-14.

(Agricultural Departments.)

Agricultural Departments.

General.—The greater part of the scheme for the development of agricultural experiment and instruction formulated in 1905 has now been realised. It is based on the generally accepted principle that effective improvement in Indian agriculture depends largely, or mainly, on the application of European science to Indian conditions. Although India is a land of skilled agriculturists, the outturn per acre of many crops is comparatively small, and the quality of some kinds of produce is inferior. Much can be done to improve and develop Indian agriculture by energetic research and by the application of more scientific methods and greater scientific knowledge than were formerly available. The necessary scientific knowledge must inevitably be obtained in the first instance by the recruitment of trained specialists from the United Kingdom; but it is an essential part of the scheme that facilities for the best agricultural training shall be made available in India, in order that the country may become self-supporting, so far as possible, in the scientific development of agricultural methods on lines suited to local conditions.

There are Agricultural Departments in every larger Province under a Director of Agriculture with one or more Deputy Directors—the latter being trained agriculturists. Besides these there are various specialists attached to the provincial departments and in some cases the Principalship of the Provincial Agricultural College is a separate post. In Bengal there is a Fibre Specialist. The officers directly under the Government of India include the Director of the Pusa Institute, who is also Principal of the Agricultural College and Agricultural Adviser to the Government of India, and eleven specialists (two entomologists, a pathological entomologist, two bacteriologists, two mycologists, two agricultural chemists, an economic botanist, and a cotton specialist). The above officers are all recruited in England; there is also a considerable number of locally appointed officers.

There are agricultural colleges in six provinces, besides the Central College at Pusa which is intended to provide more advanced training. In every province there are experimental farms, the ultimate aim being that there should be one such for each large tract of country in which the agricultural conditions are approximately homogeneous. The Provincial Departments distribute selected seeds and manures and furnish advice as to implements and crops.

There is a Board of Agriculture which suggests and reviews programmes of work and discusses current problems. It held its eighth meeting at Coimbatore in December 1913. Agricultural memoirs and an agricultural journal are published.

Pusa Research Institute and College.—The experimental work carried out at the farm and laboratory by the specialists mentioned above covered researches into the chemistry of soils, the yield of sugar-canes and beets, and milk analysis. A new "Pusa" wheat—No. 12—has distinguished itself as the best for general cultivation both in the Gangetic plain and in the black soil of the Peninsula, and is being actively taken up by the Provincial Agricultural Departments. A useful type of tobacco plant for cigarette tobaccos has been evolved, and promising experiments are in progress for ascertaining a safe and productive method of cultivating "Java" indigo, which, although its yield of indican is high, is liable to disease. The fruit experimental farm at Quetta has been laid out. Of plant diseases under investigation the most important is the virulent paddy disease, known as ufra. A bulletin on lac-cultivation has had a gratifying success. The cotton specialist visited and reported on the various provincial cotton-growing stations.

The College is chiefly a higher teaching institution for post-graduate studies in one branch of research. During 1913-14 eight students were under training, of whom two were private students; others were sent by local governments and Native States. Some visitors also worked at the Pusa laboratories. Seven students attended short courses in cattle management or sericulture.

Bengal.—There are six agricultural stations, each typifying a separate area of the Presidency, besides farms at Kalimpong and Chittagong. No entirely new scheme was started during 1913-14, but those started in the previous year were considerably developed. There is now a supervisor in each division in connection with the demonstration scheme—a matter in which Bengal is handicapped, owing to the absence of a subordinate revenue agency. A new silk nursery has been started, and

(Agricultural Departments.)

attention was given to the reform of the method of compiling jute forecasts. A considerable advance has been made in experimental work—the selection of suitable varieties of paddy, manurial experiments, the selection of various seeds, and of sugar-cane cuttings for distribution, and the suitability of different areas for tobacco were among the chief subjects of experiment during the year. Work at the new Rangpur dairy farm was confined chiefly to the erection of buildings and purchase of cattle. There is room for great improvement in the average yield of Bengal milch cows. Jute seed selected by the fibre expert is being tested. Attention is being paid to the sugar industry, both with regard to date-palm and cane sugar.

The Fishery Department (which covers Bihar and Orissa as well as Bengal) conducted various experiments with a view to increasing the fish-supply of the rivers. Schemes are also in hand for developing the marine fishery of Bengal.

Bihar and Orissa.—There are now six agricultural stations in all, including a newly-started cattle-breeding station at Sipaya. Another for sugar-cane is to be started at Ranchi. Experiments at these stations covered tests of sugar-cane and Pusa wheat, flax-growing, and crop-cutting. The Divisional Agricultural Associations were engaged in carrying out different experiments on definite lines approved by the Department, which grants them each a sum of Rs. 1,000. Well-boring operations in the Patna division are now conducted under the District Boards. In Bhagalpur experimental borings are proceeding.

The Agricultural College at Sabour is also the college for Bengal and Assam. Ten students obtained the diploma, the total number of students on 30th June 1914 being 17. Six students who had taken a short vernacular course in June continued their studies, with satisfactory results; but these courses have had to be abandoned through lack of attendants. It is still proving hard to secure students of the cultivating class for training at the experimental stations.

Assam.—There are now four agricultural experiment stations, besides a fruit experiment station. Two of these were started in 1913-14, and are devoted respectively to rice and sugar-cane. Other crops which formed the subject of experiment were potatoes, green manure crops, fodder crops, and oilseeds. An officer was on special duty inquiring into the Assam silk industry. There are 10 apprentices in training on Government farms as demonstrators. Demonstrations were carried out in four districts in the manuring of rice with bonemeal and flour phosphate, the growth of superior sugar-cane and the use of roller iron sugar-cane mills, the growing of potatoes, terrace cultivation, and fruit growing. A handloom weaving master has been appointed, and his services are in great demand.

United Provinces.—This province is now practically covered by a network of farms and seed stations, some of which are managed by the Department in co-operation with District Boards, Agricultural Associations, or private landowners. During 1913-14 special attention was paid to utilising these and other local agencies, such as co-operative societies for propagating agricultural knowledge. Besides distribution of seeds, sale of implements, &c., there was an unprecedented activity in well-boring owing to the drought; 1,642 wells were bored, the percentage of successes being 66. The immediate problem is the lifting of the water. With the present price of cattle, oil engines are proving the cheaper method, and there are probably now 50 of these working in one district alone. An Honorary Magistrate has started a school to teach villagers to drive the engines. Experimental work was concerned chiefly with the cultural and mechanical problems of the sugar industry, cotton selecting and ginning, and wheat. The substitution of power for bullocks in sugar-crushing is an urgent problem, in view of the high price of cattle already referred to.

In the Agricultural College there was a great fall in numbers owing to the establishment of a separate school for candidates for the Subordinate Revenue Department; the question of re-constituting the course of training is being considered.

Punjab.—There are agricultural stations at Lyallpur and Gurdaspur, besides two seed farms and a cotton farm at Hansi, which have recently been started. An unfortunate occurrence was the distribution by the Department of a type of smooth-leaved American cotton which proved very liable to insect attacks. To restore confidence in the Department, which would otherwise have been impaired, compensation has been granted to some of the principal sufferers from this occurrence. The spread of American cotton, however, continues, and land has been specially leased

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on the Bari Doab canal for the purpose of propagating its use. The selection of types of wheat continues. The Department issues French silkworm-seed, the yield from which in 1913-14 showed an improvement. There are good prospects for sericulture among the small landowners of the submontane tracts. The work of popularising implements continues, but more demonstrators are needed. The Agricultural Associations are doing most useful work in popularising improved agricultural methods, and the machinery of the Co-operative Societies is used for seed-distribution. The Agricultural College opened with a college class of 11. It must now be regarded primarily as a training place for members of the Department.

North-West Frontier Province.—The area of the experimental farm at Tarnab is being extended. Experiments were made with cotton, sugar-cane, maize, and other crops, and the possibility was established of growing sugar-beet successfully near Peshawar. Large numbers of fruit-trees have been supplied from the farms at Tarnab and Haripur: they are reported to be doing well.

Central Provinces.—It has been necessary to call a halt in the expansion of the Department's activities pending the strengthening of the supervising staff, which is now in progress. An unfavourable season affected the results obtained on the Government farms. These are eight in number, and are chiefly devoted to cotton, rice, wheat, dairy and fodder, and sugar-cane. The Rosea cotton-seed from the Akola farm continues to enjoy its high reputation in Berar. Nearly two million lbs. of Rosea seed were grown by private seed-farms organised on a co-operative basis. In one farm a short agricultural course was attended by 37 men, 34 of whom passed. Demonstrations were held, as usual, of the advantages of the single-seedling method of rice transplantation. At the Nagpur College it is becoming increasingly necessary to establish a separate curriculum for students of the agriculturist class who come up insufficiently prepared for a scientific course.

Burma.—There is little demand among Burma agriculturists for higher agricultural education, the bulk of them being small holders. A scheme is on foot for introducing the teaching of agriculture in primary and middle schools, in order that the people thus educated may be able to take advantage of the improved methods which the Department demonstrates. For the purpose of demonstration, district agriculturists are being trained. The first batch completed their training in April 1914, and have commenced on demonstration work in six districts. Experimental work at Mandalay and Hmawbi was concerned chiefly with rice selection and pulse. Besides these two stations there are small subsidiary stations, and two new ones were opened during the year for the study of wheats and cottons. A third station has been established at Takton for the dry zone. Of the experimental gardens, all except two, having served their purpose, have been closed. As the Department develops, there is, of course, less experimental work done through district agency. It has been largely replaced by experiments made by cultivators on their own initiative.

Madras.—The proposed new preliminary course at the Agricultural College was approved by the Board of Agriculture and recommended to the consideration of other provinces. It was introduced in June 1914. It consists of practical agriculture and is suitable for students of the agriculturist class who have not sufficient preliminary education for the more scientific subjects. There are ten agricultural stations including the central station at Coimbatore. The selection and cultivation of sugar-canes, paddy, and cotton, were the chief subjects of experiment, the manuring of paddy with green manure and cake yielding specially interesting results. It is fairly well established that this is the most suitable way of applying nitrogen to paddy. With the rapid expansion of ground-nut cultivation there has been a deterioration in the percentage of oil, and it has been found that to obviate this the crop should be grown either with, or alternated with, certain cereals. Millets also receive attention. Work is now progressing on the sugar-cane station near Coimbatore. Besides its work in freshwater, the Fisheries Department successfully cultivated edible oysters and drew up a scheme for cultivating pearl oysters.

Bombay and Sind.—The new buildings of the Agricultural College are now complete. This institution is proving more successful than some of the colleges in other provinces; the number of students in 1914 rose from 110 to 117—the increase being due to the popularity of the short course which is provided for the sons of landowners and farmers. There are 20 agricultural stations, 19 plots and sub-stations,

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and graduate fieldmen demonstrators in almost every district. The Department has paid much attention to seed improvement; its chief successes have been the introduction of certain highly-satisfactory foreign varieties of groundnut (a crop ever increasing in popularity) and elaborate trials with a view to ascertaining the most suitable varieties of cotton for each tract of cotton-land. Efforts are being made to impress on the farmer the importance of cleaning the soil, and experiments are being conducted in connection with dry-farming and manuring problems. The services of the agricultural engineer are much in demand: power is being extensively used for water raising and sugar crushing (thus setting bullocks free for field work), and well-boring operations have been successful—especially in Upper Gujarat.

Civil Veterinary Department.

This Department is responsible for all official veterinary work other than that of the army. Its duties are concerned with horse, &c., breeding, cattle-breeding, horse and cattle disease, and veterinary education. The total cost of the Department in 1913-14 was £189,798 (excluding expenditure by local bodies).

Horse, Mule, and Donkey Breeding.—In those districts of the Punjab, Baluchistan, the United Provinces, and Sind, in which the breeding of equines specially flourishes, the entire control of horse, mule, and donkey breeding was, in 1903, transferred from the Civil Veterinary Department to the Army Remount Department, the work of the former being confined to cattle. Outside these districts the Civil Department controls breeding operations of every sort. Government stallions are allotted only to selected districts, but the stallions provided in the non-selected districts, partly from District Board funds and partly from provincial revenues, aided by grants from the Government of India, are controlled by the Department. Of these, there were on the register at the end of 1913-14, 86 horse, 102 pony, and 111 donkey stallions. The total number of mares covered was 15,542. Most of the horse stallions are in the United Provinces, and of the pony and donkey stallions in the Punjab.

Cattle Breeding.—Owing on the one hand to the decrease in the grazing areas and on the other to an increase in the more profitable occupation of cultivating crops, there has been a decline in cattle breeding in most provinces. As regards bovines, veterinary operations are directed towards improvement of the breeds, investigation of diseases, inoculation, and maintenance of veterinary dispensaries. There were at the end of the year 66 Government bulls and 874 bulls owned by district boards, the great majority of the latter being in the Punjab. There were six provincial cattle farms, one each in the United Provinces, Assam, Bombay, Central Provinces, Bengal, and Bihar and Orissa, besides the most important centre of cattle breeding, the Hissar Government Cattle Farm, in the Punjab, which, in consequence of the abolition of the Inspector-General of the Civil Veterinary Department, has been transferred to the Provincial Government. This farm contained 31 herd bulls and 1,507 cows, besides a large number of young stock and cultivation bullocks, and some mules, donkeys, and sheep. The aim is to maintain a herd of 1,200 cows, so as to meet present demands for ordnance bullocks and for bulls required by the districts and at the farm. A large number of cattle fairs and shows were inspected. Prizes are offered out of Imperial and local funds.

Disease.—(a) *Equines.*—Of 258 reported deaths from glanders, over one-half were in Bengal. There were 352 deaths from surra, mostly in Bombay, 48 from anthrax, and 502 from other contagious diseases not specified.

(b) *Cattle.*—Owing to the difficulty of collection, statistics of mortality from contagious diseases among cattle are defective. The number of reported deaths was 193,741, as against 187,231 in 1912-13. The deaths from rinderpest numbered 91,055, as against 92,846 in 1912-13. The United Provinces, Burma, and the Punjab were the severest sufferers. The reported deaths from anthrax numbered 12,900, of which Madras contributed 5,866. There were 32,218 deaths from hæmorrhagic septicæmia, chiefly in the Punjab (10,663), and 16,091 deaths from foot and mouth disease. Considerable progress has been made in breaking down the opposition of the people to inoculation, but, owing to an accident to the machinery at the Imperial Laboratory, Muktesar, the supply of anti-rinderpest serum proved inadequate

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and the number of inoculations for rinderpest fell from 423,816 in 1912-13 to 309,461 in 1913-14. There were also 133,660 inoculations for hæmorrhagic septicæmia, and 110,955 for other bovine diseases. The rinderpest serum prepared at Muktesar is in great demand, both in India and Egypt, though, owing to the reason stated above, there was a shortage of the supply in 1913-14, and an enquiry from Rhodesia could not be complied with. A considerable amount of useful research work was carried on at the laboratory.

The camel specialist is at work on a safe cure for surra.

The progress of cattle-insurance schemes in Burma is noticed in the section dealing with co-operative credit societies in that Province.

Subordinate Staff.—Ninety-six veterinary inspectors and 911 veterinary assistants were employed in 1913-14. Of these, 622 assistants visited on tour 114,721 villages and dealt with 598,969 cases. The veterinary hospitals and dispensaries, at which 737,999 animals were treated during the year, numbered 393.

Veterinary Instruction.—The number of students who graduated in 1913-14 at the four veterinary colleges, viz., the Punjab, Bengal, Bombay, and Madras, and the Burma Veterinary School was 121. There were 340 students under training at the close of the year, as against 319 at the end of 1912-13. The Punjab College has the strongest teaching staff and the greatest facilities for teaching, and it turns out almost one-half of the graduates. Its course has been extended to four years. At present the classes are overcrowded. The staff is being increased by the addition of two European professors, and new buildings are to be erected. The Bengal College trains men for Bengal, Bihar and Orissa, Assam and Burma. The laboratories attached to the colleges were increasingly used. The demand for vernacular trained men as veterinary assistants still continues.

Archæological Department.

The primary function of this Department is the conservation of monuments of historic and architectural interest under the Ancient Monuments Preservation Act, but exploration is undertaken so far as means and opportunity permit. In the North-West Frontier Province excavations are in progress at Taxila, 20 miles north-west of Rawalpindi, where there are the sites of three successive capitals, dating from Alexander the Great to A.D. 300. During 1913-14 the stately temple of Jandial was totally cleared. In Patna the excavation of the ancient Mauryian capital of Pataliputra revealed most interesting resemblances to the buildings of Persepolis. In Burma excavation was carried out at Pegu and Yathemyo, and a considerable number of Talaing inscriptions were discovered. An epigraphist has been appointed to deal with the mass of material available in Burma. Conservation proceeded as usual among the great Mohamedan monuments of northern India and the ancient Hindoo remains of the West.

Medical Research Institutes.

In 1907 the Bacteriological laboratories in India were placed on a definite footing, and the Bacteriological Department now has 28 officers employed in the institutions named below or on special duty. In 1911 was instituted a Central Research Fund for research into epidemic diseases, with a government endowment of £33,000. Up to the end of 1913-14 the fund had received grants amounting to £100,000, and had sanctioned an expenditure of £93,000 on researches into kala azar, cholera, yellow fever, anti-malarial measures in various provinces, a contribution to the Imperial Bureau of Entomology, an elaborate experiment on water filtration at Benares, and a subvention of £6,667 towards the new Calcutta School of Tropical Medicine. The fund is under an Advisory Board, and the former Central Malaria Bureau has become a sub-committee of the latter. The Research Fund Association publishes a quarterly "Indian Journal of Medical Research."

At the Central Research Institute, Kasauli, vaccines and sera were prepared as usual both for Government and private institutions, pathological and other specimens were examined and four classes were held in bacteriological method and technique. A new teaching laboratory for the Bacteriological Class and suitable accommodation for the malaria section have been provided. The Bombay Bacteriological Laboratory,

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besides its functions as Provincial Laboratory for Bombay, is the headquarters of the Plague Research Commission. Besides its output of anti-plague vaccine (of which an increasing quantity goes to countries outside India), it conducted inquiries into Guinea-worm, tuberculosis, &c. It likewise prepared an exhibit illustrative of Bubonic Plague for the Ghent International Exhibition. At the King Institute of Preventive Medicine, Madras, the usual examination was conducted of pathological samples and samples of water supply. The work of the Pasteur Institutes is described on page 116.



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CHAPTER XIV.

EDUCATION, LITERATURE AND THE PRESS.

*(For further details see Statistical Abstract for British India, Tables 105 to 116.)***Education.****General.**—Educational institutions in India are of two classes :—

- (1) Those in which the course of study conforms to the standards prescribed by the Department of Public Instruction or by the University, and which either undergo Inspection by the Department, or else regularly present pupils at the public examinations held by the Department or by the University. These institutions are called "public," but may be under either public or private management. To the latter class, for example, belong those "aided schools," receiving grants from Government or from local or municipal boards, which occupy so important a place in the 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. :—

- (i) 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.
- (ii) 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 not taught, or is an optional subject only, they are reckoned as Vernacular.
- (iii) Colleges, the students in which, having passed the matriculation examination of a University, are reading for the examinations required for a degree.

In addition to these there are various institutions of a special character, such as technical schools teaching arts and industries, engineering and other branches of applied science; law schools; medical schools and colleges; and normal schools for the training of teachers.

The general educational policy of the Government of India was declared at length in a Resolution published in March 1904, of which some account was given in the issue of this Statement for 1903-4; and more recently in the Resolution of 21st February 1913 of which a notice will be found in Chapter XXII. of the Fifth Decennial Statement published in 1913. Reference may also be made to the Sixth Quinquennial Report on Education in India, 1914.

Number of Students.*—The total number of scholars in public and private institutions in British India in 1913-14 was 7,518,147. This represents an increase in the quinquennium, 1908-9 to 1913-14, of 1,545,943, being at the rate of 25 per cent. Male scholars in public institutions numbered 5,823,215, as compared with 4,650,134 in 1908-9, while females numbered 1,019,621 as compared with 720,342. The percentage of male scholars in public institutions to male population of school-going age has increased during the five years from 25·15 to 29·8 and the percentage of females attending schools to female population from 4·0 to 5·4.

Number and classification of Schools and Colleges.—The total number of institutions in 1912-13 was 181,659, of which 164,591 and 17,068 were for males and females respectively. The total number of villages served by the schools was 570,098, and the number of towns, i.e., places containing 5,000 inhabitants and upwards, was 1,597. Thus each institution for males served nearly four towns and villages, and each institution for females served 33 towns and villages. The number of students in

* These figures are to 31st March 1914.

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each class of school or college, classified according to the description of education imparted therein, was as follows:—

	1908-9.	1912-13.
UNIVERSITY EDUCATION :—		
<i>Arts Colleges :</i>		
English	-	-
Oriental	-	-
	18,418	32,112
	868	1,419
<i>Professional Colleges :</i>		
Law	-	-
Medicine	-	-
Engineering	-	-
Teaching	-	-
Agriculture	-	-
Veterinary	-	-
	2,558	3,856
	1,498	1,461
	1,177	1,216
	438	637
	255	284
	—	181
SCHOOL EDUCATION, SPECIAL :—		
Schools for special instruction	-	-
	129,761	197,183
SCHOOL EDUCATION, GENERAL :—		
<i>Public Secondary Schools :</i>		
High Schools	-	-
Middle English Schools	-	-
Middle Vernacular Schools	-	-
	329,559	418,682
	235,093	319,159
	235,183	228,870
<i>Private Advanced Schools</i>		
	54,785	58,836
<i>Public Primary Schools</i>		
	4,420,891	5,268,893
<i>Private Elementary Schools</i>		
	550,722	610,554

Stages of Instruction in Public Schools.—The total number of scholars on the rolls of the general public schools, both secondary and primary, on the 31st March 1913, included 5,424,983 boys and 840,621 girls. Of these, 3,355,560 were in the Lower Primary stage reading printed books, while 1,513,491 were in a still lower stage in which they had not yet been taught to read printed books.

Results of University Examination.—There was an increase in the quinquennium (1908-9 to 1912-13) in the number of colleges from 172 to 185, and in the number of students from 25,212 to 41,166. The increase was particularly large in Bengal.

Of the students 414 were women, the largest numbers being 128 in Bengal and 120 in Bombay. There has been an appreciable increase in the number of students in the professional colleges during the quinquennium.

The following statement shows the number of examinees for the attainment of the University degrees named, the number passed, and the race or creed of the passed scholars in 1912-13.

	Number of Examinees.	Number passed.	Race or Creed of Passed Scholars.							
			Europeans and Eurasians.	Indian Christians.	Hindus.		Muhammadians.	Buddhists.	Parsees.	Others.
					Brahmans.	Non-Brahmans.				
Bachelor of Arts	5,160	2,954	31	119	1,429	1,060	216	20	56	23
Bachelor of Science	601	368	1	7	141	202	14	—	—	3
Bachelor of Law	2,140	1,258	2	16	535	527	140	3	22	13
M.B.	45	25	—	—	6	19	—	—	—	—
B.C.E.	34	16	—	2	6	7	1	—	—	—
Roorkee { Civil engineer	115	86	4	1	50	8	3	—	20	—
Electrical engineer.	—	—	—	—	—	—	—	—	—	—
Licentiate of Agriculture	78	54	—	1	28	16	6	—	—	3

The number of candidates for the B.A. degree continues to grow at a remarkable rate. In 1911-12 there were 4,358 candidates, and 2,477 passed. The percentages of passed to candidates was practically the same for the two years 1911-12 and 1912-13.

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System of Management.--The new Department of Education in the Government of India was created in 1910. There is, further, in each province, save in Coorg, a department of Public Instruction, subject to the Government, the operations of which are co-ordinated with the general policy of Government. Subject to this general condition, each department under a Local Government advises as to educational needs, administers the funds allotted, inspects, examines, frames rules and prescribes curricula. Its controlling powers, however, are shared, as regards higher education, with the universities, and, as regards elementary education, with the civil authorities and the local and municipal bodies. The great majority of institutions are maintained by the boards or by private agencies, which in turn may receive aid either from the board or from the department. The inspectors, professors, and teachers are grouped in various services. The teachers are employed mainly in the higher institutions, and, even in these, represent only a small portion of the total number, the majority being in private employ. Nearly all the teachers in primary schools are board or municipal servants or work in aided institutions. The Government services are the Indian Educational, recruited in England, the Provincial, recruited by the Local Government, and the Subordinate, also recruited by the Local Government and like the Provincial consisting in the main of Indians. The Inspecting Agency is, with minor exceptions, included in the Government services. A beginning has been made in recent years of inspection for special subjects in the ordinary schools, *e.g.*, drawing, manual training, and also of a demand for medical inspection.

The civil authorities are concerned with education as being in general charge of all branches of administration in their jurisdiction; and the co-operation of the executive with the educational officer in educational work is at once beneficial and necessary. The bulk of elementary education is in the hands of municipal and district boards, which not only maintain schools but also disburse grants to schools maintained by private bodies or persons. In the discharge of their duties of control, including the closure of their own schools, the appointment and dismissal of staff and the disbursement of aid to privately managed schools, the boards are guided by rules issued by the Local Government. The curriculum is that prescribed by Government; and the scale of grants to aided institutions must be generally in accordance with the departmental rules. A cause for complaint is that the members of the district boards often have little or no knowledge of the villages where schools are situated and of the work done by these schools. Private agencies are a factor of great importance in the educational system, and include missions, Indian societies and committees, and individual managers, who are generally also the teachers. Thousands of elementary schools in Bengal are of the proprietary or "venture" type. All are eligible for grants provided they fill a need and serve a useful purpose, and they subsist partly by fees and subscriptions, partly by grants from public funds. As controlling agencies the Universities are of prime importance, since they frame courses, conduct examinations for diplomas and degrees, affiliate and inspect colleges, and prescribe the curricula in the upper classes of high schools preparing for the matriculation examination. Finally, there are a number of committees, text-book, visiting, ladies for girls' schools, and governing bodies and committees for the detailed control of individual institutions.

Female Education.--The ratio of girls to boys under instruction is about 1 to 6. Five years ago it was about 1 to 7. As regards creed, among Christians and Parsis the rates of girls to boys is about 1 to 2, among Buddhists and Brahmans about 1 to 5, and among Muhammadans and non-Brahmans about 1 to 7. As regards university education, the number of girls in Arts Colleges (318) is greater than in all the other colleges taken together. The number of girls studying in Medical Colleges (57) comes next.

Of the 35,255 girls attending schools for special education, 2,063 were in Technical and Industrial Schools, of whom 154 were Europeans and Eurasians, 1,265 Indian Christians, 425 Hindus, 107 Muhammadans, and 100 Buddhists. There were 207 girls in Medical Schools, the majority of whom were Indian Christians.

Cost of Education.--The total cost of the educational system is shared almost equally between public and private funds. By the former are meant provincial revenues (*i.e.*, the revenues of the Local Governments) and municipal or district board funds. The Imperial Government gives back part of the revenue which it receives by the occasional distribution of sums for set purposes, *e.g.*, for education; and there were large Durbar grants made in this way. Municipal and district or local boards levy cesses, but the income so resulting is generally increased by Local Governments,

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either by equilibrium grants or by special grants. In general, the whole of the provincial expenditure on education is met from provincial revenues which are from time to time enhanced by imperial grants.

The total amount spent upon education increased during the period 1908-9 to 1912-13 from £4,400,000 to £6,053,000. The increase in fees is about 43 per cent., while the increase from provincial revenues and local and municipal funds is 46 per cent. The average annual cost of educating each pupil in the different schools and colleges in British India during 1912-13 was as follows :—

	Cost met from Provincial Revenues.			Cost met from Local and Municipal Funds.			Cost met from Fees and other Sources.			Total Cost.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
Arts Colleges - - - - -	4	4	5	0	2	4	6	8	9	10	15	6
Colleges for professional training - - - - -	17	1	2	0	1	4	4	14	10	21	17	4
Secondary Schools - - - - -	0	6	1	0	2	8	1	1	6	1	10	3
Primary Schools - - - - -	0	1	5	0	2	5	0	2	4	0	6	2
Training Schools - - - - -	8	1	1	1	0	7	2	7	3	10	8	11
All other special schools - - - - -	0	12	11	0	2	2	0	10	8	1	5	9
Cost per each pupil in all institutions - - - - -	0	3	8	0	2	5	0	5	7	0	11	8

Hostels or Boarding Houses.—There were in 1912-13, 3,081 hostels or boarding houses attached to colleges and schools with 119,378 boarders, as against 2,796 in 1911-12 with 107,333 boarders. The total expenditure rose in the same period from £364,800 to £414,733. The Government of India has recently made grants for hostels amounting to £900,000 capital and £33,330 recurring.

The following statement shows the number of boarders attached to each class of schools or colleges :—

	1912-13.
Arts Colleges - - - - -	9,073
Professional Colleges - - - - -	1,811
Secondary Schools - - - - -	70,582
Primary Schools - - - - -	24,610
Special Schools - - - - -	13,302

The following is a short summary of some of the more interesting features of the year's record in the several provinces.

Madras.—In the Madras Presidency there were 952,035 and 248,214 male and female scholars in 26,018 and 1,443 primary schools for boys and girls respectively. Secondary schools numbered 364 for males (with 117,956 scholars) and 69 for females (with 10,201 scholars). In the 34 Arts and 3 professional colleges for males there were respectively 7,028 and 986 students. The figures for elementary education show a marked advance on the previous year, and the percentage of male pupils under instruction in Public Elementary Schools to the male population of school-going age increased from 29·1 to 31·1. The scheme for the reorganisation of Training Schools for Masters was given effect to during the year; and with a view to meeting the growing demand for qualified teachers, temporary training schools and classes were opened in which provision was made for the training of extra batches of students of the higher as well as the lower elementary grade. Further progress was recorded in all grades of female education. There was again a noteworthy increase in the number both of Brahman and of Muhammadan girls receiving secondary education. The percentage of female scholars to female population of school-going age rose from 7·2 to 8·8. Under the scheme for the development of the study of Indian languages a University Professor of Sanskrit and Comparative Philology was appointed, and sanction given to the appointment of four University readers in the Philology of Indian languages. The total expenditure on education for the year was £1,200,000, an increase of 14 per cent. on the amount for the previous year.

Bombay.—The total number of institutions of all kinds in the Bombay Presidency rose during the year under review from 17,120 to 17,914, and the number of persons receiving instruction in them from 987,685 to 1,029,017. Numerical progress was

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naturally most conspicuous in the case of primary schools, the number of which rose by nearly 700 to 14,061, the attendances aggregating 847,706 as against 814,409 in the previous year. The year was one of great promise with regard to collegiate education. The University enjoyed the benefit of visits from Sir Alfred Hopkinson, Professor Ramsay Muir, and Professor Smithells, and the report of the first named, which embodies a series of important recommendations, was under consideration at the end of the year. Further progress was made towards the completion of the programme of improvement and development with regard to secondary education referred to in last year's report. An inspector of science was appointed in connection with the scheme for establishing a fully-equipped laboratory in every high school, and the appointment of an inspector of drawing was sanctioned. The number of secondary schools rose from 588 to 607, and the attendance from 80,144 to 84,547. Appreciable advance was made in connection with female education, the increase during the year in the number of female scholars being 10,000, or, roughly, 6 per cent. A notable event in the history of professional education was the opening of the College of Commerce, which entered on its career in encouraging conditions. The total expenditure on education rose from £1,023,180 to £1,063,548.

United Provinces.—Education continued to show satisfactory progress in the year under review, the total number of institutions having risen from 17,580 to 17,656, and that of pupils attending them from 788,298 to 819,472. The percentage of scholars on the population of school-going age rose in the case of boys from 19·82 to 20·51, and in that of girls from 1·65 to 1·81.

The stimulus given to primary education by the action of the Government of India in assigning large sums from Imperial revenues for its improvement continued to be felt during the year. The numbers of primary schools for Indian boys increased from 10,151 to 10,439, and it is satisfactory to note that of the new institutions no less than 193 were intended to teach up to the upper primary standard. The number of scholars attending primary schools increased from 547,354 to 566,033, and here, too, it is noteworthy that the bulk of the increase took place in upper primary schools. Out of the total number of schools 6,417 were managed by district and municipal boards, and of these nearly half were teaching up to the upper primary standard. The provision of teachers, however, was still inadequate, the total number for the province being 12,605, of whom 5,026, or 40 per cent., were trained. In the sphere of female education the dearth of competent teachers was comparatively as great as ever, but notwithstanding this drawback, there was a satisfactory increase in the number of institutions for the education of girls and in the number of pupils attending them. The technical and industrial schools in the province continued to do good work. The total expenditure on education from all sources rose from £807,976 to £855,339.

Punjab.—The year was again remarkable for great educational activity. The number of educational institutions in the province increased by over 600, and the attendance by nearly 34,000. More than 400 new school buildings were either erected or in course of erection. The percentage of scholars to the population of school-going age rose from 21·37 to 22·79 in the case of boys, and from 4·31 to 4·76 in that of girls; the attendance has practically doubled in the course of 10 years. As was to be expected, a very great development took place in primary education. Four hundred and sixty-nine new primary schools for boys and 84 new primary schools for girls were opened during the year, and the number of pupils increased by no less than 27,647, of whom 22,892 were boys and 4,755 girls, the corresponding increase for the previous year having been 20,669. Although there were 1,000 more primary teachers than in the previous year, the proportion of trained teachers increased, and there was ample evidence that owing to the more liberal pay now offered, the calling of teachers in primary schools was becoming a popular one. Secondary and collegiate education showed an equally remarkable advance, the increase in the number of secondary schools and pupils attending them having been unprecedented. There was still, however, a great dearth of capable secondary teachers. As regards university education, the courses of lectures delivered by University lecturers from England were a most successful innovation. The total educational expenditure rose from £561,385 to over £620,000.

Central Provinces and Berar.—Educational expansion was again rapid during the year under review, and many projects which owe their initiation to the large grants from the Government of India were either set on foot or advanced to a further stage

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of development. Schools and scholars rose by 333 and 28,314 respectively, much the greater part of the increase occurring under the head of primary education. The lack of competent teachers was still very marked, but important reforms which, it was hoped, would soon remedy the deficiency, were inaugurated during the year. The pay and prospects of both primary and secondary teachers were greatly improved, and in the case of the former a pension fund was instituted. In the matter of higher education the need for an autonomous university for these provinces was recognised, and a committee was appointed to draft a scheme. The new engineering school at Nagpur commenced work in the course of the year.

Burma.—The year under review was one of steady progress in education. The number of public institutions increased from 6,662 to 7,066, and the attendance from 282,433 to 324,085. The increase in numbers was, of course, largest at the lower primary stage, but there was a noteworthy percentage of increase in the high school stage, while collegiate education showed an almost phenomenal advance, the attendance having risen from 344 to 453. The proportion of scholars to population of school-going age is high for Burma when compared with other provinces, and for 1913 the percentage for males rose to 43·48 and that for females to 11·42. There was a remarkable increase of 17,855 in the number of girls attending school, the corresponding figures for 1912 having been only 4,416. Among the special schools, commercial schools appeared for the first time, three having been registered in Rangoon with 203 pupils. The examination for these schools was held in connection with the Midland Counties Union of Educational Institutions, Birmingham. The elementary training classes for vernacular teachers referred to in last year's report were most successful. The total expenditure on education in the province during the year amounted to £410,313, as compared with £355,734 in 1912.

North-West Frontier Province.—The rapid progress made in the two previous years in education was more than maintained in 1913. There was a remarkable increase from 34,640 to 40,238 in the number of male scholars, while the number of girls attending schools showed a satisfactory rise from 3,832 to 4,207. A gratifying feature of this expansion of education was the increase by as much as 25 per cent. in the number of Muhammadans in primary schools. The most notable event of the year was the actual opening for work of the Islamia College and School. Being situated at a distance of more than 3 miles from Peshawar City, the institution is purely residential, and the demands for admission far exceeded the available accommodation. One important characteristic which distinguishes it from other institutions in the province is that religious education in the tenets of Islam is compulsory for the students. The provision of teachers to keep pace with the great increase of scholars presented in this province, as elsewhere, considerable difficulties. Proposals were submitted to the Government of India for the opening of a class for the training of teachers for Anglo-vernacular schools, and if the proposals are sanctioned the deficiency, so far as it relates to this branch of education, will, it is hoped, be gradually met. An interesting experiment was made during the year under review in the introduction of a simple system of school hygiene. Total expenditure increased from £64,146 in 1912 to £68,375 in 1913.

Assam.—With the assistance of the special grants received from the Government of India, rapid advance was made during the year 1913-14 in every branch of education. The total number of institutions of all kinds increased from 4,269 to 4,578, and the number of pupils attending them from 194,288 to 215,141. Although, however, the rise in the number of collegiate students from 360 to 412 was satisfactory from a statistical point of view, it is obvious that it will have to be greatly accelerated before the Assam Colleges can be regarded as fulfilling even their primary task, namely, the training of men for the occupation of the learned professions and the service of the State. To ensure a liberal supply of undergraduates, an efficient and extensive system of secondary education is, of course, necessary, and to satisfy this requirement, vigorous measures are being taken by the local government. Notably, in 1913, five aided schools were taken over by the Government in pursuance of the policy of converting private into State schools. The greatest activity, however, was shown in the field of primary education. Fees were entirely abolished in vernacular schools, the pay of all teachers was largely improved, a first instalment of 25 lower primary schools with a specially liberal scale of remuneration for the staff was established, and a large number of new primary

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schools of the ordinary type were opened. Female education likewise, notwithstanding an insufficiency of teachers, showed a satisfactory advance, the attendance having risen from 19,054 to 22,687, and the percentage of pupils to girls of school-going age from 3·79 to 4·6. Expenditure on education rose by over £28,000 to £155,219.

Bengal.—The province of Bengal having been reconstituted on the 1st April 1912, a comparison of the figures for 1912-13 and 1913-14 is now possible for the whole of the new administrative area. The total number of all classes of institutions decreased in the latter year from 42,903 to 42,835, while that of the pupils attending them increased from 1,718,623 to 1,747,608. Arts colleges continued to attract students in ever increasing numbers, the total number for 1913-14 being 14,746, or 1,850 more than in the previous year. In secondary education the year was chiefly marked by the decision to establish a residential secondary school for Indian boys on the lines of an English public school. Purely vernacular education continued to decline in favour, and its further maintenance in the intermediate stages seems to be impracticable without some concession as to the optional teaching of English in upper primary and middle vernacular schools. Lower primary education also received a set-back numerically, there being a decline of 17,716 pupils as compared with the previous year. The whole system of primary education in Bengal is at present under review, and it is hoped to evolve a satisfactory school course which, among other things, will put an end to the distinction obtaining between the curricula laid down for the eastern and western sections of the Presidency. The supply of teachers, both secondary and primary, was still very inadequate, but large expenditure was sanctioned during the year and will continue to be incurred in the future with a view to remedying the existing deficiency. Female education showed steady progress. The inspecting agency for girls' schools was considerably strengthened during the year. One urgent want, however, which is still unsatisfied is that of a women's secondary training college. The number of Muhammadan students in the upper stages of instruction remained low. Only in the primary stage was the percentage of Muhammadans under instruction satisfactory. The question of the establishment of a school of mines for Bengal and Bihar was referred to a committee, which submitted its report to Government during the year. There was an all-round increase of expenditure in 1913-14, the total for the year being £1,471,000 as against £1,351,000 for 1912-13.

Bihar and Orissa.—Educational matters in the new province of Bihar and Orissa are still in a somewhat fluid condition. During the first year of its existence the Education Department was engaged in stocktaking, and subsequently various conferences and committees were entrusted with the task of framing schemes for the development of different branches of education, which up to the end of the year under review had not been brought into operation, nor even in many cases sanctioned. It is not surprising, therefore, that from a statistical point of view little advance is as yet recorded. The number of boys' primary schools, for instance, has risen by only 105 to 22,509, the explanation being that during the years 1911-13 attention was to a great extent concentrated on paying larger salaries to the teachers. At the same time, pending the introduction of large schemes of educational reform, a great many individual improvements were effected during the year. A number of new school and college buildings were erected, and the staffs of all classes of educational institutions were considerably strengthened. With regard to the larger schemes, the report of the Committee on the subject of a university for Bihar, with which is bound up a great number of connected questions, chiefly bearing on collegiate education, was submitted to the local government in the course of the year, as was also the report of the Committee appointed to consider the question of Muhammadan education. Under the head of female education a rather remarkable advance was recorded. The total number of girls' schools rose from 1,858 to 2,249, and the number of pupils attending them increased by 9,906.

Literature and the Press during the Calendar Year 1913.

Bombay.—The number of publications registered in 1913 was 2,884, as compared with 2,605 in the previous year. The total increase is made up chiefly of an increase of 64 under the heading Language, 43 under Religion, 38 under Medicine, 34 under Poetry, and 18 under Philosophy. The other subjects show only a small

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variation in number. English books rose from 107 to 121 and Marathi and Gujarati books increased by 19 and 47 respectively. The only notable book in English is *Premchand Roychand*, by D. E. Wacha, a remarkably well written biography of the famous broker, and incidentally an account of the Bombay share-mania of 1863-65. In Marathi a fairly good translation of Shakespeare's *Julius Cæsar* was written by K. B. Belsare, and the well-known author Narayan Hari Apte produced a historical novel, written in simple and idiomatic style, which is based on the event of the second sack of Chitor by Sultan Bahadur of Gujarat. In Gujarati a work of a rather unusual type is *Pramad Dhanani Prabhata*, by D. N. Vakil. The style is simple and at times forcible.

Madras.—The number of works presented for registration during the year was the largest on record since the enforcement of the Books Registration Act of 1867, the total being 4,318, as against 4,098 in 1912. Religion was as usual the subject which had the largest number of books devoted to it. Travels and voyages were again unrepresented. As regards languages, Tamil once more occupied the first place, while English and Telugu were not far behind. There was a slight falling off under Arabic and Sanskrit, and an increase under Kanarese, Uriya, Konkani, and Hindustani. *Selections from the S'cva Folklore* in the Savara language may be considered as a publication worthy of note during the year under report. Other works deserving notice were *Shakespeare Kavimāmbum Perumpuyalum*, by T. B. Krishnaswami, the first of a series of translations of Shakespeare's dramas, and *Cholan Karikalan I.*, a well-written work of historical criticism. There were only four books of a political character, against nine in the previous year. All of them were unobjectionable.

Bengal.—The number of publications registered during 1913 was 4,083, as compared with 3,889 registered in 1912 in the province as now constituted. Though the quality of the literature received was, as a whole, marked by no unusual excellence, great activity was exhibited in the departments of biography, the drama, fiction, history, poetry, and religion.

In fiction and the drama the influence of politics appears to be gradually waning, and considerations of pure art are reasserting themselves. In dramatic literature the loss caused by the deaths of Babu Giris Chandra Ghosh and Babu Dwijendra Lal Roy has been severely felt, and showed itself in the absence of any work of superior merit during the year. The year's fiction was poor with the exception of one work, which, however, was of outstanding ability. It is a homely domestic tale of great pathos, entitled *Annapumar Mandir*, and the author was a Hindu widow named Nirupama Devi. Historical literature was well represented, the most ambitious work published during the year being a history in English of the civilisation of the world, entitled *Epochs of Civilisation*, by Pramatha Nath Bose. The first part of a Bengali lexicon, the first comprehensive work of the kind, was brought out during the year by Professor Jogesh Chandara Roy.

United Provinces.—The total number of publications issued during the year, 1,708, was practically the same as in the previous year, the largest returns being under the heads of poetry religion and language. There was a decrease in the number of books in English and Urdu, and Hindi remained by far the predominant language. The true historical spirit still seems to be lacking in the United Provinces, as is evidenced by the production of such books as the *Ten Teachers of the Sikhs* and the *Greatness of the Aryas*, in both of which the Hindus are glorified at the expense of the Musalmans.

The decay of Arabic learning is well exemplified by the year's publications. The only branch which was at all well represented is Muhammadan Law, and the most scholarly and careful piece of work in that domain—the publication of the text of the *Durr-ul-Mukhtar*, with an accurate English translation—was by a Hindu. Sanskrit studies, on the other hand, have been vigorously pursued. An example of the influence of European scholarship is afforded by the publication of a selection from the *Brahmanas* by Dr. Laddu, the object of which is to give in a convenient form passages of first-rate importance throwing light upon ancient beliefs regarding the Vedas, the Devas and Assuras, the castes, and the position of women in early society. The curious taste in fiction of a very large section of the Indian reading class is evidenced by the popularity of the novels of G. W. M. Reynolds, two more of which were translated into the vernacular during the year.

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Punjab.—The aggregate number of publications during 1913 (1,642) was larger by 110 than that of the previous year, but as the quality of the vernacular literature produced was very poor, this is hardly a matter for congratulation. There was an increase of 119 in the number of original vernacular works. With regard to the language of publication, Punjabi for the first time took the lead, Urdu, with a decrease of 59, standing second. Poetry claimed the largest number of publications, and was followed at a considerable interval by religion. Books on art, history, and science showed a satisfactory tendency to increase, but biographies deteriorated both in quality and quantity, and there was not a single book on travels. In Hindi and Punjabi there were good versions of the *Mahabharata*, and a short history of Japan was published in the latter language. On the whole the literary output of the year was somewhat discouraging as to its quality.

Burma.—The total number of publications registered in Burma during the year was 362, as against 338 in 1912. There was thus an increase, but the number is less than that of 1910, when it reached 373. More than half the publications were works on religion, and these are written chiefly in Burmese and Pâli. There was a large decrease in the number of dramatical works, only five plays, one of which was in English, having been published. Only one biography appears on the list; it is a brief sketch of the life of Dr. Judson, the pioneer missionary to Burma. There was no important change in the language of the publications, but works in Bengali, Pwo-Karen and Yaungthu were added.

Assam.—The total number of publications was 49, as against 44 in 1912, of which 13 were classified under religion, and 4 under poetry, while 11 were periodicals. The books were, without exception, free from offence.

The general observations contained in last year's report apply equally to the output for 1913. The publications were few and insignificant, and it would be vain to look in them for an indication of positive tendencies.

Central Provinces.—There was a further decrease in the volume of the literary output of the Central Provinces and Berar during the year 1913, and its quality was not marked by any improvement. The total number of publications registered during the year was 97, as compared with 112 in the previous year. Of these, 8 were in English, 28 in Marathi, and 44 in Hindi. The year under review, like the preceding year, was singularly free from political publications, and there was no occasion to have recourse to the provisions of the Press Act of 1910. The number of religious publications (32) was lower than that of 1912. Of the thirteen books selected for special review by the Director of Public Instruction, none contained anything distinctive from an educational point of view. Among the non-scholastic publications four display an anti-Brahmin trend and afford further evidence of the reaction among the lower classes of Hindus against Brahmin pretensions which was noticed in last year's report.

(General.)

CHAPTER XV.

LOCAL SELF-GOVERNMENT.

GENERAL.
MUNICIPALITIES.DISTRICT AND LOCAL BOARDS.
PORT TRUSTS.

General.

Local self-government, municipal and rural, in its present form is essentially a product of British rule. Beginning in the Presidency towns, the principle made little progress until 1870, when it was expressly recognised by Lord Mayo's Government that "local interest, supervision, and care are necessary to success in the management of funds devoted to education, sanitation, medical charity, and local public works." The result was a gradual advance in local self-government, leading up to the action taken by Lord Ripon's Government in 1882-84, and to various provincial Acts passed about that time, which greatly altered the constitution, powers, and functions of municipal bodies—especially by widely extending the elective system—and which still form the basis of the provincial systems in force. At the same time, the resources and financial responsibility of municipalities were increased. Municipal committees now exist in most towns of any importance. In the rural districts local and district boards were established by Acts of 1883-5. The local boards are under the control of a general district board, or send delegates to a district council. The systems vary in different provinces, as a large discretion is left to the provincial governments. The elective principle has been adopted in varying degrees. There is also a smaller number of non-elective local bodies discharging similar duties in towns other than constituted municipalities and in cantonments. In the Punjab, United Provinces, Burma, Bombay, Central Provinces and Berar, and North-West Frontier Province certain provisions of the Municipal Acts are extended to small towns which are not fitted for the full responsibilities of municipal government, but nevertheless require organised measures for sanitation and other purposes. These, which are described as Notified Areas, must not be purely agricultural, and must not have a population exceeding 10,000. In the chief ports specially constituted boards or "trusts" have charge of harbour works, port approaches, and pilotage. Bombay and Calcutta also have "Improvement Trusts," distinct from the Municipal Corporations, for the purpose of clearing congested areas and making street improvements.

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(For further details see *Statistical Abstract for British India, Tables 101 to 103.*)

General.—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 the municipalities as a whole rather more than a half of the members are elected by the townsfolk under legal rules; in every town some, and in a few minor towns all, of 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, in every province largely exceeds the number of Europeans and officials. The municipal bodies are subject to Government control in so far that, generally speaking, 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 byelaws can be enforced without similar sanction and full publication; but, in view of the recommendations of the Decentralization Committee the question of according municipalities a larger measure of independence has recently been under consideration.

There were 712 municipalities at the end of 1912-13 (the latest year for which full figures are available), containing within their limits about 17 million people, or 7 per cent. of the total population of British India. Generally speaking, the income of municipalities is small. Their aggregate income amounted to about £5½ million, excluding loans, sales of securities, and other extraordinary receipts. About 40 per cent. of the total is provided by Calcutta, Bombay, Madras and Rangoon. Loans are incurred for water supply and drainage schemes, the cost of

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which is too large to be defrayed from ordinary revenues. Municipalities other than the above four get their loans chiefly but not entirely from Government. The sources of municipal revenue, apart from loans and Government contributions, fall mainly under the two heads, "Taxation" and "Municipal Property and Powers apart from Taxation." Of the taxes the most important are octroi duties, levied in the United Provinces, the Punjab, the North-West Frontier Province, the Central Provinces and Berar, and Bombay, and the tax on houses and lands, which holds the chief place in the other provinces, as well as in Bombay city, and also contributes a considerable share of the receipts in the provinces named above. These two taxes each yielded about one-fifth of the total income of municipalities in 1912-13. There are also water, conservancy and lighting rates, tolls on roads and ferries, taxes on animals and vehicles, and in some places a tax on professions and trades. Steps have been taken in some cases to abolish octroi and to substitute for it direct taxation. The other sources of income include cattle-pound receipts, rents of municipal property, such as markets and slaughter-houses (an important item in Burma), and fees of various kinds. The objects on which municipal funds are spent are, mainly, water supply, roads, hospitals, vaccination, conservancy, drainage, lighting, fairs and markets, and education.

The interest in municipal elections, and in municipal affairs generally, is not usually keen, save in a few cities and large towns; but, as education and knowledge advance, interest in the management of local affairs gradually increases. In most provinces municipal work is fairly well done, and municipal responsibilities are, on the whole, faithfully discharged, though occasional shortcomings and failures occur. The tendency of local bodies, especially in the smaller towns, 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, whether at meetings for business or on benches for the decision of petty criminal cases.

The following table gives information as to the constitution of municipal committees, taxation, &c. in the chief provinces in 1913-14 (or 1912-13 where no later figures are available):—

	Population within Municipal Limits.	Number of Municipalities.	Total Number of Members.	By Qualification.			By Employment.		By Race.		Incidence of Municipal Taxation per head.
				Ex-Officio.	Nominated.	Elected.	Officials.	Non-Officials.	Euro-peans.	Indians.	
<i>Presidency Towns.</i>											
*Calcutta - - -	896,067	1	50	—	25	25	4	46	16	34	12 0
Bombay - - -	979,445	1	72	—	16	56	7	65	18	54	15 6
*Madras - - -	518,600	1	36	1	15	20	5	31	12	24	4 7
Rangoon - - -	284,938	1	25	1	5	19	3	22	13	12	14 0
<i>District Municipalities.</i>											
Bengal - - -	1,978,115	111	1,526	108	531	887	190	1,336	161	1,365	2 5
Bihar and Orissa - -	1,179,855	55	772	78	225	469	100	672	105	667	1 4
Assam - - -	125,552	18	197	37	98	62	50	147	37	160	2 4
*Bombay and Sind - -	2,354,932	158	2,310	387	830	913	457	1,673	137	1,993	3 3
Madras - - -	2,096,585	62	961	77	392	492	187	824	146	815	2 0
United Provinces - -	3,000,069	86	1,181	93	211	877	175	1,006	134	1,047	2 5
Punjab - - -	1,626,579	104	1,179	217	419	543	237	942	102	1,077	3 5
N.W. Frontier Province.	141,928	6	119	36	83	—	36	83	18	101	4 1
Central Provinces and Berar.	890,684	56	762	9	270	483	161	597	71	687	2 11
Burma - - -	689,579	44	560	181	282	97	198	362	160	400	3 2

* Figures for 1912-13.

Bengal.—Calcutta.—The Calcutta Corporation consists, under the Act of 1899, of 25 elected commissioners and 25 appointed—four by the Bengal Chamber of Commerce, four by the Calcutta Trades' Association, two by the Port Commissioners, and 15 by the Local Government. There is a General Committee, with executive powers, consisting of the chairman and 12 members, who are selected from among the commissioners. During 1913-14 the proposed amendments of the Calcutta Municipal Act were considered, and in the main approved, by the Corporation. The revenue

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receipts during 1913-14 amounted to £696,618, and the payments to £688,753. The resulting surplus is about £4,000 more than in 1912-13. The financial position is thus firm, despite the fact that, since 1912, the Corporation has had to pay to the Improvement Trust a contribution amounting to over £50,000 a year. The transfer of the capital has not prejudiced the valuation of Calcutta, and assessments continue to rise. No loan was raised during the year, and the loan liability of the Corporation remained constant at £3,281,833. There is a constantly increasing activity in street improvements, 253 plans chiefly of this nature having been prepared in 1913-14. The total cost of these is estimated at over £1,000,000. New street alignments are being settled in consultation with the Improvement Trust. There was satisfactory progress in the improvement of Bustees; during the last eight years 11 miles of Bustee road have been constructed.

The Calcutta Improvement Trust came into being in January 1912. Seventeen improvement schemes are now under the consideration of the Trust and the Corporation, the most important being the improvement of the area round Kalighat.

Interior of Bengal.—The Bengal Municipal (Sanitary Officers) Act became law towards the close of 1913-14, and extensions are under consideration which will make it compulsory for municipalities whose income is not less than £667 to appoint Sanitary Officers. The number of municipalities (111) remained the same. General elections were held in nine municipalities and for the most part excited considerable interest. Assessments were revised in 34 municipalities. In 37 municipalities a rate on holdings is the principal form of taxation; in 70, a tax on persons; and in four both are in force. The total revenue for the year was £371,553. The large municipalities are, on the whole, progressive, but in the smaller ones ratepayers are inclined to be apathetic.

Assam.—There were 18 municipalities. The total revenue was £33,750, and the expenditure £34,039. There was a material extension of municipal governments in the Surma Valley. Tax on holdings is levied in 11 municipalities and on persons in seven. Attendance at meetings was poor.

Bihar and Orissa.—Assessment was raised in 21 municipalities, leading in some cases to substantial increases of revenue. Ordinary receipts amounted to £277,573 as against £172,475 in 1912-13, the increase being chiefly due to Government grants for waterworks and other sanitary purposes. Proposals are on foot for simplifying the system of auditing municipal accounts.

United Provinces.—Numerous changes in the working of municipalities have been introduced as a result of the report of the Decentralisation Commission and, in order to enable their recommendations to be carried out more completely, an amendment of the Municipal Act is under consideration. The total income of the municipalities was £666,564 and the total ordinary expenditure £600,431. Of the total income £239,400 was from octroi, which has been abolished, or will shortly be abolished, in about 38 towns. In most cases a tax upon circumstances and property has been substituted; other towns have tried a house tax or tax on trades. The proceeds of these new taxes have generally proved adequate. Some discontent, as was inevitable, has been aroused by the substitution of direct for indirect taxation. Of the total expenditure of £590,500 (the largest on record) £115,100 was capital outlay on water supply and drainage. Proposals are under consideration to substitute a terminal tax for octroi in the large towns, but for this it is necessary to secure the co-operation of the railways to collect the duties, and hence a delay has arisen. The number of non-official chairmen has been increased and the boards under them are working satisfactorily. An increasing interest is being shown in election procedure.

Punjab.—The powers of self-government provided in the municipal Acts were granted more freely in the Punjab than elsewhere. Owing, however, to the unsatisfactory working, lack of equity in assessing taxation, and expensive machinery of the smaller municipalities which have insignificant incomes, many municipalities have been converted into notified areas and small notified areas have been abolished. On the other hand new notified areas are now being established where new grain markets are springing up and important notified areas are being converted into municipalities. The number of the latter at the end of 1913-14 thus remained the same, viz., 104, and there were 90 notified areas. The municipal elections are beginning to arouse more interest, though marked enthusiasm, except in the larger municipalities, is only found

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as a result of sectarian feeling. The best type of candidate, though willing to be appointed by nomination, is reluctant to face an electoral contest. The general tendency, however, is hopeful. The attendance of members and the working of committees are both satisfactory. The total income of the year amounted to £492,353, and the total expenditure to £410,609. Octroi is still the chief form of income, but proposals for a terminal tax have been received from several municipalities and such a tax has been sanctioned in Sargodha. A Town Planning Committee has met and is issuing model byelaws.

North-West Frontier Province.—The income fell to £51,631 and the expenditure rose to £48,768. The decrease in income was chiefly due to smaller Government grants. Octroi receipts also decreased. The elective system is not in force in this province, and members are nominated for three years.

Burma.—Rangoon.—The ordinary revenue of the Rangoon municipality rose to £280,570, and the expenditure fell to £294,680. Motor omnibuses were introduced during the year, an extensive programme of road improvement was undertaken with a view to bringing all the main roads in the town up to first class standard. The possibility of carrying out the road-programme by means of loans is being considered. The fire brigade has been thoroughly reorganised. The scheme for increasing the water supply has been initiated, although the arrangements for floating the requisite loan failed, the minimum rate having been fixed too high. The municipal debt at the end of the year amounted to £889,700.

Interior of Burma.—Elected members sat on 10 committees; one municipality where the elective system was in force was abolished. There were very few contests at elections. The ordinary income amounted to £314,336, and the expenditure to £287,790. The former increase was chiefly under the head of "grants and contributions"; the latter included increases under "public safety," "conservancy," and "hospitals." Attendance at meetings was poor.

Central Provinces and Berar.—The elective principle is in force in all but seven of the 56 municipalities. Attendance at meetings was generally satisfactory and interest was shown in many of the elections. The total income of the municipalities was £210,862—a decrease from the previous year due to the decrease in Government contribution, as income from municipal sources increased. The substitution in small towns of a terminal tax for octroi (which exists in 23 out of 43 municipalities in the Central Provinces, but not in Berar) is under contemplation. It already exists in one place (Wardha). Expenditure amounted to £209,254. All municipalities have balances in excess of the prescribed minima. A new Municipal Bill is under consideration. Proposals have been made to revise the taxation in certain comparatively wealthy towns in Berar where the incidence is unduly low.

Madras.—Madras City.—The principal taxes are a graduated tax on trades and professions, a tax of 10 per cent. on the annual value of buildings and lands, a water and drainage tax, and a lighting tax levied on the same basis, besides taxes on animals and vehicles, &c. The receipts (including opening balances) for 1913-14 were £460,850, and charges £343,970. The former figure includes a special grant from Government of £105,233. The new corporation office buildings were completed.

Interior of Madras.—In 58 of the 62 councils the elective system is in force, and the total number of elected members now exceeds that of non-elected. Eight councils consisted entirely of Indian members. Two more councils elected a chairman than in 1912-13. Receipts rose to £477,262. Expenditure rose to £425,990. An amended District Municipalities Act is being drafted in view of the recommendations of the Decentralization Commission.

Bombay.—Bombay City.—Bombay City is administered by a corporation 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. The ordinary income in 1913-14 was £858,433, and the expenditure £803,262. There was a rise in income despite the reduction of the general tax on properties from 10½ per cent. to 10 per cent. The permanent expansion of the revenue is estimated at £27,000, and of the expenditure at £34,000. There was again an unduly large amount of lapsed grants, due to over-estimation of requirements by various departments. Loans raised during the year aggregated £400,000, and the

(District and Local Boards.)

The funds of district and local boards are largely derived from rates or cesses levied upon agricultural land over and above the land revenue. In addition, Government makes grants in aid to all boards, and in 1912-13 specially large grants were made from the special sums devoted in that year to education and sanitation. At the close of the year, Government further announced their intention of making assignments to the Provincial Governments to enable them to forego certain amounts which had hitherto been appropriated for provincial use from the cess on land, and, although this could not be done in 1913-14 as the necessary legislation could not be got through, the amount of these appropriations was reimbursed to the boards by Government. The boards have also other sources of income, such as cattle pound receipts, educational receipts, medical receipts, tolls from ferries and bridges, and contributions for specific purposes from the provincial funds. Their aggregate income (excluding debt items) in 1912-13 was £4,066,662. The expenditure of the boards is chiefly for roads and bridges, hospitals, vaccination, conservancy, drainage, water supply, primary education, markets, and resthouses.

Assam.—Income rose to £209,050, of which more than half consisted of Government grants. A Bill has been introduced giving the board extended powers and providing for the constitution of village organisations.

Bengal.—By the Bengal Laws Act of 1914 the provisions of the Bengal Local Self-Government Act of 1908 have been extended to the eastern divisions of the Presidency, and district boards have been empowered to grant technical scholarships. They may also incur expenditure for the relief of suffering in times of famine and distress. In some cases increased administrative powers have been granted. The Public Works Cess has been surrendered to the district boards, with the result that their revenue rose by £233,000 to £715,385, while their expenditure (owing to consequent increases under "Civil Works") rose by £135,000 to £572,155. There are now two district board railways working, one of which was opened during the year; the other was a source of £1,862 profit to the board. Six other railway schemes are in various stages of progress.

Bihar and Orissa.—The elective system was extended to two more districts. As in Bengal, the revenue and expenditure of the district boards was considerably enlarged by the surrender to them of the Public Works Cess (revenue £502,338, expenditure £385,623). As a condition of surrender of the Public Works Cess a minimum standard of expenditure on primary education and sanitation has been imposed. The growth of opportunities has been met by a growth of interest in their work among members of the district boards.

United Provinces.—A grant of £213,000 was made by Government in anticipation of the forthcoming transfer to the district boards of the proceeds of the rate hitherto appropriated to police charges. Other large grants, recurring and non-recurring, were made, and receipts rose to £807,387. Expenditure was £579,425 only, some of the grant having been received too late for expenditure during the year. In connection with these grants a thirteen years' scheme of development has been promulgated. In order to enable the boards to carry out their greatly expanded programmes, it is proposed to increase their staffs considerably and to extend the employment of whole-time secretaries. The delegation of work to sub-committees and local committees is being attempted, and Government has issued a model scheme for the purpose.

Punjab.—There are signs of keener interest in elections to district boards and in their working. This is due to the great expansion in the finances of the boards, whose income and expenditure has increased by nearly 50 per cent. in two years owing to large Government grants and the raising of rates. The system of decentralising duties by appointing sub-committees or allotting circles to members for supervision is also having an excellent educative effect. A proposal is under consideration to empower boards by legislation to levy cesses for light railway development. The income of the boards rose from £429,804 to £529,309—principally owing to large grants from Government, and the remission of the latter's appropriation from the land cess.

North-West Frontier Province.—There is no elective system in this province. The working of the district boards were on the whole satisfactory. The aggregate income of the boards was £36,499 and their expenditure £31,671. Sub-committees have



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been appointed, and members of boards are allotted circles of their district for supervision. The system is reported to be working well.

Central Provinces and Berar.—In some districts the elections to the legislative council are beginning to stimulate an interest in the previous elections to the district and local boards. Public Works Department buildings and communications are being transferred to the care of the district councils and the subordinate staffs are being reorganised in consequence. The Divisional Local Fund Engineer Scheme was in force in all the divisions. The Government grants for Education and Civil Works were nearly £17,000 in excess of 1912-13. Income was £218,510 and expenditure £204,963.

Madras.—One-half of the members of the district boards are, as a rule, elected by the taluk boards. In 1909 the elective system was introduced for taluk boards, but of the 234 seats thrown open to election during 1913-14 only 79 were contested, and in 30 cases Government nominations became necessary for lack of candidates. Unofficial presidents are now nominated or elected in 22 taluk boards. The village union *panchayats* or councils have each not less than five members; they deal chiefly with sanitation, and the making and repair of roads, and in some cases they have the management of choultries, markets, and other local institutions entrusted to them by the taluk boards. On the whole the working of the local bodies was satisfactory. The income of the boards and unions, excluding debt heads and contributions from one district board to another, amounted to £1,328,833, and the expenditure to £1,094,322. The Tanjore and Kistna District Boards railways yielded net profits of 7.1 and 8.8 per cent. respectively on the capital outlay. A special railway cess for railway construction is levied in eleven districts.

Bombay.—One additional district board was created in 1913-14 owing to the formation of a new district. Many local boards (but no district boards) failed to hold the prescribed minimum number of meetings. Income rose to £541,855, an increase of £44,000, chiefly owing to increased Government grants for education, and the collection of suspended land revenue. Expenditure remained practically stationary at £516,332. Closing balances were largely in excess of prescribed minima, owing chiefly to the education grants, the spending of which was retarded owing to delays in acquiring sites for schools, preparation of plans, and scarcity of labour.

Burma.—There are no local boards in Burma. Their place is taken by District Funds in Upper Burma and District Cess Funds in Lower Burma, which are administered by the Deputy Commissioners of the districts. These funds had an aggregate income of about £286,600 and an expenditure of about £250,100 in 1913-14. Those in Lower Burma have the largest resources, as they include the proceeds of a 10 per cent. cess on the land revenue, and account for £198,700 of the expenditure, which was chiefly on education and public works.

Port Trusts.

(For further details see *Statistical Abstract for British India*, Table 186.)

General.—The administration of the larger ports is placed by various Acts in the hands of Port Commissioners, who are charged with the provision of suitable dock accommodation and other services necessary to shipping. They have wide powers, but are more subject than municipal bodies to Government control. Members of these Port Trusts, which include both Europeans and Indians, are for the most part appointed by the Local Governments, and are largely representative of the local commercial communities. Except in Calcutta the elected members are fewer than the nominated members. Port trustees are empowered, subject to the control of the Government, to levy dues on shipping and goods, to charge fees for services rendered, to contract loans for port improvements, to maintain the harbour and its approaches, and to erect warehouses, jetties, harbour lights, and docks for the convenience of traders and shipping. The chief ports, in which is carried on by far the largest part of the trade of India, are alone dealt with here. There are smaller ports, especially in Madras and Burma, where sums are raised yearly for expenditure on improvements.

Calcutta.—The income of the Port Trust for 1913-14 (£1,008,562) beat the record figure of the previous year by over £50,000. The expenditure was £1,044,097. The

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deficit is due to debt charges consequent on the construction of capital works and the purchase of land to provide for future extension. The traffic at the jetties increases so fast that neither the construction of new berths nor the improvement of arrangements has sufficed to relieve the congestion, and the report of a Committee which was appointed to deal with the whole subject of the Port of Calcutta and its approaches is now under consideration. The cost of the entire programme proposed is estimated at nearly £3,000,000, and comprises, besides the extension of berthing and warehouse accommodation, the construction of a new entrance to the dock system and of a new railway yard. To meet the cost certain financial proposals either have been sanctioned or are under consideration. These include the charging of interest on cost of major works to capital during construction, the extension of the period of repayment of the old Kidderpore Dock loan, the raising of further capital up to £1,333,000, and certain enhanced charges. The capital debt of the Trust at the close of the year was £6,125,870. Debentures were issued during the year for £466,667. The work in progress or completed includes the construction of new berths, jetties, and sheds, the extension of railway accommodation, the acquisition of additional dredging plant, and the provision of acetylene gas buoys for lighting the river between Mud Point and Saugor.

Bombay.—Here again the revenue of the Port Trust reached a record figure of £658,654, being a surplus over working expenditure of £109,967. The expenditure on capital account was £1,028,554, the greater part being spent on the Alexandra and Hughes Docks and the Mazagaon-Sewri reclamation. Four per cent. debentures were issued during the year for £533,000 and the debt of the Trust amounted at the end of the year to £8,644,383, of which £2,010,005 is due to Government, while the remainder consists of foreshore securities and debenture loans. A railway yard is being constructed at Wadala. The Mazagaon-Sewri reclamation scheme has got to the surfacing stage. The surtax of 10 per cent. on pilot fees has been continued.

Karachi.—The revenue for 1913-14 rose from £305,740 to £323,073, but the rise was due to a sale of land. Otherwise the revenue (which in the previous five years had risen 50 per cent.) would have shown a decrease, due to reduction in wheat exports. The expenditure (£261,390) rose somewhat. The resources of the port proved ample for the traffic. A new dredger is being set up in connection with the West Wharfage scheme. A loan of £34,000 was raised during the year, and the capital debt at the close amounted to £1,524,288.

Rangoon.—Receipts were £345,652 and expenditure £246,869; the former show an increase due to expansion of trade and to an increase of the port dues from 3 to 4 annas a ton; the latter has also increased owing chiefly to increased cost of living. The question of the financial position of the port has given rise to some apprehension in the past, but it is now considered satisfactory. Debentures for £233,000 were raised during the year, and the debt (after deducting the amount at the credit of the Sinking Fund) was £1,785,847. The river-training works were completed during the year and have proved a success. The total expenditure on the work up to the end of the year was £884,526, against a sanctioned estimate of £1,000,000. A new dredger is being procured for the Hastings Shoal.

Madras.—Receipts amounted to £81,700 and expenditure to £64,600. A loan of £333,000 from Government has been sanctioned, chiefly with a view to deepening the harbour and running a quay along its western side. £80,000 was received from this source during 1913-14. Of the quay 750 feet out of a contemplated 3,000 has been completed and is in use. A new coal yard and new harbour offices are also under construction.

CHAPTER XVI.

CONDITION OF THE PEOPLE.

VITAL STATISTICS.
 PLAGUE.
 SANITATION.
 HOSPITALS, DISPENSARIES, AND
 ASYLUMS.

EMIGRATION AND MIGRATION.
 PRICES.
 WAGES.
 FAMINE OR SCARCITY.
 GENERAL REMARKS.

Vital Statistics.

(Detailed information on Vital Statistics, Sanitation, &c. is contained in the annual Report on Sanitary Measures in India, which is published as a Parliamentary Paper, and in the Statistical Abstract for British India, Tables 103-4 and 198 and 199.)

General Population. Registration.—The statistics given below are based on the 1911 census figures. Although improvement in registration is being steadily effected, there are still serious defects in some areas. The facts are nearly everywhere collected by an illiterate agency (usually by village watchmen in rural areas), and accurate figures, especially of the causes of death, are unobtainable. It is more difficult, especially in towns, to obtain information about births than about deaths. The actuarial reviews of the returns of the censuses of 1881 to 1901 show that the registered birth and death rates are understated, and, as registration improves, the registered rates must tend to approximate to the calculated rates. The high Indian birth-rate is due, not to exceptional fertility, but to the large proportion of married women. The high infantile death-rate is partly due to the weakness of the children of immature and ignorant parents, the prevalence of Malaria, and faulty midwifery, but to some extent it is only apparent, being calculated on imperfect returns of births.

Birth and Death Rates.—The population of the areas in which births and deaths were registered was 238,323,365, according to the census of 1911, and the number of births registered in 1913 was 39·37 per mille, compared with 38·95 per mille in 1912, and an average of 38·37 per mille in the five years 1908-12. The total number of deaths was 6,845,018 = 28·72 per mille, as compared with 29·71 per mille in 1912 and 32·77 for the five years 1907-11. This was the lowest rate since 1898. The rates for the provinces are given in the following table:—

Province.	Birth Rates (per mille).		Death Rates (per mille).					
	1912.	1913.	1912.			1913.		
			Urban.	Rural.	Total.	Urban.	Rural.	Total.
Delhi	—	44·8	43·7	33·0	39·3	44·2	35·1	40·0
Bengal	35·3	33·7	24·5	30·1	29·8	24·9	29·7	29·4
Bihar and Orissa	42·5	42·1	30·0	31·0	31·0	27·4	29·2	29·1
Assam	32·2	33·1	20·8	25·1	25·0	21·2	27·8	27·7
United Provinces	45·4	47·7	34·4	29·6	29·9	39·4	34·5	34·8
Punjab	45·3	45·4	31·9	26·1	26·6	35·7	29·7	30·2
N.W. Frontier Province	37·1	36·2	22·7	23·5	23·4	24·3	24·7	24·7
Central Provinces and Berar	48·2	49·3	47·6	41·8	42·3	30·9	30·2	30·3
Madras	30·9	32·2	28·6	23·8	24·3	26·2	20·8	21·4
Coorg	26·32	25·9	64·1	36·8	38·4	47·6	32·6	33·5
Bombay	35·0	35·0	41·5	33·8	34·9	32·9	25·4	26·7
Burma, Lower	31·7	31·7	37·2	24·4	26·0	32·9	22·2	23·6
Burma, Upper	33·0	34·2	44·1	27·5	29·0	39·3	26·5	27·6
Ajmer-Merwara	47·08	43·2	—	—	38·3	—	—	25·9
Total	38·95	39·3	33·1	29·4	29·7	31·0	28·5	28·7

The most striking feature was the diminished death-rate in the Central Provinces where cholera and malaria had prevailed in 1912, and in Bombay where cholera showed a marked decrease. The increased death-rate in the United Provinces and

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the Punjab was due chiefly to "fevers" which had shown an exceptionally small mortality in the previous year. The reduced birth-rate in Bengal is attributed to the rise in prices.

The excess of births over deaths ranged from 19 per mille in the Central Provinces to 4·3 per mille in Bengal. The mean percentage of male to female births ranged from 126·5 in the North-West Frontier Province to 104 in Bihar and Orissa.

The greatest mortality occurred in December, while the lowest was in February. Infantile mortality was highest among the major provinces in Upper Burma, the Central Provinces, and the United Provinces; the total rate per mille for all India was 192 male and 197 female; strenuous efforts are being made to reduce these figures which, though still excessive, show a welcome decrease.

The following table gives the ratio of deaths per mille in cities of British India whose population exceeded 150,000 in 1911:—

	Death Rate per Mille.			Death Rate per Mille.			Death Rate per Mille.	
	1908-12 (Mean Rate).	1913.		1908-12 (Mean Rate).	1913.		1908-12 (Mean Rate).	1913.
Calcutta -	29·0	29·2	Howrah -	28·4	30·5	Agra -	29·7	22·0
Bombay -	37·5	32·7	Benares -	58·2	50·9	Ahmedabad -	53·5	39·6
Madras -	40·6	40·3	Delhi -	43·7*	40·0	Allahabad -	21·9	17·4
Lucknow -	61·8	47·0	Lahore -	33·7	38·1	Amritsar -	50·4	40·9
Rangoon -	38·2	39·4	Cawnpore -	53·0	45·1.			

* Rate for 1912.

Chief Diseases.—There are three main classes of fatal disease: specific fevers, diseases affecting the abdominal organs, and lung diseases. Intestinal and skin parasites, ulcers and other indications of scurvy widely prevail. Much of the sickness and mortality is due to deficient powers of resistance and to insanitary habits and surroundings. The table below shows the number of deaths from each of the principal diseases recorded in British India and the death-rates per 1,000, during the

Years.	Small-Pox.	Cholera.	Fevers.	Dysentery and Diarrhoea.	Plague.	Respiratory Diseases.
1911	58,538 ·25	354,005 1·48	4,207,356 17·63	253,636 1·06	733,582 3·07	223,822 0·94
1912	89,357 ·37	407,769 1·71	3,936,085 16·49	292,216 1·22	263,037 1·10	247,736 1·04
1913	98,155 ·41	294,815 1·24	3,983,112 16·71	246,578 1·03	198,456 0·83	237,229 1·000

three years from 1911 to 1913. With regard to special diseases, cholera is much less prevalent than formerly. In 1913-14 it occurred chiefly in Bengal and Bihar and Orissa. Plague forms the subject of a separate section. When reference is made to "fever" in India, malarial fever is generally understood, but many causes of death and many diseases much more fatal than malarial fever are included under the heading. The fever death-rates, as usual, varied greatly, ranging in the major Provinces from 23·9 in Bengal to 6·7 in Madras. The malaria section of the Indian Research Fund Association is housed at Kasauli, but has a field-laboratory in Delhi where classes are held. In 1913, 58 doctors underwent instruction at these classes. Anti-malarial operations and mosquito surveys are being carried out by special officers in practically all the provinces. It has been proposed to send a small deputation to study anti-malarial measures in Italy. The measures adopted to fight malaria are the sale of quinine at cheap rates and the extirpation of mosquitos by such methods as drainage, petrolage and jungle clearing.

Vaccination.—The total number of vaccinations performed among the civil population during 1913-14 was 9,877,086, being a slight decrease from the previous year's work. Of primary vaccinations 96·95 per cent., and of re-vaccinations 69·66 per cent., were successful: about 36·19 per mille of the population were successfully vaccinated. The number of infants successfully vaccinated was 46·83 per cent. of the number under a year old. Arm-to-arm vaccination has of late years been steadily replaced by the use of pure calf lymph. All the larger provinces have, or will shortly have, their own calf-lymph depôts.

Plague.

The present epidemic of plague in India first broke out at Bombay in August 1896, and, as the marginal table shows, it has been responsible for a heavy rate of mortality since that date. In 1907 the deaths from plague attained the highest total yet recorded, viz., 1,315,892, for India as a whole, the number in British India alone being 1,166,223, or 5·16 per mille. In 1908 the mortality declined enormously, falling to 156,480, the lowest total since 1900. In 1909 there was once more a relatively low mortality, viz., 178,808 deaths, or fewer than in any year since 1900, excepting 1908. In 1910 and 1911 there was a severe recrudescence, especially in Bengal, the United Provinces, and the Punjab. In the latter part of 1911 and in 1912 the virulence of the epidemic abated, and the 1913 figures show a still further fall. In 1914 there was a rise, owing to a recrudescence of the disease in Bombay, and in 1915 there has been a serious recrudescence in the Punjab.

1896-97	57,543
1898 -	116,285
1899 -	139,009
1900 -	92,807
1901 -	282,027
1902 -	576,365
1903 -	883,076
1904 -	1,143,993
1905 -	1,069,140
1906 -	356,721
1907 -	1,315,892
1908 -	156,480
1909 -	178,808
1910 -	512,605
1911 -	846,873
1912 -	306,458
1913 -	217,869
1914 -	295,897*

* Preliminary figure.

Plague is so local in its visitations that all general and unanalysed statistics are likely to prove misleading. Many parts of India have been almost entirely free from its ravages, and in the greater part of the country the outbreaks cannot be described as having been severe or disastrous. On the other hand, general statistics tend to conceal the severity of the distress caused by the disease in particular districts. In some parts of the Punjab and the United Provinces the mortality has been specially severe.

The reasons for this uneven incidence are at present somewhat obscure. The mortality in Eastern Bengal and in Assam has been at no time appreciable, largely, it is believed, because the habits of the people and the structure of their houses are unfavourable to the breeding of rats, while in the Madras Presidency and in Burma the epidemic has never reached serious dimensions. How far the comparative immunity of Madras is due to a policy of segregation and surveillance, and how far to climatic conditions is undecided.

The Advisory Committee on Plague Investigation in England and the Plague Commission in India, whose constitution has been described in former issues of this Report, have concluded their investigations, which have led to most important results. The main facts in regard to the mode of propagation of an epidemic and the life history of the plague bacillus have been ascertained, and rational methods of attack have thus been made possible. A popular summary of the principal conclusions arrived at was given in "The Etiology and Epidemiology of Plague" (price 5d.), published early in 1908. It is now generally agreed: (1) That epidemic bubonic plague in man is directly dependent on epidemic plague in rats; (2) that the vehicle of contagion between rat and rat and between rat and man is the plague-infected rat-flea; (3) that bubonic plague is not directly infectious from man to man; and (4) that the life of the plague bacillus outside the bodies of men, animals, or fleas is of short duration. In large towns plague may persist through the year, but in villages such persistence is exceptional, and the recurrence of an epidemic is probably due to fresh infection.

In the light of the knowledge and experience now acquired it is possible to deal satisfactorily with the disease when effective control can be established over the sanitary conditions; and in the case of the native army and in limited areas such as jails there has been remarkable success. But attempts to establish such control over large areas would involve too great an interference with the habits, prejudices, and sentiments of the people, and the application of measures of proved utility must depend upon the particular circumstances of each locality and upon the character of its inhabitants. In the face of great practical obstacles, three principal measures for combating plague are now adopted:—

- (1) The temporary evacuation of quarters in which plague is prevalent. This has proved to be the most effective way of removing man from contact with infected rat-fleas. Government is ready to supply money and material to provide temporary dwellings and to alleviate the discomfort and distress which must accompany evacuation of quarters, a matter, of course, in which no pressure can be exerted, and in regard to which the wishes and even the prejudices of the people must be consulted.

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- (2) Inoculation with the prophylactic fluid. The efficacy of this remedy on the occasion of an outbreak has been placed beyond doubt; it is freely resorted to, and encounters little popular prejudice, when the presence of plague is felt; but as a general or permanent remedy it is obviously of limited utility.
- (3) The systematic destruction of rats (for which purpose smoking has been found an admirable method, as it kills the fleas as well as the rat), the diminution of the food supply to which they have access, and, in the course of time, such improvement in the structure of houses and grain-stores as shall render them reasonably rat-proof.

An account of the various Research institutions appears in Chapter XIII.

Sanitation.

General.—The Third All-India Sanitary Conference was held at Lucknow in January 1914. The reorganisation and enlargement of the Sanitary Department proceeds apace. From the date of the constitution of the Department of Education (which deals with Sanitation) in 1910 up to May 1914, the Supreme Government had made grants to local Governments for sanitary purposes amounting to £368,200 recurring and £2,708,266 non-recurring, besides grants to District Boards. Every major province has its sanitary commissioner, and (except for the N.W. Frontier Province) its sanitary engineer. In addition there were in May 1914, 26 deputy sanitary commissioners, 16 deputy or assistant sanitary engineers, and nearly 150 health officers. In May 1914 the Government of India issued a comprehensive resolution on Indian sanitary policy. The following paragraphs give some account of the chief sanitary works undertaken in the various provinces in 1913 :—

Delhi.—Several improvements were effected in the Municipal water supply: the whole of the Conservancy arrangements were reorganised. A complete survey of the levels of the City was undertaken with a view to drawing up a complete drainage and sewerage system.

Bengal.—In the Mofussil Municipalities nearly $\frac{1}{2}$ of the total expenditure was on sanitary works, the chief items being £25,000 on the Hooghly-Chinsurah waterworks, £4,300 on construction of drains in Howrah, and £4,000 on improvements to buildings in the Darjeeling bazaar. An additional Assistant Sanitary Engineer was appointed, sketch projects for water supplies were drawn up, or were under preparation, for 12 places, detailed schemes were supplied for six towns, and ten were in course of construction. Three large sewage schemes are in various stages of progress (Cossipur-Chitpur, Dacca, and Darjeeling). Three non-official members were appointed to the Sanitary Board.

In Calcutta the average daily supply of water rose from 55½ to 58½ million gallons a day. Full pressure is maintained for 7 hours a day, and the question whether, either by checking waste or by increasing the supply, it will be possible to maintain a constant full pressure is under consideration. Further improvements in the pumping plant are in progress. About one-third of the Tolly's Nullah drainage scheme has been completed, and the Fringe Area scheme has been practically completed with the exception of the connection with the Manicktollah pumping station.

Assam.—The municipalities spent 36 of their expenditure on sanitation. It is considered that expenditure on conservancy is inadequate, and the Sanitary Board are considering the question. Waterworks schemes are contemplated or in progress in seven towns. A general scheme is being formulated for the improvement of the rural water supply.

Bihar and Orissa.—An Assistant Sanitary Engineer has been appointed. Fourteen sketch water-supply schemes have been prepared. The Gaya and Monghyr waterworks were completed and opened. Six sewage schemes were being prepared or in progress. The Sanitary Board was re-constituted with a view to accelerating work. Type plans and estimates for minor waterworks for small communities were prepared by the Sanitary Engineer.

United Provinces.—Sanitary village boards have been instituted in selected villages. Forty-five per cent. of the municipal income was on sanitary works, in which considerable activity was shown. The chief works were water and drainage works in Benares,

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waterworks at Hardwar and Agra, and experiments in tube wells at Cawnpore. Final sanction was accorded to ten schemes and schemes are under preparation for 16 towns. An assistant sanitary engineer has been appointed.

Punjab.—The year was one of special activity. The sanitary policy of the province has been fixed and defined. Resolutions were issued in respect of rural sanitation and the creation of a sanitary service in municipal towns. Sanction was accorded to projects and schemes involving an expenditure of £190,000. Extensions of sewage and water supply are in progress in Simla, schemes are under consideration for underground sewage in Amritsar and Lahore, and there are projects in various stages in four other places.

North-west Frontier Province.—The chief allotments of the Government grant to this Province were for water supplies at Kohat and Bannu and drainage at Abbottabad and Dera Ismail Khan. The sanitary problem of Peshawar is still troublesome and the services of an expert are required. A small sanitary service was inaugurated during the year.

Central Provinces and Berar.—Forty-three per cent. of the municipal income was spent on sanitation. The sanitary programme for the year was a comprehensive one. Of the ten detailed projects being considered by municipalities, the chief are the Jubbulpore drainage project and the Amraoti water project. The Nagpur sewerage system and the Wardha surface drainage project progressed well. A grant of £4,000 was made for village water supplies. The re-constitution of the Sanitary Board has given a marked impetus to sanitary projects.

Madras.—46·6 per cent. of income was assigned for sanitary expenditure. Twenty-three towns are provided with water-supply schemes, another has been sanctioned, and 16 are under investigation. Drainage schemes are in progress at Madura and Vellore, and are under investigation in 29 other towns. Rules were prepared for the laying out of extension sites. The programme of the Sanitary Engineer comprised the preparation of detailed plans and estimates for 17 major schemes and the investigation of 28 major schemes. Experiments are in progress for the protection of village wells from infection in places liable to cholera.

The general scheme for the main drainage of Madras City has been partly sanctioned. Various measures for improving and extending the water supply were in progress. The total expenditure on drainage in the city was £43,000, and on water supply, £121,000.

Bombay.—The principal allotments by Government were to the Bombay Improvement Trust for slum improvement and water supplies at Ahmedabad, Jalgaon and Ahmednagar. Seven new projects were sanctioned, 35 were in progress, and 19 were under consideration. Sanitary surveys on a uniform plan have been completed for the great majority of the towns in the province. The Village Sanitary Boards are doing good work in keeping the village clean, though hampered by lack of funds. The Sanitary Board of the province was re-constituted, and comprises a non-official member.

In Bombay City the new pumping machinery at Love Grove started work, and amended plans were prepared for the new low-level sea outfall sewer.

Vessels for the Red Sea pilgrim traffic were cleansed and freed from rats under the direction of the Bombay Port Health Officer. The out-going pilgrims, who numbered 13,401, were medically inspected and their clothing and bedding thoroughly disinfected before embarkation. 10,587 voluntarily underwent vaccination.

Burma.—Thirty per cent. of the municipal and local income was spent on sanitation. The chief Government allotments were for works at Mandalay, Yamethin and Monywa. Seven water schemes and four drainage schemes were drawn up by the Sanitary Engineer.

Hospitals, Dispensaries, Asylums, &c.

The following table gives figures for Indian hospitals under three heads. The institutions grouped under Heads (1) and (3) are, generally speaking, for the general public. Those under Head (2) are for special classes of persons, such as railway servants, policemen, &c. :—

(Hospitals, Dispensaries, Asylums, &c.)

	(1) Civil Hospitals and Dispensaries (State Public, Local Fund and Private-aided).			(2) State Special and Railway Hospitals.			(3) Private Non-aided Institutions.		
	No. of Institu- tions.	No. of In-patients.	No. of Out-patients.	No. of Institu- tions.	No. of In-patients.	No. of Out-patients.	No. of Institu- tions.	No. of In-patients.	No. of Out-patients.
1912 -	2,733	492,798	28,956,763	826	93,350	2,154,284	669	51,799	4,774,387
1913 -	2,820	515,062	30,032,547	851	98,171	2,331,969	697	57,252	4,828,357

During 1913 an electrical annex was added to the Medical College Hospital in Calcutta and it has been decided to build a new eye hospital. Work was commenced on the new School of Tropical Medicine. A medical school is being established at Nagpur, the new hospital in connection with King George's Medical College, Lucknow, was opened, and in Bombay the equipment of civil hospitals is being brought up to date. In Bengal a Medical Registration Act was passed; similar Acts have since been passed in other provinces. The system of exacting fees from well-to-do persons who use hospitals is being tried in Bengal, the Central Provinces and the Punjab. From Assam, Bihar and Orissa, the Central Provinces, and Burma a dearth of sub-assistant surgeons is reported, despite improvements in pay. Many provinces are paying attention to increasing the supply of women doctors, and in the Punjab the Ludhiana School of Medicine for Women is being assisted by a Government grant.

There are five medical colleges (Bombay, Madras, Calcutta, Lahore, and Lucknow), the students in which, numbered in 1913, 2,080, including 101 women. There are also 15 medical schools, the students in which numbered 2,126. There is an X-ray institution at Dehra Dun where two classes of instruction were attended in all by 37 students. A branch installation has been opened at Delhi and another has been approved for Simla.

Pasteur Institutes.—There were Pasteur Institutes for anti-rabic treatment at Kasauli (Punjab) and Coonoor (Madras). The number of patients treated in the former in 1913 was 3,980 as against 3,548 in 1912, the corresponding figures for Coonoor being 1,293 as against 1,240. The establishment of a Pasteur Institute at Rangoon has been sanctioned.

Lunatic Asylums.—The treatment of lunatics at asylums prevails on only a small scale in India, where insanity is less prevalent than in European countries. The census of 1911 showed an increase of nearly 22 per cent. in the number of insane since 1901. The number admitted into asylums in 1913 was 2,327, as against 1,931 in 1912. The total asylum population of the year was 8,472. A new asylum has been opened in Bombay.

Leper Asylums.—There are many leper asylums, among which may be mentioned the Madras Government Leper Asylum, the Matunga Leper Home, Bombay, the Trivandrum State Leper Asylum, and the Calcutta Leper Asylum. There are also many asylums or homes, frequently under some sort of Government supervision, including about 50 asylums of the Mission to Lepers. The census of 1911 showed an increase in the number of lepers to 109,094, compared with 97,340 in 1901, and the proportion works out to 35 lepers per 100,000 of the population.

Emigration and Migration.

(For further details see *Statistical Abstract for British India, Tables 196 and 197.*)

Emigration.

Emigration from India, so far as it is brought under the cognizance of Government, is mainly regulated by Act XVII. of 1908 and the Rules issued under its provisions. Emigration to Ceylon, to the Straits Settlements, and for employment under Government only in British East and Central Africa is, however, excepted from the restrictions of the Act. By this Act, natives of India are permitted to emigrate, under contract to labour for hire, only to such countries as have satisfied the Government of India that

(Emigration.)

sufficient provision is made in them for the protection of Indian immigrants; and a similar protection is extended to natives of India engaged to emigrate, individually or in small parties, to work as artisans, entertainers, servants, &c. Emigration, otherwise than under contract to labour or work in one of the above capacities, is not controlled by legislation. Emigration under the Act is now confined to certain British possessions chiefly in the West Indies and to Surinam. Natal was removed from the list in 1911 and Mauritius in 1912.

During 1913 Messrs. James McNeill, I.C.S., and Chimman Lal visited Trinidad, British Guiana, Jamaica, Fiji, and Surinam, in order to inquire into the condition of Indian immigrants in these colonies. Their report was presented to Parliament in 1915.*

Calcutta.—There were five emigration agencies at work during 1913 at Calcutta, but at the end of 1913 the emigration agencies at Calcutta for Trinidad, Fiji, Jamaica, and Mauritius were amalgamated with that for British Guiana. At the same time

Adult Labourers supplied to—	1912.	1913.
British Guiana	2,313	1,241
Trinidad - -	2,550	1,189
Jamaica - - -	1,409	800
Fiji - - - - -	801	990
Surinam - - -	1,154	1,675
Total - - - -	8,227	5,895

a central agency was established at Benares. The total number of labourers requisitioned fell from 10,447 in 1912 to 5,167 in 1913. The number supplied to the several colonies in 1912 and 1913 is shown in the margin. The number of emigrants supplied to all the colonies except British Guiana exceeded the demand. The excess in the case of Jamaica was due to the late despatch of 513 labourers requisitioned for 1912; while in the case of Fiji it was due to the shipment of 226 emigrants to make up a shortage in the number supplied from Madras. The number of recruiting

licenses issued (excluding re-issues) was 1,211, as compared with 1,406 in 1912; 48 licenses were cancelled. The total number of emigrants registered during the year was 9,171, giving an average of 10 emigrants per recruiter, as against 11 in the preceding year. This number was contributed by the different provinces in the following proportions:—United Provinces, 73·66 per cent.; Punjab, 10·2 per cent.; Bengal, 7·37 per cent.; Bihar and Orissa, 7·16 per cent.; Ajmere and the Central Provinces, 1·58 per cent.

The number of emigrants admitted to the Calcutta depôts was 8,171, or 2,423 less than in 1912. 651 were rejected subsequently to registration as unfit to emigrate. The percentage of deaths in the depôts and outside hospitals increased from ·22 in 1912 to ·34 in 1913, owing perhaps to the general unhealthiness of the year and the percentage of rejections increased from 10·09 to 13·33. The percentage of desertions increased from 0·81 to 2·76. The number that actually embarked was 6,121 as against 8,529 in 1912. They were distributed as follows:—Demerara, 1,276; Trinidad, 1,236; Jamaica, 824; Surinam, 1,773; Fiji, 1,020. The total number shipped included 1,632 women and 245 returned emigrants who re-emigrated. The deaths on the ships carrying emigrants numbered 19.

The number of emigrants who returned from the several colonies was 3,551, and their ascertained aggregate savings amounted to about £42,900. The average savings per head were about £24 for Fiji, £10 for Demerara, Jamaica, and Surinam, £9 for Natal and Trinidad, and 2s. 6d. for Mauritius. Over 60 per cent. brought back no savings.

There was a slight increase in the average amount remitted by resident immigrants in respect of the colonies of British Guiana, Trinidad, Mauritius, and Natal and a decrease in respect of Surinam and Jamaica. The average was again highest in the case of Natal (13s.), but this probably includes remittances from traders, &c., as well as labourers.

Madras.—The total number of emigrants under the Emigration Act regulations was 2,266, as against 2,546 in 1912. Emigration in 1912 was solely confined to Fiji and British Guiana. 1,192 emigrants returned from Natal, 216 from Mauritius and 125 from Fiji.

As regards non-regulated emigration, the number of passengers to the Straits Settlements rose from 107,842 to 117,783, the high wages offered on the rubber plantations being doubtless the chief attraction. Passages to Ceylon rose from 183,002 to 190,059. Emigration to Burma increased.

* Cd. 7744 and 7745.

(Emigration.)

Bombay.—The number of emigrants shipped from the port of Bombay under the Indian Emigration Act rose from 250 to 258. Of these, 171 were bound for British East Africa and 77 were workers for the Anglo-Persian Oil Company at Mahommerah. From Karachi 334 emigrants (mostly Punjabis) left for Uganda, and 103 for the Persian Gulf. A number of other emigrants left the coast districts for South Africa. The Surat district alone reported 1,079 such departures, the voyagers being for the most part the wives and children of established emigrants.

Migration.

Assam.—Labour for the Assam tea-gardens, and in certain mills, &c. of the Province, is still recruited partly under an indenture system authorised by the Assam Labour and Emigration Act of 1901, but, for some time past, an increasing proportion of the immigrant labour has been engaged under ordinary contract, and Government has gradually withdrawn successive districts from the operation of the Act. The Bill referred to in last year's Report was not proceeded with and fresh proposals for amending the Act of 1901 and supervising the recruitment of labourers are under consideration. The total labour population at the end of March 1914 was 846,569, representing an increase of 24,834 on the figures for the preceding year. There was a further decline in the number of "Act" labourers, who at the end of the year numbered 9,995, as against 11,366 in 1912-13. The number of immigrants was 58,869, as against 59,873 in 1912-13. Of the 45,849 adults who immigrated, 42,073 were free labourers. There was a substantial increase in immigration from the plains districts of the United Provinces and Bengal and from the Central Provinces, the rise in the latter case being due to the unfavourable nature of the season there. Recruitment from Madras decreased by more than half. The health of the coolies during transit was again good, the number of deaths being 32, the majority being due to cholera. The number of proved cases of fraudulent and irregular recruitment was 46. The rate of mortality was 24·7, the same as in 1912-13. Eight complaints of ill-treatment were lodged by coolies against employers, of which all but two were dismissed. The relations between planters and villagers are reported to have been generally good. The upward tendency of earnings was maintained, and the tea garden coolie is able to add largely to the amount of his nominal income by private cultivation and the enjoyment of such privileges as free fuel and grazing.

Prices.

(For further details see *Statistical Abstract for British India, Tables 209 to 215.*)

General.—The rise in the prices of commodities in India during recent years has been the subject of much discussion. The marginal table of prices during the 12 years

Year.	Index Number for Articles imported.	Index Number for Articles consumed or exported.	Index Number for Food-grains (Retail Prices).
1873 - -	100	100	100
1902 - -	86	113	141
1903 - -	88	103	126
1904 - -	93	104	117
1905 - -	96	116	147
1906 - -	105	139	179
1907 - -	116	145	180
1908 - -	106	151	231
1909 - -	99	133	195
1910 - -	109	127	168
1911 - -	113	136	161
1912 - -	117	145	189
1913 - -	117	154	199

to 1913 has been compiled from Government returns showing the index numbers of the prices of: (a) 11 articles imported; (b) 28 articles consumed in India or exported; (c) food-grains. The prices under (a) and (b) are wholesale, and under (c) retail. The index number of each year represents a simple average of the separate price ratios of the selected articles. In showing the variations the prices of 1873 are taken as 100.

After 1900, a year of severe famine, the tendency of prices for articles of Indian produce was, for several years, downward. The prices of imported articles steadily rose from 1902 to 1907, while a sharp and rapid rise in the prices of articles of Indian produce, especially food-grains, began in 1905. This rise was accentuated in 1907 and 1908 by the widespread failure of crops in Northern India. In 1909 and 1910 there was a general decline in

prices, and foodstuffs continued to fall till 1912. During the agricultural year, 1912-13, the price of agricultural produce in all provinces showed a general tendency to rise, and this tendency continued on the whole in 1913-14, although in Bombay and Madras

(Prices.)

prices of food-grains fell. They are still, however, greatly above the average. In Bombay it is stated that better internal communications and the entrance of India into the world's commerce minimise the effect of the season on prices. In the Central Provinces, and still more in the United Provinces, agricultural conditions were unfavourable and prices rose all round in consequence. Landholders whose land revenue assessments have been settled for long periods, and cultivators who hold land at fixed rentals, reap an advantage from high prices. It is probable that the trading classes benefited by the rise in prices, and there is reason to believe that owing to the enhanced demand for labour, due to industrial activity, the advance in wages has kept pace with the rise in great industrial centres. But where wage rates are more or less customary, or where incomes are more or less fixed, as in the case of pensioners, public and private employees, and the professional classes, the increased cost of living is a serious matter. Extra allowances, known as grain compensation allowances, have been made on a large scale to Government servants to cover the cost of dearer food.

Wages.

(For further details see *Statistical Abstract for British India, Tables 206 to 208.*)

Quinquennial wage-censuses have been established for the different provinces, and the results of the first of these censuses, taken in 1911, were summarised in the Moral and Material Progress Report for 1912-13. The general tendency in most provinces is for wages to rise gradually in response to the gradual economic development of the country and the consequent demand for labour.

In Bombay this tendency is particularly noticeable. During 1913-14 labour remained as scarce as ever, and even in famine districts there was no fall in wages: in some of the districts affected labour was even scarcer than usual owing to the migration of the people, and sufficient labour could not be found for big public works. It is noted that the migrating labourers, on their return, are sufficiently well off to pay their land revenue readily. There is a general complaint among cultivators as to the scarcity of agricultural labour, and they are beginning to see the necessity for adopting labour-saving devices. In Bihar, also, a tendency is noted for labour to migrate into the coal-mining and metalliferous districts of Singbhum and Manbhum. In Bengal there was a good demand for labour, skilled and unskilled, which compensated for the rise in prices: the same applies to Madras and Burma. In the Central Provinces, in spite of an unfavourable agricultural season, wages ruled high, and there was ample employment in mines, factories, and irrigation works. In Burma, the presence of rubber plantations and mining undertakings has enhanced the standard of wages locally.

Famine or Scarcity.

In the United Provinces the failure of the 1913 monsoon, followed by poor and unseasonable cold weather rains, led to a widespread failure of crops affecting an area of 18,200 square miles and a population of 6 millions, but the prosperity of the preceding years had enabled the population to develop a far greater staying power than on previous occasions of famine, nor was the rise in food prices so marked. Government made loans to cultivators amounting to over £1,250,000, besides suspending land revenue and sanctioning remissions amounting to over £717,000. The necessity for direct measures of relief did not arise till December, which is considerably later than on previous occasions of famine. The cost of direct relief operations to Government, including provision of cattle-fodder, was about £382,000, a far smaller figure than in the famine of 1907-8, although the estimated loss of food-grains was almost as great. The Public Works Department, the civil authorities, and district boards arranged for the carrying out of numerous projects with famine labour. These comprised construction of roads, tanks and irrigation works and the reclamation of ravine land—all works of undoubted utility. Gratuitous relief amounted to £80,600; it was given principally to persons incapable of working. A marked feature of the famine was the extreme scarcity of fodder, which was met chiefly by concession rates for the carriage of fodder on railways and the supply of hay from the forests. Much good work was done by non-official efforts, and a charitable fund was raised to the amount of £27,424. The total cost of the famine to Government is estimated at £820,000, as against £2,130,000 in 1907-8. Good rains in July and September 1914 finally relieved the situation and ensured a good kharif crop.

(Famine or Scarcity.)

In Bombay there was scarcity in the Sholapur District and parts of Poona, Bijapur and Satara, but, owing to the extraordinary mobility of the working classes, it was unnecessary to open relief works. Doles were granted to village servants whose presence in the village was indispensable and to destitute persons who were unable to emigrate. The only other famine measures were provision of cheap fodder, grants for water supplies, loans and suspensions and remissions of land revenue.

In some districts of the Central Provinces crop failures caused distress, which was met by prompt measures of relief, and in Bengal considerable damage was done by floods.

General Remarks.

Bengal.—The agricultural and labouring classes are prosperous, as the harvests have been good, and, while the cultivator benefits by the high prices now obtaining (especially for jute), the labourer finds in rising wages a compensation for them. Middle-class people, however, with small fixed incomes are suffering from the greater cost of living. The province suffered from disastrous floods during 1913-14.

Bihar and Orissa.—Here, as in Bengal, considerable distress was caused by floods. Health conditions were on the whole satisfactory. The economic development of the provinces proceeds slowly; important mining and metallurgic industries have been established in Chota Nagpur. The efforts of the missionaries are having a good effect in raising the standard of life among the aboriginal tribes.

Assam.—The plains districts of the Surma Valley suffered from floods, and here and in the North Cachar hills relief had to be given to the people. Immigration from Eastern Bengal and Nepal continues.

United Provinces.—The unfavourable agricultural conditions naturally affected the state of trade, and the health of the people, although considerably better than the average of previous years, was not so good as in 1912. Industrially, a noticeable feature is the growing adoption of mechanical power for small manufacturing concerns.

Punjab.—Owing to two good harvests the prosperity of the agricultural population has been well maintained; even in the south-eastern districts, which shared the adverse conditions of the United Provinces, there was no severe distress. Wages were high and the year was a healthy one.

North-West Frontier Province.—The agricultural season was fair, and prices of food grains were easier than in 1912-13. There was a keen demand for labour; a rise in income tax collections as well as in the volume of litigation, indicates advancing prosperity.

Central Provinces and Berar.—In spite of an unfavourable season the condition of the people was, on the whole, satisfactory; the exceptionally fine harvest of the spring of 1913 enabled the people to meet the strain of bad harvests. A dull marriage season and the restriction of credit consequent on the bank failures of 1913 did not prevent the year from being one of industrial prosperity.

Burma.—The agricultural year was a prosperous one. The death-rate fell, and labour was in increasing demand. Trade increased, and there has been a steady advance in the number of people employed on the larger industries. Rubber plantations and mining enterprises are having a good effect on the economic condition of the population.

Madras.—Agricultural conditions were on the whole good, and in many respects the people are adopting improved agricultural methods. Power is being extensively used for irrigation, and there is an increase in the number of mills for decorticating ground-nuts and milling rice. Although wages are high and labour is in demand, emigration continued on as great a scale as before, and there are no signs of real industrial development. Foreign trade showed a gratifying increase and public health was good. There are signs that the population in some districts are awakening to the importance of sanitation.

(General Remarks.)

Bombay.—The agricultural season was, generally speaking, good, and where the crops failed the people saved the situation by temporary emigration. The failure of certain banks in Northern India had a prejudicial effect on credit, and thereby damaged the mill-industry; but the financial crisis was followed by gradual recovery, and the year taken as a whole was an active one for trade. The scarcity of labour in the presidency and the constant tendency of wages to rise has already been dealt with; the increasing cost of manual labour is leading to a substitution of machine power. Public health, which had been unsatisfactory in 1912, showed a great improvement in 1913, the death-rate from plague and cholera, showing a decline, while the year was distinctly less malarious than usual.

(Army.)

CHAPTER XVII.

ARMY AND MARINE.

*(For further details see Statistical Abstract for British India, Tables 70 and 187 to 195.)***Army.**

The sanctioned establishment of the army in India for 1913-14 and its actual strength on 1st April 1914 were as follows:—

	Sanctioned Establishment.	Actual Strength.
Troops under the orders of the Commander-in-Chief in India :		
British officers - - - - -	5,017	5,001
British warrant and non-commissioned officers and men -	73,323	73,155
Indian officers, non-commissioned officers, and men -	160,313	150,574
Troops not under the orders of the Commander-in-Chief* :		
British officers - - - - -	9	9
Indian officers, non-commissioned officers, and men -	24,466	23,077
Total, 1913-14 - - -	263,128	251,816
„ 1912-13 - - -	263,555	251,761

In 1913-14 seven battalions of Indian infantry and one battery of Indian artillery were employed in the colonies and in China. One mountain battery of Royal Garrison Artillery was employed in Egypt. There was an Indian contingent in Somaliland, and detachments of infantry and cavalry were employed in Persia.

The sanctioned establishment of the Native army reserve was 36,046 and its actual strength on 1st April 1914 was 34,295, as against 33,712 on 1st April 1913.

The number of Volunteers in the whole of India on 1st April was as under:—

	1913.	1914.
Enrolled strength - - - - -	41,083	41,925
Efficients - - - - -	33,830	39,240
Reservists - - - - -	3,178	2,955

The net expenditure on the army (exclusive of Military Works and Special Defence Works) in 1913-14 as compared with that in 1912-13 was as follows:—

	1912-13.	1913-14.
	£	£
Effective charges - - - - -	15,231,375	15,462,240
Non-effective charges - - - - -	3,117,348	3,123,493
Total - - - - -	18,348,723	18,585,733

During 1913-14 the more important objects to which special funds were allotted were as follows:—The purchase of rifles, the re-armament of artillery, and the acquisition of land for the new cantonment at Delhi. Survey operations on the North-East Frontier and operations for the suppression of the arms traffic in the Persian Gulf were continued. Progress was made in the improvement of lines for Indian infantry and cavalry.

* Including Imperial Service Troops.

(Army.)

Health of the British and Indian Armies.—During 1913 the death-rate in the British Army in India was the lowest on record, but there was a rise in the admission rate, owing to prevalence of malaria, sandfly fever, and dengue, and to the admission of ear diseases, which in previous years would have been treated chiefly in barracks. There was a striking improvement as regards enteric. Over 93 per cent. of the troops have been inoculated. The following table is of interest :—

	Inoculated.	Non-inoculated.
Number of men who have had enteric - - - - -	682	544
" " " not had enteric - - - - -	65,344	4,014

Combining enteric and paratyphoid figures, the following were the admission and death-rates per mille :—

	Inoculated.	Non-inoculated.
Admission rate - - - - -	2·1	5·5
Death rate - - - - -	·15	1·76

Besides inoculation, the elimination of "carriers" and improved sanitary conditions are the causes of the decline of enteric. Malaria continues to be the dominating cause of inefficiency in European troops in India; the admission rate rose from 82·4 to 125·5 per mille, owing to epidemics in northern India. The systematic survey of stations where malaria prevails has been most successful where undertaken, and further measures of this kind are urgently called for. Admissions for dysentery rose slightly, and admissions for ear-diseases more than doubled owing to a change in practice. Venereal disease for many years has shown an almost uninterrupted decline, and in 1913 the admission rate per mille (52·5) was the lowest yet recorded. Invalidings home showed an increase.

For the Indian Army both death-rate and admission rate were the lowest on record. The chief cause of sickness was, as usual, malaria, the admission-rate from which rose from 89 to 100·4 per mille, the increase being confined to the northern stations. Pyrexia and respiratory diseases and sandfly fever were also important causes of sickness. Pneumonia, as usual, was the chief cause of mortality. Tubercle of the lungs, though it is being reduced, still claims a high mortality, especially among Gurkhas. Anti-enteric inoculation is making progress among Indian troops, over 13,000 having been inoculated.

A table of admissions, &c. is appended :—

	Ratio per Mille of Strength.					
	British Troops.			Native Troops.		
	Average 1908-12.	1912.	1913.	Average 1907-11.	1912.	1913.
Admissions into hospital - - - - -	638·4	547·9	580·5	594·5	547·5	531·7
Constantly sick - - - - -	60·3	28·9	29·7	21·3	20·1	21·4
Deaths - - - - -	6·1	4·6	3·3	5·7	4·4	4·0
Invalids sent home - - - - -	9·2	6·7	7·5	5·6	4·6	5·3

Military Works.

The net expenditure on military works in 1913-14 amounted to £870,693. There was also an expenditure of £16,384 on Special Defence Works. The corresponding figures for 1912-13 were £815,217 and £9,267.

Marine.

The net expenditure on marine services amounted to £423,303 in 1913-14, as against £392,259 in 1912-13. In this amount are included the cost of the Royal Indian Marine and the contribution towards the expenses of His Majesty's ships employed in the Indian seas.

On the 31st March 1914 the Royal Indian Marine consisted of three troopships and six other sea-going vessels, three inland vessels, three flats, and a number of small steamers, launches, &c. There was an establishment of 104 executive officers, 83 engineer officers, 63 warrant officers, and 12 assistant surgeons of the Indian Subordinate Medical Department; and the native crews of the vessels (seamen, artificers, and others) numbered, in all, about 1,900 men.

CHAPTER XVIII.

FRONTIERS AND NATIVE STATES.

Frontier States.

Baluchistan: Frontier and Native States.—Notwithstanding the general unrest in Afghanistan itself, the districts of Baluchistan lying along the Afghan frontier were unusually quiet, and even the yearly crop of frontier raids and cattle-lifting was exceptionally small. The only serious occurrence directly attributable to the disorder across the border was the kidnapping of a Levy Thanadar and four district levies from Loiband by the notorious Luni outlaw Jalai. As Baluchistan had hitherto been free from the kidnapping of Government servants, this raid caused considerable sensation, but confidence was speedily restored by the prompt measures taken against the raider, which resulted in the immediate restoration of the five men kidnapped. On the districts, too, bordering on Persia the positive anarchy prevailing in that country failed to have any appreciable effect. The unrest, however, in Persia and Afghanistan was to a certain extent reflected in an increased activity of the traffic in arms. The measures taken in Muscat and the Gulf have, it is true, effectually crippled the supply, but the increased demand caused by the prevalence of disorder naturally raised the price, and thus provided an additional stimulus to traders to try to run the gauntlet.

The harvest was for the most part excellent and the country prosperous. Imports from Afghanistan increased by £25,000, while exports decreased by £7,000. In the trade with Persia, on the other hand, imports decreased by £11,000 and exports increased by £15,000. The total value of the land trade with India was higher by £200,000 than in 1912-13. The coal-mining industry showed a steady advance, the output exceeding that of the previous year by 10,000 tons. The oil potentialities of the province attracted considerable attention.

Dry farming experiments were continued during the year, and it was hoped to begin demonstration work on the Zamindars' land in 1914. The results hitherto obtained indicate that a very material saving of irrigation water will probably be effected. The possibility of cotton cultivation was also practically tested, and the development of the fruit industry showed further progress.

There was a satisfactory general advance in education, there being 68 public schools and 3,158 scholars, as against 59 schools and 2,874 scholars in the previous year.

The Jirga system worked admirably during the year, as may be inferred from the fact that of the 1914 decisions which came before the agent to the Governor-General on appeal or revision, only 7 were reversed.

Both in Kalat and Las Bela the year was noteworthy for the inauguration of important reforms in the administration. In Kalat His Highness the Khan not only took the important step of reviving his ancient council of Sardars, but also succeeded in reorganising the finances of the State and placing them on a sound footing. In Las Bela, likewise, the question of financial reform was seriously taken up by the Jam, and there is now every prospect of a vigorous development of the hitherto neglected resources of the State, which in the event of an exploitation of its potential oil-fields is likely to come into more general notice. In Kharan further quiet progress was made under the guidance of the young chief's guardian, and the State shows every promise of a return to a condition of order and prosperity.

North-West Frontier Province.—Instances of tribal hostility were confined to two tribes of the Peshawar Border. The Yusufzai of Buner raided China village in the Peshawar district, killing seven British subjects, and Balagarhi, where they murdered two. A military force was sent into Buner, and the matter was settled by the imposition of a fine on the Buner Jirga, which was immediately paid. The other tribe that gave trouble was the Ambahar Utman Khel, which committed a number of serious offences in the Peshawar district, the most important being a raid on Takht Bai, for which the tribe was heavily fined.

Other noticeable events, of a non-tribal character, in the Peshawar district were the attacks by certain Afghan raiders on the Jahangira Road and Khairabad railway stations in December 1913. In the former four railway servants were murdered, and in the latter the assistant station master was carried off. This officer was subsequently released, but, notwithstanding a strong protest addressed to the Amir, none of the offenders were apprehended.

(Frontier States.)

The districts of Kohat and Bannu suffered from the effects of the continued mal-administration and consequent lawlessness in the neighbouring Afghan district of Khost, the residents of which (many of them outlaws from British territory) committed numerous isolated raids across our border. In the encounters which took place between raiders and their pursuers nearly the whole gang of the notorious outlaw Zarwali were killed or captured. The situation is difficult owing to the recent weakening of the Amir's authority in Khost; in the meantime the British authorities have done what they could by arresting all Khostwals found on our side of the border, and this action has undoubtedly had a good effect.

The tragic death of Major Dodd, political agent, Wana, and of two British officers at the hands of a Mahsud, orderly of the former, occurred on April 12th, a few days after the close of the year under report. The murder merely exemplified in a startling way the want of stability so often to be discerned in the Mahsud character; for the murderer had during his ten years' service with Major Dodd experienced nothing but kindness.

The work of the militia corps of the Province maintained the high standard of former years. The murder of Captain Butler by a Bhitanni sepoy at Wana was clearly an act of temporary insanity, and neither the Bhitanni clan nor the Southern Waziristan Militia were involved. The work of the Southern Waziristan Militia was as arduous as ever, and the duties of the Northern Waziristan and the Kurram Militia were also very heavy owing to the chaotic conditions in Khost.

The Frontier Constabulary completed the first year of its existence, and even in that brief period proved its superiority over the defunct Border Military Police. The useless elements of the old regime have not yet, however, been fully eliminated, and moreover, the new force was under the disadvantage of adapting itself temporarily to the old Border Police posts, which in many cases were unsuitably located. The question of determining the most advantageous positions in which to place them was at the end of the year under consideration.

Kashmir.—Both receipts and expenditure showed an increase as compared with the previous year; the former rising from £887,000 to £910,000, and the latter from £782,000 to £849,000. The actual surplus of £61,000 was chiefly due to increased receipts from Customs, Sericulture, Public Works and Forests, and to diminished expenditure generally. Investments held at the close of the year rose by £20,000 to £354,000.

The Imperial Service Troops of all ranks numbered 3,589, while the Regular Troops numbered 2,949. Nine cadets were sent for instruction to British Indian Regiments. A partial reorganisation in Army Headquarters was effected.

The total value of Central Asian trade was approximately £253,000 as against £217,000 in 1912. The new trade route from Leh to the Karakoram Pass was completed and opened to traffic in the spring of 1914.

The prospects of sericulture for the next year were seriously prejudiced by a destructive fire at the Srinagar silk factory which involved loss amounting to £100,000, of which £80,000 were covered by insurance.

The Forest Regulation was revised, and six new forest ranges were formed. The area of demarcated forests increased considerably, and the financial results of the year's working were satisfactory.

There was steady progress in education. Both the teaching and inspecting staffs of the colleges and schools were strengthened, and the building of the Raja Amar Singh Technical Institute (since opened) approached completion. The total cost of education rose from £32,000 to £40,000.

Increased medical and surgical relief was afforded during the year, and three new dispensaries were opened. A mild form of plague prevailed in Jammu, resulting in 309 seizures and 157 deaths. Mortality from small-pox fortunately declined, the deaths being 832, as against 1,338 in 1912.

The Telegraph Department was partially reorganised on the lines of the Imperial Telegraph Department.

In municipal administration an interesting experiment was made in the reconstruction of the municipalities at Jammu and Srinagar on a partially elective basis.

Dredging operations on the Jhelum river were continued. Owing, however, to a flood in March, many reclaimed areas became inundated in consequence of uncompleted bunds.

(Frontier States.)

In the Naqua of Poonch malaria in epidemic form was severe from August to the middle of October. As a preventive measure, cultivation of maize and rice was stopped in the vicinity of Poonch.

Sikkim.—The Maharaja of Sikkim, His Highness Sir Thotub Namgyal, K.C.I.E., died on the 11th February 1914, and was succeeded by the Maharaj-Kumar Sidkeong Tulku.*

In order to prevent land from passing into the hands of the Marwaris, the professional money-lenders in Sikkim, the unwritten law, that Marwaris and other Indians are not permitted to possess land in Sikkim, or to have any control over such land, was placed on record.

Successful measures were taken by the State Forest Department to protect the soil against damage by landslips. No fresh landslips occurred, and in those already existing there was no further erosion of the soil.

The total export and import trade with India rose from £191,000 to £318,000. Various concessions in connection with the development of the resources of the State were in the year under review given to Messrs. Burn and Co., and when work is commenced on these concessions there should be a further strong impetus to trade. The Darjeeling-Himalayan Railway extension to the Teesta Bridge, which will probably be completed in 1915, should also have a marked effect in the same direction.

A co-operative credit society was started under the control of His Highness with a capital of £7,000.

Assam Border Tribes.—The survey parties in the Mishmi and Abor countries completed their work without friction. The Lohit valley road was carried to Theronliang, and communication with the hill tribes was kept up. The relations with the various tribes were generally good, and with a few exceptions the usual posas (allowances) were distributed to Bhutias, Akas and Daffas. The number of disturbances during the year was small. A raid by some Tagin Abors on a Daffa village resulted in reprisals, the matter being dealt with in due course by the political officer. In a quarrel between Barduarua and Barmithunia Nagas three of the former were killed. Two Naga headmen of the unadministered tract who were responsible for an attack by the men of Anangba on the village of Kumishe, in which a British subject was killed, were imprisoned. From the trans-frontier villages 16 other head-hunting raids were reported.

Burma: Kachin Hills and North-Eastern Frontier.—The outstanding feature of the year on the north-eastern frontier was the taking under administration of a new area north of Myitkyina, which has, since the close of the year, been formed into the new district of Putao. The civil officers everywhere met with a friendly reception. Relations with the Chinese continued friendly, and the ordinary frontier meetings were resumed. The amount of violent crime in the north-east frontier districts was about normal. Considerable seizures of opium were made during the year. Progress was made in the construction of new roads.

The Chin Hills.—The year was again uneventful. With a few minor exceptions, relations with tribes in unadministered territory continued to be friendly. The regular crops were poor in the northern hills, but good elsewhere, and the cultivation of wheat was resumed by the Chins. The civil hospitals became more popular, and vaccination made great progress.

Shan States.—In the Southern Shan States the year was peaceful and on the whole prosperous. There was a considerable decrease in violent crime. The rainfall was abundant, and crops generally were good, but there was a severe outbreak of rinderpest amongst the cattle. Trade with Burma prospered and expenditure on public works increased. The financial position of the States generally showed substantial improvement. Twenty-three miles of the Thazi-Yawngwe railway had been completed by the end of 1913.

In the Northern Shan States the frontier, for the most part, remained quiet during the year. The first frontier meeting between British and Chinese officials since the inauguration of the Chinese Republic, was held in January, and relations were most

* The new Maharaja died on the 5th December 1914, and has been succeeded by his half brother, Trashi Wangyal.

(Frontier States.)

cordial. There was no marked increase in the number of serious criminal offences. The rains were badly distributed, and the crops somewhat below the normal. Cattle disease caused serious losses in the different States. Good progress was made in road-making and bridging. The financial position of the States was generally sound. In the State of Mōng Mit and in the Shan States of Thaungthut and Kanti, in the Upper Chindwin district, the people again enjoyed a prosperous year.

Karenni.—In Karenni the year was uneventful and prosperous, and the administration of the States was satisfactory. The rice crop was below normal, but other crops were good. The timber trade was good and other trade improved. The expenditure on public works was satisfactory, and the financial position of the States was sound.

Native States.

Hyderabad.—The following information is for the calendar year 1913:—

The rainfall in the State was, on the whole, fair, and averaged 25·71 inches, or 1·64 inches more than in the preceding year. The rainfall in parts of Raichur, Gulbarga and Usmanabad districts was so small as to give rise to fodder and water scarcity. The general crop prospects were fair at the close of the year.

Gold to the value of £77,227 was won by the Hutti (Nizam's) Gold Mining Company during the year. The output of coal at the Singareni Collieries was 552,132 tons, an increase of 70,480 tons compared with that of 1912.

Plague did not reappear in the Hyderabad City or the Residency Bazaars or Secunderabad Cantonment during the year. The plague returns for the State generally were normal, with the exception of Raichur where the number of deaths increased from 12 in June to 1,272 in November.

The question regarding the division of the waters of the Tungabhadra river was still undecided at the close of the year. The Nizam's Government had agreed to the proposal that the matter should be referred for arbitration to a Court to be presided over by Sir Henry Griffin, a Judge of the Allahabad High Court, but had suggested that the same authority should also arbitrate with regard to the allocation of the waters of the Kistna river and its affluents. The Madras Government, however, objected to the latter suggestion, and the discussion was not concluded.

The boundary between Gudimetla in the Madras Presidency, and Ushtepalli in the Hyderabad State, as fixed by the Court of Arbitration (referred to in last year's report), was demarcated by officers deputed by the Madras Government and the Hyderabad State.

Mysore.—The rainfall was scanty and ill-distributed, with the result that there was a shrinkage in the acreage and the outturn of the ragi crop, but the rice crop was fairly satisfactory. The prices of food-grains, other than rice, showed a slight increase.

The birth-rate was 18·94 per mille of population against 19·11 in the previous year, while the death-rate was 18·07 against 18·02. There was a noticeable increase in mortality from small-pox, and a slight increase from cholera. The total number of persons vaccinated was 108,632, or 18,514 more than in the preceding year. The question of improving the sanitary and economic condition of the malnad (hilly) portions of the State received attention, and a village improvement scheme was prepared.

The Agricultural Department was reorganised and strengthened. Cattle shows were held at 22 places, and, as usual, lectures were delivered on agriculture, sanitation, cattle-breeding, &c. by the officers of the departments concerned.

Re-survey operations were completed in 227 villages covering an area of 440 square miles.

The co-operative movement again made considerable progress, the number of societies rising from 343 to 530. A provincial co-operative conference was held for the third year running at Mysore. Two of the agricultural banks were closed, leaving only two open at the end of the year. Eleven new joint stock companies were registered and one was wound up, the total number working at the close of the year being 63.

The total value of the gold produced in the mines was £2,152,000, and the royalty realised by the State amounted to £126,000, the figures for the previous year being

(Native States.)

practically the same. Manganese mining showed little activity, but some interest was displayed in chrome and iron mining.

The total expenditure on public works from all sources, including local funds, was about £395,000 against £340,000 for the year 1912-13. Nearly equal amounts were spent on irrigation works on the one hand, and on civil works and military buildings on the other. The matters at issue between the Government of Madras and the Mysore Durbar in connection with the storage of the waters of the River Cauvery within Mysore territory were inquired into by an Arbitration Committee, whose decision had still to be confirmed by the Government of India. The Bowringpet-Kolar Light Railway was completed, and construction work was in progress on the Mysore-Arsikere Railway, the Bangalore-Chikballapur Light Railway, and the Tarikere-Yedahalli tramway.

The sanctioned strength of the permanent police force was 863 officers and 5,163 men, against 840 officers and 5,115 men in 1912-13. The cost of police administration was £71,000, approximately.

The work of the Economic Conference showed marked development during the year. The energies of the Education Department were chiefly devoted to the development of elementary education. A scheme of compulsory education was sanctioned for introduction in 15 selected centres. Effect was given to the arrangements for providing technical and commercial education referred to in last year's report. Female education continued to advance. A school was opened at Bangalore for giving practical education in agriculture. Sericulture received considerable attention. The question of starting various industries was considered by the newly-treated Department of Industries.

The Legislative Council met four times and considered 15 bills, including nine which were pending from the previous year. Of these 12 were passed and 10 received the assent of H.E. the Maharaja. In the year under report the Legislative Council was enlarged, and was granted the privilege of discussing the budget and of making interpellations.

An important event was the substitution of a Treaty for the Instrument of Transfer of 1881. The Treaty was signed on 26th November 1913.

H.E. the Viceroy visited the State in November 1913.

The actual receipts during the year under service heads were £2,009,000 against £1,730,000 in 1913, and the expenditure £1,746,000 against £1,500,000.

Baroda.—The following information is for the year ending 31st July 1913 :—

The total revenue of the State amounted to £1,474,000 as against £960,000 in the previous year, the large increase being almost entirely due to the improved receipts from land and opium. Good rainfall and agricultural prosperity accounted for the increased land revenue, while the better receipts under the head of opium are explained by the number of chests sold at high prices. As a set-off, however, against the latter increase there was a largely enhanced expenditure, owing to higher opium duty and export charges on a large number of chests sent to Bombay, and the net profit to the State amounted to barely £30,000. The total expenditure during the year was £1,200,000 against £1,160,000 in 1911-12. After opium, already referred to, the chief increase in expenditure was £7,800 under the head of education, due to an increase in the number of schools, promotions, and purchase of apparatus.

The Department of Agriculture did good work during the year by means of honorary correspondents, demonstrations at the model farms, by its publications and instruction in its boarding school.

Two joint-stock companies were registered, and one Mangalore tile and two ginning factories were started during the year. A Chamber of Commerce was established at Baroda City and at Naosari. The number of co-operative credit societies rose from 124 to 189, and this movement has had a marked effect in reducing the interest charged by moneylenders, and in other ways improving the condition of its members.

The public health was fairly good. There were 283 cases of plague as against 1,272 in 1911-12. There were 59 medical institutions, and the number of cases treated during the year was 395,082; of these, 391,057 were out-door and 4,025 indoor patients. During the year 18,049 surgical operations were performed.

The Public Works expenditure amounted to £188,000 as against £293,000 in 1911-12. Sixteen miles of railway were opened for traffic, and 153 were under construction. The expenditure on railways was £99,000.

(Native States.)

The total number of educational institutions rose from 2,961 to 3,045, and the number of scholars from 188,373 to 207,913. There were 9,468 students learning English as against 8,641 in 1911-12. The compulsory standard for both boys and girls was raised to the fifth vernacular standard, and the school age was raised from 11 to 12 for girls and from 12 to 14 for boys. The number of town and village libraries in the State was 344, and of reading rooms 79 at the end of the year.

The police investigated 5,180 cases. The percentage of cases in which property was recovered was 43·21. Of 4,137 persons arrested, 294 were released before trial, 4 died, 9 escaped, 1,894 were convicted, and 1,517 acquitted or discharged.

The year was marked by the passing of the Arms, Ammunition and Explosives Amendment Act, restricting the possession and sale of breech-loading arms of precision and ammunition used in these weapons. A set of rules was framed relating to the selection of Mahants of religious institutions and prescribing the duties of these priests. A Bill was also published inviting suggestions for the improvement of Hindu Purohits by a qualifying examination for the order with the object of providing learned and competent priests. The number of elected members of the Legislative Council was raised from 6 to 10.

Acting on medical advice H.H. the Maharaja proceeded to Europe at the beginning of May 1913.

Central India.—The principal feature of the year was the failure of the rains in the Bundelkhand and Baghelkhand Agencies and in the northern portion of Gwalior. The result was a severe shortage of the kharif and rabi crops, the defect being greatest in Bundelkhand and least in Gwalior. Owing, however, to the considerable surplus stocks of food grains from previous harvests in the hands of the cultivators, and to the timely measures taken by the authorities, it was found possible to avert actual famine. The loss of plough cattle was small, and among human beings there were no deaths from starvation. In the rest of Central India there was an average harvest, although in Malwa a certain amount of damage was done owing to the untimely character of the rainfall.

Central India was practically free from plague during the year, there being 173 deaths, as compared with 5,282 in 1912-13. Cholera was also less prevalent, the mortality from this disease falling from 9,080, the figure for the previous year, to 2,823. Small-pox, however, was again epidemic, although vaccination slightly improved. The number of patients treated in hospital under all heads increased by 67,324 to 1,789,517.

Crime was normal, but with an appreciable decrease in dacoity cases from 74 in 1912 to 47. The settlement of the criminal tribes continued to progress.

The Malwa Bhil Corps, whose efficiency was favourably reported on, were transferred in the course of the year to their new lines.

The total outlay on Imperial public works amounted to £44,000 approximately. The principal works undertaken during the year were police lines at Sehore and Nowgong, and a new press building for the Central India Agency Press. The Department maintained the same length of roads as last year, viz., 755½ miles.

Owing to the exclusion of opium from China the only opium which left Malwa for the latter country during 1913-14 consisted of 2,645 chests out of the 2,760 chests, the right of export of which was sold by auction in November and December 1912. On these 2,645 chests Government realised £2,092,000 for the right of export, in addition to the pass duty of £80 per chest; and of this sum the share assigned to the States of Central India amounted to £1,560,000. It had, however, originally been intended to allow as many as 13,820 chests to be exported from Malwa, and, to compensate the local opium traders for their disappointment, Government decided to purchase 11,253 chests themselves. The stock of opium in Malwa on the 31st March 1913 was estimated in the report for 1912 at between 38,100 and 43,100 chests. Taking into account the outturn of the 1912-13 crop and the depletion due both to local consumption and to the export trade as represented mainly by the above transactions, the net stock in hand on the 31st March 1914 should have been between 25,200 and 30,200, giving for the following year, if the outturn of the 1913-14 crop is taken at 1,063 chests, a total of between 26,300 and 31,300 chests. It would appear, however, from local inquiries that the real figure is more nearly 39,000. During the year there was a satisfactory diminution of the area under poppy in Central India from 22,016 acres in 1912-13 to 2,288 acres in 1913-14.

(Native States.)

In the course of the year the Madras system of excise was adopted in practically the whole of the Gwalior State, and of the Bundelkhand and Baghelkhand Agencies, as also in the Kurwai, Pathari, Muhammadgarh and Basoda States in the Bhopal Agency, and in nearly all those parts of the Indore State where it was not previously in force. In the Administered Areas under British jurisdiction, development followed the same lines as in the surrounding States.

The scheme for the improvement of education in the Administered Areas in Central India was still under the consideration of the Government of India at the close of the year.

Rajputana.—The information available is partly for 1912-13 and partly for 1913-14, and the States have been grouped accordingly.

1912-13 (General).—The rainfall for 1912, although unevenly distributed in some States, was generally satisfactory. The harvests were on the whole good, and the prices of grains easier than in the previous year.

Plague was prevalent in the Jaipur State for the greater part of the year, the total number of attacks being 1,533 and deaths 1,469, as against 4,114 attacks and 3,999 deaths in the preceding year. There were also some cases of cholera in the Jaipur State and the city of Tonk. For the rest, the health and condition of the people were generally satisfactory. No cattle disease was reported during the year. Education continued to progress. The number of schools in Jaipur rose from 1,215 to 1,225, and the expenditure from £11,000 to £12,700.

In Sirohi the work of the land settlement made good progress; the operations, however, were unpopular with the Jagirdars, and the attestation of the record of rights was in consequence attended with some difficulty. Satisfactory progress was made towards the liquidation of State debts.

Jaisalmer.—The proposal to connect Delhi and Sind by a railway running through the territory of the State excited great interest, as such a railway would be of immense benefit to the people.

Jaipur.—Work in connection with the Jaipur-Shekhawati railway was in progress during the year. The Durbar proposed to allot £100,000 per annum towards completing and extending their railway system through the northern portion of the State. The railway will, when completed, be invaluable in recovering and centring in the capital much of the trade which has been temporarily diverted from it by the construction of the Rewari-Phulera and Degana-Hissar railways. New irrigation works were in progress during the year, the principal being the Dhil Nadi Bund, the new tanks at Rajoli and Bahawalpur, and the masonry weir on the River Mashi below Narera.

Tonk.—The private mills and factories opened during the past years continued to work satisfactorily. Another cotton-ginning factory was added during the year under review.

The following information about Bikaner relates to the year 1911-12:—

Bikaner.—His Highness the Maharaja celebrated at Bikaner the 25th anniversary of his accession to the "Gadi." On the latter occasion His Highness publicly recognised the political rights of his people by the institution of a "Representative Assembly," consisting partly of nominated and partly of elected members. Among other boons announced by His Highness were the abolition of import, export, and transit duties on grain, and the establishment of Panchayat courts in selected villages to arbitrate in petty civil cases.

1913-14 (General).—Owing to the deficiency of the monsoon rainfall in 1913 there was a shrinkage in the cultivated area, and scarcity of water and fodder prevailed in many places. Prices ruled high in Mewar. Relief measures, such as the grant of agricultural loans and the suspension of revenue, &c., were adopted in Kotah, Bharatpur, Dholpur, Karauli and Alwar, while in Bharatpur irrigation and other suitable works were also opened to provide employment for the people. The monsoon of 1914 was on the whole timely and well distributed, and the prospects of the crop were good.

Save for a severe outbreak of cholera in the Kotah State which lasted two months and in the city of Jhalawar during the rainy season, the public health was satisfactory. In educational matters progress continued to be slow, but three primary schools and a school for girls were opened in Bharatpur and a new primary school in Karauli, while the girls' school at the capital in Jhalawar made remarkable progress.

(Native States.)

Since the close of the year, the war in Europe has demonstrated in a striking manner the loyalty of all the States in Rajputana. Most of the chiefs offered the personal services and the entire resources of their States. Their Highnesses the Maharajas of Jodhpur, Bikaner, and Kishangarh, and the Maharaja Regent of Jodhpur have proceeded on active service, and the following Imperial Service troops are in the field:—Jodhpur Lancers, Bikaner Camel Corps, four companies of the Bharatpur Infantry and the Transport Corps, quarter part of the Jaipur Transport Corps, the Alwar Infantry, and one squadron of the Alwar Lancers.

Kotah.—His Highness the Maharao contributed one lakh of rupees to the Women Medical College and Hospital at Delhi. A scheme for the supply of pure drinking water to the Kotah city was in course of preparation.

Jhalawar.—The Chief spent a portion of the hot weather in Kashmir. The revised land settlement worked well and gave satisfaction to the people. On the death, in June 1914, of the late Dewan Bahadur P. Permanand, who had been Dewan for 20 years, a State Council was appointed to carry on the administration under the presidency of His Highness.

Bharatpur.—In March 1914, His Highness the Maharaja went to England to be educated and was entered at Wellington College. One new dispensary was opened in the State. The sanitary reforms introduced in the State gave satisfaction.

Dholpur.—On the 9th October 1913, His Highness the Maharaj Rana was invested with full ruling powers. A new female dispensary was constructed in Dholpur, and the extension of the Dholpur Light Railway to Tantpur was completed.

Alwar.—In April 1914, His Highness the Maharaja of Alwar contracted a second marriage with the daughter of the Thakur of Khirasra in Kathiawar.

Mewar.—In Mewar the construction of the lines of the Imperial Service Cavalry and of a cotton-ginning factory was completed. The services of three officials of the limited Province Government were obtained by the Mewar Durbar for employment in the State.

In the Shahpura Chiefship a small new charitable dispensary was opened.

Bengal.—The condition of the people in Cooch Behar during the year under review was, on the whole, fair. The principal crops suffered from the unevenness of the monsoon rainfall, but the high price of jute, rice, &c. provided a partial compensation. The progress of education, which had been fairly rapid in the previous years, was slightly affected by the unsatisfactory character of the season, and it was difficult to maintain the standard of the old schools or to start new schools. The Legislative Council met twice during the course of the year to consider and pass the Cooch Behar Survey Bill.

The late Maharaja, who died in England on the 1st September 1913, was succeeded by his eldest surviving brother, His Highness Maharaja Jitendra Narayan Bhup Bahadur.

In Hill Tippera, owing to the unseasonable climatic conditions and the consequent failure of the Joom crops there was considerable distress and poverty among the people, and the hillmen had to be relieved by gratuitous help and advances. The revenues of the State were also naturally affected, especially by the failure of the cotton crop. Education showed some slight progress, there being an increase in the number of children attending school.

Bihar and Orissa.—For the Tributary and Feudatory States of Orissa the record of the year is good. In the matter of the collection of land revenue 21 States out of 24 showed an advance on last year's figures. There was a steady improvement throughout in the administration of police and the reporting of crime. The income from forests showed a continued increase. The expenditure both on public works and education was larger than in the preceding year. The outturn of winter rice and of the rabi crop was on the whole good, and the year generally was a fairly prosperous one. Public health was satisfactory, and both vaccination and re-vaccination showed steady progress. There were altogether 11 States under the management of Government. The State of Hindol was released from Government administration at the close of the year and the chief was installed on the "gadi" on the 20th October 1913.

Assam.—*Manipur.*—The main feature of the year was the abolition of the pothang, or system of personal service by raiyats in the upkeep of roads and schools and in the

(Native States.)

conveyance of baggage of touring State officials. To cover the additional expense incurred by the State extra taxes were imposed. The agitation against the old system was transferred to the new taxes, with the result that the collection of the revenue was seriously delayed. Eventually the chief agitators were arrested and imprisoned. The rainfall was normal, but as it was deficient at the time of transplanting, the new crop suffered. The plague of rats, however, ceased, and good crops were realised in the winter. The silk venture, which was taken over by the Durbar in the previous year, was for various reasons again unfortunate.

The conduct of the hill tribes and of the tribes in the unadministered tract was satisfactory.

United Provinces of Agra and Oudh.—In the Benares State, notwithstanding the capricious nature of the rainfall, conditions for the year 1913-14 were normal. Irrigation works in Chakia district were pushed on to a very considerable extent, and owing to the water thus made available the "Kharif" crop in that area, which would otherwise have suffered severely, was almost entirely saved. Earthwork on the Moghal Sarai-Chakia road was completed, and the metalling of the road was to be taken in hand in the succeeding year. In the year under review elementary education was made free in the State. New primary schools were opened, and the number of scholars continued to rise. Co-operative banks multiplied at a very rapid rate, and without exception showed signs of prosperity and expansion. The far-reaching effects of the present European war received an illustration in the severe check which later in the year 1914 was experienced by the flourishing carpet industry of the district of Bhadohi. Prompt measures for tiding over the present difficulty were taken by the State.

The Tehri State suffered a serious loss through the death, on April 23rd, 1913, of the reigning Raja at the early age of 39.

Owing to the insufficiency and untimeliness of the rainfall the Rabi and Kharif crops suffered to a certain extent, but no appreciable distress was caused and no takavi advances had to be made except in the case of a few villages in the upper part of the State. The forest revenue, which forms the chief income of the Tehri State, again increased. Notwithstanding slight epidemics of small-pox and cholera the health of the people was generally good. Education is backward but continued to make slow progress.

Punjab Native States.—Owing to a failure of the rains in August and September crops were generally poor. Public health was on the whole good, and the revenue returns were satisfactory. Education continued to make progress in the more important States. In Jind six new primary schools were opened during the year, bringing the total number in the State up to 39. The average school attendance was 2,300. In Patiala, where the number of schools is 262 and the attendance 14,586, it was noticed that an increased attendance at primary schools was accompanied by a falling off of high schools. With perhaps one exception the Imperial Service Corps in the various States maintained a high level of efficiency. The most important facts in the political administration of the year were (1) the breaking up of the Agency of Phulkian States and Bahawalpur, (2) the constitution of the Phulkian States into a separate Agency, (3) the formation of a new Political Agency from Bahawalpur, Faridkot and Maler Kotla.

Central Provinces.—Owing to the abrupt cessation of the rains at the end of August the outturn of the crops was below the normal, but although there was a general rise in the price of food-grains the condition of the people remained good. The land revenue was easily recovered in full in most of the States; only in Kawardha State did the crop failure necessitate suspensions and remissions on a small scale. Trade was normal, employment was ample, wages remained almost stationary, and there was no heavy mortality from epidemic disease except in Kawardha, where an outbreak of cholera claimed 500 victims. In most of the States there was an increase in the number of criminal offences reported, but they were almost all of a petty nature. Education showed some slight progress on the whole. The financial condition of all the States was satisfactory. There were no changes in the Administration during the year, but the succession of Mahant Lal Sarveshwar Das to the "gadi" of the Nandgaon State was recognised by the Government of India and announced by the Chief Commissioner.

(Native States.)

Bombay.—The season was generally good and prosperous, but there were some exceptions. The harvest was only fair in the Southern Maratha Country States, and was very poor in parts of them. The Satara Jaghirs for the second year in succession suffered from scanty and untimely rainfall, with the result that the crops were moderate in Aundh, poor to moderate in Akalkot and Daphlapur, and bad in Phaltan and Jath. Yet it is satisfactory to find that there was no need to open relief works, and that the rayats, like their brethren in British districts, have learnt to fend for themselves. Public health, which had been very poor in the previous year, experienced a welcome recovery. There was little epidemic disease, and in practically every State the birth-rate advanced, and death rate showed a marked decline. Trade and industry flourished, and crime showed some tendency to fall. Education progressed but slowly, though most States could show a rise in the number of pupils under instruction.

During the year the Sar Desai of Savantvadi died, and was succeeded by his son, who is being educated in England. The deaths also occurred of H.H. the Maharani of Cutch and the Begam Saheba of Sachin. A son and heir was born to H.H. the Nawab of Janjira. A somewhat serious Bhil rising on the Sunth—Banswara border was speedily put down, and the ringleaders were tried and convicted by a special commission.

Madras.—In Travancore the season on the whole was favourable to agriculture, but prices of food-grains rose slightly, as did also the wages of labour. Exports and imports increased by £33,000 and £253,000 respectively. Public works expenditure exceeded that of the previous year by £53,000, and good progress was made with the Kodayar irrigation works.

The revenues of the State continued to expand, the total receipts being £987,000, while the expenditure amounted to £973,000. Expenditure on education rose by £21,000 to £85,000, and the proportion of children of school-going age, who were under instruction increased from 35 to 39·8 per cent. The legislative council was expanded during the year, the number of members being raised from 10 to 15.

In the Cochin State the revenues again exceeded the expenditure, the surplus amounting to £60,000. Agriculture in general was in a flourishing condition, but the coffee crop was not quite so good as usual. There was an increase in the number of schools of all classes, and the proportion of boys and girls under instruction to the male and female population of school-going age rose from 53·6 and 24 to 69 and 29 per cent. respectively. In commemoration of his sixtieth birthday the Raja announced several "boons," among them being the proposed formation of an advisory council. At the same time he declared his intention of retiring into private life, but his abdication did not actually take place till December 1914.

The revenues of the Pudukkottai State continued to exceed the expenditure. The season was favourable and the condition of the agricultural classes good. The expenditure in the Public Works Department showed some improvement, but the progress made with the repair of irrigation sources was very unsatisfactory. There was again a slight increase in civil litigation. Crime on the other hand decreased, but the work of the police was poor. Public health was good on the whole, and the administration of the municipal council in Pudukkottai town and of five unions in outside villages was satisfactory. Although the State expenditure on education was much increased, there was a disappointing falling off in the number of pupils under instruction.

The total revenues of the Banganapalle State were much the same as in the previous year and showed a surplus over expenditure. The rainfall in August and October was deficient and agriculture suffered accordingly; the cotton harvest was good, but prices were poor. Education showed signs of improvement.

The finances of the Sandur State were on the whole satisfactory, both revenue and expenditure showing a considerable increase. The public health was satisfactory, the birth-rate being higher and the death-rate lower than in the previous year. The rainfall was insufficient from July to September, and the crop outturn was poor. Education continued to be backward although attendance increased. The installation of the Raja took place in July 1913.

APPENDIX.

LIST OF INDIAN OFFICIAL REPORTS, &c.
(MOSTLY ANNUAL.)

General.

- Statistical Abstract relating to British India (Parliamentary Paper).
 Statistics of British India :—
 Part I.—Industrial (Factories, Mills, Mines, &c.).
 Part II.—Commercial (Foreign Trade and Shipping, &c.).
 Part III.—Commercial Services (Post Office, Railways, Telegraphs, &c.).
 Part IV.(a)—Finance and Revenue (Paper Currency, Coinage, Public Debt, &c.).
 Part IV.(b)—Finance and Revenue (Principal Heads of Revenue, Salt, Opium, &c.).
 Part V.—Area, Population, and Public Health (Area, Population, Emigration, Births and Deaths, Vaccination, &c.).
 Part VI.—Administrative and Judicial (Administrative Divisions, Civil and Criminal Justice, Registration, Police, Jails, &c.).
 Part VII.—Educational (Education, Printing Presses, and Publications).
 Part VIII.—Local Funds (Municipalities, Local Boards, and Port Trusts).
 Census Reports (Decennial), India and Provincial.
 Administration Reports: Madras, Bombay, Coorg, United Provinces, Punjab, Bengal, Central Provinces and Berar, Burma, Bihar and Orissa, Assam, Andaman and Nicobar Islands, Civil and Military Station of Bangalore, Ajmer-Merwara, Baluchistan, North-West Frontier Province, Delhi.

Justice and Police.

- Report on the Administration of Civil Justice for each Province.
 Report on the Administration of Criminal Justice for each Province.
 Report on Jails for each Province.
 Reports on Police for each Province, and for Bombay Town and Island, Calcutta, and Rangoon.

Finance.

- Finance and Revenue Accounts of the Government of India.
 East India Financial Statement (Parliamentary Paper).
 Return of Net Income and Expenditure for eleven years (Parliamentary Paper).
 Accounts and Estimates: Explanatory Memorandum (Parliamentary Paper).
 Home Accounts (Parliamentary Paper).
 Estimate of Revenue and Expenditure (Parliamentary Paper).
 Loans raised in England (Half-yearly Parliamentary Paper).
 Loans raised in India (Half-yearly Parliamentary Paper).
 Mint Reports for Calcutta and Bombay.
 Paper Currency Department Report.
 Statistics compiled from the Finance and Revenue Accounts.

Land Revenue, &c..

- Land Revenue Administration Provincial Reports for Lower Provinces (Bengal), Bihar and Orissa, Assam, United Provinces, Bombay Presidency (including Sind), Punjab, Central Provinces and Berar, Burma, and Madras.
 Report on Land Revenue Administration, Land Records, Settlement Operations, Alienation of Land Act, &c. for North-West Frontier Province.
 Madras Survey, Settlement and Land Records Department Report.
 Reports of Land Records Departments for Bombay, Burma, Bengal, United Provinces, and Punjab.
 Report on Settlement Operations, Punjab.
 Reports on Survey and Settlement Operations, Bengal and Assam.
 Reports on Operations of the Land Records and Settlement Departments, Central Provinces and Berar.
 Report of the Talukdari Settlement Officer, Bombay.
 Provincial Reports on the Administration of Estates under the Court of Wards.
 Report on the Punjab Canal Colonies.

Separate Revenue (Salt, Excise, &c.).

- Salt Department Reports: Northern India, Madras, Bombay, Sind, Bengal, Burma, Bihar and Orissa.
 Excise Report for each Province.
 Opium Department Reports: United Provinces and Bombay.
 Stamp Department Report for each Province.
 Registration Department Report for each Province.
 Income Tax Report for each Province.

Agriculture and Veterinary.

Report on the Progress of Agriculture in India.
 Report of the Agricultural Research Institute and College, Pusa.
 Bulletins of the Agricultural Research Institute, Pusa, and of the Provincial Departments of Agriculture.
 Memoirs of the Department of Agriculture.
 Proceedings of the Board of Agriculture.
 Agricultural Journal of India (quarterly).
 Report of the Department of Agriculture in each Province.
 Reports on various Agricultural Stations, Experimental Farms, and Botanic Gardens.
 Season and Crop Report for each Province.
 Agricultural Statistics of India.
 Area and Yield of certain Principal Crops.
 Report on Production of Tea in India.
 Report on Tea Culture in Assam.
 Statistics compiled from the Reports of the Provincial Civil Veterinary Departments.
 Report of the Camel Specialist.
 Report of the Imperial Bacteriologist (Veterinary).
 Reports of the Civil Veterinary Departments for Madras, Bombay, United Provinces, Punjab, Bengal, Burma, Assam, North-West Frontier Province, and Bihar and Orissa.

Co-operative Societies.

Statements showing Progress of the Co-operative Movement in India.
 Report on Co-operative Credit Societies for each Province.
 Reports of Conferences of Registrars of Co-operative Credit Societies, India and Provincial.

Forests.

Review of Forest Administration in British India.
 Report on Forest Administration for each Province.
 Reports of the Forest Research Institute and the Imperial Forest College, Dehra Dun.
 Indian Forest Memoirs.
 Indian Forest Records.
 Forest Bulletins.

Mineral Production and Mines.

Review of Mineral Production (in Records of Geological Survey).
 Report on Production of Coal in India.
 Report of the Chief Inspector of Mines.

Trade and Manufactures.

Annual Statements of Sea-borne Trade and Navigation, India and Provincial (Madras, Bombay, Sind, Bengal, Burma).
 Review of the Trade of India (Parliamentary Paper).
 Tables of the Trade of India (Parliamentary Paper).
 Provincial Reports on Maritime Trade and Customs (including working of Merchandise Marks Act) for Bengal, Bihar and Orissa, Bombay, Sind, Madras, and Burma.
 Accounts of Sea-borne Trade (monthly and for Calendar Year).
 Accounts of Land Trade (monthly).
 Annual Statement of Coasting Trade of British India.
 Report on the Trade and Navigation of Aden.
 Accounts of Trade carried by Rail and River in India.
 Report on Inland, Rail-borne, or Rail-and-River-borne Trade for each Province.
 External Land Trade Reports for Bengal, Bihar and Orissa, Assam, Burma, United Provinces, Punjab, North-West Frontier Province, Sind, and British Baluchistan.
 Indian Trade Journal (weekly).
 List of Joint-Stock Companies in British India and Mysore.
 Reports on the working of the Indian Companies Act (Provincial).
 Report on the working of the Indian Factories Act for each Province.
 Report of the Chief Inspector of Explosives.

Public Works.

Administration Report on Railways (Parliamentary Paper).
 Railways and Irrigation Works. Return of Capital Expenditure, &c. (Parliamentary Paper).
 Provincial Reports on Public Works (Buildings and Roads).
 Report on Financial Results of Irrigation Operations.
 Report on Irrigation Revenue for each Province.
 Reports of Madras and Bombay Irrigation Departments.
 Annual Report on Architectural Work.

Post Office and Telegraphs.

Post Office Report.
 Report of Indian Telegraph Department.
 Report of Indo-European Telegraph Department.

Scientific Departments.

Report of the Operations of the Survey of India.
 Records of the Survey of India.
 Records and Memoirs of the Geological Survey of India.
 Report of the Indian Meteorological Department.
 Indian Weather Review, Annual Summary.
 Rainfall of India.
 Memoirs of the Indian Meteorological Department.
 Report of the Meteorologist, Calcutta.
 Report of the Director-General of Observatories.
 Memoirs and Bulletins of the Kodaikanal Observatory.
 Report of the Board of Scientific Advice.
 Report of the Archæological Survey of India, and Provincial Reports.
 Report and Records of the Botanical Survey.

Education, Literature, and the Press.

Education Report for each Province.
 Quinquennial Review of Education (Parliamentary Paper).

Local Self-Government.

Reports on Municipalities for each Province and for Calcutta, Bombay City, Madras City, and Rangoon.
 Report on District and Local Boards or Local Funds for each Province.
 Reports of Port Trusts of Calcutta, Bombay, Madras, Rangoon, Karachi, and Aden.

Medical, Sanitary, and Vital Statistics.

Report of the Sanitary Commissioner with the Government of India.
 Report on Sanitary Measures in India (Parliamentary Paper).
 Report of the Sanitary Commissioner for each Province.
 Vaccination Report for each Province.
 Report on Civil Hospitals and Dispensaries for each Province.
 Report on Lunatic Asylums for each Province.
 Report of the Chemical Examiner and Bacteriologist for each Province.
 Scientific Memoirs by Officers of the Medical and Sanitary Departments.
 Reports of the All-India Sanitary Conferences.
 Reports of the Imperial Malaria Conferences.
 Indian Journal of Medical Research (Quarterly).

Emigration and Immigration.

Calcutta Port Emigration Report.
 Bengal Inland Emigration Report.
 Assam Immigration Report.

Prices and Wages.

Prices and Wages in India.
 Variations in Indian Price Levels.
 Reports of Provincial Wage Censuses.

