

EAST INDIA (PROGRESS AND CONDITION).

STATEMENT

EXHIBITING THE

MORAL AND MATERIAL PROGRESS AND CONDITION

OF

I N D I A

DURING THE YEAR 1910-11.

FORTY-SEVENTH NUMBER.

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

India Office,
28 May 1912. }

RICHMOND RITCHIE,
Under Secretary of State for India.

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PREFACE.

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 financial year.

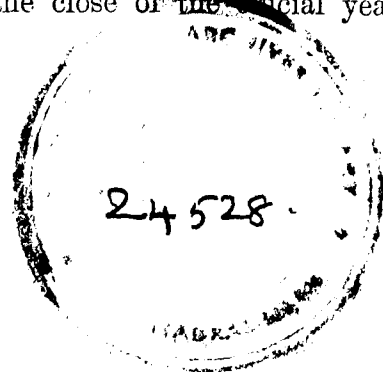


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CHAPTER I.

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 :—

Secretary of State.—The Right Hon. Viscount Morley of Blackburn, O.M.; the Right Hon. the Earl of Crewe, K.G., was Secretary of State from 7th November 1910 to 7th March 1911.

Permanent Under Secretary of State.—Sir R. Ritchie, K.C.B.

Parliamentary Under Secretary of State.—The Hon. E. S. Montagu, M.P.

Members of the Council of India.—Sir J. L. Mackay, G.C.M.G., K.C.S.I., K.C.I.E.; Sir W. Lee-Warner, G.C.S.I.; Lieut.-Col. Sir D. W. K. Barr, K.C.S.I.; Sir H. S. Barnes, K.C.S.I., K.C.V.O.; 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.; Krishna Gobinda Gupta, C.S.I.; Sir J. Thomson, K.C.S.I.; Sir S. W. Edgerley, K.C.V.O., C.I.E.; Sir T. Raleigh, K.C.S.I.; Mirza Ali Abbas Baig.

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

Members of Council.—General Sir O'Moore Creagh, V.C., G.C.B., (extraordinary), Commander-in-Chief; Sir G. Fleetwood Wilson, K.C.B., K.C.M.G.; J. L. Jenkins, C.S.I.; R. W. Carlyle, C.S.I., C.I.E.; S. H. Butler, C.S.I., C.I.E.; Syed Ali Inam; W. H. Clark, C.M.G.

Lieutenant-Governors.—Bengal, Sir E. N. Baker, K.C.S.I.; Eastern Bengal and Assam, Sir L. Hare, K.C.S.I., C.I.E.; United Provinces of Agra and Oudh, Sir J. P. Hewett, K.C.S.I., C.I.E.; Punjab, Sir L. Dane, K.C.I.E., C.S.I.; Burma, Sir H. Adamson, Kt., K.C.S.I.

Members of Council of Lieutenant-Governor of Bengal.—F. A. Slacke, C.S.I.; F. W. Duke, C.S.I.; Rai Kisori Lal Goswami Bahadur.

Chief Commissioners.—Central Provinces, R. H. Craddock, C.S.I.; North-West Frontier Province, Lieut.-Col. Sir G. O. Roos-Keppel, K.C.I.E.

Governor of Madras.—Hon. Sir A. Lawley, G.C.I.E., K.C.M.G.

Members of Council.—Sir M. Hammick, K.C.S.I., C.I.E.; J. N. Atkinson, C.S.I.; Venkatarama Krishnaswami Aiyar.

Governor of Bombay.—Sir G. S. Clarke, G.C.M.G., G.C.I.E.

Members of Council.—R. A. Lamb, C.S.I., C.I.E.; Mahadev Bhaskar Chaulal; W. T. Morison, C.S.I.

Creation of an Executive Council for the Lieutenant-Governor of Bengal.—In exercise of the powers vested in him by Section 3 (1) of the Indian Councils Act, 1909, (9 Edw. 7. c. 4), the Governor-General in Council created an Executive Council in Bengal by proclamation dated 18th November 1910. The number of members was fixed at three or four, two of whom must be persons who have been in the service of the Crown in India for at least 12 years. The Lieutenant-Governor may overrule the Council in cases of high importance essentially affecting the public interest and welfare, in the event of the existence of a difference of opinion between them.

Decentralization.—A number of the recommendations of the Royal Commission on Decentralization, referred to in last year's Statement, were considered by the Secretary of State in consultation with the Government of India, and action has been taken on some of them.

Indian Students.—The Bureau of Information and the Advisory Committee which were established in 1909 for the benefit of Indian students in England remained in full operation during the year under review. Further progress was made with the scheme for the establishment of a centre of social intercourse among Indian students and their friends and well-wishers in England.

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	=	$\frac{1}{12}$ penny.
Pice (3 pies)	=	1 farthing.
Anna (12 pies)	=	1 penny.
Rupee (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 $2\frac{2}{3}$ lb. avoird.)	=	933.10 "
1 maund (40 sers)	=	100 " " (or $82\frac{1}{2}$ " ")	=	37.32 kgms.

LEGISLATION.

I. In England.

The Assam Railways and Trading Company's Act, 1910, (10 *Edu.* 7 and 1 *Geo.* 5. c. 14), varies and defines the rights of the holders of certain shares in the capital of the Assam Railways and Trading Company, Limited.

The Indian High Courts Act, 1911, (1 & 2 *Geo.* 5. c. 18), raises the maximum number of judges of a High Court of Judicature in India, including the Chief Justice, to 20, and gives power for the establishment of a High Court even within the limits of the local jurisdiction of another High Court, which may be altered accordingly; it also empowers the Governor-General in Council to appoint additional temporary High Court judges.

The Government of India Act Amendment Act, 1911, (1 & 2 *Geo.* 5. c. 25), is intended to remove doubts as to whether the Secretary of State has power to grant gratuities to the legal personal representatives of deceased members of his permanent establishment.

II. In India.

Between the 1st April 1909 and the 31st March 1910 the following enactments received the assent of the Governor-General of India:—Sixteen Acts passed by the Council of the Governor-General for making laws and regulations, two by the Legislative Council of Madras, three by that of Bombay, four by that of Bengal, two by that of the Punjab, two by that of the United Provinces of Agra and Oudh, three by that of Burma and one by that of Eastern Bengal and Assam. Five 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 Indian Emigration (Amendment) Act (No. XIV. of 1910) empowers the Governor-General in Council to discontinue emigration to any country whenever he considers that sufficient reasons exist for taking such action. This power of prohibition could previously only be exercised on the grounds specified in Sect. 5 of the Indian Emigration Act, 1908, (see page 115).

The Cantonments Act (No. XV. of 1910) lays down penalties for the unauthorised sale or possession of intoxicants within cantonment limits, and provides for the imposition in cantonments of taxes which can be imposed in municipalities, and for the application or adaptation to cantonments of the provisions of enactments or rules in force in municipalities relating to the assessment, collection and recovery of taxes, and also to the punishment of breaches of such enactments or rules without the necessity which previously existed for the separate notification of such a penal provision under Sect. 25 of the Cantonments Act, 1889. The Act also provides for the formation and custody of cantonment funds and for other matters connected with cantonments, and, among its supplemental provisions, for the making of rules for the regulation of the traffic on roads and across unenclosed spaces under the control of the cantonment authority.

The Indian Census Act (No. XVI. of 1910) provided for the taking of the census of 1911.

The Continuing (Prevention of Seditious Meetings) Act (No. XVII. of 1910) provided for the continuance until 31st March 1911 of the Seditious Meetings Act of 1907 which would otherwise have ceased to have operation on 31st October 1910.

The Opium (Amendment) Act (No. I. of 1911) provides for the transference of the administrative control of the Opium Department from the Government of Bengal to the Government of the United Provinces.

The Indian Patents and Designs Act (No. II. of 1911) simplifies and renders more effective the law previously existing for the protection of the rights of inventors.

Under the Act the procedure to be followed in order to obtain a patent for an invention consists of the following steps:—

- (a) An application for a patent accompanied by a specification must be submitted to the Controller of Patents and Designs appointed under the Act, and a fee of Rs. 10 must be paid.
- (b) The Controller may, after complete examination, accept an application within a period of twelve months which may be extended by him for a further period not exceeding three months on receipt of an application for such an extension and payment of a prescribed fee.
- (c) The documents are then published.
- (d) An interval of three months elapses during which objections to the grant of the patent may be submitted on certain specified grounds.
- (e) In the absence or failure of objections, the patent is granted on payment of a fee of Rs. 30, and must be sealed as soon as possible and at the latest within eighteen months of the date of application except that, when an extension of time for acceptance of the application has been granted, an extension of four months after the said eighteen months shall be granted for sealing, and except as otherwise provided.

Applicants at steps (b) and (d) and objectors may appeal from a decision of the Controller to the Governor-General in Council. The effect of this procedure is to give more adequate protection to the public by increasing facilities for objectors, and to the inventor by diminishing his risk in subsequent proceedings for infringement or revocation.

The term of a patent is 14 years and may be extended for a further 7 years, or in exceptional cases 14 years, on petition (to be accompanied by a fee of Rs. 50) to the Governor-General in Council, if the latter, or the High Court, to whom he may refer it, so decides.

Fees are payable amounting to Rs. 50 before the expiration of each year from the 4th to the 8th year inclusive from the date of the patent and of Rs. 100 before the expiration of each subsequent year to the 13th year inclusive from the date of the patent and before the expiration of each year of the extended term of a patent.

A patentee may be compelled to grant licences, or after the expiry of four years from the date of the patent his patent may be revoked, if, in the opinion of the Governor-General in Council or the High Court, to whom he may refer a petition presented with this end in view, the reasonable requirements of the public have not been satisfied. A patent may also, after four years from the date of its grant, be revoked on the ground that it is used wholly or mainly outside British India.

The Criminal Tribes Act (No. III. of 1911) enacts that tribes may be declared criminal tribes by local governments, and their numbers registered as such, before they are settled and provided with means of living by Government. A tribe may then be restricted in its movements to a specified area or settled in a place of residence, whenever the local Government may recommend this step to the Governor-General in Council and the latter is satisfied of its expediency and that the tribe will have adequate means of earning its living.

The Indian Ports (Amendment) Act (No. IV. of 1911) enables provision to be made for the preparation of a satisfactory code of regulations for the prevention of the spread of disease by means of ships arriving at or being in Indian ports.

The Indian Tramways (Amendment) Act (No. V. of 1911) brings monorails and electric tramways within the provisions of the Indian Tramways Act, 1886.

The Indian Tariff (Amendment) Act (No. VI. of 1911) reduced the rates of duties on tobaccos of all classes by about one-third all round, as the previous higher duties had failed to realise the revenue expected from them.

The Indian Paper Currency (Amendment) Act (No. VII. of 1911) provides for an increase in the portion of the paper currency reserve which may be invested from 12 to 14 crores of rupees and for the raising of the permissible maximum of the sterling portion of this reserve of securities from 2 to 4 crores of rupees.

The Indian Army Act (No. VIII. of 1911) amends and consolidates the previous law relating to the Indian Army which was contained in the Indian Articles of War and various other enactments. The previous law is amended by the restriction of the class of offences for which corporal punishment can be awarded, by the amendment

and simplification of the law relating to enrolment and attestation, by provision for the contingencies of units of the Indian Army Service outside India in time of peace and by changes rendered necessary in view of the reorganisation of the army in divisions and independent brigades instead of the formerly existing "commands."

The Births, Deaths and Marriages Registration (Amendment) Act (No. IX. of 1911) amends the similar Act of 1886 (VI. of 1886) by providing that notice of a birth or death may be given in writing, and that personal attendance before the Registrar of a person giving such notice shall no longer be necessary, subject, however, to precautions to secure the identification of the person giving the notice. Power to make rules under the Act is delegated to local governments.

The Prevention of Seditious Meetings Act (No. X. of 1911) consolidates and amends the law relating to the prevention of public meetings likely to promote sedition or to cause disturbance of public tranquillity (i.e., the Act of 1907 which as continued expired on the last day of March 1911). Amongst other amendments it makes the previous consent of the Governor-General necessary for the notification of proclaimed areas by local governments and removes meetings for the discussion of political subjects as such from the category of meetings for which notice and permission are required.

The Indian Universities (Amendment) Act (No. XI. of 1911) empowers the Chancellor of the University of Allahabad to direct that a certain number of the ordinary fellows of the University shall be elected by the registered graduates.

The Indian Factories Act (No. XII. of 1911) consolidates and amends the law relating to factories. It contains new provisions—

- (a) For the health and safety of operatives.
- (b) For making inspection more effective.
- (c) For imposing the following restrictions in the case of textile factories :—
 - (1) No person shall be actually employed for more than 12 hours in any one day.
 - (2) No person shall be employed before 5.30 in the morning or after 7 in the evening.
 - (3) The period for which mechanical power is used shall not in any one day exceed 12 hours.
 - (4) No child shall be employed for more than six hours in any one day.

Of the above restrictions, the second and third will not apply to any factory in which a system of shifts approved by the inspector is in force.

- (d) For imposing the following restrictions on the employment of women and children in factories generally.
 - (1) No woman or child may be employed before 5.30 a.m. or after 7 p.m.
 - (2) No woman shall be employed for more than 11 and no child for more than 7 hours in any one day.
 - (3) No child shall be employed unless in possession of a certificate showing that he is not less than nine years of age and fit for work in a factory.
- (e) That managers as well as occupiers shall be liable for breaches of the provisions of the Act.

ACTS OF THE PROVINCIAL LEGISLATIVE COUNCILS.

Madras.—*The Madras District Court of Wards Act (1902) Amendment Act (No. I. of 1911)* delegates to managers appointed by the Court of Wards the power to institute and defend suits and appeals on behalf of wards.

The Madras City Municipal (Amendment) Act (No. II. of 1911) makes alterations in the rate and method of collection of certain taxes and licence fees.

Bombay.—*The Bhagdári and Narwádári Tenures Act (No. II. of 1910)* is intended to remove doubts as to the power of Government to reconstitute *bhāgs* which had been broken up by forfeiture on account of failure in payment of revenue demands.

The Bombay Hereditary Offices Act (No. III. of 1910) provides that "lineal" as opposed to "ordinary" primogeniture shall be the recognised rule in determining who is the nearest heir of a deceased representative *watandá* for the purposes of registration.

The Bombay Port Trust (Amendment) Act (No. IV. of 1910) provides for the appointment of a deputy chairman and the delegation to him of certain duties of the trust.

Bengal.—*The Calcutta and Suburban Police (Amendment) Act (No. III. of 1910)* amplifies existing legislation so as to confer power on the police to meet various emergencies arising at the present day.

The Bengal Cess (Amendment) Act (No. IV. of 1910) provides a means of carrying out revaluation for cess purposes simultaneously with settlement work, thereby lessening the cost of revaluation which falls on district boards.

The Sambalpur Repealing and Amending (Rates and Cesses) Act (No. I. of 1911) rids the Statute-book of matter which had become obsolete in consequence of the abolition of certain rates and cesses in the Sambalpur district.

The Bengal Vaccination Amendment Act (No. II. of 1911) makes various amendments in the *Bengal Vaccination Act, 1880 (Bengal Act V. of 1880)*, the more important of which are the following :—

- (a) reducing from one year to six months the age at which children must be vaccinated, the latter being the age now prescribed in England ;
- (b) reducing from three months to one month the period of the currency of certificates that children are unfit for vaccination ;
- (c) suspending for a year the grant of final certificates exempting children from liability to vaccination on the ground of their having been shown to be insusceptible to successful vaccination ;
- (d) authorising the transfer from public vaccinators to the inspectors employed in the Vaccination Department of the duty of granting certificates of unfitness for vaccination, certificates of insusceptibility to successful vaccination and certificates of successful vaccination, and giving such inspectors statutory recognition in other respects.

The Act applies in the first instance to the Calcutta Municipality and Port and Suburban Municipalities only, but power is taken to extend it, by notification, to other areas.

Punjab.—*The Punjab Laws Amendment Act (No. I. of 1910)* removes a restriction on the republication of circulars issued by the Chief Court by which the previous sanction of the Governor-General in Council was required for such republication.

The Punjab Arbitration Amendment Act (No. I. of 1911) provides that in the Punjab the *Indian Arbitration Act, 1899*, shall not apply to all agreements to submit present and future differences to arbitration but only to those in which the parties declare that the provisions of that Act shall apply, the object of the limitation being to facilitate the introduction of that Act in certain towns in the Punjab.

United Provinces.—*The Pargana of Kaswar Raja Act (No. I. of 1911)* provides for the modifications necessary to bring the administration of the Pargana of Kaswar Raja into line with that of the remainder of the Benares district in which it is situated, on an agreement being made between the Raja of Benares, of whose family domains it forms part, and the British Government, by which the former has the status in the Pargana of a landholder under the ordinary law ; at the same time the Acts under which the Pargana was already administered are left unrepealed.

The United Provinces Motor Vehicles Act (No. II. of 1911) provides for the regulation of the use of motor vehicles in the United Provinces.

Burma.—*The Burma Process Fees Act (No. I. of 1910)* consolidates and simplifies the law relating to processes and process-servers.

The Burma Steam-boilers and Prime-movers Act (No. II. of 1910) provides for a better classification of engines and a better means of reporting accidents and breaches of the law in connection with their working.

The Rangoon Police Amendment Act (No. I. of 1911) provides for the restriction of the carrying of knives, loaded sticks &c., in public places in Rangoon.

Eastern Bengal and Assam.—*The Eastern Bengal and Assam Excise Act (No. I. of 1910)* consolidates and amends the law in force in that province relating to the import, export, transport, manufacture, sale and possession of intoxicating liquor and drugs.

REGULATIONS.

The Burma Laws Act, Kachin Hill-tribes Regulation and Chin Hills Regulation Amendment Regulation (No. II. of 1910) amends existing legislation with the object of delegating certain powers to the local government.

The Aden Arms (Sea-traffic) Regulation (No. III. of 1910) provides for prohibition of the unauthorised carriage of arms &c., between places in the Gulf of Aden.

The Sonthal Parganas Rural Police Regulation (No. IV. of 1910) provides for the organisation and maintenance of the rural police in the Sonthal Parganas.

The British Baluchistan Bazars Regulation (No. V. of 1910) makes better provision for the administration of certain bazars in British Baluchistan.

The Upper Burma Oil-fields Regulation (No. VI. of 1910) provides for the control and regulation of the petroleum-mining industry in Upper Burma.

CHAPTER II.*

JUSTICE AND POLICE.

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

(For further details see *Statistical Abstract for British India, Tables 24 to 42.*)

CIVIL JUSTICE.

Bengal.—The most marked feature of the year's working was the very large increase in the number of original suits instituted in mofussil courts. The arrears consequently rose in spite of a substantial increase in the outturn of work. The pending appellate file was slightly reduced. Results of seven appeals to the Privy Council were received during the year; the decisions of the High Court were affirmed in five and reversed in two cases.

Eastern Bengal and Assam.—The number of suits instituted in Eastern Bengal and Assam in 1910 shows a very large increase over the figures of the preceding year. The pending file in consequence rose considerably, but there was a substantial rise in the number of suits decided by subordinate judges and munsifs. There was an appreciable decline in the number of appeals instituted, and the files are well under control. A feature of the year's work was the increase in outturn of original and appellate work on contest. The long-pending arrears, both original and appellate, were heavier than in 1909, but the increase in the case of appeals is small.

North-Western Provinces.—For legislative purposes the North-Western Provinces and Oudh are united as the United Provinces of Agra and Oudh, but inasmuch as Oudh is not subject to the High Court of the North-Western Provinces, the judicial statistics of the two are given separately.

There was a further increase in the number of suits instituted in the North-Western Provinces, the number of cases before the courts rising from 149,128 to 169,981. The increase was due largely to the unparalleled number of mortgage suits instituted. The number disposed of increased from 133,694 to 139,609. The average duration of cases, which had remained practically unchanged for three years, rose from 66 days for contested and 32 days for uncontested suits to 72 days and 37 days respectively.

Oudh.—In Oudh the number of suits showed an increase of 7,554 cases, or 11·8 per cent., on that for 1909; the number of disposals also rose. The average duration of cases fell slightly in both contested and uncontested cases.

Central Provinces and Berar.—Litigation showed an increase of 8·6 per cent. in the Central Provinces, and of 9·9 per cent. in Berar. Recovery from a period of agricultural depression and the good harvests of 1909 and 1910 account to some extent for the all-round increase in litigation, but the figures for the year under review were greatly swollen in certain districts by heavy institutions of mortgage suits. From this latter cause also resulted an increase in the pending file of over 15,000 cases. Heavier pending files and consequent longer adjournments have brought about a general rise in the duration of cases.

Punjab.—The figures for 1910 show that the tendency for institutions to rise in the Punjab has received a check, a decrease of 20,000 cases being recorded, and the number of cases disposed of exceeded the number of fresh institutions by more than 1,200. The average duration of cases was slightly higher than in the previous year.

Bombay.—There was a decrease in the total number of civil suits decided during the year in Bombay, and the balance which remained pending was considerably larger than at the end of 1909, amounting to 33·7 per cent. of the total number for disposal. The average duration of contested suits rose from 157 to 177 days, that of uncontested suits remaining about the same.

Madras.—In Madras the total number of suits instituted (442,732) showed an increase of 17,948 cases on the figures for 1909. This was in part due to the

* The period covered by this chapter is the year ending 31st December 1910.

provisions of section 31 of the Indian Limitation Act, 1908, by which the period of limitation for suits by a mortgagee for sale or foreclosure was extended from 12 to 60 years or up to the 31st December 1910, whichever limit was reached first. In suits disposed of in 1910, excluding those compromised or disposed of without trial, the percentage of plaintiffs who succeeded in obtaining decrees for the whole or part of the relief claimed by them was 73·48, which is higher than in any of the preceding five years. The number of cases instituted in village courts was greater than in any previous year.

Burma.—In Burma the decrease in the number of suits instituted in the courts, which was noticed in 1908 and 1909, continued during the year under review, but was less marked. There was a slight decrease in the pending file. In spite of the decrease in the number of suits, the average duration of cases remained practically stationary in Upper Burma and increased in Lower Burma.

North-West Frontier Province.—There was a decrease of litigation during the year in the North-West Frontier Province, the number of suits instituted falling from 25,585 to 24,336. Of 28,900 suits for disposal 92 per cent. (as in 1909) were disposed of. The average duration of cases remained about the same.

Coorg.—Judged by the number of suits filed and decided in Coorg in 1910, the work of the civil courts continues to increase, but the additions are entirely in the small cause list. The average value of all suits, Rs. 73, was the lowest on record. The number of appeals filed was slightly larger than in the past two years, but only 21 per cent. of them met with any success.

CRIME AND POLICE.

Madras.—The season was generally slightly better than that of 1909, but, although food-grains were somewhat cheaper, the decrease in the volume of grave crime was very small. Except under house-breaking, which showed an increase of 86 cases, there was a decline under every head as well as in the total grave crime, but the figures are considerably above those for 1907, when food grains were considerably dearer than in 1910. The total number of true cases of cognisable* crime fell from 50,278 to 48,726. The number of murders was 605, as compared with 620 in the previous year. Robberies decreased by 68, and there was a satisfactory falling off in the number of dakaities. There were no serious riots in the Presidency. There has again been a decline in detection under every head of grave crime, as well as under cognisable crime taken as a whole. The great want felt during the year was the shortage of good inspectors for re-allocated circles. This, together with the inexperience of the new sub-inspectors, is inevitable in the present transition stage. The percentage of murders and dakaities detected fell to 15·6 and 14·1 respectively; the proportion of true cases detected from 29·7 to 27·7. Property lost during the year was valued at £123,745, of which 29·1 per cent. was recovered.

The total sanctioned strength of the police was 32,207. The increase of 117 on the figure for the previous year was sanctioned in connection with the formation of a new district. Difficulty in recruiting continued in consequence chiefly of the increasing demand for labour and the high prices prevalent. There was a small increase in the percentage of punishments for all offences, but an increased number of rewards were given. The number of casualties was 2,883, as against 2,077 in 1909. The proportion of illiterate constables was 11·7 per cent. The total cost increased by £39,893 to £533,918, mainly owing to the further progress made in reorganisation. The work of administrative reform carried out in accordance with the orders of the Government of India on the recommendations of the Indian Police Commission is now nearly complete. The cost has been heavy, but an improved stamp of investigating officer—men of better education and higher moral standards—has been obtained; the necessary experience time alone can give.

Bombay.—In Bombay the total number of cognisable cases reported during the year fell to 33,454, there being decreases under all heads of offences, except murder and cognate offences and robbery. Complaints for disposal, including those pending from the previous year, totalled 38,553, as against 39,618 in 1909, and all but 1,963, those in which investigation was refused, remained for investigation. Decisions were given in 31,957 cases, or 1,751 less than in 1909. The percentage of

convictions to true cases disposed of showed a further decrease of 1 to 44·7. The value of property stolen during the year, in connection with cognisable crime, was estimated at £92,720, an increase of £1,007 on the figures for 1909; but there was an improvement in regard to the recovery of stolen property, 35·6 per cent., as against 30·2 per cent. in 1909, being recovered.

The total strength of the police force in the Presidency was 24,104, an increase of 107, and the total cost £421,153, an increase of £7,495, due chiefly to the introduction of further measures of reorganisation. Difficulty in recruiting continued during the year under review. The number of punishments rose from 3,094 to 3,181, an increase for which additions made to the force were mainly responsible; and that of rewards from 6,392 to 7,435. A percentage of 55·9 were able to read and write, as against 54·7 in 1909. Resignations numbered 1,202, or 5·1 per cent., of the actual strength; the corresponding figures in 1909 were 1,048 and 4·5 respectively. The health of the force on the whole deteriorated, but the morale of the force and the quality of its work are improving.

Bengal.—In Bengal the year ended with a comparatively clean sheet in respect of political crime, but events of the first quarter of 1911 unfortunately demonstrated that no relaxation of vigilance is yet justifiable. The Criminal Investigation Department maintained its record of usefulness, thefts from running trains, to which the special attention of the Department was called in 1909, being reduced from 1,540 to 942. The collection and classification of information in the Criminal Intelligence Bureau was completed during the year, and systematic measures are now being adopted for the dissemination of criminal intelligence. With regard to ordinary crime, the number of cognisable offences showed a further satisfactory decrease of 8 per cent. The decline was again most marked in offences against property, and, as in 1909, is attributed mainly to improved agricultural conditions and rigorous prosecution of "bad livelihood" cases. Serious offences against the person increased by over 400 cases. The strength of the force increased by 77 to 22,494, and the cost by £1,442 to £453,779. Ninety-eight per cent. of the officers and 39 per cent. of the men were able to read and write.

United Provinces.—The continuance of agricultural prosperity in the United Provinces operated as a factor to reduce the criminality of the year under review to the lowest figure of the last 13 years. Excluding public nuisances and offences against special and local laws, the total number of reported cognisable offences found to be genuine was 119,968, as against 126,830 in 1909, and this diminution was the more satisfactory as it spread over the field of professional crime. The number of dakaities reported fell from 605 to 475, and that of true cases of murder from 455 to 454. The number of cases reported by village headsmen decreased by 49 to 6,242.

With regard to the police, the punishment roll of officers was somewhat lighter than in the previous year, while departmental punishments in the case of the men were more numerous. The percentage of literate members of the force fell from 26·2 to 25·6.

Punjab.—In the Punjab cognisable cases rose from 40,482 to 41,320. This increase is not in itself serious, especially when it is remembered that the total is less than that of any of the four preceding years, except 1909. A more disquieting feature of the year was the large increase in the more serious classes of offences. Murders again decreased from 421 to 409, but burglaries rose from 12,604 to 13,241, and dakaities from 36 to 48. Generally speaking, the appointment of honorary magistrates has facilitated the speedy disposal of cases, and their courts have been taken advantage of as far as possible. The health of the force remained satisfactory, and an increased number of punishments is explained by insistence on a higher standard of work, morals, and discipline. The proportion of educated men remained at slightly over 30 per cent.

Eastern Bengal and Assam.—Statistics for the year under review show that there were in Eastern Bengal and Assam decreases under the heads of dakaity, riot, and robbery. An increase in burglary and a decrease in theft cases are probably due in part to a better classification and to the gradual abandonment by sub-inspectors of the practice of minimising offences escaping detection. The number of murders reported (384) was the same as in 1909. Good progress was made in the Criminal Investigation Department during the year, a noticeable feature in the work being the success attending the institution of gang cases.

As regards the police, the state of recruiting amongst locals remained unsatisfactory, but there was a general improvement in the conduct of the force, and the

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

number of rewards increased. Three meetings were held during the year between police officers of different districts under the presidency of the Inspector-General or Deputy Inspector-General. The discipline and efficiency of the military police continued to be good, but resignations numbered 66 as against 49 in 1909.

Central Provinces and Berar.—The chief features of 1910 were the marked decrease in the volume of cognisable crime (which, excluding unimportant nuisance cases and offences under special and local laws, amounted to 16 per cent.), the continued improvement in the reporting and registration of crime, the activity of the Berar police in applying preventive provisions of the law against habitual criminals and their success in dealing with dakaities, and the decline, amounting almost to an entire cessation, of seditious agitation. Murders again decreased from 246 to 213, and dakaities from 125 to 63. The police of the neighbouring states co-operated very readily with the local police in dealing with organised crime. The health of the force was not so good, but punishments were fewer and rewards more numerous. Most of the reforms advocated by the Indian Police Commission have been carried out, entailing an actual expenditure of about £77,000.

Burma.—In Burma the police were called upon to deal with a considerable increase in crime, more especially violent crime, and there were no abnormal conditions prevailing during the year to which this outburst of criminality could be attributed. The number of true cases of cognisable crime rose from 38,503 to 40,589. The proportion of detected to undetected cases and the percentage of stolen property recovered remained practically the same as in 1909. Village headmen continued to render valuable assistance in the detection of crime and the arrest of offenders. Several cases occurred in which resistance was offered to armed bands of dacoits and robbers by residents of villages under the leadership of their headmen. There was an improvement in recruiting during the year, coupled with a decrease of resignations and discharges from the force and an increase in the average length of service. The conduct of the men improved; the percentage of those able to read and write remained at 85.

North-West Frontier Province.—In the North-West Frontier Province a grave increase in crime was recorded, which it is not possible to assign to any one cause, as the conditions favourable to the commission of violent crime with comparative impunity varied in different parts of the province. The discredit of the increase of crime and the comparatively small proportion of convictions and punishments cannot be laid at the door of the police, who are much more efficient than they were a few years ago. The fault appears to lie in the application of a criminal law unsuited to local needs. The number of true cognisable cases rose from 4,231 to 4,679. Murders increased from 297 to 310, and dakaities from 66 to 101. The police in the ranks of the upper subordinates were practically up to full strength, and a high educational standard was maintained. With the rank and file matters were not so satisfactory; there were 326 resignations and discharges throughout the year, and nearly 50 per cent. of the constables had less than three years' service.

Coorg.—In Coorg heinous crime in 1910 was slightly below the average, but cognisable offences, as a whole, though less than in the previous year, exceeded by about $7\frac{1}{2}$ per cent. the average of the past decade. Convictions in cognisable cases rose by about 9 per cent. The discipline of the force was satisfactory, and the number of punishments moderate. Only seven illiterates remained in the ranks.

CRIMINAL JUSTICE.

Madras.—In Madras the total number of original cases instituted in the criminal courts showed a considerable decrease on the number of the previous year, and a very large decrease on the average of the five preceding years. The decrease affected almost all classes of courts, and the number of cases brought before village magistrates (10,660) was less than in any year since 1906. The total number of offences reported decreased by 4,074 to 335,390, but the number of offences under special and local laws was greater by 3,318 than in 1909. Sixty-eight death sentences were referred to the High Court for confirmation; of these, 45 were confirmed, 12 reduced, and 11 reversed.

Bombay.—The number of offences reported and brought to trial in Bombay again showed a slight increase as compared with the previous year; of the total number of offences returned as true, about 39 per cent. fell under the Indian Penal Code. 48.2 per cent. of the number of persons brought to trial were acquitted or discharged.

Sentences of imprisonment and fine increased by about 3,000 and 7,000 respectively, while sentences of death and transportation remained practically stationary. Offences against the State rose from 6 to 15; 20 persons were acquitted or discharged, and 43 convicted. Proceedings in appeal resulted in a reversal of the sentence in 16.9 per cent. of the cases.

Bengal.—The number of criminal offences reported in Bengal (254,452) showed a decrease of 3,824 as compared with 1909, and in 17.2 per cent. of the number cases were found false or complaints dismissed. The number of persons under trial for offences against the State, however, increased from 50 to 85, of whom 21 were convicted, 17 acquitted or discharged, and 47 remained under trial at the end of the year. One case, involving nine persons, remained from 1909, and six cases, involving 92 persons, were committed to the High Court for trial by Special Benches under Act XIV. of 1908. Of these, three remained under trial at the close of the year; and in the cases disposed of the average duration from the date of commitment was 89 days.

Eastern Bengal and Assam.—In Eastern Bengal and Assam the number of persons under trial for offences against the State increased from 17 to 48. Of these, three were convicted and one was acquitted or discharged, and 44 remained under trial. The number of criminal offences reported was greater by over 3,000 than in 1909; 112,324 fell under the Indian Penal Code, and 22,406 under special and local laws. Cases were found false or complaints dismissed in 35.5 per cent. of the number reported. There were no cases committed to the High Court for trial by Special Benches under Act XIV. of 1908.

Punjab.—In the Punjab the main features of the year were an increase in the more serious classes of offences and the growing lawlessness in the central districts. The total number of offences reported exceeded by 7,000 the figures for 1909. The capital sentence was confirmed by the Chief Court in 83, and commuted in 30, cases. As in the previous year, 58 per cent. of the appeals preferred and 72 per cent. of the petitions for revision were rejected. Complaints of perjury on the part of witnesses are still loud. In many cases independent witnesses are not produced, and this leads not seldom to a failure of justice.

North-West Frontier Province.—There was a very substantial increase in the amount of crime committed in the North-West Frontier Province during the year under review. Twenty-five per cent. of the total number of offences reported were dismissed *in limine*. The death penalty was inflicted in 16 cases, as compared with 26 in 1909. The number of references to Councils of Elders rose from 220 to 298, and the percentage of convictions from 40 to 49.

United Provinces of Agra and Oudh.—In the United Provinces the features of the year were a decrease in serious, and an increase in minor offences under the Indian Penal Code. Sentences of death rose from 124 to 155, and of transportation from 322 to 325; on the other hand, sentences of rigorous imprisonment and of whipping decreased considerably. The average duration of cases remained about the same.

Coorg.—The number of cases tried by the criminal courts in Coorg rose by 183 to 1,555, but as of this increase 173 were breach of contract cases no adverse inference as to the criminal tendencies of the population can be drawn from these figures. The percentage of convictions rose slightly, and the number of appeals was again very low.

Central Provinces and Berar.—In the Central Provinces the number of offences reported (36,480) was the lowest for the last five years, decreases occurring in cases both under the Indian Penal Code and under special and local laws. The continued prosperity of 1910 caused a further fall in offences against property. Cases of defamation again increased, and a marked rise occurred in the number of offences affecting public health, decency, and morals, and in cases of contempt of authority. The percentage of convictions was higher than in any of the last five years, except 1908. No less than 30 per cent. of the criminal work was done by the unpaid magistracy, and in some cases retired officers on pension have rendered very valuable service in this direction.

Burma.—There was a general increase in crime in Burma during 1910, but the figures show that it was confined almost entirely to Lower Burma. The total number of offences reported was 96,978, of which about 85 per cent. were returned as true cases. A regrettable feature of the year was the prevalence of cattle theft. Thirty-five boys were sent to reformatory schools, as against eight in 1909.

JAILS.

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

	1910.	1909.	1908.	1907.	1906.
Jail population of all classes on 1st January -	103,363	103,784	101,336	99,065	98,244
Admissions during the year -	474,241	489,051	520,377	459,288	480,098
Aggregate -	577,604	592,835	621,713	558,353	578,342
Discharged during the year from all causes -	475,183	489,481	517,930	457,012	479,280
Jail population on 31st December -	102,421	103,354	103,783	101,341	99,062
Convict population on 1st January -	92,605	91,819	89,457	89,035	88,344
Admissions during the year -	154,973	160,391	173,175	153,759	163,956
Aggregate -	247,578	252,210	262,632	242,794	252,300
Released during the year -	151,769	157,076	168,599	160,439	160,022
Casualties, &c. -	3,406	3,528	3,629	2,893	3,246
Convict population on 31st December -	91,271	91,606	90,404	89,462	89,032

A decrease in the number of prisoners admitted to jail in the course of the year occurred in Eastern Bengal and Assam, Bengal, United Provinces, Central Provinces, Madras, and Coorg, and was most marked in Bengal. The daily average number of prisoners fell by about 1,000.

Over one half of the total number of convicts received in jails during the year came from the classes engaged in agriculture or cognate pursuits. About 128,000 were illiterate. The percentage of previously convicted prisoners fell from 17·1 to 16·9, while there was an increase of 84 in the number of youthful offenders. The following statistics show, in round figures, the nature and length of the sentences imposed during the year :—Not exceeding one month, 43,500; above one month and not exceeding six months, 58,000; above six months and not exceeding one year, 28,000; above one year and not exceeding five years, 20,000. The remainder were major sentences, viz. :—2,253 for terms above five and not exceeding ten years; 184 for terms exceeding ten years; 1,605 to transportation beyond seas; and 612 to death.

Consonantly with the decrease in the average daily strength, the number of offences committed by convicts fell; and there was a decrease of about 4,000 in serious offences dealt with by major punishments. The figures for the different provinces are given in the following table :—

Province.	1910.			1909.			1908.		
	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.	Daily average Population.	Offences dealt with by Criminal Courts.	Offences dealt with by Superintendents.
Madras -	19,542	9	13,199	19,737	27	13,715	10,517	122	13,038
Bombay -	7,997	22	22,455	7,535	47	21,641	7,913	33	20,296
Bengal -	13,163	14	27,811	15,066	17	32,478	14,462	37	28,715
United Provinces -	23,165	4	34,577	23,944	4	35,058	25,363	14	37,265
Punjab -	10,949	50	38,994	10,514	61	51,867	10,766	56	56,892
Burma -	13,929	32	34,676	12,954	24	37,281	13,164	22	40,878
Eastern Bengal and Assam -	7,123	39	8,039	6,868	33	6,576	6,884	44	6,954
Central Provinces and Berar -	3,661	32	18,036	3,833	25	18,405	3,536	16	9,975
North-West Frontier Province -	1,044	—	1,479	974	1	1,169	1,040	2	1,371
Coorg -	56	—	45	74	2	60	81	—	17
	91,629	202	199,314	92,499	241	218,250	93,726	346	215,401

The total number of corporal punishments again showed a decrease. The total number of cases in which penal diet (with and without solitary confinement) was prescribed was 7,918 as compared with 8,652 in the preceding year.

Total expenditure fell from £559,918 to £528,737, and total cash earnings from £103,996 to £98,245; there was, consequently, a decrease of £25,430 in the net

cost to Government. Excluding Coorg, the provinces in which the average cost of maintenance was highest were Eastern Bengal and Assam, Bengal, Bombay, and the Central Provinces.

In Indian jails the arrangements for counteracting the influence of adverse climatic and other conditions and for preventing the spread of communicable diseases are being more extensively and thoroughly applied every year, and the result is that while the death-rates among the general population are rising those among the prisoners are falling, and that while the rates among others fluctuate from year to year, the fluctuations in the jail death-rates are becoming less frequent and less marked. The prison death-rate fell from 22·85 to 18·95, the decrease extending through every province except the Punjab, the North-West Frontier Province, Eastern Bengal and Assam, and the Central Provinces. Despite the unusually heavy rainfall, especially during the latter half of 1910, the statistics of malaria among the prison population were exceptionally favourable. Cases of tubercle of the lungs decreased in all provinces, except Eastern Bengal and Assam, the Central Provinces, and the Punjab. In the Central Provinces the admission of two batches of very unhealthy prisoners from the Bastar State raised the death-rates all round, and in the Punjab overcrowding existed to such an extent as to make an increase inevitable. With the exception of respiratory diseases, all the most common causes of sickness and death were less prevalent and less fatal than in 1909.

Penal Settlement at Port Blair.—The convict population of the Andamans at the end of the year 1910-11 was 11,938, being about 600 less than at the end of the previous year. The number of convicts received from India and Burma during the year was 789, as against 767 in 1909-10. There were 24 escapes, and 11 recaptures; the corresponding figures for the preceding year were 71 and 49. There was a decrease of 500 in the number of offences, and the number of corporal punishments also fell from 40 to 28. The net cost of the Settlement was £81,414, and the net cost of each convict about £6 10s., against £89,515 and £6 16s., respectively, in the previous year.

CHAPTER III.

FINANCE.

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

(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 facts 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.

GROSS REVENUE AND EXPENDITURE.

The Gross Revenue and Expenditure of British India in 1909-10 and 1910-11 were as follows :—

	1909-10.	1910-11.
	£	£
Revenue -	74,593,495	80,682,473
Expenditure -	73,986,854	76,746,186
Surplus -	£606,641	£3,936,287

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.

NET REVENUE.

	1909-10.	1910-11.	Increase (+) or Decrease (-).
	£	£	£
Land Revenue, &c. :			
Land Revenue	20,554,980	20,112,161	- 442,819
Forest	1,728,885	1,822,988	+ 94,103
Tributes from Native States	389,355	408,694	+ 19,339
	22,673,220	22,343,843	- 329,377
Opium : Net Receipts -	4,195,614	6,271,531	+ 2,075,917
Taxation :			
Salt -	3,054,647	2,916,767	- 137,880
Stamps -	4,496,267	4,757,510	+ 261,243
Excise -	6,462,225	6,957,379	+ 495,153
Provincial Rates -	538,300	552,860	+ 14,560
Customs -	4,855,982	6,497,001	+ 1,641,019
Income Tax -	1,546,206	1,583,683	+ 37,477
Registration -	429,325	424,645	- 4,680
	21,382,953	23,689,845	+ 2,306,892
Commercial Undertakings :			
Post Office -	353	46,030	+ 46,383
Telegraph -	89,582	20,327	+ 109,909
Railways -	824,922	2,017,496	+ 1,192,574
Irrigation -	606,300	584,387	- 21,913
	1,341,287	2,668,240	+ 1,326,953
Mint -	17,805	103,741	+ 121,546
Exchange -	44,481	70,084	+ 25,603
Total Net Revenue - £	49,619,750	55,147,284	+ 5,527,534

NET EXPENDITURE.

	1909-10.	1910-11.	Increase (+) or Decrease (-).
	£	£	£
Debt Services (excluding amounts charged under Railway Revenue Account and Irrigation).	930,702	703,463	- 227,239
Military Services :			
Army -	17,923,453	18,073,131	+ 149,678
Marine -	377,697	354,080	- 23,617
Military Works and Special Defence Works.	811,173	837,831	+ 26,658
	19,112,323	19,265,042	+ 152,719
Collection of Revenue -	6,021,503	6,114,457	+ 92,954
Civil Services :			
Civil Departments -	13,039,593	13,720,244	+ 680,651
Miscellaneous Civil Charges -	4,146,287	4,202,960	+ 56,673
Civil Works (including Railways charged to Provincial or Local Revenues).	3,868,365	4,243,629	+ 375,264
	21,054,245	22,166,833	+ 1,112,588
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.	894,036	1,061,202	+ 1,067,166
2. Diminution of the Charge against Revenue of the year, owing to Expenditure being met from Provincial Balances.	-	-	-
Total Net Expenditure charged against Revenue.	49,013,109	51,210,997	+ 2,197,888
Surplus (+) or Deficit (-) -	+ 606,641	+ 3,936,287	+ 3,329,646

Thus there was in 1910-11, as compared with 1909-10, an increase of net revenue of £5,527,534 and an increase in net expenditure of £2,197,888. 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. It will be sufficient here to refer only to the more important facts specially affecting the revenue and expenditure of 1910-11.

Land Revenue.—The decrease in land revenue in 1910-11 as compared with 1909-10 was chiefly owing to the fact that the receipts of the latter year had been swollen by famine arrears due in respect of 1908-9.

Opium.—In accordance with arrangements with the Chinese Authorities (*see* Parliamentary Paper, Cd. 3881 of 1908), the number of chests of opium exported from India has been limited by the Government of India since 1908. The precise conditions of the agreement in this respect are described in Chapter V. (*see* page 41). The revenue, however, in 1910-11 actually exceeded that of 1909-10 by more than £2,000,000; for owing to the increased demand in China for the reduced supplies of Indian opium an average price of Rs. 2,892 per chest of Bengal opium was realised at the Calcutta auctions as compared with Rs. 1,612 in 1909-10.

Customs.—In view of the prospective extinction of the opium trade with China, and of the increasing demands for expenditure on education, sanitation, and other objects, it was decided in 1910 to impose additional taxation, chiefly in the form of enhanced duties on liquors, tobacco, silver, and petroleum. The increase in the Customs receipts in 1910-11 was mainly due to this cause.

Railways.—There was a net receipt from this source in 1910-11 of £2,017,496 as compared with £824,922 in 1909-10, but as in the latter year Indian railways were only just recovering from the effects of the acute commercial and agricultural depression of 1908-9 such a comparison is not to be pressed. Compared, however, with 1907-8, the last previous normal year, the receipt of 1910-11 shows a satisfactory increase of £454,494.

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 fixed shares 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 as large an interest as possible in the careful collection of revenue and in economy of expenditure. The principal heads of revenue which are wholly Imperial are Opium, Salt, Customs, Post Office, Telegraph, Mint, Exchange, and Railways; the principal divided heads being Land Revenue, Irrigation, Stamps, Excise, Assessed Taxes, and Forests. 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 1909-10 and 1910-11 and the expenditure charged against the revenue of those years were divided into Imperial and Provincial as follows:—

	1909-10.			1910-11.		
	Imperial.	Provincial.	Total.	Imperial.	Provincial.	Total.
	£	£	£	£	£	£
Net Revenue -	29,218,939	20,400,811	49,619,750	32,928,249	22,219,035	55,147,284
Net Expenditure -	28,612,298	20,400,811	49,013,109	28,991,962	22,219,035	51,210,997

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 1909-10 the Provincial Governments added to their balances the sum of £894,036, and in 1910-11 the sum of £1,961,202

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:—

Provinces, &c.	1909-10.		1910-11.	
	Excess of Revenue.	Excess of Expenditure.	Excess of Revenue.	Excess of Expenditure.
	£	£	£	£
Bengal -	7,111,235	—	9,905,421	—
Eastern Bengal and Assam -	957,801	—	652,373	—
United Provinces -	3,256,201	—	3,005,516	—
Punjab -	1,674,449	—	1,255,578	—
Burma -	2,238,439	—	2,221,465	—
Central Provinces and Berar -	325,362	—	308,083	—
Madras -	4,705,314	—	4,538,970	—
Bombay -	4,773,105	—	4,926,962	—
North-West Frontier Province -	—	309,456	—	370,407
India, General -	—	5,714,100	—	3,901,968
England -	—	18,411,709	—	18,605,706
Net result -	Surplus £606,641		Surplus £3,936,287	

HOME CHARGES.

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

	1909-10.	1910-11.
	£	£
Interest and management of debt, and payment of interest and annuities on account of railways and irrigation works.	10,617,088	10,760,744
Payments in connection with Civil Departments in India	125,644	128,805
India Office (excluding pensions)	201,860	179,884
Army and marine effective charges	979,536	1,055,325
Stores of all kinds charged against revenue	1,059,432	1,039,758
Furlough allowances	965,790	967,009
Non-effective charges (pensions and gratuities)	4,432,359	4,474,181
Total	18,411,709	18,605,706

CAPITAL OUTLAY ON PUBLIC WORKS.

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

	1909-10.	1910-11.
Amount supplied by State borrowing or from the Cash Balances, without being charged against the Revenue of the year :—	£	£
State Railways - - - - -	3,862,191	6,620,927
Irrigation Works - - - - -	1,052,349	1,203,888
Amount met by Debenture Stock issued by Railway Companies - -	2,459,426	2,291,278
Amount defrayed from Revenue :		
Provincial and local Railways - - - - -	1,245	795
Preliminary Railway expenditure not originally charged to construction	13,708	—
Protective Railways - - - - -	12,015	36,895
Protective Irrigation Works - - - - -	432,889	359,674
Other Irrigation Works* - - - - -	11,765	6,708
Total Direct Outlay by the State - - -	7,845,588	10,523,165
Outlay by companies guaranteed or subsidised by Government - -	2,063,077	1,469,278
Branch lines not on firm guarantee - - -	54,905	93,315
Total Capital Outlay on Railways and Irrigation - - - £	9,963,570	9,147,202

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

DEBT.

Amount of Debt.—The total debt of India on the 1st April 1910 was :—

	£
In England - - - - -	176,105,911
In India, Rs. 1,36,84,33,105, equivalent, at 1s. 4d. the rupee, to - - - - -	91,228,874
Total - - - - -	£267,334,785

1910-11.—In England £1,000,000 Sterling Bills were issued in April 1910 at an average price of £96 9s. 2d., and £2,500,000 in June at an average price of £96 18s. 6½d., both issues being for 12 months and in replacement of Bills falling due. In October an issue of £4,000,000 3½ per cent. India Bonds, redeemable by annual drawings in eight years, was made at an average price of £99 11s. 7½d., for the purpose partly of discharging the capital stock of the Indian Midland Railway Company on the determination of their contract, and partly of discharging debentures of the Madras and Indian Midland Railway Companies falling due during 1911-12. Sterling Bills to the amount of £2,500,000 became due on 1st December 1910, and bills to the amount of £1,500,000 were issued on that date in partial replacement at an average price of £96 14s. 7d. In March 1911 an issue of £3,500,000 3½ per cent. India Stock was made at a fixed price of £96 per cent. In India a 3½ per cent. rupee loan of 1½ crores (£1,000,000) was issued in July 1910 at an average price of Rs. 96.1.3.

The total debt outstanding on 31st March 1911 was as follows :—

	£
In England - - - - -	182,998,335
In India, Rs. 1,38,09,72,155, equivalent at 1s. 4d. the rupee to - - - - -	92,064,810
Total - - - - -	£275,063,145

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 1910 and the 31st March 1911 was as follows :—

	1910.	1911.
(a) Permanent debt :—	£	£
Debt for railways - - - - -	186,517,746	195,836,888
Debt for irrigation works - - - - -	32,256,945	33,800,175
Total of public works debt - - -	218,774,691	229,637,063
Balance, being ordinary debt - - -	42,560,094	40,426,082
Total permanent debt on 31st March -	261,334,785	270,063,145
(b) Temporary debt incurred on security of India bills :—		
Debt for railways - - - - -	1,500,000	1,500,000
Debt for general purposes - - - - -	4,500,000	3,500,000
Total debt (permanent and temporary) on 31st March - - - - -	£267,334,785	£275,063,145

Under the East India Loans (Railways and Irrigation) Act, 1910, the Secretary of State in Council was empowered to borrow in the United Kingdom, as and when necessary, up to £25,000,000 for the purposes of Indian public works. The grant of fresh borrowing powers was required owing to the fact that the powers granted by previous East India Loans Acts were becoming exhausted.

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. From 1871 to 1893 the exchange value of the rupee (i.e., the sterling rate at which bills of exchange payable in India were sold) fell almost continuously, the fall being due to the decline in the price of silver, by which the value of the rupee was necessarily governed. Apart from its effect on trade the continual fall in the rupee caused serious difficulties to the Government, because, its revenue being collected in rupees, it is compelled to provide for the greater part of its sterling payments by the sale in London for sterling of bills of exchange and telegraphic transfers payable in rupees in India, and the number of rupees required for defraying any given amount of sterling expenditure increased with each fall in the sterling rate at which bills were sold. In the period from 1871 to 1893 the rate fell from about 2s. the rupee (ten rupees to the £) to about 1s. 3d. the rupee (sixteen rupees to the £). In view of the embarrassment arising from this depreciation in the standard of value 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.

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 1907-8 and 1908-9 half the profits on coinage were applied to capital expenditure on railways. In 1909-10 and 1910-11 no coinage was undertaken from purchased silver. The sum shown under the former year in the marginal table, which gives the annual amount of the profits on coinage in each year from 1900-1 to 1910-11 credited to the reserve under the arrangements above described, is made up of arrears of profit on the coinage of previous years.

The constitution of the reserve on the 31st March 1911 was as follows:—

	£
Sterling securities (at cost price) - - -	15,848,469
Silver (coined rupees in India) - - -	1,934,302
Cash in England (placed by the Secretary of State in Council at short notice) - - -	1,477,358
Total - - -	£19,260,129

Exchange and Remittance.—During the years 1908-9, 1909-10, and 1910-11 the sale by the Secretary of State of bills and telegraphic transfers on India was as follows:—

1908-9	£14,144,545	at an average rate of	1s. 3·93d. per rupee.
1909-10	£27,444,609	„	„ 1s. 4·041d. „
1910-11	£26,212,866	„	„ 1s. 4·061d. „

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. In 1908-9 and 1909-10, however, the normal state of things was reversed in consequence of unfavourable agricultural and commercial conditions in India, and in order to support exchange the Government of India decided to sell bills payable in London in sterling. Bills of this nature were sold to the amount of £8,058,000 and £156,000 in these two years, at a fixed rate of 1s. 3½d. the rupee.

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

	1909-10. Number Coined.	1910-11. Number Coined.
Rupees - - - - -	20,771,397	87,242,454
Half-rupees - - - - -	1,568,586	4,222,009
Quarter-rupees - - - - -	-	9,056,109
Eighth-rupees - - - - -	1,603,811	18,161,015
British Dollars (for export to Hong Kong) - - -	5,954,218	5,552,910
„ „ subsidiary pieces - - -	14,351,213	13,384,584

The rupee coinage of 1909-10 and 1910-11 was confined to the recoinage of old rupees and uncurrent coin.

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

	1909-10.	1910-11.
	£	£
Copper - - - - -	2,333	3,333
Bronze - - - - -	39,915	63,008
Nickel - - - - -	103,333	167,500

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 marks an important stage in the development of the paper currency system of India. A reserve is held against the notes equal to their full value. Securities of the Government of India and of the British Government may be held as part of the reserve up to a limit of £9,333,300, of which the British Government securities may 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 1911 the value of notes in circulation was £36,660,400, being more by £388,100 than on the corresponding date in 1910. The constitution of the paper currency reserve was as follows:—

	£
Gold - - - - -	11,231,500
Silver coin - - - - -	17,439,100
Silver bullion - - - - -	52,500
Securities of the Government of India - - -	6,666,700
Securities of the British Government - - -	1,333,300
	36,723,100
Deduct amount due on bills drawn by one circle on another - - - - -	62,700
	£36,660,400

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 has been modified by a succession of other Acts, of which the most recent was passed in 1907. It 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 at the end of December 1911:—

	Bank of Bengal.	Bank of Madras.	Bank of Bombay.
	£	£	£
Paid-up capital - - - - -	1,333,333	400,000	666,667
Reserve - - - - -	1,193,333	346,666	706,700
Public deposits - - - - -	1,526,660	404,214	719,287
Other deposits - - - - -	11,296,880	4,045,294	7,361,100

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 1911, was 492. The majority of these companies consist of societies with a relatively small capital.

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 on 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 periodic settlements was established, under which the State demand is revised at regular 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 ordinary term will in future be 20 years. At these settlements careful surveys are made of all holdings and records of rights in the land. The policy of long term settlements is being extended. 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 Eastern Bengal, 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 (Bengal), while in Bombay and Sind, Burma, Assam, Berar, and most 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 1909-10 (in thousands of acres). The figures include waste and uncultivated areas as well as cultivated lands, and merely indicate the extent to which the two systems respectively prevail.

Province.	Ryotwari (Peasant Proprietors).	Zamindari (Individual Proprietors or Village Communities).		Total.
		Permanently settled.	Temporarily settled.	
	000 acres.	000 acres.	000 acres.	000 acres.
Burma	114,000	—	—	114,000
Assam	25,865	3,931	1,502	31,298
Eastern Bengal	—	21,712	7,004	28,716
Bengal	—	59,242	14,850	74,092
United Provinces of Agra and Oudh	—	7,841	60,575	68,416
Punjab	—	—	62,215	62,215
North-West Frontier Province	—	—	8,438	8,438
Bombay	44,850	—	3,771	48,621
Sind	30,252	—	—	30,252
Central Provinces	1,773	—	40,606	42,379
Berar	11,327	—	—	11,327
Madras	61,577	29,179	—	90,756
Minor Administrations (Ajmere, Coorg, Manipur)	1,043	959	735	2,737
Total	290,687	122,864	199,696	613,247

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.

LAND LEGISLATION.

Bengal.—Throughout the major part of the province the relations between landlord and tenant are governed by the Bengal Tenancy Act, which continued to work satisfactorily. The withholding of rent receipts and the levy of illegal exactions in the form of cesses in addition to rents have by no means ceased, but the tenants are gradually learning to know their rights and to resist illegal demands. Settlement operations have taught tenants their rights and privileges, and the general spread of education tends to the same result. During 1910-11 there was practically no serious friction between landlord and tenant. Chota Nagpur has recently come under a special agrarian law of its own, passed to amend and codify the existing laws. It is said to be working well, but cautious application is necessary at first. A special Tenancy Bill has been introduced for Orissa.

Eastern Bengal and Assam.—The Bengal Tenancy Act is in force in all the Eastern Bengal districts, except the Chittagong Hill Tracts. Both landlords and tenants are said to have become better acquainted with its provisions, chiefly owing to survey and settlement proceedings, the records of which are being more freely used. The landlords are apt not to furnish the receipts for rent which the Act prescribes.

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 nearly 14 million acres are now protected, that is, the landlords are debarred from arbitrary ejectment. The area protected increased by 151,198 acres in 1909-10.

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 a net transfer of land to the possession of the former in the districts to which the Act applies. The effect of the Act on credit is a moot point, but its general effect has undoubtedly been beneficial. Attempts to evade the Act were few.

Punjab.—The Punjab Land Alienation Act of 1900 was designed to protect hereditary land-owning tribes from expropriation by money-lenders. Its effect in preventing the transfer of land from agriculturists to non-agriculturists is undoubted, though the actual figures are a matter of uncertainty. More than half the present mortgaged area in the province is mortgaged to mortgagees who are themselves agriculturists. The anxiety of all classes to be notified under it disposes of the allegation that credit has been impaired. A system of evading the Act is causing

some trouble; a mortgage is effected in the name of a landholder, whereas the real mortgagee is a money-lender. Steps are being taken to prevent this.

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 six years in three districts. The Act is appreciated by the zamindars and its operations appear to be beneficial. No attempt to evade the law were reported in 1909–10.

Madras.—The Madras Land Encroachment Act of 1905 worked smoothly during the year. 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 gradually settling down as suits are decided by the Law Courts. Landlords and tenants resorted to the provisions of the Act more largely than in 1909–10, and its provisions are getting to be better understood. The relations between landlord and tenant are on the whole fairly satisfactory.

Bombay.—The extension of the Deccan Agriculturists' Relief Act from four selected districts to other parts of the presidency, though of recent date, has induced the cultivator to adopt sounder methods. Its working has been fortified by the restrictions imposed in certain parts, under the conditions of the new tenure, on the alienation of land by the operations of the co-operative credit societies, and above all by the widespread system of Government advances. At first it restricted credit though not to such an extent as to hamper agricultural operations by crippling the finances of the ryot. But credit is now recovering, and it is not found that the Act prevents the money-lender from carrying on a legitimate business.

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. During 1910–11 much of the time of the various settlement and land records staffs was taken up by Census work.

Bengal.—In January 1909 the control of cadastral surveys was transferred from the Surveyor-General of India to the Bengal Settlement Department, whose work now also includes traverse surveys, special surveys, and mapping. Survey and settlement work during the agricultural year to September 1911 extended over 15 districts. The main work of the Survey Department consisted of traverse surveys, which covered 3,618 square miles, or practically the same as in 1909–10. The area cadastrally surveyed was 3,378 square miles, as against 3,474 square miles in 1909–10. The total area for which a record of rights has now been completed in Bengal is 64,805 out of 115,819 square miles. Rents were settled for 66,465 tenants, as compared with 163,195 tenants in 1909–10. The revision of the survey and record of rights in the temporarily settled districts of Orissa was continued. Extensive settlements were carried out in Bihar and Chota Nagpur. Cess-revaluation was carried out in combination with settlement work at Hazaribagh—the first introduction of this system in Bengal.

United Provinces.—There was no regular settlement work in progress during 1909–10; the re-settlement of Fatehpur and Etawah which had been proposed for the year was postponed on account of Census work. The reorganised Land Records Department has made progress in all directions. The village maps have been 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 completed in Karnal, Rohtak, and Delhi districts, and made good progress in five other districts. Settlement operations have

been shortened by curtailing the time spent on measurement work and revision of records, with the result that cost has been saved and the people have been less harassed by the operations. The agriculturist element in the *patwari* staff was further strengthened.

North-West Frontier Province.—Settlement operations in the Frontier Province were completed during 1906–7. But it was shown on inquiry that, although defensible from a purely revenue standpoint, the enhancements of revenue were too high and sudden, while insufficient consideration had been paid to the poor communications, and to the insecurity of life and property inseparable from a border tract. Remissions of revenue were made in villages in three districts where the existing demand was found too heavy, and detailed inquiry has been instituted to decide what further relief is required. No settlements were carried out during 1909–10. In the Department of Land Records the number of mutations attested was 162,383.

Burma.—Financial stringency impeded the progress of survey and settlement work. All the districts proposed for revenue settlement have now come under supplementary survey. There was no extension survey of tracts outside the cadastral area; revision survey took place in two districts. Of the 37 districts of the province 31 are settled. The six unsettled districts are hilly and sparsely populated, and it has been decided that settlement is not at present necessary. In nine districts second settlements, and in three, third settlements, have been made or are in progress. It has been decided to extend the normal period of settlement from 15 to 20 years and to graduate the increases of rates imposed in revision settlements. The rates fixed in the first settlements were very low and early revision was desirable, but now that in most districts of Lower Burma normal rates have been fixed, the need of frequent revision and considerable increases in revenue rates has largely disappeared. During 1910–11 settlement operations were in progress in 10 districts. The average cost of the operations was 6d. per acre. The rates of assessment consequent on the regular settlement of the Lower Chindwin district were sanctioned. The anticipated increase of annual revenue is £1,973.

Central Provinces and Berar.—An unusually large programme of settlement work was carried out during the year; operations took place in eight districts. In the Land Records Department the scales of pay have been raised.

Eastern Bengal and Assam.—A survey and record of rights for the entire settled area of the province are being prepared, and afterwards the village maps and records will be kept up to date. The record of rights is increasingly utilised by executive and judicial officers. Good progress was made with major settlement operations in the Jalpaiguri, Dacca, Faridpur, and Mymensingh districts of Eastern Bengal and the Lakhimpur district of Assam.

Madras.—Six survey parties were at work during 1910–11 in five districts. They dealt with 2,020 square miles. Five settlement parties continued their operations. The aggregate land revenue demand of the districts either newly settled or re-settled is £3,605,000, an increase of 28·4 per cent. on the demand prior to re-settlement. The cost of the re-settlement operations up to the end of 1910–11 has been £1,181,000. 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 demarcation, measurement, classification, and other work of a routine character. The record of rights is now completely established in the Presidency proper, while considerable progress has been made in Sind. The classes in survey instruction for Circle Inspectors and Village Accountants were in abeyance.

REVENUE ASSESSMENTS AND INCIDENCE.

Land revenue is realised in the form of an annual payment for cash, the assessment rates being subject to no alteration during a prescribed term of years, 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.

The incidence of land revenue on the fully assessed cultivated area is under 1s. 1d. per acre in the permanently settled area of Bengal, and represents, on an average, less than 25 per cent. of the rental. In the permanently settled tracts of Eastern Bengal it falls to about 11d. per acre, while in those of the United Provinces it rises to 1s. 4d. in Oudh and 1s. 10d. in Agra. In the temporarily settled tracts the incidence per acre is approximately 1s. 11d. in Upper Burma, 3s. 8d. in Lower Burma, 3s. 4d. in Sind, 3s. 3d. in Madras, 2s. 4d. in Agra, 2s. 6d. in Oudh, 2s. 4d. in Eastern Bengal, 1s. 11d. in Bombay, 1s. 7d. in Berar, 1s. 6d. in the Punjab, and 8d. to 9d. in the Central Provinces. Rates of revenue vary greatly with the productive power of the soil, advantages of climate and irrigation, and facilities for marketing produce. The land revenue rates for Sind and Madras given above include charges for State irrigation; elsewhere the land revenue rates exclude these charges. In Madras and Bombay the revenue demand is not enhanced on account of increased productiveness due to private improvements, while in Northern India such improvements are not taken into account in assessing the revenue until a period varying from 20 to 45 years has elapsed. It may be added that the burden of the land revenue per head of the population of British India was under 1s. 8d. in 1910-11.

It has been calculated that in the Central Provinces the share of the gross produce represented by the land revenue is less than 4 per cent. of the average annual value; in Berar, the Deccan, and the greater part of the Punjab, about 7 per cent.; and in Gujarat, 20 per cent. It is certain that the Government now takes a very much smaller share of the gross produce than was customary in the days before British rule, while the assessments are lower than those that prevail generally in the Native States.

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
1906-7 (single year)	19,794,000	134·2
1907-8 " (widespread shortage of crops)	18,719,000	126·8
1908-9 " " "	19,759,000	134·0
1909-10 " " "	21,332,000	144·6
1910-11 " " "	20,878,000	141·6

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 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.

After a widespread failure of crops in 1907-8 and partial failures in 1908-9, the improved agricultural conditions in 1909-10 enabled a large part of the heavy arrears of the two previous years to be paid up. Favourable conditions continued during 1910-11, but the revenue for this year shows a decrease as there was no longer the same recovery of arrears.

The land revenue receipts in 1909-10 and 1910-11 were made up as follows:—

	1909-10.	1910-11.
Ordinary land revenue	£20,238,630	£19,907,720
Assessment of alienated lands, less quit-rents*	659,766	659,454
Sale of proprietary right of Government in land†	81,875	52,785
Capitation tax, or house tax levied in lieu thereof‡	657,667	676,287
Sale of waste lands and redemption of land revenue	72,804	47,308
Recovery of survey and settlement charges§	70,107	76,656
Fisheries and other receipts	668,680	635,316
	£22,449,529	£22,055,526
Deduct portion of land revenue due to irrigation	1,117,388	1,178,005
Total land revenue	£21,332,141	£20,877,521

The charges in 1910-11 included £1,611,795 for district administration, £451,641 for survey and settlement charges, £932,666 for land records, and £664,408 for collection of the revenue. The total charges were £3,662,426.

The total advances made by Government to cultivators during 1910-11 amounted to £467,515, and the total amount of advances outstanding at the close of the year was £2,401,811. The advances were chiefly for the improvement of land, but partly for the relief of agriculturists 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 1910-11, excluding arrears, amounted to £1,933,574, including £1,524,989 from 115,965 permanently settled estates, £216,905 from 10,894 temporarily settled estates, and £191,680 from 938 estates under the direct management of Government. The percentage of current collections on current demand was 97·96 per cent. Remissions were trifling. The number of estates, &c. which became liable to sale for non-payment of Government revenue fell to 11,949, but only 667, or 5·5 per cent., were actually sold. Under the Public Demands Recovery Act, 61,731 certificates were filed for recovery of arrears of revenue (exclusive of cess), compared with 62,082 in 1909-10; payment was generally secured on issue of notices or on attachment of property, but actual sale was necessary in 2,266 cases, and warrants were issued in 1,009 cases, 36 defaulters being imprisoned. Advances under the Loans Acts amounted to £27,240.

United Provinces.—The fixed land revenue demand in 1909-10 was £4,329,185. About £12,500 was remitted or suspended, and the collections were short of the demand by only £7,221. Other sources of revenue, not strictly classed as land revenue, are the occupiers' rate (receipts, £543,844) and the owners' rate (receipts, £11,088), which constitute payments for irrigation, besides cesses, &c. The collections on account of canal rates fell with a decrease in the area irrigated. There was, owing to the improved character of the year, a greatly decreased demand for advances under the Land Improvement Loans Act and the Agriculturists' Loans Act, the total amounting to only £81,200. The loans were chiefly for the purchase of seed and plough cattle. Two advances were made for the instalment of sugar factories. Over £500,000 was repaid in respect of previous loans. The number of coercive processes continues to increase, but the increase is largely apparent, being due to changes in the method of reckoning the number. Greater regularity in collecting and a substitution of legal for irregular methods also account for much of the increase. The increase in the number of warrants (9,909, as against 8,694 in 1908-9) may also be partly due to increased facilities for arrest given by attendance in answer to citations. The number of defaulters actually detained in custody was not abnormal. In only 106 cases was moveable property sold, and in no case immoveable property.

Punjab.—The year 1909-10 was one of the most prosperous of recent times, both autumn and spring harvests having been much above the quinquennial average. The fixed land revenue demand for the year amounted to £1,391,143, or about £21,000 more than in 1908-9. About 99 per cent. was collected. The "fluctuating" revenue

* Mostly from Bombay. † Mostly from Punjab. ‡ Mostly from Burma.
§ From Bengal and Eastern Bengal and Assam.

amounted to £374,514, or 21 per cent. of the total land revenue demand (under the "fluctuating" system the demand varies with the crop; it is applied for the most part to canal-irrigated and riverain tracts). Miscellaneous revenue, mostly derived from sales of Government estates, amounted to £126,058. A large portion was derived from the sale of Government estates in the Chenab Colony districts. Agricultural advances amounted to £22,077.

North-West Frontier Province.—In 1909-10 the harvests were good. Of the total demand of £129,481 on account of fixed land revenue, 98.1 per cent. was collected. Fluctuating and miscellaneous land revenue contributed £20,483, compared with £26,771 in 1908-9. The system of fluctuating assessments is generally appreciated. Coercive processes fell from 2,233 to 1,452, the decrease being most marked in the Peshawar district. In no case was imprisonment necessary. The agricultural advances made during the year amounted to £9,254.

Burma.—The agricultural year to 30th June 1911 was less prosperous than its predecessor. Large areas were exempted on account of floods, there were no large settlement-enhancements, and new land is not being taken up so quickly as hitherto in Lower Burma. Consequently the increase in revenue-demand (*see* table

	1909-10.	1910-11.
	£	£
Land Revenue -	1,733,792	1,736,043
Capitation tax -	365,578	369,618
Household tax -	278,376	282,995
Fisheries -	197,711	201,188
Other sources -	230,899	236,991
TOTAL -	2,806,356	2,826,835

of Revenue Demand, exclusive of arrears, given in the margin) was small as compared with the previous year, and the actual collections of land revenue proper decreased. Of the current land revenue demand over 98 per cent. was collected. The number assessed for capitation tax increased to 1,354,323, a growth of 10,684. There was a rise of 23,673 to a total of 804,559 in the number of households assessed to the household tax, or *thathameda*. The heading "other sources" includes royalties on petroleum, rubies, &c.,

amounting to £203,045, and miscellaneous fees and rents. Remissions, due chiefly to floods, amounted to £33,895. Coercive processes for the recovery of revenue increased, owing chiefly to the less favourable seasons, the number of imprisonments rising from 37 to 69. Capitation tax and *thathameda*, which are levied in Lower and in Upper Burma respectively, are harder to collect without process than land revenue. The amount of agricultural advances rose to £62,012.

Central Provinces and Berar.—In the Central Provinces the year to 30th September 1910 was one of continued prosperity. The land revenue demand (excluding cesses) was £604,360. Remissions and suspensions were small. Collections were good. Coercive processes showed some increase. The number of defaulters arrested was 156, but only three were imprisoned; attachments and sales of property numbered 686 and 24 respectively. Agricultural advances to the amount of £24,022 were made, chiefly for the purchase of seed and cattle.

In Berar during the year to 31st July 1910 excellent crops followed on the indifferent season 1908-9. The land revenue demand, including cesses, amounted to £599,517, a small increase over that of 1908-9, and almost the whole was collected during the year. The number of coercive processes fell from 12,833 to 3,746, a reduction partly owing to the exceptionally good season and partly to instructions to officials deprecating the indiscriminate recourse to coercive action. In Berar agricultural advances amounted to only £3,167.

Eastern Bengal and Assam.—The general conditions of the year were favourable, though floods damaged the crops in many quarters. The total current land revenue demand for the Plains districts was £1,305,231, as against £1,285,374 in 1909-10, the percentage of collection in both years being 96.5. Of the total revenue 50 per cent. was contributed by permanently settled estates, 37 per cent. by temporarily settled estates, and 13 per cent. by estates under direct Government management. Miscellaneous land revenue amounted to £32,343 in 1910-11. The land revenue was collected with great ease, and only 669 estates (mostly petty estates in the Chittagong district) were actually sold in Eastern Bengal. The amount of revenue for which it was necessary to sell up property in Assam was very small. The amount of agricultural loans granted, £7,573, was smaller than in 1909-10. The revenue demand (ordinary and miscellaneous) for the Assam Hill districts was £18,763 in 1910-11, as against £17,298 in 1909-10.

Madras.—The new district of Chittoor was created in March 1911. Both the south-west and the north-east monsoons in 1910-11 was on the whole good and well-distributed, but the dry and hot weather rains were below the average. The total crop area exceeded the normal by 1,217,000 acres, but the outturn was nowhere reported as above normal. The total current demand in 1910-11 for land revenue, including charges for irrigation and miscellaneous receipts (£4,435,115 in addition to £442,485 for various cesses) showed an increase, due to re-settlements and a good season. Of the above demand, £332,668 represents revenue from permanently settled estates, and £50,233 quit-rents from villages held under special tenures, these sums being fairly constant; the remainder comes mainly from peasant proprietors. Remissions were small. As the result of orders which were passed in 1904 to restrict the issue of demand notices to cases of real necessity, there has been a decline in the number from 6,212,162 in 1903-4 to 1,463,605 in 1910-11, while the number of sales has fallen from 9,479 to 2,747. Advances under the Loans Acts amounted to £40,300.

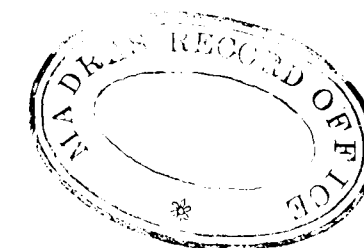
Bombay and Sind.—During the year to 31st July 1910 the season was better than of recent years; only in some parts of the Central Division and in Sind was it unsatisfactory. The total land revenue demand amounted to £2,705,465. The suspensions were less than one-fifth of what they were in 1908-9. The agricultural advances made in Bombay and Sind amounted to £129,912.

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, their general effect being 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 599 estates under management in the eight provinces that have Courts of Wards. The gross income of the estates was about £3,475,000.

Other Estates.—In Bengal there were 938 Government estates under direct management, with a current revenue demand of £191,680. The number is being gradually reduced by amalgamation. In Eastern Bengal and Assam there were 1,601 Government estates under direct management, paying an annual revenue of £167,736, at the close of 1910-11. In the United Provinces the number of Government estates fell from 611 to 605, most of them being properties bought in under the Bundelkhand Encumbered Estates Act. In Bombay proper there were 611 estates under the management of the Talukdari Settlement Officer and 272 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 and enhanced rates in 1910-11. 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, though small, are increasing. Those from registration show, for the second year running, a decrease.

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 rate of duty has in past times ranged from 3 annas (in Burma) to 3½ rupees (in Bengal) per maund of 82½ lbs. In 1882 a general duty of Rs. 2 per maund was introduced (except in Burma), and this was raised in 1888 to Rs. 2½. In 1903 the rate of Rs. 2 was reverted to, and in March 1905 the tax was further reduced to Re. 1½ per maund. A further reduction to one rupee (or 1s. 4d.) per maund was effected in March 1907. In Burma the rate has remained since 1888 at one rupee per maund on imported salt, and a system has been introduced by which the greater part of the salt which is locally produced pays a duty of 8 annas per maund. The Indian salt duty is now more uniform, and lower on the average, than at any former time. Exemption from duty is granted under certain conditions for salt used in manufacturing processes. The reduced duty and increased facilities for transport have made salt cheaper than ever before. The successive reductions of duty have led to a

Year.	Issues of Salt in 100,000's of Maunds.	Duty per Maund.	Gross Revenue.
Average :		Rs.	000 £
1898-9 to 1902-3 -	360	2½	6,002
1903-4 and 1904-5 -	385	2	5,302
1905-6 and 1906-7 -	419	1½	4,370
Year 1907-8 -	444	1	3,339
" 1908-9 -	454		3,276
" 1909-10 -	458		3,320
" 1910-11 -	426		3,176

large increase in consumption throughout India, as will appear from the table in the margin, the increase in the eight years since the reductions began being about 18 per cent. Although, however, consumption has grown, the sacrifice of annual revenue cannot be made good by enhanced consumption within any period worth considering. The gross revenue from salt (including excise and customs receipts, proceeds of sales of Government salt, &c.) during recent years is shown in the table. In 1908 an Act was passed permitting the payment of the duty on a system of limited credit instead of in cash, and the reduction in revenue in the last three years is partly due to this cause. The revenue in 1910-11 decreased to £3,175,950, of which nearly 30 per cent. was derived from imported salt. The charges amounted to £377,076, exclusive of £248,459 paid under treaties in the form of compensation, principally to Native chiefs who have assigned their salt sources to the Government of India. In some provinces the salt and excise administrations have recently been united.

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, Eastern Bengal and 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 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. Since 1870, when the lake was leased by the Government of India, over 158 million maunds of salt have been taken from it, and the financial results show a total credit balance of over £280,000. Owing to fears that the Sambhar salt was becoming exhausted, a long trench for obtaining subterranean brine has been excavated through the bed of the lake, while combined storage and evaporating reservoirs have been constructed. Owing to scanty rainfall the outturn of the lake fell from 8,009,050 maunds to 4,813,451 maunds. The labour supply also appears to have fallen off permanently. The Sambhar salt is sold at a uniform price of 4 annas per maund, with a charge of 3 pies for clearance; the sales in 1910-11 amounted to 4,217,349 maunds. The price of Didwana salt was 2 annas; and the price of Pachbadra salt 1½ annas, with a charge of 3 pies for clearance. The sales from the Mayo and other Punjab mines amounted to 3,300,096 maunds. The Mayo salt is sold for 10 pies per maund, or, at the Khewrah depôt, for 13. Kohat salt, on the average, costs about 9½ pies. The gross revenue of the Northern India Salt Department in 1910-11 was £699,385, or £32,491 less than in 1909-10, while the total charges amounted to £83,283. The total quantity issued by the Department for consumption was 9,714,814 maunds, as compared with 10,019,980 maunds in 1909-10. The following table shows the provinces and states mainly supplied by the Department, with the salt consumption in 1910-11 and the average retail price of salt in each in 1910-11, compared with that in 1909-10:—

Province or State.	Total Consumption.	Average Retail Price per Maund.		Average Consumption per Head (Based on 1911 Census Figures).
		1909-10.	1910-11.	
	Maunds.	Rs. A. P.	Rs. A. P.	Lbs.
North-West Frontier Province -	171,009	1 8 8	1 8 11	6.40
Punjab -	2,567,212	1 9 9	1 9 11	8.74
Kashmir and Jammu State -	327,989	—	—	9.21
United Provinces -	5,489,461	2 0 3	2 0 7	9.41
Behar (Bengal) -	3,596,604	1 15 4	1 15 4	11.95
Central Provinces and Berar -	2,366,150	2 5 8	2 5 7	12.14
Rajputana and Central India -	2,440,740	1 14 11	1 15 0	9.85

The average retail prices were thus higher in almost all the provinces and states enumerated. The annual figures of consumption represent the difference between the estimated supply (including imports into) and the exports from each territory, and are liable to be vitiated by the existence of stocks.

The Department issued 47,959 licences for the manufacture of saltpetre and other saline substances in 1910-11. The refineries produced 474,723 maunds of refined saltpetre.

The number of persons arrested for offences against the salt law was 353, of whom 205 were released. Of 132 persons convicted 21 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 1910-11 was 11,879,570 maunds, an increase of 1.7 per cent. upon 1909-10. The average wholesale price of salt, including duty, at the chief marts of Bengal was about Re. 1.15.5 per maund, having increased by about 2 pies as compared with 1908-9. The average retail prices in the saliferous tracts (for which alone information on this point is available) varied, as in previous years, from 9 to 15 pies a seer. The net amount of

salt consumed in the province rose to 8,143,100 maunds, as against 8,172,823 maunds in 1909-10. The number of persons convicted of offences against the salt law was 25, as against 95 in 1909-10; 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 facilities granted towards the end of 1909-10 for the issue of salt on the credit system on deposit of security are proving popular, securities having been deposited to the extent of £160,000.

Eastern Bengal and Assam.—This province, like Bengal, depends on imported salt. The approximate total consumption in 1910-11 was 4,461,666 maunds, being an average per head of over 10½ lbs. The average wholesale selling price per maund, including duty, was Rs. 2.0.11 against Rs. 2.0.8 in 1909-10. At the commencement of the year the province took over the control of its salt preventive operations which had hitherto been administered from Bengal. As in the previous year, there were no offences against the salt law.

Madras.—Originally there was a Government monopoly of salt manufacture in the Madras Presidency, but in 1882 an attempt was made to substitute private manufacture and abolish all Government factories. This, however, did not answer, and in 1888 a certain number of Government factories were established as a check on the prices and quality of the privately manufactured (or "excise") salt. The system thus instituted still exists. Of the 64 factories worked during 1910-11, 45 were under private and 19 under Government management. The outturn of salt reached the record figure of 12,647,534 maunds, of which 7,736,537 maunds were "excise" salt. The imports by sea and rail, chiefly from Bombay and Goa, amounted to 1,700,311 maunds. Excluding the salt sold for fish-curing and to the French Government, or exported, the total of salt for consumption was 10,980,074 maunds. The average consumption per head was 19 lbs. in the whole Presidency, including Coorg and Mysore, and other Native States (except Travancore and Cochin), as compared with 18.9 lbs. in 1909-10. The average wholesale price of "excise" salt remained at 3 annas 2 pies per maund. Government salt is usually sold at a fixed rate of 3 annas per maund. The retail prices, including duty, varied from Re. 1.6.4 to 2.9.7 per maund, against Re. 1.6.1 to 2.10.4 in 1909-10. There was a further decline in offences against the salt laws, ascribed chiefly to the lower price of salt and to the deterioration of saline soils.

At the end of 1910-11 131 bonded yards were open for curing fish under special regulations, whereby cheap salt is sold to fish-curers. The quantity of fish brought to be cured rose to 1,558,009 maunds, and 858,646 maunds of cured fish left the yards fit for consumption.

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 435 sea-salt works, 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 1910-11. The consumption per head

	Total Issues.	For Local Consumption.
	Maunds.	Maunds.
Baragra salt -	2,756,203	571,864
Sea salt -	9,358,313	2,508,666
Imported salt	377,434	275,646
Total -	12,491,950	3,356,176

was 13.17 lbs.,* as against 12.17 lbs. in 1909-10.

There was but little change in the average market price per maund in most districts. There was a further diminution, from 170 to 135, in offences against the salt laws, ascribed to the reduction of duty.

Thirty-one fish-curing yards were open at the end of the year. Owing to adverse weather, the quantity of fish brought to be cured in bond fell from 247,717 to 231,286 maunds, and the quantity of cheap salt issued to fish-curers from 70,031 to 68,768 maunds.

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 consumed during the year was

* Based on 1901 Census figures.

418,945 maunds. The consumption per head fell from 10.35 lbs. in 1909-10 to 9.81 lbs. in 1910-11. The average wholesale price of Maurypur salt was Re. 1.14.9, and the average retail price Rs. 2.3.11. Only one fish-curing yard was worked. Salt offences fell from 55 to 39.

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 is of slight proportions, to concentrate it wherever it is continued, to combine the Salt with the Excise Department, and to enhance the excise duty by 25 per cent. The latter change took place at the beginning of 1911. The other changes will be introduced gradually. Duty was paid in 1910 on 1,768,047 maunds of imported salt, and on 539,685 maunds manufactured under the system of direct taxation. The total estimated output of local salt was 617,453 maunds. The estimated consumption was 2,374,491 maunds, of which about 26 per cent. was Burma salt, as against 31 per cent. in 1909. Foreign salt thus appears to be ousting the native product in Burma. The prices of both foreign and local salt vary greatly in different districts. The average retail price rose from Rs. 2.15.4 in 1909 to Rs. 3.0.3 in 1910. The statistics relating to local production of salt are untrustworthy, but the returns show that the industry was far from prosperous during 1910. There was a decrease to 199,649 maunds in imports of salted fish, on which a duty of 6 annas per maund is levied.

EXCISE.

General.—The excise revenue is derived from the manufacture and sale of intoxicating liquors, opium, and hemp drugs. There is no excise duty on tobacco or betel. Opium, which is a common household drug, is usually taken in the form of pills or is dissolved in water and drunk. Opium smoking is not extensively practised. The excise revenue from opium is chiefly composed of duty and vend fees, and the rate of duty varies with local conditions, being highest where smuggling is most difficult. The right of retail vend is usually sold by auction. With regard to hemp drugs, cultivation is restricted and controlled, a duty is paid before issue, and retail sale takes place under licences, which are usually sold by auction.

The considerable growth of the excise revenue in recent years is due mainly to higher rates of duty and stricter excise control, and does not indicate a corresponding increase in consumption, although some increase has occurred through the expansion of population and the greater prosperity of certain classes. There has been a large and continuous reduction in the number of country spirit shops in the chief provinces. The Government consider that shops should not be so few as to give each a monopoly over a wide area, lest prices should be unduly raised and illicit practices encouraged. Measures are being taken both to redistribute and to reduce the number of existing shops, as well as to improve the quality of the liquors sold.

In 1905 the Government of India convened a Committee to inquire into excise administration in respect of intoxicating liquors, and to propose reforms. In a Resolution, dated September 1905, they declared, in appointing the Committee, that they had no desire to interfere with those who use alcohol in moderation; but their settled policy was to minimise temptation for those who do not drink, and to discourage excess amongst those who do. The most effective way of forwarding this policy was to make the tax upon liquor as high as possible without stimulating illicit sale and production, and without driving people to substitute deleterious drugs for alcohol, or a more for a less baneful form of liquor. The Committee's report, dated 4th July 1906, was published as a Parliamentary Paper [Cd. 3327]. The orders passed thereon by the Government of India were also published as House of Commons Papers (142 and 209 of 1907 and Cd. 3816). As a result of the Committee's recommendations, an extensive programme of reform has been adopted, which is gradually being carried into effect. Some of the principal features of the Indian excise systems, with reference to the Government of India's recent orders, were outlined in the Moral and Material Progress Report for 1907-8.

The normal excise system for liquors, which will eventually prevail over the greater part of British India, is based on the grant by contract of the right of wholesale supply and the sale by auction of the right of retail vend. By these means the

dangers of unrestricted competition for the supply of liquor and the attendant difficulty of proper supervision are avoided, while the largest possible part of the monopoly profits arising from these restrictions is secured to Government.

During 1910-11 many classes of excise duties were raised in the various provinces; such increase being consequent on an increase in customs duties at the commencement of the year. Better economic conditions and stricter control have also begun to show their effect, with the result that the receipts show an increase in the majority of provinces. The following table shows the excise revenue for 1909-10 and 1910-11 under the different heads, as given in the Finance and Revenue Accounts:—

Year.	Licence and Distillery Fees and Duties.					Duty, &c. on Indian Consumption of		Fines, Confiscations, Miscellaneous.	Total Revenue.	Charges.	Net Revenue.
	Foreign Liquors, &c.	Country Spirits.	Toddy.	Opium and its Preparations.	Other Drugs.	Opium, &c.	Ganja.				
1909-10.	£ 355,881	£ 3,416,128	£ 1,090,181	£ 254,014	£ 399,315	£ 738,020	£ 257,639	£ 26,676	£ 6,537,854	£ 397,913	£ 6,139,941
1910-11.	302,420	3,752,642	1,153,167	263,956	476,526	774,398	285,047	23,158	7,030,314	405,994	6,624,320

A sum of £798,908 was yielded by customs duties on excisable liquors imported into India during the year. The revenue from liquors and drugs (*i.e.*, total excise revenue less charges, *plus* Customs duties on excisable liquors) for 1893-4, 1903-4, and the last four years is given in the margin. In 1910-11 it amounted to rather more than sevenpence per head of the population affected.

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 by Census of 1911.	Number of Persons per Retail Shop licensed in 1910-11 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	52,656,000	17,886	4,537	38,129	17,035	3,236
United Provinces	*47,671,000	9,757	15,620	41,489	13,387	2,049
Punjab	19,934,000	23,646	498,341	21,833	31,873	2,765
North-West Frontier Province	* 2,120,000	57,308	—	25,858	24,096	1,253
Burma	10,527,000	453,840	9,501	84,898	—	5,829
Central Provinces and Berar	13,918,000	3,493	27,236	13,395	12,493	5,239
Eastern Bengal and Assam	*30,296,000	46,183	3,378	41,275	26,135	2,496
Madras	41,427,000	4,274	2,505	40,293	65,400	6,243
Bombay	16,105,000	7,384	1,522	20,568	28,966	9,856
Sind	3,514,000	13,779	878,433	13,672	6,890	5,437

* Population according to 1901 Census.

Bengal.—In Bengal the total excise revenue for the last two years, according to the departmental returns, has been as shown in the margin. The increase under all

Gross Receipts from	1909-10.	1910-11.
	£	£
Country spirits	576,374	604,799
Foreign liquors and rum	31,065	33,667
Fermented local liquors, toddy, and rice-beer.	131,419	151,730
Opium	171,401	176,920
Hemp drugs	207,668	229,104
Miscellaneous	1,634	2,215
Total	1,119,561	1,198,435

foreign spirits, the import of which has fallen off considerably. The licence fees, at which country spirit shops have been settled for 1911-12, show a marked increase,

the larger heads is due to reviving prosperity and cheaper grain. The excise revenue per head is about 5½d. The contract distillery system was further extended in the Patna and Tirhut divisions by the abolition of outstills. This policy has led, where introduced, to a decrease of consumption at first, owing partly to the greater cost of the contract spirit as compared with outstill spirit, and partly to the suspicion with which the new spirit is at first viewed, but the latter feeling wears off quickly. The increase in receipts from country spirit is partly the effect of the enhanced duty on

attributed to improved agricultural conditions. Calcutta again contributed almost one-third of the total revenue from country spirit. In 30 large towns local committees, chiefly composed of non-official members, were appointed to advise collectors as to the number and sites of liquor shops to be licensed for the ensuing year. In deference to local opinion, such shops were abolished or removed to other sites in 29 cases. No committee was appointed in Calcutta as the licences had been settled by a committee for three years from April 1910.

The consumption of opium increased slightly. The smuggling of opium into Burma was considerably checked by the restriction of opium issued to shops in Calcutta and adjoining districts, so that the vendors had no margin beyond the requirement of the neighbourhood for smuggling purposes. Considerable seizures of smuggled opium were, however, made during the year. Two hundred and eighty licences for the sale of cocaine were issued. The illicit traffic in the drug appears to be still on the increase. An increased consumption of *ganja* is ascribed to the fall in price and to general prosperity. It is also said that where the price of country spirit has been raised by the introduction of the contract supply system, people have resorted to *ganja* as an alternative stimulant.

There was a large increase—from 690 to 1,264—in the number of convictions for illicit distillation. This is due probably to the simplified procedure introduced by the Excise Act of 1909, and the greater powers which it confers on excise officials. Three hundred and fifty-three persons, of whom 270 were in Calcutta, were convicted for the illicit sale and possession of cocaine.

United Provinces.—Here, as in Bengal, consumers are getting accustomed to the contract supply system, with the result that the receipts from distilleries, which

Gross Receipts from	1909-10.	1910-11.
	£	£
Country spirits	346,548	436,079
Foreign liquors and rum	22,464	18,513
Fermented liquors	19,021	23,637
Opium	62,316	71,621
Other drugs	122,635	123,965
Miscellaneous	486	410
Total	573,470	674,225

dropped when the system was introduced, have now recovered, while the licence fees have greatly increased. General prosperity and a greater number of Hindu marriages (postponed from the previous year, which was inauspicious) are also among the causes of the increase shown in the marginal table. The contract supply system was extended into parts of Kumaon, and preparations were made for its extension to Bundelkhand. Still-head duty was increased in various localities.

Local committees in towns of over 20,000 inhabitants advised upon the number and location of liquor shops, which were further reduced by 68. The total number now remaining does not offer much scope for further reduction.

The smuggling of opium to Burma *via* Calcutta was the subject of special attention. The experiment was tried of restricting issues. This, combined with the recent enhancement of the issue-price and active preventive measures, is believed to have checked the practice.

Owing to the new Excise Act of 1910, under which petty breaches of the excise law may be compounded by a fine, the number of prosecutions decreased. The number of cocaine cases rose from 41 to 59.

Punjab.—The excise establishment underwent reorganisation during the year. The gross excise revenue in the Punjab for the last two years is shown in the margin.

Gross Receipts from	1909-10.	1910-11.
	£	£
Imported liquors	10,901	12,471
Malt liquors	14,087	14,121
Country spirits	163,636	237,306
Opium	58,237	71,263
Other drugs, &c.	41,922	45,157
Total	288,783	380,318

After a temporary check in 1909-10 due to the inauguration of a restrictive policy, the revenue once more shows a large increase. This is especially marked under country spirits, although the natives are reported to be contracting a taste for beer in lieu of spirits, and the retail of beer in foreign liquor shops shows an increase. A large trade has grown up in country spirits flavoured with essences, which are said to be taking the place of foreign spirits. There were no further reductions of licences on the recommendations of local committees, as the latter are to report at the end of every three years, but the desirability of

reducing the number of liquor shops in some districts is being considered officially. The new Excise Bill has been submitted to Government. The serious increase in the consumption of country spirits is causing the authorities to consider the question of further raising still-head duties.

There was a further decrease of three in the number of licensed opium shops. The importation of Kashmir opium has been prohibited, and the rate of duty on excise opium and certain imported opiums has been raised. The boiling of opium before sale has also been prohibited. This is expected to facilitate the suppression of smuggling. The consumption of *bhāng* and *charas* increased; the duty on the latter drug was raised. The smuggling of cocaine, especially in Delhi, claimed serious attention.

North-West Frontier Province.—The gross excise receipts amounted in 1910-11 to £18,546, as against £21,239 in 1909-10, the decrease of 12½ per cent. being mainly in imported liquors and opium. The gross receipts were: imported liquors, £1,714; country spirits, £5,407; opium, £6,762; other drugs, &c., £4,653. At the commencement of the year under review the duties on spirit and opium were enhanced, extensive reforms were instituted in pursuance of the recommendations of the Excise Committee, and the preventive system was reorganised.

Burma.—The gross excise revenue during the last two years was as shown in the marginal table. A further decline in opium revenue was due mainly to the policy of

Gross Receipts from	1909-10.	1910-11.
	£	£
Imported liquors, &c.	98,227	79,528
Country spirit	13,441	13,328
Fermented liquors	157,498	158,369
Opium	264,672	250,001
Fines, &c.	5,334	4,697
Total	539,172	505,923

restricting sales to the ascertained actual consumption of buyers, who must use particular shops. It is probable that the margin thus left for illicit disposal of legally-issued opium is now very small. There are signs that the consumption of opium among Burmans is decreasing. The number of registered Burman opium consumers at the close of 1910-11 was 15,298, a decline of 1,316. The smuggling of opium from India into Burma still continues, but it is hoped that the contemplated reorganisation of the excise establishment will lead to more effective suppression of this evil. The problem of preventing the increasing smuggling of cocaine engaged attention, the growing consumption being regarded with concern. Larger seizures than ever were made. The considerable decrease in receipts from duties on imported liquors was due chiefly to the raising of the customs duties. This, however, has led to illicit distillation, the spirit thus obtained being sold as foreign liquor. The number of retail *tari* shops fell from 750 to 718. Ten shops were abolished in Moulmein on the recommendation of the Excise Committee. The contract distillery system is being further extended. Convictions for excise offences were somewhat more numerous than in 1909-10.

Central Provinces and Berar.—The excise receipts for 1910-11, as compared with those for 1909-10, were as shown in the margin. The general increase is due

Gross Receipts from	1909-10.	1910-11.
	£	£
Country spirits and toddy	324,344	364,827
Opium	126,138	131,520
Hemp drugs	33,100	35,107
Miscellaneous, including foreign liquors.	5,314	6,146
Total	488,896	537,600

to improved agricultural conditions, to the greater number of marriages (which had been postponed during the inauspicious year of "Sinhast"), and to the collapse of a temperance movement, the origin of which was largely political. The number of liquor shops was reduced from 4,243 to 3,984. This is largely due to the substitution of the contract supply system for the outstill system.

The contract supply system has been further extended, and certain "outstill" areas have been put under the "Sadar" system preparatory to the introduction of the contract supply system. The duty on country spirit was raised. A revised scale of fees was introduced for foreign liquor licences. The number of convictions for excise and opium offences was smaller, and steps are being taken to prevent the smuggling from Native States, which is the cause of much trouble. The Excise Act has not yet been revised, but the new Bill was exhaustively discussed.

Eastern Bengal and Assam.—The excise revenue for the last two years has been as shown in the margin. The diminution under "imported liquors" is due to the

Gross Receipts from	1909-10.	1910-11.
	£	£
Imported liquors	9,639	8,621
Country spirits	147,791	164,931
Opium	189,589	200,011
Hemp drugs	134,722	144,968
Miscellaneous, including toddy, &c.	5,262	6,192
Total	487,006	524,726

increase in the duty and the adoption of the "fixed fee" system of licences. The increase under opium is chiefly due to enhancement of duty, and under other heads to the abundant crop, low prices, and agricultural prosperity. The number of country spirit shops was further reduced by 24, of *ganja* shops by 17, and of opium shops by 42. Local committees to assist in licensing were constituted in Dacca, Narayanganj, and Chittagong, but no objections to the sites proposed for licensed premises were received.

The contract distillery system, where in force, has led to an improvement in the quality of the liquor and to a diminution of drunkenness, though it has also led to an increase in illicit distillation. It is proposed to extend the system to the Dacca division. The draft rules under the Excise Act of 1910 have been submitted for the approval of the Government of India.

There were 41 important cases detected of smuggling opium into Burma. Excise and opium offences were more numerous than in 1908-9.

Madras.—The gross excise revenue during the last two years was as shown in the margin. The contract distillery supply system is in force over the greater part of

Gross Receipts from	1909-10.	1910-11.
	£	£
Country spirits	783,806	790,270
Toddy	827,106	869,522
Imported liquors	40,201	35,511
Opium	84,899	89,839
Other intoxicating drugs	38,316	35,758
Miscellaneous, including beer, &c.	19,040	21,097
Total	1,793,698	1,841,997

Madras, and was extended during the year, but in some small tracts non-distillery systems are in force. Over nearly the whole of the Presidency a tree tax is imposed on all palm trees tapped for fermented toddy, while shops for the retail sale of toddy are separately sold by auction. The increase in 1910-11 under country spirits is ascribed to a good season, the extension of the contract distillery system, and other causes, that under toddy to increased rentals and larger collections under the tree tax, and that under opium to sale-proceeds. Local com-

mittees were formed in municipal areas, while in non-municipal areas a variety of authorities was consulted. The number and location of liquor shops were revised, and large reductions were made in the number of country spirit and arrack shops. The duty on country spirits was raised in Madras Town and in various districts.

The use of opium is almost restricted to the districts in the north-east of the Presidency, and to the Madras Town Circle. The quantity consumed, excluding that issued to Native States, was 41,527 seers, compared with 44,006 seers in 1909-10.

Bombay.—The excise revenue from Bombay (including Sind and Aden) during the last two years was as shown in the margin.

Gross Receipts from	1909-10.	1910-11.
	£	£
Country spirits	867,112	939,344
Toddy	120,200	121,767
Foreign and Indo-European liquors.	24,808	24,436
Opium	80,649	89,991
Other intoxicating drugs	72,922	83,666
Miscellaneous items	6,932	6,466
Total	1,172,623	1,265,670

The rates of still-head and other duty on country spirits was raised in several districts, as was the issue-price of opium. The number of shops for the sale of country spirits has been reduced by 57, of which two only were closed on the recommendation of the local committees. There is no explanation for the great increase in the consumption of country spirit and drugs, save the general explanation of a prosperous year, high wages, and the greater number of marriages. A special

staff has been appointed to suppress illicit cocaine hawking. In Sind the contract supply system was substituted for the central distillery system.

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. Where the revenues are under the orders of Government, the accounts have been absorbed in the Imperial or Provincial accounts. Where the income and expenditure are clearly under local control, the fund has been excluded, except in the case of funds specially created for local purposes and administered by Government officers in an *ex-officio* capacity. The revenue from Provincial Rates amounted in 1910-11 to £554,378, made up chiefly of the cess on lands levied in Bengal and Eastern Bengal and Assam for roads, schools, &c., and of the appropriation by the United Provinces from local rates for the payment of rural police in the Agra province.

STAMPS.

		1909-10.	1910-11.
		£	£
Sale of court fee stamps	-	3,108,275	3,312,557
Sale of commercial and other stamps.	-	1,385,737	1,431,469
Fines and miscellaneous	-	51,292	67,665
Total	-	4,545,304	4,811,691

fees on complaints, 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. The marginal table gives the gross stamp receipts for 1909-10 and 1910-11. About one-fourth of the revenue is derived from Bengal. The increase in 1910-11 was due to an increase in the rate of stamp duties on certain commercial transactions and on probate, and also to an increase in the number of mortgage cases, which were accelerated in order to anticipate a change in the rules regarding limitation which came into force in August 1910.

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, Rs. 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.). Since the Brussels Convention took effect, sugar produced in any of the countries adhering to the Convention has been subject only to the ordinary tariff rate. Sugar entering India from the Argentine Republic and Denmark remains subject to countervailing duties.

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.	1907-8.	1908-9.	1909-10.	1910-11.
Sea Customs, import duty:	£	£	£	£	£	£
Arms, ammunition, &c.	10,126	11,403	13,811	10,744	10,604	10,326
Liquors	406,355	440,669	666,721	692,767	697,275	798,909
Petroleum	213,118	270,782	294,548	351,499	308,371	402,222
Cotton manufactures	256,631	776,483	998,582	778,376	816,679	935,290
Silver bullion and coin	230,557	231,859	341,658	417,121	353,800	1,077,882
Other metals	135,078	168,641	299,580	309,877	301,888	349,266
Sugar	630,450	686,725	295,431	340,051	367,485	411,233
Other articles	594,017	609,581	1,040,381	1,008,780	1,005,397	1,321,593
Export duty on rice	6,694	1,770	664,772	535,960	680,098	851,076
Miscellaneous	-	-	23,612	19,581	22,972	22,741
TOTAL Sea Customs	2,483,026	3,197,913	4,639,096	4,464,756	4,564,569	6,183,538
Land Customs	15,884	13,397	28,113	26,932	25,988	27,432
Excise duty on cotton manufactures	6,897	40,632	223,730	233,232	264,068	281,772
Miscellaneous	10,773	18,672	19,087	14,124	16,321	18,485
TOTAL NET CUSTOMS REVENUE	2,516,580	3,270,614	4,910,026	4,739,044	4,870,946	6,511,227

The receipts from import duties in 1910-11 showed an increase, owing both to the enhancement of duties on liquors, silver, and petroleum (the duty on tobacco, which was enhanced at the same time, had disappointing results, as stated above), and to the very great growth of trade. The excellence of the 1909-10 season in Burma accounts for the increased yield of the rice export duty.

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 1910-11 was £1,593,301, as compared with £1,558,964 in 1909-10. 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 1909-10 being 275,623. 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.

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 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 1910-11 were £425,855, as compared with £430,377 in 1909-10, and the cost of the registration offices was £240,699, leaving a surplus of £185,156, against £194,661 in 1909-10. Fluctuations in the work of registration, especially of mortgages and sales, may be due on the one hand to bad harvests, plague (which affects wills and deeds of gift), high prices, and declining credit, or on the other to settlement operations, the development of new lands, the growth of towns, the expansion of trade, &c. During 1910 improved agricultural conditions caused a decline in registration which more than counterbalanced the effects of general economic progress.

Bengal.—There was a marked decrease of over 11 per cent. in the number of deeds registered. This is ascribed to satisfactory harvests, owing to which mortgages and sales fell off, to the completion of certain settlement operations, and to the amendment of the special tenancy laws of Chota Nagpur and the Sonthal Parganas, whereby the transfer of the rights of rayats to their holdings is restricted.

Eastern Bengal and Assam.—There was a decrease of 1½ per cent. in the number of deeds registered. The small number of mortgages was an indication of the improved condition of the people.

United Provinces.—There was a decline in the number of registrations from 303,623 to 279,479. A new scheme has been introduced for the payment of registrars by fixed grades of pay instead of partly by fixed emoluments and partly by commission as hitherto.

Punjab.—The number of transactions declined by over 11 per cent., both mortgages and sales having diminished. The reasons assigned are recovery from the stringency due to high prices and the malaria epidemic of 1909, and, in certain districts, the rapid growth of co-operative credit societies. The ratio of the number of transactions to the gross value involved affords evidence of a marked rise in the price of land.

North-West Frontier Province.—The registrations decreased in number and value. About two-thirds of the transactions were in the Peshawar district.

Burma.—The compulsory registrations affecting immovable property showed a rise of 9 per cent. in number and 13 per cent. in value, indicating a revival in real property transactions after the collapse which followed the "land boom" of 1904-5. The value of instruments relating to moveables increased.

Central Provinces and Berar.—The value of registrations again increased. The increase, however, was fortuitous, being due to the registration of documents of release in respect of a single large estate in Jubbulpore district. The number of transactions registered, on the other hand, decreased. The practice of registering small transactions is increasing.

Madras.—In Madras the number of registrations, which had been steadily advancing for some years, fell by 2½ per cent. to 1,236,712 in 1910, but the aggregate value involved increased.

Bombay.—The number of registrations increased slightly. Here, again, there was a considerable increase in the value involved, especially under compulsory registrations.

OPIMUM.

General.—The opium revenue is raised partly by the levy of a duty on all opium exported from Native States and partly by a monopoly of the production of the drug in the Ganges Valley. Poppy cultivation in British territory is now practically confined to a permitted area in the United Provinces, which is being annually further restricted in view of the progressive diminution of exports to China. The sanctioned area of cultivation for 1911-12 was about 203,000 acres, as against about 360,000 acres in 1910-11. The cultivator of opium (known as Bengal opium) in these monopoly districts must receive 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 the fixed price of Rs. 6 per seer to Government agents, by whom it is despatched to the Government factory at Ghazipur (the Patna factory was closed in December 1911). The relatively small 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; and, in order to prevent speculation and to steady prices, the quantity to be offered at each sale during each year is notified in the previous year. The chests become the property of the purchasers immediately after sale, but must be shipped under passes granted by the Board of Revenue and subject to conditions which prevent the opium from being consumed in India. The price obtained at the Calcutta sales, less the cost of production, is the revenue from Bengal "provision" opium. 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 granted only on payment of a heavy duty. The duty on Malwa opium intended for export was fixed at Rs. 600 per chest with effect from May 1904. At the commencement of 1912 it was raised to Rs. 1,200, and the right to export was put to monthly auction.

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. Proposals were made that the Government of India should co-operate in this object by gradually restricting the amount of opium exported from India to China. By an arrangement which took effect from January 1908 the quantity of opium (including Malwa opium) exported from India was limited to 61,900 chests in 1908, 56,800 chests in 1909, and 51,700 chests in 1910. Under a new agreement, signed on 8th May 1911, the cessation of the trade will be accelerated if the native production of opium in China is suppressed before the expiry of the 10 years' period, and, besides the above-mentioned limitation of total exports, a further limitation is placed on the exports to Chinese ports. In accordance with this agreement, 44,600 chests were exported in 1911, of which 30,600 were certified for admission into China, the remaining 14,000 being exported to other countries. International conferences on the question of opium traffic were held at Shanghai in 1909 and at the Hague in 1911-12. The agreement concluded at the latter included provisions for regulating the sale of morphia and cocaine.

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

	1904-5.	1905-6.	1906-7.	1907-8.	1908-9.	1909-10.	1910-11.
Opium Receipts:*	£	£	£	£	£	£	£
Sales of Bengal opium - - -	5,079,541	4,703,574	4,895,505	4,401,988	4,234,441	4,546,147	7,245,574
Duty on Malwa opium - - -	749,125	569,400	553,788	620,180	1,398,780	724,140	8,720
Excise opium, and miscellaneons - -	192,833	195,806	211,235	222,518	251,564	264,396	267,668
Total - - - - -	6,021,499	5,468,780	5,660,528	5,244,986	5,884,788	5,534,683	7,521,962
Opium expenditure (chiefly in Bengal) - - -	1,967,085	1,892,441	1,913,292	1,669,441	1,236,088	1,110,155	1,248,657
Net Opium Revenue - - - - £	4,054,414	3,576,339	3,747,236	3,575,545	4,648,700	4,424,528	6,273,305

* Exclusive of the licence fees and duty on opium consumed in India, amounting in 1910-11 to £1,038,354, included under Excise.

Notwithstanding a reduction in the number of chests of Bengal opium sold for export (see below), the receipts in 1910-11 were higher than those of the previous three years, owing to the higher prices realised at the auction sales. Scarcity of opium in China and speculative buying caused this upward movement, and during 1910-11 opium reached the unprecedented average price of Rs. 2,892 per chest.

In 1908, when the agreement with China took effect, the Indian Government had a large reserve stock. This has been extensively drawn upon and the manufacture of new opium has been correspondingly curtailed.

Bengal.—The net area cultivated with the poppy in the Ganges Valley in recent years, excluding areas on which the crop failed, is shown in the margin, together with the number of chests produced and sold for export and the average price realised during the last four years. The crop in 1909-10 was an improvement on recent years.

Year.	Acres.	No. of Chests produced.	No. of Chests Sold for Export.	Average Price in Rs.
1907-8 -	488,548	40,001	48,900	1,350
1908-9 -	361,832	28,125	45,900	1,384
1909-10 -	354,577	29,000	42,300	1,612
1910-11 -	*	*	37,560	2,892

* Figures not available.

Bombay.—The number of chests of Malwa opium passed at the scales in 1910-11 was 1,401½. The quantity imported and lodged in the Bombay opium warehouses was 9,011 chests, as against 8,848 chests in 1909-10; while 1,184 chests were sold for consumption in the Presidency, including Native States.

The exports of Malwa opium to China in recent years are stated in the margin. The decrease since 1908-9 is due to the limitation imposed by Government on the opium exports for each calendar year, and, as the bulk of the exports authorised for 1910 took place in the first months of that year, the figure for the financial year 1910-11 shows a still further shrinkage. The average prices for opium in the Bombay market during the year under report, including export duty, were Rs. 1,566 per chest for one-year old, and Rs. 2,308 per chest for two-year old opium, against Rs. 1,346 and Rs. 1,646 respectively in 1909-10. The rise in prices was due to restrictions on exportation, and merchants made large profits.

CHAPTER VI.

AGRICULTURE.

SEASON AND CROP REPORTS.

AGRICULTURAL PRODUCE.

CO-OPERATIVE CREDIT SOCIETIES.

The present chapter gives an account of the conditions prevailing in each province during the agricultural year 1910-11, together with some information regarding the outturn of agricultural produce and the progress of co-operative credit societies.

SEASON AND CROP REPORTS.

Bengal.—The rainfall was deficient in the spring, and there were floods in Bihar in the summer, consequently the autumn harvests suffered, the food crops being only 90 per cent. of normal. The winter food crops, however, were good (112 per cent. of normal), and the spring food crops normal. Food stocks were consequently sufficient in most districts. The sugar-cane crop was normal. Scanty rainfall, alternating with floods in some districts, damaged the jute crop, the outturn of which was 82 per cent. of the normal. The area cropped in 1910-11 was about 43 million acres. About 85 per cent. of the normal cropped area is under food crops. The three rice crops of the year covered almost 26 million acres, exceeding the normal by about 200,000 acres. There was some increase in the area under jute. Cattle suffered severely in some districts from contagious diseases. Agricultural improvements are being undertaken in certain districts containing water-logged lands or lands subject to inundation by sea-water. The year as a whole was distinctly satisfactory.

United Provinces.—The year was not quite so good as 1909-10, but better than the normal. Excessive rain and floods injured the autumn crops in some districts. There was a wide extension of the area of cultivation for spring crops, but these did not fulfil their early promise owing to bad weather in March. The total outturn of the year, however, was good, except for millet, cotton, and wheat. The wet season enabled an exceptionally large area to be twice cropped. Barley continues to be abnormally popular. The renewed epidemic of plague materially injured agricultural enterprise.

Punjab.—The monsoon was irregular, and there were losses on the autumn crop both through defective rain and floods; these crops on the whole, however, were not bad, though rather below normal. The winter rains were favourable, and the rabi turned out excellently, in spite of the wheat having suffered from rust. The year as a whole was a good one, though not so good as 1909-10. The total area sown was about 28½ million acres, or about 6 per cent. above normal. The proportion of the autumn to the spring harvest was as 40 to 60. Smaller areas were placed under most crops than in 1909, but the area under wheat was the largest since 1907. The gram crop was again exceptionally heavy. The cotton crop was largely spoiled by rain, but what remained fetched abnormally good prices. Failures were low in both harvests. The total area of crops sown on irrigated land was about 10½ million acres, including over 6¼ million acres served by Government canals. The area irrigated included about 3 million acres irrigated by 242,526 masonry wells and 28,460 non-masonry wells. No deteriorations of agricultural land or sickness of cattle have been reported.

Punjab Canal Colonies.—The year was favourable, though less so than 1909-10, the wheat crop having disappointed expectations; rains were rather heavy. The great prosperity of these tracts is shown by the prices paid for market sites on new railway lines, which reach £3,000 per acre in some places, and the high cost of labour. Coolie labour in parts of the Chunian Colony costs as much as Rs. 2 per

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 1910-11. The crop area is always greater than the area of cultivated land, owing to double cropping. The figures (which are preliminary) represent thousands of acres (omitting 000).

Administrations.	Rice.	Wheat.	Millets (Jawar, Bajra and Ragi).	Gram (Pulse).	Other Food-Grains and Pulses.	Total Food-Grains and Pulses.	Oilseeds.	Sugar-Cane.	Cotton.	Jute and other Fibres.	Total area cropped.	Net Area cropped, (after deducting area cropped more than once).
Bengal	25,806	1,383	1,012	1,029	7,815	37,045	2,322	377	69	618	43,166	36,801
Eastern Bengal and Assam.	17,393	74	10	61	1,229	18,767	1,910	181	72	2,292	25,994	20,965
United Provinces	6,001	7,342	5,179	5,813	14,533	38,898	1,113	1,047	1,333	119	44,491	35,646
Punjab	713	8,885	3,777	4,494	4,161	22,030	1,274	400	1,250	49	28,597	28,295
North West Frontier Province.	43	1,026	356	193	835	2,453	92	33	31	1	2,783	2,775
Burma	9,950	32	750	43	658	11,433	1,042	13	170	—	13,741	13,188
*Central Provinces and Berar.	4,838	3,064	5,055	1,170	5,007	19,134	2,399	21	4,083	168	26,472	24,886
Madras	10,754	16	11,584	155	7,603	30,112	2,410	95	2,317	239	38,085	33,635
Bombay and Sind.	2,772	1,910	13,364	720	3,612	22,379	1,782	59	4,513	144	29,443	28,349
*Minor Areas	83	46	92	57	227	505	47	—	41	—	660	565
*Total 1910-11	78,353	23,778	41,179	13,765	45,680	202,756	14,391	2,226	13,882	3,630	253,432	225,105
" 1909-10	78,731	22,770	42,651	13,153	46,359	203,664	14,625	2,442	13,172	3,582	253,920	222,912

* The figures for the Central Provinces and Berar and for Minor Areas are for 1909-10, no later figures being available.

Among "other food grains and pulses" may be mentioned barley, of which there are 4,997,000 acres in the United Provinces, 1,003,000 in the Punjab, and 1,318,000 in Bengal, and maize, of which there are 2,175,000 acres in the United Provinces, 1,207,000 in the Punjab, and 1,815,000 in Bengal. Out of 563,000 acres under tea, 443,000 are in Eastern Bengal and Assam, and 53,000 in Bengal, while out of about a million acres under tobacco, 293,000 are in Eastern Bengal and Assam, 152,600 in Bengal, and 218,000 in Madras.

Particulars for 1910-11 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 78 per cent. of the Indian rice crop. The figures are in thousands (omitting 000). Other provinces, notably the United Provinces, the Central Provinces, and Bombay and Sind, produce a large quantity of rice. In 1910-11 there was a slight decrease in the acreage under rice in Bengal (which produces about one-third of the total of Indian rice), but the outturn was very large despite damage by

Province.	Area in Acres.			Yield in Tons of Cleaned Rice.		
	Average of five years to 1908-9.	1909-10.	1910-11.	Average of five years to 1908-9.	1909-10.	1910-11.
Bengal	24,457	26,134	25,793	9,560	14,655	14,530
Eastern Bengal and Assam.	16,041	16,843	17,000	6,141	7,121	7,319
Madras	9,145	7,675	7,787	3,431	2,868	3,173
Burma	7,083	7,467	7,449	3,084	3,209	2,874
Total	56,726	58,119	58,029	22,216	27,856	27,896

unequal distribution of rainfall. 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). The Burma rice crop in 1910-11 was much below the normal. There was a large increase however in the amount exported to foreign countries; the coastwise shipments (which are chiefly to Bengal, Eastern Bengal, Bombay and Madras) showing a more than equivalent decline, owing to the excellent harvest in India proper. The export price of rice at Rangoon, which had been falling since 1908-9, took an upward turn.

diem. The co-operative credit movement makes rapid progress. The acquisition of proprietary rights by the colonists proceeds rapidly. Despite the ravages of the plague, population is increasing. Some allotments have special conditions imposed on them as to the breeding of mules and horses and (in some cases) the upkeep of plantations. The Jhelum Colony promises to be a valuable source for the supply of remounts and mules to the army. The horse-breeding operations are a marked success, though there is some discontent at Government's insistence on the primogeniture rule in the case of holdings held on horse-breeding conditions. It has been decided to weed out the inefficient larger grantees and to encourage the peasant horsebreeders. Schemes for further colonies are in preparation.

North-West Frontier Province.—The monsoon rainfall was on the whole good, and the autumn harvest above normal. So was the spring harvest, despite heavy losses at Dera Ismail Khan. Hail and floods caused considerable damage, the latter chiefly in the Dera Ismail Khan district. The total area sown was 2,782,674 acres, while the area harvested was 2,348,041 acres. Wheat, the most important crop, occupied 1,026,296 acres, or 37 per cent. of the total area sown. The outturn of wheat was 25 per cent. above normal. Fodder was generally sufficient, and cattle disease was less prevalent than in 1909-10.

Central Provinces and Berar.—The monsoon was, on the whole, favourable and there was a record of double-cropped area. The cropped area increased by 154,000 acres, and rice and oilseeds did excellently. Wheat was normal and cotton poor.

Eastern Bengal and Assam.—The rains were exceptionally copious throughout the year, and floods caused some trouble. The total cropped area was 26 million acres, including over 17½ million under rice. The jute area was 2,255,000 acres, or more than in 1909-10, but the outturn was still slightly below normal. There is a steady expansion of cultivation in Assam, where the population is sparse, and where waste land is abundant and can be brought under cultivation at low rates of revenue, and this extension was favoured by the heavy rains of the year. The year was, on the whole, a favourable one, increased prices for rice and jute having compensated the growers for deficiency of these crops.

Burma.—The agricultural year 1910-11 was less prosperous than 1909-10—in Lower Burma the rainfall was capricious. In Upper Burma, outside the dry zone, conditions were good; but the dry zone suffered from drought except in the irrigated districts. The figures for normal rainfall have been revised. The net area cropped fell to under 13½ million acres, and the area on which crops failed to mature was larger than in 1909-10. The area under rice, the principal crop, was 10 million acres. The outturn of rice in Lower Burma was much below the normal. The areas devoted to pulses was larger, and to millets, oil-seeds, and ground-nuts smaller. The area under rubber increased to 20,100 acres. The irrigated area declined. The year was a fair one for cattle owners.

Madras.—The south-west monsoon was good and fairly distributed, and the rainfall of the north-east monsoon was, on the whole, above the average. The total crop area was over 38 million acres, which was rather over the normal. The rice crop was above normal, and covered over 10½ million acres; other food-grains were grown on 19½ million acres. The area under cotton was more than 2 million acres, and shows an increase. The area under ground-nuts again showed a large increase, due to the commercial importance of the crop. Tobacco also increased, at the expense of castor-seed and indigo. There was a decline in the mortality of cattle from disease.

Bombay.—Although the monsoon conditions were rather irregular at the opening, the autumn rains were generally equal to the average, the spring rains were good, but a frost in February materially injured the rabi crops. The total area cropped, 29 million acres, was the largest for 15 years. The area under food crops slightly decreased, but this is more than compensated for by an increase of 563,000 acres under cotton. The area under oil-seed and wheat also increased, especially in Sind. The cotton crop, however, was not so good as in 1909-10, having been damaged by late rains and frost; but the rise in price must have compensated the growers for this. The yield per acre and total estimated outturn of food grains were higher than in 1909-10 in the Presidency proper, but lower in Sind, where rice showed a considerable decline.

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

Province.	Average of five years to 1908-9.		1909-10.		1910-11.	
	Area.	Yield.	Area.	Yield.	Area.	Yield.
	Acres.	Tons.	Acres.	Tons.	Acres.	Tons.
Punjab - -	9,183	3,224	9,245	3,457	9,302	3,625
United Provinces	6,266	2,058	6,491	2,975	7,320	2,910
Central Provinces and Berar.	3,229	750	3,064	949	3,533	958
Bombay and Sind	2,303	489	2,291	583	2,230	598
Central India -	2,053	435	2,313	514	2,460	582
Bengal - -	1,247	368	1,428	541	1,383	600
North-West Frontier Province.	1,010	256	1,008	235	1,033	266
Hyderabad -	1,026	76	1,097	68	1,104	97
Rajputana - -	805	176	1,005	243	1,112	244
Elsewhere - -	136	36	75	26	77	21
Total - -	27,258	7,868	28,017	9,591	29,554	9,901

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 the greater part 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 favourable in the important wheat-growing provinces, though the quality of much of the grain was spoiled by rust. The total out-turn constituted a record.

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, like 1900-1, the export falls to a trifling quantity. The quality of grain shipped has recently improved through a reduction in the proportion of dirt, seeds, &c. intermixed with the grain. 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. Exports of flour show no tendency to increase to any considerable extent.		
—	Wheat.	Flour.
	Tons.	Tons.
1901-2	366,100	26,500
2-3	514,600	35,900
3-4	1,295,600	40,500
4-5	2,150,000	51,700
5-6	937,500	44,950
6-7	801,400	40,900
7-8	880,500	37,200
8-9	109,750	30,100
9-10	1,050,600	35,100
10-11	1,266,100	40,200

Sugar.—The area under sugar was reported to be 2,115,000 acres in 1910-11, and the yield was estimated at 2,218,000 cwt. The area was somewhat smaller than in 1909-10, but the yield larger owing to the favourable season. Of the total area, 1,047,000 acres were in the United Provinces. Bengal contained 334,000 and the Punjab 388,000 acres. These 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 cultivated in British India must be added the extensive crops grown in Native States. In estimating the total output of sugar, account must also be taken of the large production of palm sugar, chiefly in Bengal, Madras, and Burma. By no means all of the sugar produced is converted into "refined" sugar; a considerable quantity both of cane in the raw state and of the unrefined sugar or *gur* is consumed as food, but the

Countries.	1908-9.	1909-10.	1910-11.
	Tons.	Tons.	Tons.
Java - -	358,035	441,692	517,103
Mauritius - -	139,818	136,650	162,302
Austria-Hungary -	93,904	38,276	35,239
Other Countries -	12,155	13,855	24,458
Total - -	603,912	630,473	739,102

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. The countervailing duties imposed in 1899 and subsequent years have not been levied since 1903 on the produce of countries which adhered to the Brussels Sugar Convention and abolished sugar bounties.

Tea.—The marginal table furnishes an estimate of the cultivation and the production of tea in India during the years 1908 to 1910; for Southern India, and Travancore the figures are not reliable. Since 1885 the area under cultivation has almost doubled, and the production has increased by over 260 per cent. The production of green tea was 3,095,000 lbs. in 1910, as against 2,678,000 lbs. in 1909. During 1910 the tea gardens employed 519,863 persons permanently and 80,745 temporarily. The capital invested by joint stock companies in tea production is returned at £16,884,379, and, in addition, a large but unknown quantity of private capital is invested. The prices of the principal grades of tea showed on the whole an increase in 1910. A marked feature of the Indian tea trade in recent years has been the large increase in sales to Russia, which took, in 1910-11, 31 million lbs. direct, about 5 million lbs. *via* the United Kingdom, and a large but unknown quantity *via* China. The exports of Indian tea by sea during the last three years are returned as shown in the margin. About 2 million lbs. were also exported by land, chiefly to Afghanistan.

Province.	Area in thousands of Acres.			Production in thousands of Lbs.		
	1908.	1909.	1910.	1908.	1909.	1910.
Eastern Bengal and Assam.	433	438	443	211,435	227,095	223,836
Bengal - -	54	53	53	14,994	13,166	14,412
Madras - -	15	16	18	4,436	5,326	5,645
United Provinces	8	8	8	2,010	2,206	2,045
Punjab - -	9	9	9	1,438	1,414	1,419
Travancore and Cochin.	27	29	30	12,594	13,354	14,323
Burma - -	2	2	2	458	246	247
Total - -	548	555	563	247,365	262,807	261,927

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 1910 only 5.7 per cent. came from China and 54 per cent. from India. If the quantities retained for home consumption be taken, the proportion of India in 1910 was 57 per cent., and of China 3.6 per cent.

Countries.	1908-9.	1909-10.	1910-11.
	Millions of Lbs.	Millions of Lbs.	Millions of Lbs.
United Kingdom - -	177.4	189.2	183.1
Russia - -	19.4	24	31.1
Australia and New Zealand	8.8	8.6	9.3
Canada - -	8.2	8.9	8.4
China - -	5.8	6.2	8.3
Ceylon - -	3.9	3.8	4.6
Turkey in Asia - -	3.3	2.6	3.6
United States - -	2.1	2.5	2.3
Other Countries - -	5.1	3.6	3.7
Total - -	234.0	249.4	254.4

India. If the quantities retained for home consumption be taken, the proportion of India in 1910 was 57 per cent., and of China 3.6 per cent.

Jute.—India has a virtual monopoly of the production of jute, which is chiefly grown in Northern and Central Bengal and the eastern districts of Eastern Bengal.

Year.	Acreage.	Outturn in Bales (of 400 lbs. each).
1909	2,876,600	7,206,600
1910	2,937,800	7,932,000
1911	3,106,400	8,234,700

There was an increase in the cultivated area in 1911. The estimated acreage and outturn in recent years are as shown in the margin. These figures do not include statistics for Nepal, Madras, and Upper India, the outturn of which was reported to be 78,200 bales. The harvest of 1909 was much under-estimated. The total crop in 1910, according to the Bengal Chamber of Commerce, amounted to 8,010,672 bales. The year 1911 was on the whole prosperous. For the five years ended 1909, the average price per bale at Calcutta was Rs. 47-12, the price in 1907 being as high as Rs. 61-6 per bale. In 1909 the average price fell to Rs. 33-6, in 1910 it rose to Rs. 34-2, and there has been a sharp rise since.



The total Indian consumption of raw jute in 1910-11 was estimated at 4,479,600 bales (of 400 lbs.). The exports were 13 per cent. smaller in quantity than in 1909-10, but 3 per cent. higher in value. In addition there was a large export of jute manufactures, as the marginal table shows (figures in thousands, omitting 000). Of the raw jute exports in 1910-11, 37 per cent. went to the United Kingdom, 23 per cent. to Germany, 10 per cent. to the United States, and over 11 per cent. to France. The fluctuations in exports of raw jute are more marked than those in exports of jute manufactures.

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 shown in the table below for the last three years. The figures are in thousands (omitting 000). The season was disappointing. While the area was about 10 per cent. greater in 1910-11, the total estimated yield was no less than 18 per cent. less. Doubt, however, is thrown on forecasts of yield by comparing them with a computation based on the total of the net exports and the Indian consumption of cotton, which for the year to 30th September 1911 was 4,303,000 bales.

Province.	1908-9.		1909-10.		1910-11.	
	Area (Acres).	Yield in Bales (of 400 lbs. each).	Area (Acres).	Yield in Bales (of 400 lbs. each).	Area (Acres).	Yield in Bales (of 400 lbs. each).
Madras - - - - -	1,576	162	1,569	180	1,873	235
Bombay, with Native States, Sind, and Baroda. - - -	6,500	1,383	6,683	1,765	7,613	1,547
United Provinces - - -	1,392	426	1,241	384	1,347	318
Punjab and North-West Frontier Province. - - -	1,616	336	1,468	403	1,418	314
Central Provinces and Berar - - -	4,176	766	4,167	1,070	4,487	629
Hyderabad - - - - -	2,902	307	3,401	461	3,562	293
Burma - - - - -	204	41	198	32	167	28
Central India - - - - -	978	144	1,068	221	1,349	237
Rajputana - - - - -	389	79	464	148	465	143
Bengal - - - - -	64	14	67	17	68	18
Eastern Bengal and Assam - - -	97	21	99	18	101	31
Mysore - - - - -	65	3	81	6	100	10
Ajmere-Merwara - - - - -	40	9	39	13	45	20
Total - - - - -	19,999	3,691	20,545	4,718	22,595	3,853

The exports of raw cotton, from India in recent years have been as shown in the margin. The exports of 1910-11 were mainly furnished from the crop of 1909-10, when the season was favourable. Prices were considerably higher than in the preceding year. The bulk of the Indian cotton exported goes to Japan and goes to England, as Lancashire requires a finer class easily supply.

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). The rape and mustard-seed crop is grown chiefly in the United Provinces, the Punjab, Eastern Bengal and Assam, and Bengal; linseed in the United Provinces, the Central Provinces, Bengal, and Hyderabad; sesamum

Seed.	Average of five years to 1908-9.		1909-10.		1910-11.	
	Area.	Yield.	Area.	Yield.	Area.	Yield.
Rape and mustard -	5,953	905	6,633	1,275	6,548	1,260
Sesamum - - - - -	4,320	329	4,934	469	4,933	448
Linseed - - - - -	3,252	313	3,188	427	3,721	557
Groundnut - - - - -	829	320	1,039	454	952	503

(til or jinjili) in the United Provinces, the Central Provinces, Bombay, Madras, and Hyderabad; while the groundnut area lies chiefly in Madras, Bombay, and Burma. The general seasonal conditions were on the whole unfavourable, except for linseed and groundnuts.

Exports of seeds have been as shown in the margin for the last three years (in 000 cwts.). The quantity and value exported in 1910-11 exceeded those of 1909-10 by 14 and 34 per cent. respectively. The value, £16,749,000, was a record. About 55 per cent. of the seeds were shipped from Bombay, 16 per cent. from Sind, and 19 per cent. from Bengal. The principal markets for Indian oil seeds are the United Kingdom, France, Germany, Belgium, Italy, and Austria-Hungary. In linseed India suffers from the competition of Argentina and Russia. The trade in Indian cotton seed, which has now attained large dimensions, is of comparatively recent growth.

Seed.	1908-9.	1909-10.	1910-11.
	Cwts.	Cwts.	Cwts.
Linseed - - - - -	3,210	4,677	7,411
Rape - - - - -	2,766	6,629	6,593
Cotton - - - - -	3,683	5,650	5,980
Sesamum - - - - -	1,657	2,984	3,247
Groundnuts - - - -	1,782	3,243	3,690
Castor - - - - -	1,650	1,901	2,118
Poppy - - - - -	790	853	862
Other sorts - - - -	705	1,210	1,052
Total - - - - -	16,213	27,147	30,983

CO-OPERATIVE CREDIT SOCIETIES.

(For further details see Statistical Abstract for British India, Table 117.)

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 registrars are Government officials, and Government aid is given in various ways, but aid is also enlisted from non-official gentlemen with local influence.

The Co-operative Credit Societies Act of 1904 laid down the main lines on which the movement should be run. An amending Act was passed in March 1912 in the light of the experience which had been obtained in the interval. It extends the Act so as to cover all co-operative societies, whether credit societies or of other kinds (e.g., societies for production or distribution); it abolishes the statutory distinction between "urban" and "rural" societies, substituting the more scientific distinction of limited and unlimited liability; it relaxes the restrictions on unlimited societies dividing their profits, and recognises unions of societies, which are, as a matter of fact, an important feature in the system, though not recognised in the Act of 1904.

Co-operative credit societies are divided into "central," "urban," and "rural," the first two being mostly limited liability societies and the last unlimited. Under each head there is the utmost variety of type.

Central societies finance or supervise groups of other societies which individually are too small to obtain capital by dealing direct with capitalists and joint stock banks or to afford skilled supervision. They are of two kinds—central banks and central unions. The former exist primarily for the purpose of financing their subsidiary societies; the latter do not exercise banking functions, but are federations for the purpose of inspection, control, and mutual guarantee. Often, however, the functions of a central bank and a central union are combined in a single body, which is then known as a central banking union. These latter are numerous in Bengal and are growing in favour elsewhere. Usually in central banks the majority of the shares are held by their affiliated societies. In Madras, however, the prevailing type of central bank is one in which the shares are held by individuals. The Madras banks do not supervise the societies which they finance, but trust to the provincial registrar to see that the latter are in a sound condition. This system is successful financially, but is not truly co-operative. In the United Provinces there are "district banks," which differ from the above types in that they deal with individuals as well as with societies. The former class of business, however, is being discontinued. The district banks were of great use in the early stages of the movement, but they encouraged the growth of affiliated societies too dependent on themselves, and the present policy is to substitute for these dependent societies real rural societies capable of self-management. Of late many central banking unions of the Bengal type have sprung up in the United Provinces, and they are beginning to form in Madras. In Burma there are only two central banks, but there are 24 non-banking unions. In Bombay a new departure has recently been made in the form of a central bank with a Government guaranteed interest on its debentures (see below).

Rural Societies.—These form a majority of the whole number. They work with unlimited liability—a principle which has no terror for the ryot, who has long been accustomed to it in his family relationships. It must, however, be accompanied with the power to exclude all in whom the majority have no confidence. As a general rule there is no difficulty in financing these societies (so far as members' deposits and other forms of locally-subscribed capital are insufficient) through the central societies described above. There is a great variety in the rates of interest charged to members in the different provinces, but they are considerably lower than those charged by the local money-lenders. The latter have naturally shown some hostility to the movement, but there are signs that they are adapting themselves thereto by lowering their rates of interest, and are even availing themselves of the societies. £21,000 was thus deposited by money-lenders in the single district of Jullundur in the Punjab in 1910-11. The chief objects for which loans are required are for purchase of cattle, payment of land revenue, and repayment of money-lenders' debts. Little money is borrowed for non-productive purposes, such as expenditure on marriage and other ceremonies. There are two main types of rural society—those which admit share capital and those which do not. In Bengal and the Central Provinces the strict Raiffeisen principle is adhered to, which prohibits all distribution of profits, but in other provinces it has usually been found that more popularity is achieved by permitting members to acquire shares which will eventually yield dividends. In the United Provinces, the Punjab, and Burma, shares are paid for by instalments spread over 10 years, and dividends will not be paid till the 11th year. A quarter of the profits must go to the reserve. The Act only permits the distribution of profits by unlimited liability societies subject to sanction by the Local Government.

Urban Societies.—These are mostly limited liability concerns. There are some societies of clerks, while others have been formed among artizans for the purpose of purchasing materials, &c. In Bombay special attention is given to societies for weavers and leather-workers.

Co-operative societies for productive and distributive purposes exist, but not as yet in any numbers. Some of the rural credit societies, however, have extended their activities in these directions; they market the produce of their members, purchase agricultural machinery for their use, &c. The Provincial Agricultural Department find these societies admirable intermediaries for the propagation of improved methods of cultivation, &c.

	Central.			Urban.*			Rural.		
	No. of Societies.	Total Membership.	Working Capital.	No. of Societies.	Total Membership.	Working Capital.	No. of Societies.	Total Membership.	Working Capital.
			£			£			£
Madras - - -	6	420	132,400	30	9,596	35,600	560	34,086	159,600
Bombay - - -	7	2,013	30,800	62	1,985	22,700	187	13,197	36,800
Bengal - - -	8	335	12,700	53	4,735	15,100	654	30,180	45,200
United Provinces -	12	584	40,200	138	33,808	161,000	1,108	59,639	129,700
Punjab - - -	9	640	46,800	10	1,254	2,900	1,074	59,529	195,900
Burma - - -	2	678	45,900	27	1,788	17,500	450	11,340	85,100
E. Bengal and Assam	2	130	7,700	40	5,185	31,800	501	18,304	53,000
C. Prov. and Berar	12	804	11,600	8	1,247	5,300	280	7,203	16,500
Coorg and Ajmer -	1	78	3,500	—	—	—	80	3,300	8,400
Total 1910-11	59	5,682	331,600	368	62,598	291,900	4,894	236,778	730,200
Total 1909-10	33	3,722	159,200	288	57,765	228,100	3,106	162,836	442,100

* Includes "District Banks," which also perform the functions of Central Societies.

The above table shows how great has been the progress of the movement during a single year. The rapidity of its success becomes evident when it is remembered that in March 1905 there were only 35 rural and six urban societies. The movement is almost everywhere passed out of the experimental stage; many of the societies are self-supporting and they are winning more and more the appreciation and confidence of the people. Loans are well and punctually repaid. The financial support of the State is being gradually withdrawn—in several provinces State loans have been altogether discontinued. Of the £730,000 working capital of the rural societies, £466,000 represents loans from non-members and other societies, £96,000 share capital, £105,000 members' deposit, £23,000 reserve, and £40,000 loans from Government.

In Bengal the movement is essentially rural, though urban societies also show a tendency to increase, which is all the more gratifying as being entirely spontaneous, the efforts of the provincial Registrar being at present concentrated on rural societies. Bengal still adheres to the strict Raiffeisen type, on which model many new societies were formed in 1910-11, chiefly in the old centres. The policy has been adopted of grouping these societies with the object of gradually combining them into central banking unions. Eight of the latter have been formed. These unions have, when possible, cash credit with a joint-stock bank, and thus their members can obtain a command of capital in an elastic form—an important consideration with agriculturists. The unions admit individuals as well as societies as shareholders, not so much for the sake of the capital which they bring as to obtain a business-like element in the management.

In Eastern Bengal and Assam several of the urban societies, besides lending to their own members, finance rural societies. There are also two central banks and two unions. Money-lenders' rates of interest are particularly high in this province, and, though the rural societies lend at from 12½ to 18¾ per cent., a large part of their loans are devoted to paying off debts at far more exorbitant rates. The apathy with which the movement had to contend at the outset has disappeared. Practically all the societies are being run at a profit, but some which were originally financed by Government are markedly less successful than the others.

In the United Provinces the growth of central banking unions (*see above*) was a marked feature; there are now 12 such unions and 14 district banks. Much attention is being paid to the training of supervisors for employment by the banks and unions and on the estate of zamindars and courts of wards where societies are being established. Small urban credit societies for artizans and tradesmen, with unlimited liability, are rapidly increasing. The rate of interest charged by new rural societies is from 15 to 15½ per cent. Their membership has risen in a year from 47,778 to nearly 60,000; they exist now in 33 districts.

In the Punjab the growing confidence of the public in the movement is shown by the large deposits of non-members. Societies exist in all districts but five, and consolidation rather than expansion is now aimed at. In six districts there are Central Banks, some of which are starting sub-inspectors to supervise their client societies. There are also two unions. Five industrial societies (four for weavers) have been started. There is an increase in the number of honorary inspectors.

In the Central Provinces a full-time Registrar was appointed in October 1910. Rural societies are formed mostly on a non-share basis. The movement extended remarkably in the two districts when it had already been well-established; elsewhere attention was directed more to re-organization.

In Burma the first Joint Agricultural and Co-operative Conference was held in July 1911. The Pakkoku Central Bank has been reorganised and has reduced its rate of interest from 15 to 9 per cent. A second central bank has been formed at Mandalay. There are 24 central unions; some are extremely useful as supervising and propagandist bodies; others are as yet little more than federations for the purpose of mutual guarantee. Loans to societies require the sanction of the provincial Registrar, who is guided by the advice of these unions.

In Madras the average rate of interest charged by the societies is 9½ per cent., as against an average of at least 15 per cent. charged by the money-lenders. The growth of the movement is the more remarkable in that, owing to the limitations of the registrar's resources, large areas of the Presidency have not been touched. There are five central banks, the advantages and deficiencies of which have been already described. One union on the Bengal model has been formed. Most of the rural societies have share capital, the unit value of the share being usually 1 or 2 rupees.

In Bombay the urban side of the movement has been specially developed. Many local conferences were held, which are said to be paving the way for administrative unions. The Bombay Central Co-operative Bank, which has been founded on the initiative of leading local capitalists, has a Government guarantee of its 4 per cent. debentures. It lends only to co-operative credit societies at an interest which must not exceed 8 per cent. It may only lend with the approval of the registrar. Half of its surplus profits above 6 per cent. are eventually to be devoted to rebates on the interest paid by borrowing societies.

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 laws have also been enacted for each province, 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 uncultivated land, 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. At present the reserved (including leased) forests cover an area of about 96,000 square miles; and there is scope for further reservation in Madras and Burma. Outside the reserves there are about 150,000 square miles of State forests, including 9,000 square miles of protected forests. Some part of this area will eventually be brought within the “reserve” area, and all of it is, with more or less completeness, managed and worked for the benefit of the people, of their cattle, and of the public revenue. The forests dealt with in this chapter are, almost exclusively, State forests. The limited areas of private forest, except where they have been leased to the Government, are being gradually exhausted; and few private communal or village forests have been successfully brought under conservancy. In every province a very few of the most valuable timber trees are declared to be reserved trees, and can only be felled under special 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 1910–11 was £1,829,557, including £455,806 and £1,261,703 received for timber and other produce removed from the forests by Government agency and by consumers (or purchasers) respectively. The charges amounted to £1,033,261, leaving a net revenue of £796,296. 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 paragraphs treat of forest administration in each province.

Bengal.—At the end of 1910–11 the areas of reserved and protected forests were respectively 4,254 and 3,698 square miles, representing over 6 per cent. of the area of the province. Working plans have been, or are being, provided for 5,696 square miles. With regard to fire protection, 17,248 acres were burnt—a satisfactory decrease seeing that it was a hot and dry season in the plains. The cultivation of *ficus elastica* for rubber will probably not be continued, as it does not seem likely that it can compete with Para rubber. The yield of timber was nearly 5 million cubic feet, an increase on that of 1909–10. The out-turn of fuel, 29 million cubic feet, was smaller. The above figures, however, would be larger but for a change in the method of estimating

bulk in the important district of the Sunderbans. The number of bamboos taken from the forests was nearly 11 millions. Only a small part of the total out-turn is exploited by departmental agency. The practice is growing of selling outright the growth over specified areas instead of charging royalties on the number of trees removed. From a commercial standpoint the year's working was less satisfactory than that of 1909–10, the surplus revenue being £31,286 as against £35,013. The number of recorded offences, 2,518, showed an increase, which is attributed to greater vigilance on the part of forest officers. There was an increase from 106 to 138 in the number of workmen killed by man-eating tigers in the Sunderbans forests. Efforts are being made to decentralise work by delegating more power to the Conservator and to the divisional forest officers. The pay of the provincial service has been improved.

United Provinces.—The areas of reserved and protected forests at the end of 1910–11 were 3,958 and 9,100 square miles respectively, in addition to 156 square miles of leased forests and 30 square miles of unclassed forests. Natural reproduction was fair, and good in the eastern circle. Working plans have yet to be compiled for 95 square miles. Fire protection was very successful. The yield of the forests was 7½ million cubic feet of timber, 12½ million cubic feet of fuel, and 16½ million bamboos, besides minor produce. In the eastern circle there was a realisation of large quantities of dry timber killed by the drought of 1908. The removal of forest produce is almost entirely carried on by outside agency. The resin and turpentine industry in the Naini Tal and Chakrata divisions is in a most satisfactory condition, partly due to a rise in prices. The financial results were better owing to the continued improvement of the timber trade, and the surplus revenue for the year was £90,000. Breaches of the forest rules were considerably above the average, but this is partly because a more complete system of registering cases without reference to the future development of each case is now adopted.

Punjab.—The reserved forest area at the end of 1910–11 comprised 1,952 square miles, including 110 square miles under military or other control. The protected forests aggregated 5,222 square miles, while there are 1,319 square miles of unclassed forest and 365 square miles of leased forests. The area was reduced during the year, mainly by the disforestation of about 10,000 acres, which had been reserved with the intention of eventually abandoning them for colonisation purposes in the Shahpur and Multan divisions. Working plans are still required for 3,974 square miles. The year was less favourable as regards forest fires chiefly owing to incendiarism in the Rawalpindi division. The out-turn of timber was about 4½ million cubic feet, an increase upon 1909–10, while the fuel out-turn was nearly 25 million cubic feet. The surplus of the year amounted to £51,600. The difficulty of protecting forests from damage by excessive grazing has become greater as cattle and pastoral animals have largely increased and waste lands have been curtailed through irrigation. Only about 17 per cent. of the forest area is entirely or partially closed to grazing. Experiments are in progress to ascertain how much grazing the hill forests will stand. The continued increase in the number of forest offences is disquieting. A central factory for resin has been established near Lahore, and experiments were made as to its tapping and manufacture. It is hoped in time to put the industry into the hands of private individuals.

North-West Frontier Province.—At the end of 1910–11 the reserved forest area was 250 square miles, besides 121 square miles of civil protected forests. Working plans have now been framed for 236 square miles. There was an increase in the out-turn of produce, the quantities being 697,000 cubic feet of timber and 386,000 cubic feet of fuel. The net revenue was £10,345, considerably more than in 1909–10. There was a marked increase in the number of forest offences, due to growing value of forest produce and the decrease in the quantity available outside the reserves.

Burma.—The reserved forest area in Burma was increased during 1910–11 by 386 square miles to 26,077 square miles; the unclassed forests, much of which will ultimately be brought under cultivation, covered 111,150 square miles, a decrease of 1,857 square miles. Working plans for 2,415 square miles were in preparation or awaiting sanction. The area of reserved forests not under working plans at the end of the year was 16,269 square miles. The majority of the teak-bearing forests are now being managed under working-plans or girdling schemes, though lack of labour or establishment make it impossible to carry out all the improvements projected in the sanctioned plans. The area in which fire protection was attempted covered

7,466 square miles, of which 278 were in the event burnt. Rubber, teak, and other plantations were maintained, and further experiments were made with the cultivation of rubber. Para rubber is said to be growing very successfully in the Bhamo division. The Mergui rubber plantation was disposed of to a company. The number of teak trees girdled was 112,500 and the quantity of teak extracted was 309,800 cubic tons (including 262,100 by purchase contractors), an increase of 25,200 cubic tons. The price of teak ruled high. Of other timbers, 327,100 cubic tons were extracted, besides 343,200 cubic tons of fuel. The area under teak worked by the Department is being strictly curtailed in favour of the system of extraction by firms under purchase contracts. The surplus revenue amounted to £410,200. There was an increase in the number of forest offences. The Kheddah Department has been closed since the end of the year. The provincial forest service was reorganised.

Central Provinces and Berar.—The total area of forests at the end of 1910–11 was 21,384 square miles. The total length of forest boundaries is 35,778 miles, of which 92 per cent. has been artificially marked. Special attention has been given to the making of roads which will facilitate the utilisation of forest resources. Further working plans were sanctioned or in progress; new plans are still required for 2,724 square miles. Revenue officers are now deputed to consult with the working-plans officers with the view of securing due attention to agricultural interests—a system which is giving good results. The fire season was unfavourable. The area under fire protection was 11,649 square miles. The number of forest offences decreased. There was a large increase in the out-turn of forest produce. The amount of timber removed from the forests during the year, chiefly by private persons, was about 5 million cubic feet, that of fuel about 27 million cubic feet. The surplus revenue was £32,100, a decrease of £2,300 on 1909–10. As usual, a large part (43 per cent.) of the revenue was yielded by grazing and fodder-grass. There was a decrease in the income derived from extraction of produce by Government agency.

Eastern Bengal and Assam.—The forest area at the end of 1910–11 included 6,491 (an increase of 7) square miles of reserved and 4 miles of protected forests, or about 6½ per cent. of the total area of the province, and 22,416 square miles of unclassified forests. The unclassified forests consist largely of grass or treeless waste in Assam; they are all open to grazing, and part of their area is more or less regularly under cultivation. Progress was made in bringing the reserved forests under systematic management. Working plans are still required for 4,832 square miles. Special fire protective measures extended over 1,293 square miles. There was little damage from fire, and there was a large decrease in the number of forest offences, which consist chiefly of unauthorised fellings. The Charduar and Kulsi plantations of rubber (*ficus elastica*) produced satisfactory results, and its cultivation is being extended to the Lushai Hills and elsewhere. The gross yield of the forests amounted to 7 million cubic feet of timber and 13¼ million cubic feet of fuel, besides 25 million bamboos and minor produce. The surplus revenue amounted to £55,171. It is found more profitable to sell standing timber to contractors than to exploit it by Government agency. The aim is to attract large traders who will work on an extensive scale. Five new forest villages were established during the year.

Madras.—The total area of forests on 30th June 1911 was 20,030 square miles, of which 18,629 square miles were classed as reserved forests. The settled and systematically protected forests cover nearly one-seventh of the area of the Presidency. Detailed working plans were sanctioned or in preparation or under revision for 2,510 square miles. The area burnt was less than half what it was in 1909–10. There were 26,489 forest offences, of which 76 per cent. were compounded. Natural reproduction was, on the whole, good. The yield of the forests was about 3 million cubic feet of timber and 22 million cubic feet of fuel, besides 39 millions of bamboos and minor produce. The surplus revenue was £36,893. Both out-turn and surplus were smaller than in 1909–10, chiefly owing to a dull market. The controlling establishment was increased. The provincial service was reorganised. Some areas have been experimentally entrusted to the management of village panchayats for fuel and fodder.

Bombay.—The area of the reserved forests was 14,006 square miles at the end of 1910–11, while that of the protected forests was 1,042 square miles. The area for which working plans have been sanctioned is about 58 per cent. of the total area.

Satisfactory progress was made with the cultivation of rubber in the Thana district. Forest offences were more numerous than last year. Fire protection was satisfactory. About 700 square miles of reserved forest, chiefly in the Deccan, is being converted into grazing land, tree regeneration having proved impracticable thereon. The yield of timber and fuel was 5¼ and 37¼ million cubic feet respectively, and the number of bamboos 13½ million. The surplus revenue amounted to £107,859.

Coorg.—The area of reserved forests at the end of 1910–11 was 520 square miles. The dry season resulted in severe fires. Of the reserves, 69 per cent. were open to grazing. The “spike” disease continued to affect sandal trees. The out-turn of the forests was 511,830 cubic feet of timber and fuel. The surplus revenue was £10,800.

Andamans.—The area of reserved forests in the Andamans is 156 square miles, while the area of unclassified State forests and waste lands is 1,796 square miles. Of the total area, 1,952 square miles, working plans for 317 square miles have been sanctioned. Attention was paid to the reproduction of padouk trees, both naturally and artificially, and to the experimental cultivation of rubber. A system of disposing of timber by tender for 12 months was introduced with good results. The out-turn of timber was 883,675 cubic feet (of which 330,000 cubic feet were exported), of fuel 1,057,800 cubic feet, and of bamboos 926,623. The surplus revenue was £10,372.

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; and "The Mineral Production of India during 1910" in Vol. XL., 1911.)

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 the last 11 years, the estimated value of that for the quinquennium 1898–1903 being £4,330,000, for the quinquennium 1904–1908 £6,716,000, for the year 1909 £7,688,000, and for 1910 £7,700,000. Coal fell heavily in value though not in quantity. Manganese ore and salt showed the greatest increase. By far the most important minerals are coal and gold, the production of which in 1910 was valued at £2,456,000 and £2,202,000 respectively, followed by manganese ore, £849,000, petroleum, £836,000, and salt, £565,000. 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, which had risen without a break since 1882 to

Province or State.	1909.	1910.
	000 Tons.	000 Tons.
Bengal - - - -	10,661	10,779
Hyderabad - - -	113	508
Eastern Bengal and Assam - - -	306	297
Central Provinces - - -	238	220
Central India - - -	121	130
Other provinces or states - - -	101	115
Total - - - -	11,870	12,017

Bengal produces about 90 per cent. of the coal won in India, the Jherria coal-field opened in 1893) providing in 1910 5,795,000 tons, nearly half the total output, the Raniganj 4,213,000 tons, and the Giridih 679,000 tons.

The exports of Indian coal, 988,000 tons, were 44 per cent. over those of 1909. Ceylon and the Straits Settlements are the two principal markets. About 92 per cent. of the Indian production was consumed at home, 32 per cent. of the output (3,823,000 tons) being absorbed by the railways, whose coal consumption is now Indian to the extent of nearly 99 per cent.

Prices in 1908 were the highest so far recorded. In 1909 and again in 1910 they fell considerably owing to the over-production of previous years above referred to. The price per ton of Bengal coal at the pit's mouth was 4s. 4d. in 1909 and 3s. 9d. in 1910—a normal figure. 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 1910 fell to 116,100. As the result of improved mining methods, the output per head has grown from 89 tons in 1904 to 104 tons in 1910, 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 573,120 ounces, valued at £2,202,486, in 1910, compared with 574,816 ounces, valued at £2,204,866, in 1909. By far the

greatest part of the gold (547,746 ounces) came from the Mysore gold-fields. The Hutti mine in Hyderabad produced 15,762 ounces in 1910. The Dharwar gold companies have decided to abandon their operations owing to disappointing results at deep levels.

Petroleum.—Since the introduction of European drills the production of petroleum in Burma has rapidly risen. Increased activity in the Twingon Reserves of the Yenangyaung oil-field, where rich oil-sands were struck at greater depths, led to a further large rise in the output during 1909. In 1910, however, there was a considerable decline in the total production of crude petroleum from 234 to 215 million gallons. About 3½ million gallons of oil were extracted in Eastern Bengal and Assam; and the rest of the product, except a trifling amount from the Punjab, came from Burma, the principal oil-fields being at Yenangyaung, the oldest field, in Magwe district, and at Singu, in Myingyan district. The former of these yielded 175 and the latter 32 million gallons. Oil has also recently been struck at Minbu. Oil refineries have been erected in Rangoon, and the various constituents of the crude oil are put on the market in the form of kerosene, petrol, lubricating oil, batching oil, fuel oil, candles, and paraffin wax.

Manganese.—Manganese ore is now chiefly obtained from extensive deposits in the Central Provinces, Madras, Bengal, Mysore, and Bombay. Owing to a rise of

Province or State.	1909.	1910.
	Tons.	Tons.
Central Provinces	381,285	552,239
Madras - - -	138,454	120,607
Mysore - - -	39,895	42,518
Central India - -	10,324	12,664
Bombay - - -	17,657	30,921
Bengal - - -	55,060	41,958
Total - - - -	642,675	800,907

price in 1910 production, which had declined in 1909, rose again, the quantity being 801,000 tons. The increase was chiefly in the Central Provinces. 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, and India is now probably the chief producer of high-grade ore. 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. The exports in 1910 were 586,577 tons.

Salt.—The production of salt in India (excluding Aden) in 1910 was 1,485,628 tons, as compared with 1,189,063 tons in 1909. About 91 per cent. is derived from sea-water, sub-soil water, and lakes, and only 9 per cent. is obtained by mining and quarrying. Most of the rock-salt, amounting to 140,600 tons, came from the Punjab Salt Range.

Saltpetre.—Statistics of the saltpetre industry, now collected for the first time, show that the production in 1910 was 15,541 tons, of which 15,398 tons were exported. The exports in 1909 were 20,247 tons. Behar is the principal seat of this industry.

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 (39,612 cwt.) shows a considerable increase over 1909. The mines are situated in Bengal, Madras, and Rajputana.

Lead.—This is produced in Burma, chiefly in the Northern Shan States. The total output in 1910 was 31,211 tons, as against 15,843 tons in 1909. The value (including the silver contained in the ore) was £167,990.

Rubies.—In 1910 the reported production of rubies, including small quantities of sapphire and spinel, amounted to 262,019 carats, valued at £58,849, compared with 258,304 carats, valued at £58,649, in 1909. This output was wholly derived from the Mogok mines of the Burma Ruby Mines Company. Rubies are also obtained by native miners working under licence from the Company. Rubies are not at present in great demand in Europe, and the market was dull during the year.

Other Minerals.—Among minerals not above referred to is jadeite, which was exported in 1910 to the value of £64,747 from the Myitkyina district of Burma, and wolfram, of which deposits have recently been discovered, chiefly in Tavoy, and of which the total output in 1910 was valued at £38,873. The output of iron ore dropped from 83,456 to 54,626 tons. In 1907 the Tata Iron and Steel Company was formed with a large capital to exploit iron ore lands in Orissa and the Central Provinces, and commenced work early in 1912. Large developments in production are anticipated. There is a small output of graphite and tin.

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, mainly owing to the enhanced interest in manganese in Bombay and the Central Provinces. The concessions granted in Government lands amounted in 1899 to 60 only, but in 1908 the number had risen to 816. In 1909 the total number of concessions fell to 693, and in 1910 to 635, viz., 102 exploring licences, 401 prospecting licences, and 132 mining leases. In some areas, including nearly all the coal-bearing land in Bengal, mineral rights have been conceded permanently with the surface ownership.

By the Rules exploring licences can be obtained for one year, but they give no exclusive or preferential rights, and there is no prohibition against free exploration in unoccupied and unreserved land. Prospecting licences are granted over restricted areas for a period of one year, renewable with the consent of the Local Government for a second and third term. Such licences carry an indefeasible claim for a subsequent mining lease for any mineral other than precious stones over the same or a restricted area. The Rules are undergoing revision.

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 and any part of which extends beneath the superjacent ground.

The number of mines of all kinds coming under the Act in 1910 was 781, of which 443 were coal mines, including 418 in Bengal, 227 mica mines, including 168 in Bengal, and 41 manganese mines. There was a considerable reduction in the number of coal mines worked. The mines gave employment to an average daily number of 144,680 persons (3,970 more than in 1909), of whom 91,713 were men, 47,963 women, and 5,004 children under twelve years old; 89,778 persons worked underground. The labour material is very unformed, possesses little skill, and requires constant supervision.

There were 117 fatal accidents, causing 186 deaths, during the year 1910, an increase of 34 in the deaths as compared with 1909. Of the deaths from accidents, 160 occurred in coal mines. Better supervision would substantially lessen this loss of life.

Four explosions, accounting for 27 lives, have disproved the theory that Indian mines are immune from danger from fire-damp. There is a steady advance in the system of "goafing" or getting pillars in coal mines—a safer and better system than leaving the pillars ungotten, while cutting them away until they were barely sufficient to support the roof.

Three prosecutions were instituted in 1910, resulting in two convictions.

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 during the session 1910-11 was 14, of whom five gained diplomas. Lectures were delivered at four centres in the Bengal coal-fields. 325 students were registered in 1909-10, and 18 qualified for certificates of competency as mine managers. The lecturer engaged from England for these peripatetic courses has returned, but the experiment has been so successful that it is being continued in the form of lectures by colliery managers. Ambulance classes have been started on the coal-fields, which were well attended. The Mining and Geological Institute of India, which was inaugurated at the end of 1905, now has 300 members. The Lower Bengal Mining Board met twice. The Edward Medal was bestowed for the first time in connection with mining in India, the recipient being a native engine-driver.

CHAPTER IX.

MANUFACTURES.

INDUSTRIAL DEVELOPMENT.
LARGE INDUSTRIES.
FACTORY LEGISLATION.

FACTORY INSPECTION.
PATENTS AND DESIGNS.

(For further details see Statistical Abstract for British India, Tables 218 to 221.)

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. In March 1909 it was ordered that purchasing officers shall in all cases give preference to articles manufactured in India from Indian materials (or from imported materials), provided that the quality is sufficiently good and the price not unfavourable. From time to time monographs are published dealing with the position in each province of some leading industry. Thus monographs have recently appeared on paper-making, the manufacture of wire and tinsel, the preservation and curing of fish in Madras, the salt-boiling industry in Burma, and the hand-loom and leather industries in Bombay. In some provinces the local governments have instituted special inquiries to ascertain the prevailing industrial conditions, with a view to promoting those industries that appear, when properly organised, to give promise of success. A "Review of the Industrial Position and Prospects in Bengal in 1908" has been prepared by Mr. J. G. Cuming, I.C.S., a "Survey of the Industries and Resources of Eastern Bengal and Assam" by Mr. G. N. Gupta, I.C.S., "Notes on the Industries of the United Provinces" by Mr. A. C. Chatterjee, I.C.S., and a "Report on the Industrial Survey of the Central Provinces and Berar" by Mr. C. E. Low, C.I.E. Industrial conferences and exhibitions have been held, and a knowledge of Indian manufactures has become more widely diffused. The United Provinces Exhibition held at Allahabad in 1910-1911 was on a larger scale than the Industrial and Agricultural Exhibitions of previous years, and its success will doubtless have a stimulative effect on the industries of the province. An expert engineer has recently been engaged in connection with the sugar-extracting industry in the United Provinces. Endeavours are being made in all provinces to improve the important and widespread domestic cotton industry by introducing better types of hand-looms and superior methods of manufacture, in order that their products may compete more successfully with goods manufactured by power looms in India or imported from abroad. The Chrome Tannery started for instructional purposes by the Madras Government has been made over to a native state. In Bengal improved methods are taught at the Serampur Weaving School and at outlying centres. In the United Provinces schools have been established at weaving centres under Government auspices, and some small hand-weaving factories have sprung up as the result. Scholarships for the higher commercial and technical training of Indians abroad are offered by the Government and by private associations.

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:—

Year.	Cotton Mills.*				Jute Mills.			
	No.	Paid-up Capital.	Looms.	Spindles.	No.	Paid-up Capital.	Looms.	Spindles.
		£				£		
1883-4	71	5,428,000	15,112	1,842,184	23	2,124,000	6,139	112,650
1888-9	98	6,166,000	19,288	2,504,665	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
1906-7	197	11,513,000	55,291	5,230,020	44	6,330,000	25,284	520,504
1907-8	207	12,031,000	62,251	5,437,198	54	7,019,000	27,244	562,274
1908-9	212	12,604,000	69,791	5,623,542	56	7,413,000	29,525	607,458
1909-10	219	12,725,000	74,757	5,780,124	60	7,674,000	31,418	645,862
1910-11	226	13,437,000	78,984	5,961,950	58	7,667,000	33,169	682,527

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

Cotton Mills.—The 250 cotton mills at work in all India in 1910-11 included 105 exclusively spinning, 19 exclusively weaving, and 126 both spinning and weaving mills. The majority of the mills, viz., 166, were in the Bombay Presidency, and they contained 70 per cent. of the spindles and 78 per cent. of the looms. Bombay City contained 84 mills and Ahmedabad 54. The industry is to a large extent in the hands of Indians. In spite of some unfavourable years, the industry, as the above table shows, has continued steadily to develop.

The outturn of yarn in recent years in British India is shown in the margin. The mills of the Bombay Presidency produced nearly 74 per cent. of the total, Bengal

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
Year 1906-7	581.4	49.2	630.6
" 1907-8	556.6	57.2	613.8
" 1908-9	572.0	57.9	629.9
" 1909-10	543.1	50.4	593.4
" 1910-11	523.9	53.1	577.0

6 per cent., Madras 7 per cent., the United Provinces 6 per cent., and the Central Provinces and Berar 5 per cent. It will be observed that yarns of counts above No. 25 constitute nearly 9 per cent. of the total production. They are chiefly spun in the Bombay mills. Imports of yarn amount to only about 5 per cent. of the Indian production, but a very small proportion is of counts under 25. The phenomenal activity of the cotton industry in 1905-6 was followed by a decline in prosperity during 1906-7. Shortage of

crops and high prices of food have prevailed ever since. Revival of the demand from China—the principal market for Indian yarn—during 1908-9 and 1909-10 has been more than counteracted by the unprecedented rise in the price of raw material—a rise further accentuated by the failure of what promised to be a good crop in 1910-11. Few mills in Bombay yielded more than nominal returns during the latter year.

Owing to the vicissitudes of the spinning business increased attention has been devoted to weaving, which has greatly extended. The production in 1910-11 furnished a record. The production of

Year.	Grey and Bleached.	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
Year 1906-7	129.6	29.4	159.0
" 1907-8	147.6	33.7	181.3
" 1908-9	147.2	37.0	184.2
" 1909-10	167.2	48.2	215.4
" 1910-11	178.9	52.0	230.9

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 1910-11 produced about 86 per cent. of the total output of cloth; the United Provinces and Central Provinces each contributed about 4 per cent.; and Madras about 3 per cent. These fabrics are mainly grey and bleached piece-goods. As the marginal table shows, however, there is a decided tendency to increase the output of other and finer fabrics, this tendency being specially marked in Madras. About 10 per cent. of the cotton piece-goods produced was exported.

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 English 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. Although the number of mills in 1910-11 shows a slight decrease, the number of looms and spindles has continued to increase. The number of persons employed was 216,390. The paid-up capital employed by these mills was £9,825,000, including debentures; of this total about £3,280,000 was sterling capital. Hessian looms are now more numerous than sacking looms.

Woollen Mills.—There were four woollen mills at work at the end of 1910, containing 768 looms and 29,369 spindles, and producing goods valued at about £296,000 for the year. The growth of the industry is slow and irregular. 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 eight paper mills at work at the end of 1910, producing during the year about 59 million lbs. of paper, valued at £542,500. 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, imports of which have increased much faster than the home production.

Breweries.—At the end of 1910 there were 24 breweries, which produced during the year 4,191,000 gallons of beer. The largest brewery is at Murree in the Punjab Himalayas, and its output was 569,000 gallons. About 38 per cent. of the whole Indian production was brewed in the Punjab. The quantity of beer imported in 1910 was 4,354,000 gallons.

General Remarks.—The total number of factories worked by mechanical (including electrical) power, owned by companies or private persons in British India and returned as registered under the Act was 2,146 in 1910. A

	No. of Works.	*No. of Operatives.
Cotton presses	1,057	99,077
Cotton mills	215	216,883
Jute presses	103	28,327
Jute mills	59	204,053
Rice mills	224	20,368
Flour mills	32	3,111
Sugar factories	21	5,424
Saw mills	96	10,583
Iron and brass foundries	58	24,368
Indigo factories	—	17,337
Tile factories	14	5,293
Printing presses	18	13,971
Dockyards	9	10,392
Railway workshops, &c.	47	72,000
Petroleum Refineries	6	8,735

* Including operatives in certain factories not included in the Factory Act returns.

classified list of the more important is given in the margin. This does not include factories not worked by mechanical power, employing 92,573 persons. Of the 1,057 factories for the ginning, cleaning and pressing of cotton there were 382 in the Central Provinces and Berar, 301 in Bombay, 191 in the Punjab, and 131 in the United Provinces. In Bombay about 190,000 operatives are 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 and Eastern Bengal and Assam there is an increasing number of jute presses. Silk filatures and indigo factories are found chiefly in Bengal. Flour mills are most numerous in the Punjab and sugar factories in the United Provinces. 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, Bengal, and Madras. Iron and brass foundries (including engineering workshops) number 33 in Bengal and 14 in Bombay. A large hydro-electric scheme has been commenced at Lanavla, which will, it is hoped, supply power to the Bombay mills. The Tata Iron and Steel works in Chota Nagpur commenced work early in 1912. There were 98 factories within the scope of the Act belonging to the State and to local bodies. Among these were 16 printing presses, 16 railway workshops, 3 canal foundries and engineering workshops, and 17 military arsenals and factories.

FACTORY LEGISLATION.

The law at present in force respecting factories in India is Act XV. of 1881, as amended by Act XI. of 1891. The changes introduced by the latter were, briefly: (1) The law could be applied to establishments employing 20 hands or over, instead of only to those with 50 hands or over, factories of the latter description being brought in all cases under the Act; (2) the minimum age for child labourers was raised from seven to nine years, and the maximum age from 12 to 14 years; (3) the maximum hours for child labour in any one day were reduced from nine hours to seven hours, and night-work was forbidden; (4) the hours of actual labour for women workers, which were unrestricted under the Act of 1881, were limited to 11 hours a day, with intervals amounting to 1½ hours; (5) a rest period during work was prescribed for all labourers.

Owing to complaints regarding the long hours worked in many mills, the Government of India appointed a small Committee, with Commander Sir H. P. Freer-Smith, R.N., late Superintending Inspector for Dangerous Trades in England, as chairman, to conduct a preliminary inquiry into the conditions of labour in textile factories. The Committee recommended that the working hours of adult males should be limited to 12 hours a day; that before children or adults are allowed to work in factories certificates of age and physical fitness should be required; that night-work of women should be prohibited; and that Medical Inspectors should be appointed. The Committee's report was presented to Parliament in 1907 (Cd. 3617).

The conclusions of this Committee formed the basis of an investigation by a representative Commission, whose report was presented to Parliament in 1908 (Cd. 4292). This report disclosed the existence of abuses, particularly in connection with the employment of children, and the excessive hours worked by operatives generally in textile factories. The majority of the Commission deprecated a statutory limitation of the working hours of male adults. But they recommended the formation of a class of "young persons," between 14 and 17 years of age, whose hours should be limited to 12, and considered that this would indirectly secure a 12 hours' day for male adults. They also recommended that the hours of work for children should be reduced from 7 to 6 hours and that the hours for women should be assimilated to those for "young persons," night-work being prohibited for both classes. They recommended that children should be certified as to age and physical fitness.

The recommendations of the Committee and of the Commission having been considered by the Government of India and the Local Governments, a bill was introduced in July 1909 to amend and consolidate the law relating to factories. The measure, which was passed in March 1911 (Act No. XII.), provides, subject to certain exceptions, that in textile factories: (1) No person shall be actually employed for more than 12 hours, no woman for more than 11 hours, and no child for more than 6 hours in any one day; (2) no person shall be employed before 5.30 in the morning or after 7 in the evening; (3) the period for which mechanical or electrical power is used shall not in any one day exceed 12 hours. In other than textile factories the working hours of children remain at 7. Further provision is made for securing the health and safety of the operatives and for making inspection more effective. The new Act will come into force on 1st July 1912.

FACTORY INSPECTION.

The statistics of the factories inspected during 1910 are as follows:—

PROVINCE.	Number of Factories working and liable to be inspected.	Average Number of Hands employed daily.				Number of Factories.			Number of Persons convicted of breach of Act.	Number of Accidents reported.			
		Men.	Women.	Children.	Total.	With Sunday Holiday.	With other Weekly Holiday.	Exempted or worked otherwise.		Fatal.	Serious.	Minor.	Total.
Bengal	255	236,617	39,217	31,049	306,883	210	1	41	7	79	431	738	1,268
Eastern Bengal and Assam	120	22,054	892	518	23,464	36	19	53	2	2	19	15	36
United Provinces	220	42,667	6,326	1,856	50,849	134	37	27	11	5	72	145	222
Punjab	228	24,804	3,951	871	29,626	160	55	13	—	8	35	309	352
North West Frontier Province	5	132	67	—	199	4	1	—	—	—	—	1	1
Burma	280	44,351	999	374	45,724	225	39	16	2	15	131	189	335
Central Provinces and Berar	409	34,001	13,377	1,848	49,221	181	171	1	29	1	38	137	176
Madras	188	43,317	6,302	4,725	54,344	135	45	18	3	2	28	212	242
Bombay	558	176,740	43,401	10,816	230,957	368	184	3	18	37	112	1,489	1,628
Ajmere-Merwara	8	10,363	508	274	11,144	5	3	—	—	—	20	99	119
Total, 1910	2,371	624,945	115,540	52,026	792,511	1,448	555	163	70	139	886	3,354	4,379
Total, 1909	2,204	619,015	114,455	52,440	785,910	1,410	508	163	58	123	897	3,016	4,036

In 1910 the number of factories under the Act increased by 39 in the United Provinces, 23 in the Central Provinces, 22 in Bombay, and 20 in Madras. The health of the operatives was on the whole good. There was a general improvement in the frequency of inspections and in the strict enforcement of the Act. The law was generally well observed as regards sanitation and water supply and fencing of machinery. Accidents are largely due to the carelessness of operatives. In the Punjab and Eastern Bengal and Assam, however, constant attention had to be paid to the condition of the latrine accommodation in some of the factories. In Bengal the appointment of a Certifying Surgeon to certify the age of children in the jute mills has had excellent results. An automatic stop-gear for jute softening machines is now compulsory, and there have been no accidents with these machines since April 1910. The most difficult regulations to enforce are those relating to the employment of women and children: the Punjab, the United Provinces, and the Central Provinces suffer especially from frequent breaches of this part of the Act and the difficulty of discovering them. A Committee has been appointed to consider the subject of the ventilation of cotton factories in Bombay.

PATENTS AND DESIGNS.

The laws for granting exclusive privileges to inventors and for protecting patents and designs were amended and consolidated by the passing of the Inventions and Designs Act (V. of 1888).

The total number of applications for leave to file a specification under the Act in 1910 was 667, or 28 less than in 1909, but the number filed (618) shows an increase. Of the applications 36 were refused or abandoned and 138 were undecided at the end of the year. Only 62 of the applications were made by natives of India, 137 were made by other residents in India, while 468 came from outside India, of which 254 were from the United Kingdom. The range of inventions for which protection was sought was, as usual, very wide, but those relating to chemical appliances and preparations and railways predominated. Exclusive privileges were kept alive by payment of prescribed fees in 663 cases, while 495 ceased. Applications for the registration of designs numbered 36, of which 26 were allowed.

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. 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.

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 precious stones and pearls re-exported by post.

The foreign seaborne trade of India has greatly increased during the last 30 years, as the marginal figures relating to private merchandise show (values in thousands of pounds at 15 rupees to the pound). It will be observed that the percentage growth has been greater in imports, though the absolute increase has been larger in exports.

The foreign seaborne trade of British India during the five years to 31st March 1911 was as follows:—

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 -	86,240	137,218

	1906-7.	1907-8.	1908-9.	1909-10.	1910-11.
Imports:	£	£	£	£	£
Private Merchandise -	72,205,055	86,596,729	80,843,818	78,038,365	86,236,011
Government Stores -	5,956,410	4,428,635	5,008,301	3,727,225	2,900,982
Total Merchandise -	78,161,465	91,025,364	85,852,119	81,765,590	89,136,993
Treasure, Private -	18,133,990	21,880,286	15,087,902	24,950,716	26,468,837
„ Government -	11,585,884	6,309,379	74,876	64,933	45,853
Total Treasure -	29,719,874	28,189,665	15,162,778	25,015,649	26,514,690
Total Imports -	107,881,339	119,215,029	101,014,897	106,781,239	115,651,683
Exports:					
Private Merchandise:					
Indian Produce and Manufactures -	115,625,135	115,727,127	99,904,843	122,997,607	137,218,095
Foreign ditto -	2,322,693	2,511,557	2,113,820	2,259,090	2,840,700
Government Stores -	71,910	81,921	76,800	55,428	53,056
Total Merchandise -	118,019,738	118,320,605	102,095,463	125,312,125	140,111,851
Treasure, Private -	3,808,672	3,630,819	3,971,116	4,262,220	4,746,352
„ Government -	3,497	1,514	242,382	3,807	5,956
Total Treasure -	3,812,169	3,632,333	4,213,498	4,266,027	4,752,308
Total Exports -	121,831,937	121,955,938	106,308,961	129,578,152	144,864,159
Total Seaborne Trade -	229,713,276	241,170,967	207,323,858	236,359,391	260,515,842
Net Exports of Merchandise -	39,858,303	27,298,241	16,243,344	43,546,535	50,974,858
Net Imports of Treasure -	25,907,705	24,557,332	10,949,280	20,749,622	21,762,382
Net excess of Exports (balance of trade) -	13,950,598	2,740,909	5,294,064	22,796,913	29,212,476

The very favourable agricultural season in India, together with a general revival of demand throughout the world, resulted in a general increase in the export of raw materials, while the prosperous condition of the country stimulated imports.

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

Principal Imports.				Principal Exports (Indian Merchandise).			
Articles.	1908-9.	1909-10.	1910-11.	Articles.	1908-9.	1909-10.	1910-11.
	000£	000£	000£		000£	000£	000£
Cotton manufactures -	22,911	24,034	27,802	Cotton, raw -	13,179	20,955	24,037
„ yarn -	2,433	2,213	2,091	Seeds -	7,785	12,484	16,749
Metals -	8,669	8,511	9,658	Rice -	10,592	12,163	15,490
Sugar -	7,271	7,681	8,777	Jute manufactures -	10,491	11,398	11,930
Machinery and millwork -	4,411	3,374	3,154	Jute, raw -	13,223	10,059	10,327
Railway material -	4,947	3,627	2,830	Wheat and wheat-flour -	1,241	8,869	9,060
Mineral oils -	2,606	2,097	2,259	Hides and skins -	8,312	9,080	8,723
Hardware and cutlery -	1,951	1,844	2,231	Opium -	6,233	6,209	8,509
Provisions -	1,875	1,933	2,020	Tea -	6,929	7,805	8,278
Woollen goods -	1,941	1,387	2,013	Cotton yarn -	6,454	6,473	5,749
Apparel -	1,612	1,588	2,065	Wool, raw -	1,389	1,905	1,891
Silk manufactures -	1,521	1,511	1,843	Cotton manufactures -	1,238	1,471	1,592
Liquors -	1,323	1,277	1,265	Lac -	1,863	1,848	1,429
Spices -	916	858	1,028				
Glass and glassware -	780	857	1,045				

Imports of Merchandise.—The very large increase under cotton and woollen manufactures is gratifying, seeing that it coincided with a period of high prices, and thus indicates increased purchasing power on the part of the people. The same is true of sugar, though the continued increase of sugar imports has been at the expense of home production. Java, which obtained a footing in the Indian markets when the imposition of countervailing duties restricted supplies of beet sugar, provided in 1910-11 about 70 per cent. of the imports of refined sugar. Among metals, copper—the usual material of Indian domestic vessels—shows a marked increase; iron and steel are recovering. The decrease under machinery is due to the depression in the textile industries. Among articles the imports of which point to the growing prosperity of the people may be mentioned silk goods, sugar, copper, hardware and cutlery, and glass and glassware. As regards railway stores, the Government imports of railway material should be added to the figures given above, thus bringing the total value of railway material imported to £4,124,000, a large decrease as compared with 1909-10.

Exports of Indian Merchandise.—The table brings out clearly the immense preponderance amongst Indian exports of raw agricultural produce, and the figures fluctuate widely according to the character of the season. The favourable season of 1909-10 caused a large increase in the exports during 1910-11 of rice, seeds, and wheat. The export of raw cotton was rather less in quantity than in 1909-10, but greater in value, as the general shortage of the world's crop sent up prices. This, however, caused a decrease in the export of yarn, while the abundant rice harvest of 1909-10 in Burma and a smaller demand in India enabled large exports to be made. The exports of oilseeds were even heavier than in 1909-10. The exports of raw jute were smaller in quantity, but rather larger value. The tea trade was again active, and there is a steady increase in the export to foreign countries, especially to Russia, and high prices were realised.

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 1910-11, £2,840,700, cotton goods shipped to the Persian Gulf, Arabia, East Africa, &c. formed about 38 per cent.

Trade by Countries.—In the following table imports are classified according to the countries whence they were last shipped direct to India, and exports according to the countries where they were first discharged. The system of classifying them according to their countries of true origin and final destination respectively is being introduced, but the figures for 1910-11 according to this system are not yet available. The figures as they stand show that the share of the United Kingdom in the total trade in private merchandise in 1910-11 was 38·7 per cent.; while that of

Germany was 7; of China, 6.4; of France, 5.2; of the United States, 5; of Belgium, 4.9; of Japan, 4.8. Taking imports and exports separately, about 61 per cent. of the import trade (exclusive of Government stores) and 25 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 colonies, the largest trade was done with Australia (£2,910,000).

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		
	1908-9.	1909-10.	1910-11.	1908-9.	1909-10.	1910-11.
	000£	000£	000£	000£	000£	000£
United Kingdom - - -	50,613	48,799	52,637	21,517	32,948	34,947
Germany - - - - -	3,286	2,776	3,436	10,237	11,959	13,123
China (including Hong Kong) - - -	1,549	1,501	1,624	12,087	12,422	12,890
United States - - -	2,175	2,450	2,317	8,824	9,547	8,955
Belgium - - - - -	3,448	3,043	3,849	4,146	6,798	7,400
France - - - - -	1,207	1,159	1,388	6,431	8,018	10,576
Japan - - - - -	1,411	1,644	2,239	4,792	8,111	8,996
Straits Settlements - - -	2,334	1,973	2,019	3,590	4,103	5,238
Austria-Hungary - - -	2,578	1,817	2,110	3,244	4,344	4,961
Ceylon - - - - -	473	451	481	3,983	4,716	5,469
Italy - - - - -	757	752	1,012	3,390	4,044	5,330
Mauritius - - - - -	1,715	1,678	2,016	818	759	907
Turkey - - - - -	464	377	404	1,351	1,544	1,862
Java - - - - -	4,131	5,292	6,005	388	955	2,347

Returns have been prepared showing imports according to countries of consignment and exports according to countries of final destination in 1909-10. It appears from these returns that the distribution of trade as given in the above table for that year is substantially accurate, except in the case of Germany and Belgium, imports from which, according to the returns of final destination, were £4,307,357 and £1,313,072 respectively, as against £2,776,000 and £3,043,000 according to the returns above. This shows that much of the trade hitherto shown as trade with Belgium has really been trade with Germany.

The trade with China consists mainly in the exportation thereto of opium, cotton yarn, raw cotton, tea, and jute goods, while silk and silk goods are imported. Germany sends chiefly woollen goods, cotton goods, apparel, oils, liquors, glassware, paper, steel, iron, copper and other metals, hardware and cutlery, machinery, dyes, toys, salt, &c. in exchange for raw cotton and jute, raw hides and skins, rice, cocoanut-kernels, oilseeds, &c. She buys far more than she sells to India. Belgium takes raw cotton, oilseeds, manures, manganese ore, jute and jute goods, rice, &c. in exchange for iron, steel, copper, dyes, glass, hardware and cutlery, cotton goods, &c. France buys large quantities of raw jute and cotton, wheat, coffee, raw silk, hides and skins, and oilseeds, and sells apparel, silk goods, and spirits. The United States buys large quantities of seeds, manganese ore, saltpetre, jute, raw and manufactured, hides and skins, and lac, 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 six chief ports in the private trade with foreign countries in merchandise only.

Port.	1909-10.	1910-11.
	Per Cent.	Per Cent.
Calcutta - - -	38.2	37.3
Bombay - - -	31.2	32.5
Karachi - - -	10.5	9.6
Rangoon - - -	7.4	8.1
Madras - - -	4.5	4.5
Chittagong - -	1.6	1.5

The value of the exports from Calcutta was greater through increases under opium, oilseeds, grain and jute. Lac and raw cotton declined. Imports increased under almost all the important heads, especially sugar and cotton goods. Railway materials declined. The increase in exports from Bombay was chiefly due to the larger shipments of raw cotton, and, in imports, to cotton goods, metals, and sugar. The trade of Karachi expanded only slightly, cotton exports having decreased largely, owing to cotton for export going to Bombay for transhipment.

Treasure.—The net import of gold fell from £16,620,000 in 1909-10 to £15,984,000. The net import of silver fell from £6,296,000 to £5,779,000.

Balance of Trade.—The balance of trade rose from £22,797,000 in 1909-10 to £29,212,000.

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 large and increasing trade with Afghanistan, Nepal, Western China, and Siam. The principal exports from India are cotton yarn and manufactures (chiefly foreign), metals, provisions, and spices; 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£
1908-9-	5,526	4,640	10,166
1909-10	5,638	4,545	10,183
1910-11	6,127	4,952	11,079

COASTING TRADE.

The trade in merchandise carried by coasting vessels amounted to £39,627,000 in 1910-11, or about 2 per cent. more than in 1909-10. This amount is arrived at by adding to the value of the imports into British ports from other British ports the sum of the imports and exports in the trade between British and non-British ports in India. There was a decrease in rice, but mineral oil shipments from Burma to India were larger. Bombay sent smaller quantities of cotton piece goods to Indian ports.

SHIPPING.

During 1910-11 the number of steamers and sailing vessels with cargoes and in ballast which entered from and cleared to all countries was 8,435, with a tonnage of 14,984,528, an increase of 2.7 per cent. as compared with 1909-10. Of the total, 98.5 per cent. was steam tonnage. Tonnage under the British flag represented about 80.5 per cent. of the whole. The number of German and Austro-Hungarian vessels has decreased.

The number of vessels under the principal flags is given below:—

Nationality.	1906-7.	1907-8.	1908-9.	1909-10.	1910-11.
British - - - - -	4,918	4,785	4,238	4,722	4,745
German - - - - -	371	375	437	455	416
Austro-Hungarian - - -	159	157	156	220	208
Norwegian - - - - -	195	188	106	95	103
Italian - - - - -	77	79	76	81	84
Japanese - - - - -	83	123	79	63	77
French - - - - -	67	61	55	56	56

FREIGHTS.

The following statement gives minimum quotations for typical rates of freight 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:—

	1907.	1908.	1909.	1910.	1911.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Calcutta—Rice - - -	1 0 0	0 12 6	0 15 0	1 0 0	0 18 9
Wheat - - - - -	0 17 6	0 15 0	1 0 0	1 1 3	1 0 0
Linseed - - - - -	1 1 3	0 17 6	1 0 0	1 0 0	1 2 6
Tea - - - - -	1 16. 3	1 12 6	1 12 6	1 12 6	1 12 6
Jute - - - - -	1 6 3	0 17 6	1 2 6	1 6 3	1 12 6
Bombay—Cotton (Liverpool) - - -	0 16 0	0 11 6	0 11 0	0 16 6	0 15 0
Wheat - - - - -	0 15 0	0 10 0	0 12 0	0 14 6	0 14 0
Seeds - - - - -	0 12 0	0 12 0	0 15 0	0 15 0	0 16 6
Karachi—Wheat and seeds (Liverpool). - - -	0 14 6	0 9 0	0 14 0	0 14 6	0 17 0

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 with their length in yards. Out of 2,143 detentions under the Act in 1910-11, 521 were on account of counterfeit trade marks or false trade descriptions, 1,318 for non-description or false description of origin, and 304 for unstamped or insufficiently stamped piece-goods. Detention is rarely followed by confiscation. Goods were released with a fine in 1,100, and without a fine in 1,037, cases. A new edition of the "Merchandise Marks Manual" was published in 1910.

JOINT STOCK COMPANIES.

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

At the commencement of 1910-11 there were 2,162 joint stock companies at work in British India with a paid-up capital of about £40,789,000. At the end of the year there were in operation 2,251 companies, with a paid-up capital of £42,488,000. There has been an increase of 75 per cent. in the total paid-up capital in the last 10 years. The companies are most numerous and important in the provinces of Bengal and Bombay, which possess 40 and 36 per cent. respectively of all the paid-up capital, while the share of Madras, which comes next, was less than 8 per cent. of the whole. The average of paid-up capital is highest in Bengal, where it amounts to £31,600, while in Bombay it is £26,700. In Madras the average is low, as 263 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	5,418,440	Mills and presses	18,307,836
Trading and shipping	8,295,288	Tea and planting	2,533,217
Mining and quarrying	5,951,421	Other industries	1,981,907

As will be seen, the largest aggregate paid-up capital, £18,307,836, constituting nearly half 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. Nearly a third of the capital of trading companies is invested in railways and tramways. The capital invested in coal companies (more than 97 per cent. of which is in Bengal) has quadrupled in the last 10 years.

At the end of 1909-10 there were, so far as is known, 311 companies which carry on work with sterling capital exclusively, or almost exclusively, in India, but which are registered elsewhere, and their paid-up capital amounted to £69,910,173, besides £42,930,022 debentures. The railways and tramways represented £36,301,000 paid-up capital and £37,834,000 debentures. Of the rest the sterling capital (including debentures) invested in the tea industry was £15,605,000, in jute mills £2,900,000, in cotton mills £400,000, and in rice mills £1,730,000. Thus, while the railway and tea concerns are mainly financed from abroad, the great bulk of the mill and press companies are registered in India.

* Share capital only. The total value of the debentures issued at the commencement of 1910-11 amounted to £4,890,000.

CHAPTER XI.

PUBLIC WORKS.

GENERAL.
RAILWAYS.

IRRIGATION.
BUILDINGS AND ROADS (CIVIL).

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 head of "Public Works" for 1910-11 is compiled from the Finance and Revenue Accounts:—

	Receipts.	Expenditure.		
			Charged to Revenue.	Not charged to Revenue.
	£		£	£
Railways	30,669,102	Construction	795	8,915,205
		" from Famine Relief Grant	36,895	—
		On Revenue Account	28,651,606	—
Irrigation	3,694,521	Construction	—	1,203,888
		" from Famine Relief Grant	359,674	—
		On Revenue Account	3,110,134	—
Buildings and roads	293,883	Civil Works	4,536,667	—
TOTAL	34,657,506		36,695,771	10,119,093

The expenditure charged against revenue includes the following items of "Interest on Debt":—Railways, £5,842,334; Irrigation, £1,115,410.

Of the permanent public debt on the 31st of March 1911, £195,836,888 is classed as incurred for railways and £33,800,175 for irrigation.

The amount paid under the head of "Annuities in purchase of railways," which is included in the Railway Revenue Account, is £3,357,634.

The following statement shows the strength of the superior engineer and upper subordinate establishments as they stood on the 30th June in 1911 and 1910:—

		Irrigation and Buildings and Roads.			Railways.	Total.
		India.	Madras.	Bombay.		
Civil Engineers (including	1911	532	92	104	180	908
Military Officers)	1910	515	92	102	173	882
	1911	597	182	250	69	1,098
Upper Subordinates	1910	577	182	230	68	1,057

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 1910-11 there was a net gain of £2,017,496. The table below is taken from the Finance and Revenue Accounts of the Government of India for 1910-11.

	Imperial.	Provincial.	England. (Sterling converted at £1 = Rs. 15.)	TOTAL.
REVENUE.				
Railways—	£	£	£	£
State railways—(Gross traffic receipts)	30,623,170	6,356	230	30,629,756
Subsidised companies—(Repayment of advances of interest).	13,595	—	25,751	39,346
TOTAL	£ 30,636,765	6,356	25,981	30,669,102
EXPENDITURE.				
Railway Revenue Account—				
State Railways—				
Working expenses	16,318,240	5,389	—	16,323,629
Share of surplus profits, &c.	164,012	—	—	164,012
Interest on debt	2,661,637	—	3,177,697	5,842,334
Annuities in the purchase of railways	—	—	3,357,634	3,357,634
Sinking funds	—	—	171,264	171,264
Interest chargeable against companies on advances.	206,138	—	219,213	425,351
Interest on capital deposited by companies - Guaranteed companies—	192,988	—	1,814,351	2,007,339
Surplus profits, land and supervision	— 710	—	—	— 710
Subsidised companies—				
Land, &c.	25,300	2,974	—	28,274
Miscellaneous railway expenditure	31,933	546	—	32,479
TOTAL	£ 19,902,538	8,909	8,740,159	28,651,606

In the figures of expenditure are included all charges falling on the Government for the management and working expenses of railways, 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, Sind 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 1911 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 5·71 per cent. on the total capital outlay on open lines, against 5·46 per cent. in the previous year:—

Class.	Length of Line open on the 31st December 1911.	Total Capital Outlay on Open Lines to the 31st December 1911, including Steamboat and Suspense.	Total Number of Passengers carried.	Total Weight of Goods carried.	Gross Earnings, including Steamboat Service.	Working Expenses, including Steamboat Service.	Net Earnings, including Steamboat Service.	Percentage of Net Earnings on Capital Outlay on Open Lines.
<i>All Gauges.</i>	Miles.	£	No.	Tons.	£	£	£	
State lines worked by the State	6,867·30	79,558,467	101,113,600	18,118,000	8,868,266	5,360,400	3,325,866	—
State lines worked by companies*	18,089·53	187,463,266	229,808,200	46,253,000	23,782,400	12,034,667	11,747,733	—
Companies' lines guaranteed under modern contracts.	32·04	200,400	400,900	77,000	28,200	14,133	14,067	—
District Boards' lines	155·16	469,000	3,444,000	250,000	75,934	41,000	34,934	—
Assisted companies' lines	3,690·11	16,129,066	47,797,800	6,508,000	2,012,467	940,267	1,072,200	—
Unassisted companies' lines	60·40	118,133	694,400	66,000	10,600	8,266	2,334	—
Lines owned by Native States and worked by companies.	2,000·31	10,105,134	13,933,800	2,284,000	965,667	472,533	493,134	—
Lines owned by Native States and worked by State railway agency.	257·81	1,034,400	4,450,700	806,000	170,267	88,800	81,467	—
Lines owned and worked by Native States.	1,662·10	3,968,467	7,705,300	1,247,000	614,133	257,200	356,933	—
Lines in foreign territory	73·60	1,264,267	1,143,000	480,000	68,866	39,267	29,599	—
TOTAL OF ALL RAILWAYS, 1911	32,888·36	300,310,600	410,491,700	76,089,000	36,414,800	19,256,533	17,158,267	5·71
Ditto 1910†	32,099·30	292,698,200	371,576,000	65,303,000	34,094,800	18,104,900	15,990,000	5·46

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

† As corrected from later information.

It will be observed that, with an increase of 789·06 miles, or 2·46 per cent. in the open mileage, as compared with 1910, the gross earnings increased by £2,320,000, or 6·80 per cent., and the working expenses by £1,151,733, or 6·36 per cent., resulting in an improvement of £1,168,267 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	312·54	438·00	1,212·43
3' 3 3/4" "	288·15	163·43	713·76
2' 6" "	197·34	262·53	755·18
2' 0" "	3·30	—	3·50
Total	801·33	663·96	2,684·87
<i>Deduct</i> correction of mileage	12·27		
Net total addition to open mileage	789·06		

Important Works completed and in progress.—Full particulars in regard to the works completed and in progress during 1911, and projects for new lines under consideration during the year, will be given in the Administration Report on Indian Railways for 1911, which will be published as a Parliamentary Paper. A few details of the more important works of the year are, however, given below.

Important works in progress during the year included the Allahabad-Rae Bareilly-Cawnpore extension of the Oudh and Rohilkund railway, 153·31 miles; the Southern Shan States railway, 105 miles; the Barharwa-Azimganj-Katwa extension of the East Indian railway, 102·7 miles; the Kalabagh-Bannu railway, 94·21 miles; the Hooghly-Katwa extension, East Indian railway, 65·2 miles; the Thawe-Captainganj extension of the Bengal and North-Western Railway, 59·75 miles; the Jakhal-Hissar railway, 53·63 miles. Doubling of the line between Shegaon and Nagpur, 180 miles, was continued, and of the line from Amritsar to Ambala cantonment, 153·74 miles, completed. A new bridge over the Ganges at Cawnpore for the use of 5' 6" gauge traffic only was completed, and the reconstruction of the Tapti bridge on the Great Indian Peninsula railway practically so. Work was continued on the Sara bridge over the Lower Ganges, the Ganges bridge at Allahabad, the Mahi bridge at Vasad on the Bombay Baroda and Central India railway, the Jumna bridge on the North-Western railway, and bridges over the Gogra and Gunduck rivers on the Bengal and North-Western Railway. The Jumna, Gogra and Gunduck bridges will probably be opened for traffic this year. The works in connection with the establishment of communication between the railway systems of India and Ceylon by means of a ferry service, which were approved last year, made good progress.

Projects for new Lines.—In connection with the projects for new lines the more important subjects which have been considered by Government include a scheme suggested by the South Indian railway with reference to their Indo-Ceylon project for eventually displacing the ferry service by the construction of a bridge on Adam's Reef, on which matter careful inquiries are being made; South Indian railway extensions in the Karnatic, aggregating 673 miles, including several of the lines in which District Boards have interested themselves; and proposals for the extension of the broad-gauge section of the Nizam's Guaranteed State railways by the construction of connecting links between Wadi and Gadag (on the Madras and Southern Mahratta railway) and between Warangal and Balharshah (on the Great Indian Peninsula railway).

Fares and Rates.—A revised general classification of goods, with a revised schedule of maximum and minimum class rates, was introduced in September 1911, subject to the condition that no railway should charge for any commodity at a higher rate than that permissible on that railway on June 30th, 1910. Owing to the prospects of a fodder famine specially reduced rates for the carriage of fodder were quoted by the Railway Administrations.

Rolling-Stock and Safety Appliances.—For the year 1911-12 a provision of Rs. 428 lakhs was made for additional rolling-stock for open lines. This provision is Rs. 38 lakhs less than that for 1910-11.

The additions made during the year 1911 to the rolling-stock of the Indian railways consisted of 229 engines, 1,040 coaching vehicles, and 4,005 goods vehicles, the number under supply at the end of the year being 233 engines, 1,184 coaching vehicles, and 8,049 goods vehicles. Good progress continues to be made in the provision of automatic brakes, communication gear between passengers and the train staff, bars and fastenings to windows and doors, electric and gas lighting of carriages, and the removal of continuous foot-boards and horizontal hand-rails. As the result of the deliberations of a committee of medical and railway officers, facilities for giving medical aid on the occurrence of serious railway accidents have been considerably improved on all State railways.

Accidents.—Accidents occurred on the Bengal-Nagpur railway system, resulting in the death of two persons; on the Bengal and North-Western railway, when eight persons were killed and 12 injured; and on the East Indian railway, when one person was killed, three seriously injured, and 29 slightly injured.

Damages by Floods and Rainfall.—During the months of July and August heavy rains and floods caused breaches on the Bengal-Nagpur railway between Howrah and Madras and rendered necessary transshipment of passengers during 10 days; on the Gauhati section of the Eastern Bengal State railway, where traffic was interrupted for nine days; and on the Bengal-Dooars railway, where the damage done was so severe that it took two months to restore through communication. A serious breach also occurred near Diphu station, on the Assam-Bengal railway, due to the percolation of water from the Dharam Nala. Towards the end of September a severe cyclone passed across the East Coast section of the Bengal-Nagpur railway, and caused much damage both to buildings and track. Transshipment of passengers was necessary for seven days.

Amendment of the Indian Tramways Act.—The Bill further to amend the Act to make it applicable to mono-railways and to electric tramways was passed into law in March 1911.

Future Working and Management of the Railways in Kathiawar.—The arrangement for the separate working of these lines, referred to in the last report, was not brought into operation until 1st April 1911. From that date the Kathiawar railway system, formerly under joint management, has been divided as follows:—(i) Bhavnagar, including the Dhrangadra; (ii) Gondal-Porbandar, including the Jetalsar-Rajkot; (iii) Jamnagar; and (iv) Junagad.

Taxation of Railway Companies by Municipalities.—On this subject a notification has been issued, in substitution for previous notifications, specifying the taxes payable by any particular railway administration to any particular local body and by Railway Administrations to local bodies generally.

Deoghur Railway.—The Deoghur Railway Company's metre gauge railway, 4·12 miles, was purchased by the Government and added to the East Indian Railway Company's undertaking as from 1st July 1911. The latter company converted the line to broad gauge and commenced to work it on 9th November 1911.

Use of Local Manufactures for Railway Purposes.—Purchases of wagon frames and bodies built by local firms continued to be made during 1911 for the three State railways. It was also recently decided to extend the scope of the former orders regarding the purchase of articles of local manufacture in India. A Government test-house is being built and is nearly completed at Alipur, near Calcutta, under the Superintendent of Local Manufactures, with the object of carrying on mechanical tests of metals and of cement purchased in the local market for State railways and other Government Departments. It is also intended to have chemical tests performed in the test-house. A Government laboratory is also being erected at Kalimati, on the Bengal-Nagpur railway, in order to test on the spot the steel rails manufactured at Messrs. Tata and Sons' iron and steel works for State railways.

Coronation Durbar.—To deal with the exceptional traffic by this event, the North-Western State railway constructed a total length of 19 miles of railway, of which 10 were double line, together with the requisite buildings and yards. The arrangements proved adequate, and all traffic was handled with promptitude.

IRRIGATION.

(For further details see *Statistical Abstract for British India, Tables, 44-7, 68-9, 71, 74 to 76, 121, and 135.*)

The class of works dealt with by the Public Works Department under the head of Irrigation may be roughly divided into canals and tanks, though these two kinds of works are frequently used in combination. The works under the former head take off, 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 Deccan, 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. There remains the method of irrigation more extensively used in India than any other, viz., that by wells, which, however, does not come directly within the scope of operations of the Public Works Department.

Financially considered, the irrigation works are classed as "major" or "minor." The former class includes all the works which have been undertaken from loan funds, in the expectation that they would be sufficiently productive to cover the interest charges on the sums spent on their construction. It also includes the works classed as famine protective, which are constructed not from borrowed funds, but out of the annual grant from revenue for famine relief and insurance. The 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 old Native works, almost entirely reconstructed by British officers.

The following statement gives a general view of results obtained from working the canals for which full accounts are kept for 1908-9, 1909-10, and 1910-11:—

	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 - - - - -	35,311,300	3,509,633	1,218,613	2,291,020	6·49	14,162,860
Minor Works - - - - -	4,145,234	338,416	110,623	105,793	4·72	1,909,576
Total for 1910-11 - - - -	39,456,534	3,848,051	1,359,236	2,486,815	6·33	16,072,436
Total for 1909-10 - - - -	37,778,620	3,783,012	1,318,622	2,464,390	6·52	16,114,788
Total for 1908-9 - - - -	36,171,572	3,692,483	1,257,618	2,434,865	6·73	16,435,527

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 the revenue of the canals consists almost entirely of the share of the land revenue allotted to irrigation. Cultivation in Sind is dependent on the artificial supply of water, and the consolidated revenue from the irrigated lands is divided in the proportion of 90 per cent. to irrigation and 10 per cent. to land. In the 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 1910-11 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 on Capital Outlay.	Area irrigated.
	£	£	£	£		Acres.
Major Works - - -	4,714,382	170,306	104,009	66,297	1.46	898,934
Minor Works - - -	1,085,967	31,435	33,770	- 2,335	—	None*
Total for 1910-11 -	5,800,349	201,741	137,779	63,962	1.10	898,934
Total for 1909-10 -	5,718,313	209,700	127,020	82,680	1.45	951,524

* The minor works open in Bengal are navigation works.

During the year under review there were in Bengal six major irrigation works, two of which were classed as protective. Of the productive works, three combine irrigation with navigation, and the fourth (Hijili tidal canal) is purely a navigation work. The two protective works, the Dhaka and the Tribeni canals, were sanctioned in 1900-1, and are still in course of construction, the capital expenditure to the end of the year amounting to £37,323 and £367,456 respectively.

Besides the minor works for which full accounts are kept, there are four works of this class for which capital accounts are not kept, viz., the Nadia river system, the Gaighatta and Buxi Khals, and the Eden and Madhuban Canals. The first-named, comprising 516 miles of channel, is used for navigation purposes only.

Bombay, including Sind :—

—	Capital Outlay to beginning of Year.	Gross Receipts.	Working Expenses.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area irrigated.
	£	£	£	£		Acres.
Major works - - -	3,835,995	263,817	106,159	157,658	4.11	1,314,723
Minor works - - -	896,221	132,994	46,778	86,216	9.62	886,327
Total for 1910-11 -	4,732,216	396,811	152,937	243,874	5.15	2,201,050
Total for 1909-10 -	4,548,780	372,756	123,299	249,457	5.48	2,129,665

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 large reservoirs or tanks. In Sind the success of the irrigation operations is dependent on the regular rise of the River Indus.

In Bombay the season was on the whole a good one. In the northern division the important feature of the year's operations was the commencement of the works included in the Khari Cut extension project. The canal once more irrigated a record area; in the central division the number of acres irrigated was less, but the gross assessed revenue considerably greater than the average for the last 10 years. In the southern division there was a decrease of 3,287 acres in the total area irrigated by first-class works, resulting in a substantial decrease of revenue. The area irrigated under second-class tanks also showed a falling off; the revenue amounted to £14,779. On the Girna river the Chankapur storage works were completed and satisfactory progress was made with the Godaveri canal project; this work is estimated to cost £636,700, and to command an area of 239,698 acres.

In Sind the existence of cultivation depends upon irrigation, 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 the year 1910-11 the inundation was on the whole good and more favourable than that of the preceding year.

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 - - -	1,132,575	63,303	19,307	43,996	3.88	175,573
Minor Works - - -	262,440	88,777	18,759	70,018	26.68	459,103
Total for 1910-11 -	1,395,015	152,080	38,066	114,014	8.17	634,676
Total for 1909-10 -	1,310,824	149,053	32,313	116,740	8.91	658,311

In Lower Burma there are no large irrigation works. The expenditure recorded under the head of "Irrigation and Navigation" has reference to the river embankment and drainage works and navigation canals.

In Upper Burma various causes combined to diminish the area irrigated by the major irrigation works. Floods and cattle disease interfered with the use of the Mandalay canal system, and the absence, pending the revenue settlement, of differential rates for areas differing in advantage threw out of cultivation some of the land commanded by the Shwebo canal. The net revenue of the Mandalay canal declined by 1,400L., and showed a return of 4.45 per cent. on capital outlay as against 4.87 in 1909-10. The construction of the Mön and Ye-u canals was continued, and the former system has now been opened. The minor irrigation works likewise suffered from heavy rains and floods.

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 - - -	513,745	3,843	2,060	1,783	.40	19,069
Total for 1909-10 -	437,944	2,105	1,621	484	.11	24,844

Irrigation from works constructed by the State is at present a novelty to the people of the Central Provinces and Berar, and it is still necessary to offer its benefits on the most liberal terms in order to encourage their acceptance. The rainfall during the year 1910-11 was unusually heavy, and as a result of this the area irrigated (by all works) decreased from 37,365, the figure for 1909-10, to 25,356. The expenditure on protective works fell from £109,568 to £75,694, and on minor works from £32,659 to £30,236. The surveys for the Mahanadi canal and the Wainganga canal projects were completed, and sanction has now been given to

the commencement of work in both cases. 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, whereas 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. Preliminary work was also done on the Jamunia tank.

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 - - -	5,922,176	708,444	199,261	509,183	8·60	3,426,883
Minor Works - - -	1,251,170	50,267	20,025	30,242	2·42	357,671
Total for 1910-11 -	7,173,346	758,711	219,286	539,425	7·52	3,784,554
Total for 1909-10 -	7,106,331	741,846	203,509	538,337	7·58	3,763,649

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

The total outlay on irrigation works during the year 1910-11 amounted to £421,927 as against £441,733 in the previous year. The area irrigated by all classes of works, including first and second crops, was 7,173,543 acres. The total revenue realised was £1,704,843, an increase of £71,537 as compared with 1909-10. The season was favourable, and supplies for irrigation sufficient.

The investigations of the two large projects—the Kistna and Cauvery reservoir projects—were completed during the year. The estimates for the former, which provides for the irrigation of over 600,000 acres, amounting to over £5½ millions, were submitted to the Chief Engineer for Irrigation, and estimates for the Cauvery project, amounting to over £2½ millions, were submitted to the Government of India. The Cauvery scheme provides for the irrigation of some 400,000 acres, and is expected to make a return of 6·93 per cent. on capital.

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 (1910-11) -	783,038	50,860	22,229	28,631	·69	220,576
Major works (1909-10) -	636,259	55,160	18,678	36,482	5·73	223,653

At the end of 1910-11 three major works were in operation in the North-West Frontier Province. A fourth—the Upper Swat River canal—is in course of construction. The Lower Swat River Canal showed a return of 10·30 per cent. on capital outlay as against 10·93 in the previous year.

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 - - -	10,998,849	1,561,130	520,153	1,040,977	9·46	5,943,750
Minor Works - - -	37,282	7,832	5,767	2,065	5·54	72,070
Total for 1910-11 -	11,036,131	1,568,962	525,920	1,043,042	9·45	6,015,820
Total for 1909-10 -	10,176,594	1,499,966	532,909	967,057	9·53	5,827,354

As the above figures show, the year was a very favourable one. The Sidnai Inundation Canal showed a return of 31·72 per cent. on capital, the Lower Chenab 28·66, the Upper Sutlej 18·88, and the Upper Bari Doab and the Lower Jhelum nearly 12 per cent. each. The construction work on the Upper Jhelum, Upper Chenab, and Lower Bari Doab canals is nearing completion. The expenditure on this scheme amounted to £792,000.

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 - - -	7,410,540	687,927	245,435	442,492	5·97	2,163,352
Minor Works - - -	206,133	14,641	9,740	4,901	2·38	106,982
Total for 1910-11 -	7,616,673	702,568	255,175	447,393	5·87	2,270,334
Total for 1909-10 -	7,460,980	739,462	270,549	468,913	6·29	2,514,163

Good progress was made with the Pahuj and Garhinai canals and with works on the Betwa, Ken, and Dassan canals. The estimated value of the crops raised by canal water was £7,376,261, or about £3 5s. per acre.

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 1910-11 under the various heads is shown in the following table :—

	Central Provinces and Berar.	Burma.	Eastern Bengal and Assam.	Bengal.	United Provinces of Agra and Oudh.	Punjab.	North-West Frontier Province.	Madras.	Bombay.	India General.	Total.
	£	£	£	£	£	£	£	£	£	£	£
Imperial - - -	55,088	16,975	17,156	115,364	55,918	29,484	137,764	26,967	71,945	85,851	612,512
Provincial* - - -	383,038	569,350	428,687	437,269	471,028	341,849	—	635,836	555,444	—	3,822,501
Total - - -	438,126	586,325	445,843	552,633	526,946	371,333	137,764	662,803	627,389	85,851	4,435,013

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

Expenditure by Civil Officers from Imperial Funds £ 21,190
Expenditure in England - - - £ 80,464
Grand Total - - - £ 4,536,667

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 under review is given under the heads of the different provinces in which the expenditure was incurred :—

Bengal.—The principal buildings constructed for the Imperial Government were the new Commerce and Industry Secretariat, some new offices and vaults for the Paper Currency Office in Calcutta, a new Press building and new Stamp and Stationery Office buildings.

The most important Provincial works were a new Civil Court at Cuttack, staff quarters, and a Press building for the Alipore jail, and at Calcutta a new barrack for police, the "Baker hostel" for Muhammadan students, two fresh blocks in the Medical College, and the extension and improvement of the Indian Museum.

Bombay.—Under Imperial works, a concrete dome was constructed over the central hall of the new General Post Office at Bombay, and the residence for His Highness the ex-King Thebaw of Burma at Ratnagiri was completed. Under Provincial works, £46,700 were expended on police buildings, £40,000 on medical buildings, £36,700 on land revenue buildings, and £30,000 on educational colleges and schools. A total sum of £121,700 was spent on communications, the principal new works in progress being the bridges over the Kadwa, near Konkagaon, and over the Krishna at Mahuli.

Burma.—During the year arrangements were completed for transferring to the Public Works Department all District and District Cess Fund projects requiring technical skill, and a redistribution of Public Works administrative charges is foreshadowed in consequence. The expenditure on Provincial Civil Works was slightly greater than in the previous year, but far less than it has been in some recent years. Only 27 per cent. of the expenditure was devoted to new works. The new General Hospital at Rangoon was completed during the year and is said to form one of the most imposing buildings in the East. The Chief Court was also finished.

Central Provinces and Berar.—The total expenditure was £373,000, of which about £163,000 was on original works. The new Secretariat building at Nagpur was completed at a cost of £64,700, which exceeds the original estimate by about £2,200. The expenditure on public works was somewhat restricted, because the heavy expenditure on relief during 1907–8 had depleted the provincial balance.

Eastern Bengal and Assam.—At Dacca over £11,000 was spent on the new Government House, and preparations were made for building quarters for European and Eurasian clerks. The new Secretariat building was completed at a total cost of £86,400. More than £2,500 was spent on new roads and £3,800 on drainage.

Madras.—There were no Imperial works of importance in progress, and the year's expenditure, which was practically the same as last year's figure (£356,700), came almost entirely under the heads of Provincial and Local civil works.

Among the larger works in the year's programme were new Collectors' offices at Vizagapatam, Guntur and Madura, a Police Recruits' school and subsidiary works connected with the Agricultural College at Coimbatore and a new Council Chamber at Fort St. George.

Under the head of Communications work on the Indravati Bridge was commenced and good progress was made on the Berhampur and Salem water supply schemes, in spite of heavy rains and plague at the latter place.

North-West Frontier Province.—No works of any great importance were carried out during the year, but a large number of buildings of considerable local utility were continued, notably the new district offices, a jail, and two blocks of hospitals at Peshawar.

Punjab.—Imperial works in progress during the year included a laboratory and residence for the officer investigating camel diseases at Sohawa and for his staff, outhouses for the Rawalpindi Post Office, and the fitting up of an official residence in Simla for the President of the Durbar Committee. Further progress was made with the scheme for providing quarters for the European clerks of the Government of India.

Under Provincial civil works, the following buildings, among others, were completed or in progress, viz., District Court buildings at Dharmasala and elsewhere, extensions and improvements to Barnes Court, Simla, Government College, Lahore, and the Agricultural College at Lyallpur, police stations at various centres, and a court and residence for the Assistant Commissioner at Fazilka.

United Provinces.—The expenditure during the year was £679,700, about £36,000 of which was spent on Imperial works, £2,200 on famine relief works, and £408,000 on provincial works. Imperial works in progress include a Gurkha recruiting dépôt at Gorakhpur and a combined seismograph and base-line apparatus room at Dehra Dun. Among provincial works completed during the year were the Government High School at Agra and the Agricultural College at Cawnpore. Work was begun on the hospital building in connection with the Medical College at Lucknow, and about £32,000 was spent on this work and on the equipment of the college and hospital. The mileage of metalled roads maintained rose from 6,502 to 6,612, and that of avenues from 1,823 to 1,928.



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.)

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 (—).
	£	£	£
1908–9	1,825,620	1,896,753	– 71,133
1909–10	1,927,229	1,927,582	– 353
1910–11	1,996,922	1,950,892	+ 46,030

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.	Village Postmen.	Length of Postal Lines.*
	No.	No.	No.	Miles.
1908–9	18,399	43,577	8,299	156,422
1909–10	18,642	45,753	8,378	156,761
1910–11	18,813	46,884	8,380	157,759
Increase or decrease in 1910–11 as compared with 1909–10	+171	+1,131	+2	+998

* Including the Bombay-Aden line.

The general correspondence returns, of which a summary is given below, show an increase exceeding 25 millions of articles (excluding money orders) for 1910–11 as compared with the figures for 1909–10. Of the additional articles over 14 millions were postcards.

YEAR.	Letters and Postcards.	Newspapers.	Book and Pattern Packets.	Parcels.	TOTAL.
	No.	No.	No.	No.	No.
1908–9	767,922,728	50,107,799	51,084,486	6,140,819	875,255,832
1909–10	809,308,372	51,395,989	52,407,534	6,412,232	919,524,127
1910–11	832,115,346	49,252,161	56,918,178	6,861,927	945,147,612
Increase or decrease in 1910–11 over 1909–10	22,806,974	2,143,828	4,510,644	449,695	25,623,485

Alterations in Postal Arrangements during 1910–11.—During the year there were few changes in the inland postal arrangements which directly affected the public. Prepayment in full of postage on postcards was made compulsory and the transmission by inland post of gold bullion exceeding Rs. 300 in value was prohibited. As regards foreign post, the Imperial penny postage scheme was extended to certain States in the Malay Peninsula; a telegraphic money order service was introduced between India and the Seychelles; and a system of direct exchange of money orders was arranged with Norway.

Amount of Postal Matter dealt with.—The total number of articles received for delivery, including money orders, was over 970 millions, of which, it is estimated, 99·74 per cent. were actually delivered or paid, as compared with 99·67 per cent. in the preceding year.

In 1910-11 the receipts of postal articles (excluding money orders) at the dead-letter offices were 8,837,827; of this number, 6,336,021 articles were either delivered to addressees or returned to senders, and 2,501,806 could not for various reasons, such as the absence of an address, be similarly treated. This last figure, as indicated above, is only 26 per cent. of the total number of articles received for delivery.

The following table gives an estimate of the amount of postal matter exchanged with the United Kingdom and with other countries in 1909-10 and 1910-11:—

Correspondence exchanged.	With United Kingdom.			With other Countries.			Total.		
	1909-10.	1910-11.	Increase.	1909-10.	1910-11.	Increase.	1909-10.	1910-11.	Increase.
Letters and Postcards	22,250,000	24,783,000	2,533,000	11,833,000	12,239,000	406,000	34,083,000	37,022,000	2,939,000
Newspapers, Book packets, and Samples.	13,000,000	14,567,000	1,567,000	7,500,000	9,597,000	2,097,000	20,500,000	24,164,000	3,664,000
Total	35,250,000	39,350,000	4,100,000	19,333,000	21,836,000	2,503,000	54,583,000	61,186,000	6,603,000

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

	1909-10.	1910-11.	Increase or Decrease.
INSURANCE OF LETTERS AND PARCELS:—			
Number of articles insured	1,044,957	1,169,428	+124,471
Number of claims admitted	59	51	—8
Net payment in respect of claims	£278	£271	+£93
Receipts from Insurance Fees	£23,440	£23,440	+£1,200
VALUE PAYABLE POST:—			
Number of articles sent	6,815	7,354,915	+483,936
Value specified for recovery	£5,300	£5,831,700	+£498,400
MONEY ORDERS:—			
Value of Ordinary Inland Orders issued in India	£24,711,000	£25,644,449	+£898,496
“ Telegraphic Money Orders	£1,899,036	£2,256,448	+£357,412
Average value of an Inland Money Order	Rs. 16 a. 11 p. 8	Rs. 16 a. 14 p. 2	+ 2 a. 6 p.
“ “ “ a Telegraphic Money Order	Rs. 85 a. 7 p. 2	Rs. 82 a. 9 p. 4	—Rs. 2 a. 13 p. 10
Value of Foreign Orders issued in India	£563,751	£538,871	—£24,880
“ “ “ paid	£1,499,429	£1,862,208	+£362,779
SAVINGS BANK:—			
Number of Post Offices transacting Savings Bank business at end of year.	8,767	8,929	+162
Number of accounts in Post Office Savings Banks	1,378,916	1,430,451	+51,535
Amount of Deposits at beginning of year	£10,156,101	£10,578,119	+£422,018
“ New Deposits during year	£3,702,887	£4,028,045	+£325,158
“ Interest credited	£298,493	£308,191	+£9,698
“ Withdrawals	£3,579,362	£3,635,140	+£55,778
Amount of Deposits at end of year	£10,578,119	£11,279,215	+£701,096
Securities held on behalf of Depositors at end of year	£429,930	£473,330	+£43,400
Number of Accounts classified according to class of Depositor—			
I. Professional	441,565	459,771	+18,206
II. Domestic	233,876	241,104	+7,228
III. Commercial	57,047	59,735	+2,688
IV. Agricultural	30,747	32,395	+1,648
V. Industrial	52,228	54,061	+1,833
VI. Indefinite (including persons whose incomes are derived from others).	563,453	583,385	+19,932
LIFE INSURANCE AND ANNUITIES:—			
Number of policies in existence at end of year	19,249	20,247	+998
Sum insured	£1,773,075	£1,875,006	+£101,931

Offences.—During the year under review there were 23 cases in which the mails were plundered by highway robbers, of which 17 were in British territory and 6 in Native States. The figures for the preceding year were 19 and 10 respectively.

The number of cases in which the servants of the Post Office were found guilty of offences punishable by the law was 492. The defalcations and losses amounted to £2,373, as compared with £3,130 in 1909-10. A sum of £1,341 was recovered from the offenders or their sureties; £57 was charged against the Post Office Guarantee Fund, and the remainder was written off as irrecoverable or remained unadjusted at the close of the year.

Staff.—The total staff of the department numbered 93,062 on 31st March 1911, as compared with 92,163 on the corresponding date in 1910.

Sale of Quinine.—To facilitate the supply of the drug, especially in cases of malaria, quinine is sold at Post Offices throughout India. The supplies issued to Post Offices in 1910-11 greatly exceeded those issued in the previous year owing to the substitution of 10 grains of quinine for the 7 grains in the pice packets.

TELEGRAPHS.

The following statement refers to the whole of the telegraph system under the direct control of the Government of India, but excludes the Indo-European Department, extending from Karachi to Teheran and Fao, for which, as usual, a separate account is given. The system now consists of 74,413 miles of line, 287,940 miles of wire, and 416 miles of cable.

The principal event of the year was the introduction of the circle scheme, preliminary measures for which had been taken in the previous year. The changes included the formation of eight circles, each in charge of a Director, coterminous with the existing postal circles, the increase of the number of divisions from 20 to 34 and the abolition of all sub-divisions, the delegation to Directors of many of the powers previously exercised by the Director-General, and the formation of a purely technical branch under an electrical Engineer-in-chief. Though matters have not yet settled down thoroughly, the scheme has been successfully introduced.

Other events of interest were the abolition of the surtax on radio-telegrams exchanged between Calcutta and the pilot vessel at the Sandheads, and the reduction of the rates for telegrams between Burma and Ceylon to 3 annas per word, and of the rates for press telegrams between India and Burma on the one side and Aden and Perim on the other from 8 annas to 6 annas per word.

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.
Up to beginning of 1906-7	*6,204,505	64,383	243,212	279	2,309	3,919	6,228
During 1906-7	379,798	2,814	15,648	42	129	142	271
“ 1907-8	272,745	1,371	10,529	50	106	179	285
“ 1908-9	239,671	1,140	8,342	—14	114	75	189
“ 1909-10	167,955	2,712	5,643	—30	104	148	252
“ 1910-11	147,555	1,993	4,566	89	94	—54	40
To end of 1910-11	7,112,229	74,413	287,940	416	2,856	4,409	7,265

* Excludes £6,861 cost of cable lines transferred to Military Works Department on the 1st April 1899.

A general view of the operations of the Department in 1910-11, in comparison with those of the four previous years, will be gained from the following statement:—

Year.	Number of Messages during Year.	Gross Receipts, including State but excluding <i>pro forma</i> Revenue.	Charges.	Net Receipts.	Percentage of Net to Gross Receipts.	Return on Capital.
		£	£	£		
1906-7	11,385,166	827,744	644,205	183,539	22.17	2.79
1907-8	12,749,923	875,778	752,411	123,367	14.08	1.80
1908-9	13,006,778	874,795	783,022	91,773	10.49	1.29
1909-10	12,084,697	795,828	807,519	—11,691	—	—
1910-11	13,090,228	840,517	791,833	48,684	5.79	.66

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 1910-11 the receipts of the Department were sufficient to defray the working expenses, and about 33 per cent. of the capital expenditure incurred during the year, leaving a charge on Government revenues of £98,871.

The gross receipts exceeded those of 1909-10 by £44,689, but were less than those for 1907-8—the best on record—by £35,261. The improvement as compared with 1909-10 was due almost entirely to an increase in message revenue consequent on the recovery of internal trade from the depression of the previous year. Working expenses, on the other hand, were less than in 1909-10 by £15,686, the saving being due chiefly to less expenditure on office stores. The net result for the year was a gain on working amounting to £48,684.

The number of telegrams sent in 1910-11 exceeds the highest number for any previous year by 64 per cent. The value of paid telegrams, though showing an increase of 7·26 on the figure for 1909-10, is 7·77 below the highest figure.

The following figures show, for the last two years, the division of the traffic between State and Private, and between Inland and Foreign, messages respectively :—

Class of Telegram.	1909-10.		1910-11.	
	No.	Value.	No.	Value.
Inland State - - -	834,435	£ 51,437	989,459	£ 58,579
Foreign State - - -	15,174	3,640	16,986	4,235
Total State - - -	849,609	55,077	1,006,445	62,814
Inland Private - - -	9,963,541	376,067	10,683,675	391,568
Foreign Private - - -	1,271,517	144,027	1,400,108	162,538
Total Private - - -	11,235,088	520,094	12,083,783	554,106
Total State and Private -	12,084,697	575,171	13,090,228	616,920

The subscriptions to the Telegraph Department for telephone and similar services rendered during the calendar year 1910 amounted to £35,803, being an increase of £3,211 over the figures of the previous year. The average annual subscriptions for the past five years amounted to £27,001.

The interruptions in 1910-11 show some increase both in number and duration on those of the previous year. In particular, the whole of the Eastern Bengal and Assam circle was seriously affected by floods during the months June to August.

In radio-telegraphy the chief event of the year was the placing of a contract with the Marconi Company for three stations with a range of 600 miles at Calcutta, Allahabad, and Delhi, and one station at Simla with a range of 300 miles. The material for these stations had not arrived at the close of the year.

INDO-EUROPEAN TELEGRAPH DEPARTMENT.

The system of telegraph lines and cables connecting the terminus of the Indo-European Company's telegraphs at Teheran and 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, 2,727 miles of line, and 6,984 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.

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

Year.	Total Capital Outlay.	Gross Receipts.*	Expenditure	Net Receipts.	Percentage of	
					Net Receipts to Capital.	Expenditure to Gross Receipts.
	£	£	£	£		
1906-7 - - -	988,204	102,674	72,104	30,570	3·09	70·22
1907-8 - - -	997,094	109,002	75,690	33,312	3·34	69·44
1908-9 - - -	998,142	103,689	75,287	28,402	2·84	72·60
1909-10 - - -	1,000,263	111,489	72,084	39,405	3·93	64·65
1910-11 - - -	999,966	121,687	74,749	46,938	4·69	61·43

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

The gross earnings of the year increased by £10,198, due to a greater volume of both Indian and trans-Indian traffic. Working expenses increased by £2,670. The net increase was mainly due to extra payment on account of "subsidies" to chiefs in Mekran and British Baluchistan, to compensation paid to officers for robberies in Persia and enhanced expenditure on the repair of lines in Persia. The decrease of £297 in the capital account which took place during the year 1910-11 was mainly due to more stores having been issued than added to from stock during the year. On the other hand, the expenditure on the wireless installation at Jask was a set-off against this saving.

The number of messages transmitted during the year amounted to 337,161, being an increase of 23·01 per cent. as compared with 1909-10, due, as explained above, to an increase in traffic.

Under the Joint Purse Agreement, the share of the Department was £11,194 more than last year, being £126,500, as against £115,306 in 1909-10. This was principally due to the increase of traffic mentioned above. The amount paid into the Joint Purse for the year under review was £73,783.

The Departmental receipts from the Australasian Message Fund for 1910-11 amounted to £6,562, being £513 more than in 1909-10, and an increase of £327 on the receipts for 1899, on which the original Australasian Message Fund was based.

There were no total interruptions between Karachi and Teheran during the year, but between Teheran and London the lines were totally interrupted for an aggregate of 13 days 6 hours. On the Turkish route interruptions occurred between Fao and Constantinople lasting 52 days 14 hours 30 minutes, but this compares favourably with the record of the three previous years, for which the average figure was 159 days. Acts of wilful damage again increased, numbering 1,403, or 19 more than in the preceding year.

CHAPTER XIII.

SCIENTIFIC DEPARTMENTS.

GENERAL.	AGRICULTURAL DEPARTMENTS.
BOARD OF SCIENTIFIC ADVICE.	CIVIL VETERINARY DEPARTMENT.
SURVEY OF INDIA.	FOREST RESEARCH INSTITUTE.
OTHER SURVEYS.	ARCHAEOLOGICAL DEPARTMENT.
METEOROLOGICAL DEPARTMENT.	MEDICAL RESEARCH INSTITUTES.

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 1910-11 expenditure on Scientific Departments amounted to about £730,000, against which must be set about £70,000 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, Survey, 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's report for 1909-10 was published in 1911.

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. The latest available information on most of these matters relates to the year ended 30th September 1910. The total cost of the Department for that year was about £223,000. The Department has been materially expanded during the last few years. A reorganisation of the establishment was carried out in 1909-10.

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.

During 1909-10 field operations were carried on by 18 survey parties. Twelve parties were employed on topographical, cantonment, and forest surveys; one on triangulation; one on levelling operations, and four on purely scientific operations.

Trigonometrical Survey.—The work of the triangulation party included principal triangulation on the North Baluchistan, Kashmir, and Upper Irrawaddy series, secondary triangulation in Upper Burma and Assam, and tertiary triangulation in Kashmir. Eleven thousand and eighty sq. ms. of principal, and 2,210 of secondary, triangulation were completed.

Special Operations.—The pendulum observations undertaken in 1908-9 in Central India with the object of investigating the structure of the Vindhya and Satpura ranges were extended to the east and north-east.

Tidal and Levelling Operations.—Observations were made at nine tidal stations by means of self-registering tide gauges. Three detachments were engaged on levelling operations.

Magnetic Survey.—Two detachments were employed on re-observations and detail survey, one on detail survey, and a fourth on survey along the outer Himalaya.

Topographical and Forest Surveys.—The total outturn of the topographical surveys during the year was 46,101 sq. ms., of which 7,513 sq. ms. were covered in the Shan States. All reserved forests are now surveyed, principally on a scale of 2 inches to the mile, in the course of the general programme. During the year forest surveys were carried out in five provinces.

Headquarters Offices.—The general maps are still far from completion, but satisfactory progress is being made. The number of maps issued during the year was 142,421.

OTHER SURVEYS.

Marine.—The service possesses two marine survey vessels, the "Investigator" and the "Palinurus," thoroughly equipped for modern requirements.

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 1910 by surveys in Assam, Burma, Rajputana, Central India, Kashmir, the Central Provinces, and the Punjab. Various economic investigations, which form an increasingly important part of the Department's work, were conducted. These included the revision of the map of the Raniganj coal-field, and inquiries into occurrences of coal in Assam, Burma, and the Punjab, monazite in Travancore, &c. An officer has been deputed for continuous residence on the Burma oil-fields. Many applications were received for advice regarding the search for artesian water in various parts of India, and special investigations on this point were carried out in Bombay and Madras Presidencies. A representative of the Department attended the International Geological Congress at Stockholm.

Botanical.—The botanical survey has been placed on a more regular footing. It now includes the Department of Economic Products, and the staff has been increased. Officers of the survey serve as economic botanists to local Governments. Much of the systematic botanical work of India is done for the Department by forest officers and others outside.

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 283 observation stations (of which 51 were non-departmental) at the close of 1910-11, 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. Experimental work for determining the conditions of the upper air by means of small free balloons was temporarily abandoned at the end of the year. Special investigations comprised wind observations, solar and terrestrial radiation observations, sunshine observations, seismological observations, barometric observations, and observations

of temperature. Great attention is now paid to the correct registration of rainfall. 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. Warnings of approaching storms are sent to ports on the Bay of Bengal from Calcutta, and to ports on the Arabian Sea coast from Simla. The system of flood warnings to canal, civil, and railway officers, to military officers, and to private firms continued to be useful, and 2,649 such warnings were issued during 1910-11. The publication of the meteorological atlas of the Indian seas has placed a large amount of valuable information at the convenient disposal of ship captains.

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.

India has hitherto possessed an Imperial Department of Agriculture, under an Inspector-General and an Assistant Inspector-General. The Inspector-Generalship, however, is being abolished as, with the rapid advance of the provincial departments, an Imperial adviser has ceased to be necessary. There are nine provincial Departments of Agriculture under Directors and (usually) Deputy-Directors. To the Imperial Department is attached the Pusa Central Research Institute and Agricultural College, which has been provided with a Director and European experts in agriculture, entomology, botany, mycology, chemistry, and bacteriology, together with a cotton specialist. Further, there have been established in six provinces an agricultural college and a research station, equipped with laboratories and class-rooms, and connected with a farm of suitable size. The principals of the colleges have a staff of chemists and botanists. In Eastern Bengal and Assam there is a special fibre expert. In the various provinces there is a number of agricultural stations and of botanical, horticultural, and agri-horticultural gardens. 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 seventh meeting at Pusa in November 1911. Agricultural memoirs and an agricultural journal are published.

Pusa Research Institute.—The Phipps Laboratory at Pusa is now fully equipped. Pusa is chiefly a higher teaching institution for post-graduate studies in one branch of research. Short practical courses are also given in such subjects as sericulture, lac culture, cattle and poultry breeding, &c. These courses are reserved for agriculturists, and students aiming at Government posts are usually not admitted thereto. During 1910-11 experiments were undertaken in connection with manures and permanent pasture. Many kinds of crops were under trial. The hop industry in Kashmir and fruit growing in Baluchistan were specially studied. The breeding and rearing of farm live stock and poultry is also undertaken. A dairy is contemplated. Special attention has recently been paid to wheat. Samples of the wheats grown at Pusa are tested in England for milling and baking, and the results of the tests should have a favourable influence on the Indian wheat trade. Experiments are also in process for strengthening the rust-resisting powers of Indian wheat by hybridization. There is an extensive demand in India for the Pusa wheat for seed. A general study of oil-seeds has been started on similar lines to the wheat investigations. A study was made of drainage and the water requirements of crops. The plant diseases (e.g., in the tea-plant and palms) due to particular parasites have been studied. The entomologists have conducted experiments in eri and mulberry silk, while practical

instruction has been given in lac cultivation. The Imperial Cotton Specialist has been examining the varieties of cotton in different provinces and making recommendations as to their cultivation.

A brief sketch will now be given of the work carried out in each province during 1909-10 in connection with agricultural development.

Bengal.—The provincial agricultural college at Sabaur was opened in November 1910. Twenty-one students were admitted during the first year. There are six Government stations, besides a demonstration farm at Kalimpong. The Chaibassa tussar farm has been closed. There are also demonstration farms on certain Wards' estates, and others run by agricultural associations. The Bengal Provincial Agricultural Association met three times to discuss agricultural problems. Each of the divisions now has its agricultural association, and there are also district associations. The Behar Planters' Association are publishing the report of a flax expert who was had out from Belgium. They are also taking up sugar cultivation on an extensive scale. The 23 agricultural shows and fairs held during the year received grants-in-aid from Government, and at most of them the Department exhibited seeds, manures, and improved implements.

Samples of food-stuffs, manures, and soils were analysed. Researches and experiments were conducted in connection with the soy-bean, sugar-cane, and pulses. The indigo research work at Sirsiah was retarded by a flood. Investigations were made regarding diseases and pests that attack jute, potato, sugar-cane, paddy, and other crops. Experiments were made with sugar-manufacturing machinery. Besides their quarterly journal and various notes and reports, the Department published several leaflets for popular distribution. Large quantities of seeds, manures, and agricultural implements were issued from the Government store.

The Director, aided by a committee including four silk experts, is inquiring into the improvement of the Bengal silk industry, which had declined owing to the prevalence of disease. A central nursery with mulberry farm and rearing houses at Berhampore has been completed, and others have been, or are being, established. Six sons of professional rearers have been trained. Efforts to improve the native breed of worms having failed, experiments are to be made in hybridization. The services of a French expert will be engaged.

Work in connection with inland fisheries has been incorporated with that of the Department, and a Deputy Director and two Superintendents have been appointed. Besides investigations of special features, a fishery survey of the different districts has been undertaken.

United Provinces.—The Agricultural Court at the United Provinces Exhibition at Allahabad was a conspicuous success, and has greatly stimulated the interest of land-owners in the use of labour-saving implements and machinery. The use of power-plant for pumping, and the manufacture of white sugar by machinery that does not involve the use of ingredients objectionable to the orthodox Hindoo, excited special attention. Thus the remarkable growth of public interest in the improvement of agriculture in the province which has been noted in recent years has been fully maintained. This increase of interest has led to many requests for advice, &c., and to a large sale of improved ploughs and other implements by the Department. The seed depôts, which issue wheat, cotton, ground-nut, and other seeds to cultivators, are much appreciated. The well-boring staff was less in demand, owing to the character of recent seasons. Investigations of cotton, sugar-cane, wheat, maize, ground-nut, manures, &c. were in progress at the six agricultural stations. Vernacular pamphlets were issued on ensilage and certain insect pests. The Urdu agricultural journal increased its circulation. There were several shows and fairs. The Cawnpore Agricultural College entered into permanent buildings, and 34 students obtained diplomas. Fifty-six students were trained for sugar-making at the Partabgarh centre.

Punjab.—The Agricultural Department is already making its influence felt, especially in the canal colonies, in which an agricultural station and seed farm are situated. A second agricultural station at Gurdaspur was opened in 1910, but has not yet issued its first experimental report. The Department has been chiefly occupied in experiments with new and improved varieties of cotton, wheat, &c., and with the introduction of reapers, ploughs, and other agricultural machinery which, owing to scarcity of labour, is growing in popularity. A commercial firm have deemed it worth while to relieve the Department of the work of distributing such machinery, the Department confining itself to demonstrating its use and instructing new purchasers.

As wheat occupies a third of the cultivated area of the province, the question of its classification and standardization receives much attention. The exporters demand "white" wheat, but the "red" varieties have been found to be "stronger" for milling and baking. The present aim of the Department is to ascertain what wheat gives the best average yield over a series of years, and to encourage its adoption irrespective of colour or "strength." As regards cotton, careful selections have been made of the American and indigenous types which do best in the Punjab. Short-stapled cottons, which give heavier yields than long-stapled, seem to be the most profitable at present. Experiments have been made in date cultivation and poultry farming. The distribution of silk-worm seed continues. The well-boring operations urgently need the supervision of an European agricultural engineer. The second year of the Lyallpur Agricultural College was fairly successful, although only 65 students—49 below the full complement—were in residence. The students show a commendable readiness for manual work.

North-West Frontier Province.—Experiments made with cotton in two districts were not very conclusive. A superintendent has been placed in charge of the Tarnab farm, which it is hoped to make a centre for agricultural experiments for the province. Special attention is here being paid to fruit culture, which is of particular importance in this province.

Central Provinces and Berar.—The superior staff of the Department is at present insufficient for the work that should be done. A larger subordinate staff is also needed for the important work of demonstration, which is being extended in co-operation with the Irrigation Department. The Agricultural College at Nagpur was well attended. Provision is being made for proper laboratories and for instruction in entomology and agricultural engineering, and the instructional farm for practical work is an important feature. There were 52 students. The "Agricultural Gazette" increases in popularity, and its circulation has risen to 5,865 copies. There are four agricultural stations, and three more are to be started. There are also seed farms which distribute selected wheat, cotton, and other seeds. Progress was made in experiments with cotton, juar, and wheat. Demonstration work to show the advantages of transplanting instead of broadcasting rice was carried out in the Chhattisgarh Division, where 6,000 acres were transplanted in the year under the advice or help of the Department. Attention is being turned to sugar-cane in the Wainganga Division. The cotton-seed farms in the Berar cotton tract grew no less than 112,000 lbs. of seed. Much attention has been paid to the demonstration of improved implements, and arrangements have been made by which a private firm will work at the improvement of such implements on the lines suggested by the Department, which has agreed to sell them. The District Agricultural Associations, consisting of representative landowners, show an active interest in improvements, and are an invaluable link between the Department and the farmer.

Burma.—The European staff has received a much needed addition, and in June 1911 the province was divided into two agricultural circles. The agricultural station at Mandalay was fully worked, and a second station has been established at Hmawbi. There are six experimental gardens. Experiments in paddy, wheat, tobacco, and other crops were also carried out through district agency. It is proposed to create a staff of vernacular agricultural demonstrators, who will serve as intermediaries between the Department and the public, especially the co-operative credit societies, with whom the Department is in close touch. Experiments have established the culture of moisture-resisting paddy in Akyab and ground-nuts in the dry zone. Wheat is being introduced in Bhamo, chiefly with a view to supplying the outposts of the Military Police. Cotton experiments are in progress, but the most suitable varieties for cultivation in Burma have not yet been determined. A careful study is being made of the typical paddy soils of Burma, this being by far the most important crop of the province. There is a growing interest in the working of the Department, especially on the part of the co-operative credit societies.

Madras.—The recently appointed mycologist is chiefly occupied with the study of the Palmyra palm disease. Many insect pests have been dealt with, and an Entomologist was appointed temporarily in May 1911. The Coimbatore College of Agriculture has turned out its first batch of three-year students. Much useful experimental and demonstration work on the main crops was done at the 10 agricultural stations. Cotton-seed was in great demand and, by careful selection, a superior strain has been obtained. The cultivation of the Mauritius sugar-cane

shows most gratifying progress, and its wide extension in the suitable tracts of South Arcot is hoped for.

Successful efforts are being made to popularise the single-plant method of planting paddy. There was a further increase in the number of water-lifts used for irrigation and for improved ploughs and harrows. A dozen leaflets were issued on all varieties of agricultural subjects. The ryots are on good terms with the officers of the Department. They visit the farms, buy seeds largely, and adopt improvements recommended. The agricultural associations, however, are in a far from flourishing condition, and the exhibitions held during the year were not of much practical value.

Bombay.—The year was one of well-sustained activity. Experiments in cotton selection were carried on in Surat, Dharwar, Khandesh, Nadiad, and the Sind agricultural stations. Successful results were obtained in hybridization and selection as between Cambodian, American, and native cottons. Now that definite conclusions may be considered as established, both regarding the areas suitable for exotic cotton and the best varieties of such cotton, the problem remains to apply on a large scale and the knowledge thus obtained. The irrigation and manuring of sugar-cane and the question of sugar-machinery were studied at Manjri, Karanja, and Sholapur. Wheat selection continued, and excellent results were obtained with selected and hybridized seeds. Similar experiments with jowar seed are expected to produce good results in due course. Other crops which are being studied are tobacco, ground-nuts, and grain. A series of experiments is being carried out to test the comparative results of deep and shallow ploughing, and the problems of weeding black soil and of storing fodder received attention. A new farm was opened at Alibag.

The Poona Agricultural College is now completed, save for the Students' Hostel. There is a demand for trained agriculturists on the part of large landholders and native states. A Vernacular Agricultural School which has been established at Poona is proving successful in educating practical agriculturists. There are 38 Agricultural Associations, many of which are doing useful work. Twenty-nine shows and demonstrations were held.

Eastern Bengal and Assam.—Three appointments of Agricultural Supervisors have been sanctioned, and a staff of fieldmen demonstrators is being trained at the agricultural stations. The raiyats are very conservative, and need advice and the demonstration of new methods. New crops and improved methods have been successfully introduced in the hill tracts, but the chief essential is to awaken interest in the fully introduced in the hill tracts. There are seven agricultural stations and a newly-teeming population of the plains. Much attention was paid to soil analysis and opened research laboratory at Dacca. Much attention was paid to soil analysis and manures. Successful experiments were made with Mauritius sugar-cane; and potatoes, tobacco, paddy, fodder crops, green manure crops, and cotton were the subjects of demonstration and seed-distribution. The Fibre Expert has obtained interesting results from the investigations regarding the selection of jute. The Department continued its sericultural operations in the Rajshahi Division and the Khasi Hills. The aim is to produce and sell seed guaranteed pure. Four apprentices passed through the Sericultural School at Rajshahi. Exhibitions were held at Comilla and Malda in which the Department took part. It also contributed to the Allahabad Exhibition. The province shares with Bengal the new Agricultural College at Sabaur, where six students from the province are now being trained.

CIVIL VETERINARY DEPARTMENT.

The Department has made very satisfactory progress, and further work cannot be undertaken without an increase of staff. The subordinate staff, though increasing yearly, is still far below sanctioned strength. A larger European staff, as well as a larger and more highly trained native subordinate staff, are greatly required. The total cost of the Department (Imperial and Provincial) was £135,000.

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 has been 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. The Deccan district of Bombay reverted to the control of the Civil Department in 1910-11. 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 1910-11, 79 horse, 109 pony, and 105 donkey stallions, mostly located in the United Provinces and the Punjab. The district stallions covered 12,882 mares in 1910-11. Donkey stallions are in increasing demand.

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 58 Government bulls and 680 bulls owned by district boards, the great majority of the latter being in the Punjab. There were seven provincial cattle farms, viz., two in Bengal, one in Eastern Bengal and Assam, one in the United Provinces, one in Bombay, and two in the Central Provinces. The most important centre of cattle breeding is the Hissar Government Cattle Farm, in the Punjab. This farm contained 21 herd bulls and 1,222 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. Attempts are being made at Hissar and in other parts of India to improve the breed of sheep by introducing merinos. The offer of prizes at camel fairs to encourage the breed of camels has not proved a success.

Horse and Cattle Disease.—Over one-half of the 229 reported cases of glanders were in Bengal. The policy of granting compensation to owners of animals destroyed for glanders has greatly facilitated the suppression of the disease. Several provinces, and particularly Bombay, Burma, and the Punjab, suffered losses from surra. Only 46 cases of anthrax amongst equines were reported in the whole of India; and of these, 27 occurred in Eastern Bengal and Assam.

Owing to the difficulty of collection, statistics of mortality from contagious diseases among cattle are defective. The number of reported deaths was 294,765, as against 287,823 in 1909-10. The deaths from rinderpest numbered 154,617, a slight decline from 1909-10. The Punjab, Burma, and Madras were the severest sufferers. The reported deaths from anthrax numbered 16,323, of which Madras contributed 11,374. There were 48,027 deaths from hæmorrhagic septicæmia, chiefly in the Punjab (17,432 deaths), and 24,651 deaths from foot-and-mouth disease, which was widely prevalent. There were 13,322 cases of black quarter. Considerable progress has been made in breaking down the opposition of the people to inoculation, which was performed in 272,000 cases for rinderpest, 24,000 for hæmorrhagic septicæmia, and 13,000 for other bovine diseases. The sera for inoculation were prepared at the Bacteriological Laboratory, Muktesar. The serum method is growing in popularity, and frequent and large demands for sera have continued in excess of the supply. Considerable progress has been made in the study of surra and other camel diseases, and there is a marked decline of mortality in the eight Silladar camel corps.

Subordinate Staff.—Seventy-four veterinary inspectors and 754 veterinary assistants were employed in 1910-11. Of these, 614 assistants visited on tour 94,899 villages and dealt with 514,919 cases. The veterinary hospitals and dispensaries, at which 531,488 animals were treated during the year, numbered 327.

Veterinary Instruction.—The number of students who graduated in 1910-11 at the four veterinary colleges, viz., the Punjab, Bengal, Bombay, and Madras, and the Burma Veterinary School was 143, compared with 137 in 1909-10. There were 441 students under training at the close of the year. The Punjab College has the strongest teaching staff and the greatest facilities for teaching, and it turns out almost one-half of the graduates. At present the classes are overcrowded, and the enlargement of the building and the increase of the staff are under consideration. The Bengal College trains men for Bengal, Eastern Bengal and Assam, and Burma. The Bombay school is being gradually reorganised. The laboratories attached to the colleges were increasingly used. The demand for vernacular trained men as veterinary assistants still continues. A school for the Shan States, to train men in combating contagious diseases, has been opened.

IMPERIAL FOREST RESEARCH INSTITUTE.

The work of the Institute comprises tuition and research in silviculture, forest economy, zoology, botany, and chemistry. During 1910-11 investigations were undertaken in connection with working plans, the cultivation of the "sal," tree-diseases, &c., while the Forest Economist was engaged in inquiring into the utilisation of many kinds of forest produce, such as woods for railway sleepers, paper pulp, and tea boxes. The prospects of establishing bamboo pulp and match industries are promising. The Forest Chemist inquired into tannin extracts, rusa-grass oil, and the manufacture of shellac.

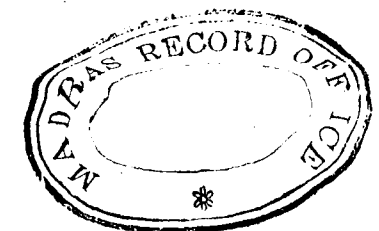
ARCHÆOLOGICAL DEPARTMENT.

The primary function of the 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 Bombay about £2,000 was spent in repairs to the caves at Elephanta and Junnar and to ancient buildings at Bijapur. In Burma measures were taken to preserve further buildings and sculptures. The excavations of the prehistoric site at Yathemio were continued. Interesting examples of the Pyu script was discovered. In Madras explorations were carried on in three centres, and five monuments were declared "protected." The Muhammadan monuments at Agra and Fatehpur-Sikri are undergoing conservation.

A list of ancient monuments in the Punjab, the preparation of which will be spread over a number of years, was begun. Excavations were continued among the important Buddhist ruins of Takht-i-Bahai in the North-West Frontier Province and Kasia in the United Provinces. Various ancient sites around Muttra have been explored, with interesting results.

MEDICAL RESEARCH INSTITUTES.

In 1907 the bacteriological laboratories in India were placed on a definite footing, and the Bacteriological Department now comprises 12 appointments distributed among the institutions named below. At the Central Research Institute, Kasauli, the staff during 1910 conducted investigations into epidemic dropsy in Calcutta, malaria in the Punjab, and other subjects, and have published reports of the results. Short courses of instruction in clinical bacteriology and technique were given to 23 officers of the Indian Medical Service. The demand for curative sera and vaccines continued to increase. The Bombay Bacteriological Laboratory was, as usual, utilised for the work of the Plague Research Commission. Much work was done in connection with plague vaccines, which are prepared here for the whole of India, and investigations were conducted showing the fecundity of rats and the pulicidal powers of the sun on clothes exposed thereto—an important fact as regards plague-disinfection. During 1910 over 625,000 doses of anti-plague vaccine were issued. The staff of 116 persons, who are annually inoculated, escape plague infection. About 119,500 rats were examined for the inoculated, escape plague infection. About 11,493 were found to be infected with plague. Practical instruction in plague diagnosis and inoculation was given. A great deal of bacteriological work was done. At the King Institute of Preventive Medicine, Madras, much chemical and bacteriological work was carried out. Inquiries were continued regarding the town water supplies of Madras Presidency.



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 these “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.

The following is a statement of the principal facts and figures regarding education in British India during the year under review, with a comparison of some of them with the corresponding data for 1901-2.

Number of Students—The total number of scholars in public and private institutions in British India in 1910-11 was 6,358,665. This represents an increase of 1,828,253 in the last decade, being at the rate of 40 per cent. Male scholars numbered 5,492,422 as compared with 4,084,130 ten years ago, and females numbered 866,243, as compared with 446,382. The increase is at the rate of 34 per cent. in the case of male scholars and 94 per cent. in the case of female scholars.

Number and Classification of Schools and Colleges.—The total number of institutions in 1910-11 was 172,478, of which 157,401 were for males and 15,077 for females. The total number of villages served by these schools is 602,411, and the number of towns, i.e., places containing 5,000 inhabitants or upwards, is 1,571. Thus each institution for males serves nearly four towns and villages, and each institution for females serves 40 towns and villages. The number of students in each class of school or college classified according to the description of education imparted therein is as follows :—

	1901-02.	1910-11.
UNIVERSITY EDUCATION :—		
<i>Arts Colleges :</i>		
English - - - - -	17,430	23,714
Oriental - - - - -	503	1,375
<i>Professional Colleges :</i>		
Law - - - - -	2,767	2,772
Medicine - - - - -	1,466	1,620
Engineering - - - - -	865	1,225
Teaching - - - - -	190	498
Agriculture - - - - -	70	282
SCHOOL EDUCATION, SPECIAL :—	35,180	166,118
Schools for special instruction - - - - -		
SCHOOL EDUCATION, GENERAL :—		
<i>Public Secondary Schools :</i>		
High Schools - - - - -	254,690	379,568
Middle English Schools - - - - -	176,628	267,276
Middle Vernacular Schools - - - - -	129,324	257,506
Private Advanced Schools - - - - -	62,502	52,556
Public Primary Schools - - - - -	3,271,379	4,627,706
Private Elementary Schools - - - - -	576,497	572,444

The total number of scholars, omitting those in Baluchistan in respect of whom details are not available, are distributed as follows :—

	1901-02.		1910-11.	
	Males.	Females.	Males.	Females.
Colleges - - - - -	635,554	46,120	1,048,062	106,418
Secondary Schools, Special Schools and Private Advanced Schools - - - - -	3,447,839	399,978	4,440,951	759,199
Primary Schools and Private Elementary Schools - - - - -				

Thus of the total number of male scholars 16 per cent., and of female scholars 10 per cent. are undergoing higher education.

The percentage of students to the population of school-going age, which is taken as 15 per cent. of the total population, was 28 per cent. in the case of males and 4 per cent. in the case of females.

The increase in the number of students at public primary schools in the last decade has been at the rate of 41 per cent. The attendance at secondary schools, including private advanced schools, has increased by 44 per cent. in the same period. Girls attending middle vernacular schools in 1910-11 numbered 37,776 as compared with 32,684 attending high schools and middle English schools combined.

Schools for special instruction extend over a wide range of subjects, and their total number has increased from 1,078 to 5,825 in the last decade. The number of students has, at the same time, increased from 35,180 to 166,118. The number of students of the law schools has increased from 41 to 82, while that of the students of engineering and surveying schools has decreased from 1,175 to 1,063. In technical and industrial schools the increase has been from 4,977 to 10,135.

Stages of Instructions in Public Schools.—The total number of scholars on the rolls of the general public schools, both secondary and primary, on the 31st March 1911, included 4,760,624 boys and 771,432 girls. Of these nearly 60 per cent. of the boys and girls were in the lower primary stage reading printed books and 37 per cent. of the girls were in a still lower stage not reading printed books.

Results of University Examination.—The English arts colleges contain 75 per cent. of the total number of students undergoing university education. This is nearly equal to the proportion ten years ago. The oriental arts colleges showed a tendency towards decline in the number of students up to 1907-08, but since then there has been a marked improvement, the number in 1910-11 being 1,375, the highest in the last decade. The number of law students has increased in the last decade from 2,767 to

2,772. There are 154 more students at medical colleges than ten years ago, but the increase has not been rapid since 1901-02. In the engineering colleges the rise in the number of scholars has been relatively large. 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 1910-11 :—

	Number of Examinees.	Number Passed.	Race or Creed of Passed Scholars.						
			Europeans and Eurasians.	Indian Christians.	Hindus. Brahmans.	Non-Brahmans.	Muhammadans.	Parsis.	Others.
Bachelor of Arts - - -	2,543	1,293	9	31	530	492	173	32	26
Bachelor of Science - - -	420	255	1	1	95	136	16	2	4
Bachelor of Oriental Learning - - -	—	—	—	—	—	—	—	—	—
Bachelor of Law - - -	1,711	807	2	13	403	287	70	16	16
M.B. - - - - -	42	19	1	3	5	8	2	—	—
B.C.E. - - - - -	14	13	—	—	6	7	—	—	—
Roorkee { Civil engineer - - -	35	31	2	—	16	11	1	1	—
{ Electrical engineer - - -	3	2	—	—	1	1	—	—	—
Licentiate of Agriculture - - -	75	54	—	—	25	22	7	—	—

It is interesting to observe the different proportion of the students attending the various classes of colleges who proceed to a degree. The proportion is highest in the case of law and lowest in the case of colleges for oriental learning. The following statement shows the average number of students in each class of colleges and the number who appeared for and passed the B.A. or equivalent examination during the last three years :—

		1.	2.	3.	4.	5.
		Average Number of Students in last Three Years.	Average Number examined for Degree.	Percentage of Col. 2 to Col. 1.	Average Number passed.	Percentage of Col. 4 to Col. 2.
Arts colleges {	English { B.A. - - - - -	20,996 {	2,919	13.9	1,442	49.4
	{ B.Sc. - - - - -		714	2.5	383	51.4
	{ Oriental—Bachelor of Oriental Learning.	1,187	—	—	—	—
Law colleges—B.L. - - - - -		2,736	1,447	52.9	614	42.4
Medical colleges—M.B. - - - - -		1,562	41	2.6	20	48.8
Engineering colleges. {	{ B.C.E. - - - - -	1,201 {	54	1.5	27	50
	{ Roorkee { Civil engineer - - -		26	2.1	25	96.1
	{ Electrical engineer - - -		2	.1	1	50
Agricultural colleges—Licentiate of Agriculture		266	85	31.9	67	78.8

System of Management.—More than three-fourths of the total number of schools and colleges in India are public institutions, i.e., the course of study conforms to the standard prescribed by the Educational Department or by the universities, and they are either inspected by the officers of the Department or present pupils at public examinations held by the Department or by the universities. These public institutions contain nearly nine-tenths of the total number of students in India. Of the public institutions about 86 per cent. (containing 89 per cent. of the scholars) receive public aid. Direct public management, however, is but a small feature of the educational system of India, and these institutions altogether number only some 2,000. They include nearly one-third of the total number of colleges and about one-twelfth of special schools, but in other classes of schools the proportion managed directly by Government is insignificant. The number of institutions managed by local funds and municipal boards is very much higher and such institutions contain nearly a quarter of the total number of scholars on the rolls on the 31st March. More than half the institutions in India are under private management aided by Government or by local funds or by municipal boards.

Female Education.—The ratio of girls to boys under instruction is about 1 to 6. Ten years ago it was about 1 to 9.

As regards creed, among Christians and Parsis the ratio of girls to boys is about 1 to 2, among Buddhists and Brahmans about 1 to 6, and among Muhammadans and non-Brahmans about 1 to 8.

As regards university education, the number of girl students in arts colleges (244) is greater than in all other colleges taken together. The number of girls studying in medical colleges (58), which is a little less than one-third of the number in arts colleges, comes next.

Of the girls attending schools for special education (17,933), as many as 2,329, or 8 per cent. were in technical and industrial schools, of whom 194 were Europeans and Eurasians, 1,193 Indian Christians, 655 Hindus, 106 Muhammadans, and 63 Buddhists. 229 were at medical schools, the majority of them being Indian Christians.

Cost of Education.—About two-thirds of the total expenditure can be definitely assigned to specific classes of educational institutions, and about one-third is treated as indirect expenditure on all classes of institutions combined. The following statement shows what percentage of the total expenditure is incurred on each of the different classes of schools and colleges :—

Direct expenditure on Public Instruction :—

Arts colleges - - - - -	-	-	-	-	6.04
Colleges for professional training - - - - -	-	-	-	-	2.97
Secondary schools - - - - -	-	-	-	-	27.61
Primary schools - - - - -	-	-	-	-	26.96
Training schools - - - - -	-	-	-	-	2.42
All other special schools - - - - -	-	-	-	-	4.55
Total - - - - -	-	-	-	-	70.55

Indirect expenditure on Public Instruction :—

University - - - - -	-	-	-	-	2.1
Direction - - - - -	-	-	-	-	.96
Inspection - - - - -	-	-	-	-	5.49
Scholarships - - - - -	-	-	-	-	1.79
Buildings - - - - -	-	-	-	-	8.89
Furniture and apparatus - - - - -	-	-	-	-	1.07
Miscellaneous - - - - -	-	-	-	-	9.15
Total - - - - -	-	-	-	-	29.45

About 52 per cent. of the total expenditure in 1910-11 was met from taxation, i.e., provincial revenues and contributions from district boards and municipalities. About 27 per cent. was met from fees, and the balance was provided by subscriptions, endowments, and miscellaneous receipts. These figures have been specially supplied by educational officers and are prepared on a different basis from those that appear in the Finance and Revenue Accounts.

The total expenditure has increased in the last 10 years from about £2,700,000 to £4,800,000, i.e., by 80 per cent. The increase in fees is about 60 per cent., while the increase from provincial revenues and local and municipal funds is 110 per cent. The approximate average annual cost of educating each pupil in the different schools and colleges in British India during 1910-11 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 8 2	3 2	6 19 10	11 11 3
Colleges for professional training - - - - -	16 15 8	2 0	5 6 1	22 3 7
Secondary schools - - - - -	0 6 3	2 10	1 1 3	1 10 5
Primary schools - - - - -	0 1 3	2 4	0 2 3	0 5 10
Training schools - - - - -	9 19 0	17 8	1 0 10	9 17 5
All other special schools - - - - -	0 14 10	1 11	0 13 6	1 10 3
Cost per each pupil in all institutions	0 3 6	2 6	0 6 4	0 12 4

Hostels or Boarding-houses.—There were, in 1910-11, 2,682 hostels or boarding-houses attached to colleges and schools with 101,240 residents. Of these 2,264 were for males and 418 for females with 78,888 and 22,352, respectively, in residence. The following statement shows the number of boarders attached to each class of schools or colleges :—

Arts colleges	-	-	-	-	-	-	7,225
Colleges for professional training	-	-	-	-	-	-	2,625
Secondary schools	-	-	-	-	-	-	59,064
Primary schools	-	-	-	-	-	-	20,869
Special schools	-	-	-	-	-	-	11,457

The expenditure on hostels was as follows :—

	£
Provincial revenues - - - -	45,140
Local or municipal funds - - - -	7,246
Subscriptions and endowments - - - -	114,344
Fees - - - -	168,696
Native States revenues - - - -	1,153
Total expenditure - - - -	<u>336,580</u>

In regard to elementary education it should be mentioned that during the year (on 16th March 1911) Mr. Gokhale, a non-official additional member of the Governor-General's Legislative Council, introduced a Bill to provide for the gradual introduction of the principle of compulsion in the system of elementary education. The chief provisions of the Bill empowered municipal and district boards, with the previous consent of the local government, to notify areas in which attendance at school shall be compulsory for all boys (and later on, if so desired, for all girls) between the ages of six and ten years, to levy a special education rate for all such areas and in certain cases to exempt members of the poorer classes from payment of fees; it also provided for the imposition of fines on parents for non-attendance of children at school. The Government of India consulted local governments and administrations in order to ascertain the state of public opinion in regard to the proposals contained in the Bill, which thus served the useful purpose of concentrating attention on the subject. In March 1912 the Bill came up for discussion in the Legislative Council and was ultimately rejected.

Some further statistics and facts illustrating the present general situation of education in India may be cited.

Only 4·4 per cent. of the total male and ·7 per cent. of the total female population are at school. Primary school teachers receive on an average only some Rs. 8 or Rs. 9 per mensem. The average cost of a primary school throughout India—inclusive of charges for assistant teachers and contingencies—is about Rs. 13 per mensem. Large numbers of primary schools have no building at all and the buildings generally are altogether inadequate. The condition of secondary education is also a matter for concern. The teachers who in secondary schools are imparting English to the rising generation are often in receipt of salaries as low as Rs. 40 and Rs. 30 and even Rs. 20 a month. The Calcutta University fixed a minimum salary of Rs. 15 per mensem for teachers of English. Out of a total number of some 4,700 teachers of privately managed high schools in the two Bengals, about 4,200 are in receipt of less than Rs. 50 per mensem, and of these 3,300 are in receipt of less than Rs. 30 per mensem. The courses are still, in the main, literary; for want of funds it has not yet been possible to introduce systematically a practical school course, complete in itself. The wastage in the examinations, as shown in the second table on page 94 above, due very largely to the inferiority of the teachers and to the enormous size of their classes, is unquestionably a fruitful cause of inefficiency. The development of higher education in colleges and higher technical institutions is naturally hampered by the moderate standard of English hitherto attained in the secondary schools.

The numbers of persons returned as illiterate at the census of 1911 for the various provinces are as follows:—

Bengal - - - -	- 49,362,448	in a population of	52,668,269
Bombay - - - -	- 18,299,816	" "	19,672,642
Burma - - - -	- 9,368,205	" "	12,039,083
Central Provinces and Berar -	13,420,072	" "	13,916,308
Eastern Bengal and Assam -	32,056,601	" "	34,018,527
Madras - - - -	- 38,311,844	" "	41,405,404
North West Frontier Province	2,123,947	" "	2,196,933
Punjab - - - -	- 19,200,111	" "	19,974,956
United Provinces - - -	- 45,563,579	" "	47,182,044

As regards educational progress in the different provinces throughout the year under review, the departmental reports are by no means disappointing when compared with those for the preceding year. On the contrary, during the year the moderate rate of progress already attained has for the most part been continued or even accelerated, as may be judged from the following short summary of a few of the more interesting features of the year's record in the several provinces.

Madras.—In the Madras Presidency there were 766,884 and 156,027 male and female scholars in 23,426 and 900 primary schools for boys and girls respectively. Secondary schools numbered 558 for males (with 118,917 scholars) and 248 for females (with 33,496 scholars). In the 30 Arts and five professional colleges for males there were respectively 3,709 and 879 students. During the year, on the recommendation of a committee of representative gentlemen interested in education, Government approved of the levy of increased rates of fees for colleges and secondary schools under public management with effect from 1st July 1911. In secondary education the year was marked by great improvements in equipment, and classification of pupils and curricula. The total expenditure on education amounted to £851,167 (an increase of 7 per cent.) of which public funds contributed 45 per cent., fees 29 per cent., and other sources 26 per cent.

Bombay.—In the Bombay Presidency the year was marked by progress in all branches of educational work. Especially satisfactory is the extension of primary education. A special grant of £9,600 was made for the purpose of opening new schools, and 524 new schools were opened. The new schools opened in the preceding year were reported to be doing fairly well. The total number of institutions has increased from 15,432 to 16,186, and the total number of scholars from 850,293 to 868,535. In public institutions, i.e., those under Government inspection, the number of male pupils rose from 653,704 to 667,469, and the number of female pupils from 116,731 to 119,596. The total number of Arts colleges remained the same, viz., 11, but the number of students continued to rise; there are now 3,258 in the Arts colleges and 1,200 in the four professional colleges. The secondary schools numbered 541, with 72,043 scholars, including 6,852 girls. The total expenditure on education in the Presidency rose from £823,480 to £826,674.

United Provinces.—On the whole the record for the year under report was less disappointing than for the preceding year in the United Provinces. In spite of a net decrease of 95 in the number of institutions and a diminution in the number of public institutions by 177 the results of the year's administration are in other respects satisfactory. The decrease was mainly in primary schools. The cause of the decrease is not as yet sufficiently known to admit of the immediate discussion of remedies, but it is largely of a local character and may partly be attributed to outside circumstances, such as the prevalence of plague and other epidemics, and to the weeding out of schools which fall below the standard, than to any radical defects in the system of instruction. Progress in higher and secondary education was on the whole satisfactory. The number of students in Arts colleges increased very slightly after abnormal increases during the preceding years. In secondary education there was an improvement. The provincialisation of High Schools was perhaps the most important event of the year. School committees with advisory functions were formed with a view to keeping the administration in touch with local opinion. Special inspectorships of drawing, oriental languages, and science were created. Activity was shown in advancing the condition of technical education, and greater progress is expected to follow in view of the establishment of a technological institute at Cawnpore. The total expenditure on education rose by £1,107 to £622,615.

Punjab.—Judged by the figures for school attendance the year was one of considerable progress, the total increase being 12,901 pupils in public institutions and 4,573 pupils in private schools. The proportional increase was greatest in high schools, where the number of pupils rose by nearly 10 per cent., and in Arts Colleges, where the increase exceeded 10 per cent. There was an addition of 6,024 pupils to the attendance rolls of primary schools. The increased attendance in high schools and arts colleges has been accompanied by larger fee receipts, the total income from fees having exceeded that of the previous year by no less than £12,581. The present scale of fees does not appear to have operated in any way as a deterrent. The total expenditure on education in the Province was £403,804.

Central Provinces and Berar.—The general progress made during the year in the Central Provinces and Berar was quite satisfactory. Schools and scholars in British territory have increased by 119 and 6,091 respectively. This increase is chiefly confined to primary schools for boys. The extension of primary education for boys is reported to be practically a question of increase of expenditure. The demand for education is rapidly increasing, and cannot be met with the funds available. The prevalence of plague interfered with the year's work in all branches of education, and mere statistics would therefore be misleading, particularly for secondary and collegiate education. In spite of the epidemic of plague at Nagpur the Morris College was kept open. The year was marked by the establishment of a new training college at Jubbulpore. The total expenditure on education rose to £205,697.

Burma.—The main features of the year's work have been the continued advance of general education above the primary stage and the continued decline of the numbers in the lower primary or elementary stage. The training of teachers and technical instruction have been disappointing departments. Female education has, however, advanced. The number of students enrolled at the two Arts colleges rose from 244 to 278, the highest figure yet attained; pending the solution of the standing problem of the establishment of an independent university for Burma, creditable results were achieved in the examinations held under the auspices of the Calcutta University. The number of secondary schools rose from 831 to 876, and of scholars from 74,547 to 78,283. The total number of pupils under instruction for all branches of education fell from 433,973 to 429,992. An increase of over £6,000 occurred in the total expenditure on education, which amounted to £290,839.

North-West Frontier Province.—In the North-West Frontier Province the year was one of satisfactory progress. Benefit has resulted from the simplification of curricula which were previously too ambitious, from a reorganisation of the teaching service and from the provision of more suitable rates of pay, in return for which real efficiency is demanded and a supervision is exercised which is no longer limited to a routine inspection of registers and returns. The total number under instruction, in public and private institutions combined, was 31,891, as against 30,045 for the preceding year. Increases are recorded in the number of pupils at both secondary and primary schools, though the actual number of public primary schools decreased by three. The one Arts college in the province, the second-grade Mission College at Peshawar, contained 22 students, an increase of three on the previous year; the scheme for the opening of an Islamic College still commands the hearty support of the Mussulmans of the Province from nawabs and khans down to people of the lowest degree. The total expenditure of the year was £25,891.

Bengal.—Steady progress was reported in all branches of educational work in Bengal. The number of boys under instruction was 1,340,836, representing 32·6 per cent. of the total male population of school-going age. Primary schools for boys numbered 35,437, with 997,953 scholars. 1,232 *gurus* obtained efficiency certificates at the *guru*-schools in 1910; but a large proportion of *gurus*, after they have been trained, take up more remunerative work than teaching. The number of males under instruction in the Arts and professional colleges was 8,255 and 2,176 respectively. Secondary schools for males numbered 1,522, with 182,519 scholars. An increase of nearly 15,000 in the number of Muhammadans under instruction is again reported. As regards female education, there were 146,223 girls under instruction in primary schools, and 8,070 in secondary schools. The most serious obstacles to the progress of female education continue to be the want of female teachers and the general indifference of the public. The total expenditure rose from £1,005,912 to £1,071,416.

Eastern Bengal and Assam.—The Education Department was occupied during the year with the preparation of a scheme containing proposals, on which orders have since been passed, for the devolution of powers in routine matters from the Director of Public Instruction to his circle inspectors. The year was marked by an increase of pupils. In secondary English schools the increase was over 20,000, a fair share of whom were Muhammadans. The growing demand for English education thus shows no sign of abatement. The decline of 1909-10 in the number of boys in primary schools, which contrasted with the large rise of previous years, has been arrested, and the figures for 1910-11 show a net increase of 3,208. The number of students, and the figures for 1910-11 show a net increase of 384. The total in the Arts colleges rose again, the increase for the year being 384. The total number of persons under instruction rose from 907,509 to 984,213. The total expenditure on education for the year was £487,018, an increase of 10·7 per cent over the figure for 1909-10.

LITERATURE AND THE PRESS DURING THE CALENDAR YEAR 1910.

Bombay.—The Indian Press Act of 1910 did not affect the quantity of the literary output. Seditious writing, however, has been checked; the Government have had to take action in respect of only four publications. 2,338 publications were registered, as compared with 2,073 in the previous year. The total increase is made up chiefly of an increase of 107 under the heading Miscellaneous. In Arts and History the number has fallen; in Biography, Science (Mathematical and Mechanical), Languages, Medicine, Philosophy, and Religion it has risen; in Politics it has fallen from 31 to 8; Fiction shows a rise from 74 to 123; Drama from 50 to 72; and Poetry from 323 to 357. The number of English books fell from 113 to 87; noteworthy among them were *Notes on Modern Jainism*, by Mrs. Sinclair Stevenson, M.A., and *A Financial Chapter on the History of Bombay City*, by D. E. Wacha. 359 books were published in Marathi, including, under the head of Drama, an adaptation of Shakespeare's *Measure for Measure*, and a historical play dealing with the murder of the fifth Peshwa. In Gujarati 475 books were published, among which a life of the late King-Emperor may be noticed.

Madras.—The Indian Press Act did not in any way deleteriously affect the literary outturn of the Presidency during the year 1910, but there has been a noticeable decline in the number of publications of a political character. There was a further increase in the total number of publications registered during the year, the number being the largest on record. The increase was in all subjects excepting Biography, Medicine, and Politics. It is interesting to note that in the year under review one book was published in Toda, the language spoken by the Todas of the Nilgiris; one in Kuvi, the language of the tribe of that name in the Agency tracts of the Vizagapatam District; four in Lushai, the dialect current in the North Lushai Hills (in Assam); and one in Pali. As regards the main vernacular languages, there was an increase in works published in Tamil, Telugu, Malayalam, and Kanarese; there was also an increase in Sanskrit and English works, but a fall in the number of those in Hindustani, Arabic, and Persian. The following individual works may be noticed: under the head of Politics an interesting publication was *The Indian Constitution*, by A. Rangaswami Aiyangar, B.A., B.L., which may be regarded as a literary first fruit of the widening of the political life of the Indian people by the inauguration of the new Reforms Scheme. Another work dealing with an economic subject which is worthy of some notice was *Sketches of Indian Economics*, by R. Palit. *The Science of Social Organisation* was another work of some interest. It deals with the general principles of Hindu social organisation as they may be gathered from the teachings of the great Indian law giver, Manu.

Bengal.—The improvement in the tone of the Press, which began last year, was fully maintained during 1910, and may be attributed partly to the Press Act. It is worthy of note that of the publications proscribed under the Act a large proportion were published in Europe and America, while of the 14 newspapers proscribed, all with the exception of two, which emanated from Pondicherry, were American and European.

The literary activity of the Province is steadily increasing and trying to find an outlet through useful literature. In popular literature biography, history, and books on travel seem to be ousting drama and fiction. In the departments of Philosophy and Religion great activity is noticeable in translating Sanskrit literature into the vernaculars. The only department of literature which has up to the present failed

to engage any non-official attention is Science, theoretical or practical. The periodical literature is not only increasing in bulk, but yearly gaining more and more in importance.

United Provinces.—The Press Act has not affected the output of literature. The number of publications has increased from 1,988 to 2,145, a figure never before reached. But the Act has had a sobering effect on literature dealing with politics and kindred subjects. Most of the increase in the number of publications may be accounted for by the rise in the number of religious books published, viz., 40 per cent., from 536 to 681; Islam is mainly responsible for this revival. The Moslem religious publications are mainly reprints with modern commentaries of standard works, but there are two books on the chronology and biography of the men who handed down the traditions of the Prophet, which will be welcome to scholars in Europe as well as India. In Science proper not one single original work was published in the province during the year. There was an unparalleled number of legal publications, including two annotated editions of the new Code of Civil Procedure in the vernacular. One philosophical work may be mentioned—*Outlines of Indian Philosophy*; this is an attempt to find a principle of unity, or at least a common platform in the diverse systems of Indian speculative thought. In regard to periodicals, there was a fair proportion of publications devoted to theosophical activities, such as *The Central Hindoo College Magazine* and *The Sons of India*. The total absence of Swadeshi publications is significant of a change of sentiment. The most interesting "political" book of the year is *The Arya Samaj and its Detractors: a Vindication*; by Munshi Ram and Ram Deo.

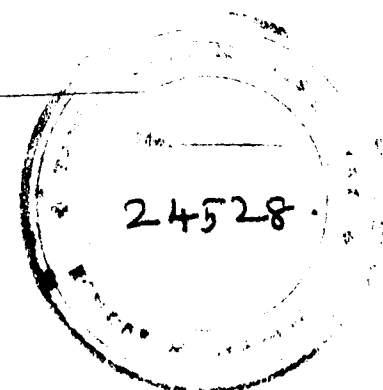
Punjab.—The Press Act has checked the output of books of a seditious or inflammatory nature, while, on the other hand, several prose and verse pamphlets on the advantages of British rule have been published. The total number of publications during the year 1910 was 1,408, as against 1,191 in the previous year; of these, 458 as against 299, and 597 as against 533, were published in Punjabi and Urdu respectively. Hindi publications rose from 75 to 82, English sank from 86 to 80, and Bilingual rose from 84 to 107. The most popular subject was poetry, numbering 441 publications as against 332 in the preceding year. There were 316 publications of a miscellaneous character, including books on the subjects of morality, social reform, temperance, domestic economy, and education; they include a translation of Smiles' *Self Help*. The number of works on religion decreased from 240 to 235. The number of dramas and also that of novels was more than double that of the previous year. No books on science (mathematical and natural) were published, except some ordinary school books.

Burma.—Burma was not affected by the Press Act, as no literature of a "political" character exists in the province. The total number of publications registered in 1910 was 373, the increase since the preceding year being larger than any recorded up to date. The figures for the three previous years are as follows:—1907, 171; 1908, 221; 1909, 246. Of the 373 publications the majority are either religious works or dramas, the former numbering 146, the latter 60. There was an extraordinary increase (300 per cent.) of activity in drama. The Burmese stage play is now written not only for the stage, but for the general reading public. In one respect these plays are similar to the mediæval mystery play; they are a combination of quite different elements. The three elements into which they may be analysed are moral platitudes, love scenes, and buffoonery. These plays differ, however, from the mysteries in being without the sanction of the national religion. They are an expression of popular instincts, and for this reason, though usually written by authors of little education, are of more interest than the academical scriptural writings, which bulk largely in the remainder of the literary output of the province. Among religious works there are various addresses by priests, but no one of these has yet taken the place vacated by Leda Sayadaw.

Eastern Bengal and Assam.—As a result of the Press Act there has been no registered production of a directly seditious nature during the year, though there has been considerable activity in the secret production and dissemination of leaflets. The total number of publications during the year was 534 (530 catalogued); the number of publications catalogued during the previous year was only 201; there was therefore a net increase of 329, or about 164 per cent. All departments of literature contributed to this increase except poetry; no less than 357 works were of a scholastic nature, 314

being ordinary school books, the rest keys. Next to scholastic works religious books form the most numerous class—they almost all relate to Hinduism under one aspect or another. As regards the languages of the publications there were few of interest in Assamese, but a considerable number in Bengali included *The Past and Future of Modern India*, which purports to be a summary of a lecture delivered by Pandit Siva Nath Sastri at Dacca in 1909, and calls attention to the greater possibilities of advance in civilisation and government which the political unity of India under the British Raj has introduced.

Central Provinces.—Unlike preceding years, the year under review has not been fruitful in the production of political pamphlets; this was to be expected as an effect of the Press Act. The total number of publications registered during the year was 136, the largest figure for the past ten years. Forty-four of these were in Marathi, 10 in Hindi, and 24 in English. They dealt with the usual variety of subjects. Educational works numbered 42, double the number for the preceding year. The literary output of the province is still very restricted, and though there has been an increase in quantity, there has been no improvement in its quality.



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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.

MUNICIPALITIES.

(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 about 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 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.

There were 715 municipalities at the end of 1910-11, containing within their limits about 17 million people, or 6 per cent. of the total population of British India. Generally speaking, the income of municipalities is small. Their aggregate income amounted to about £4,600,000, 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 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 yield about one-fifth of the total income of municipalities. 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. 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, 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 exhibits the constitution of the municipal committees in the chief provinces in 1910-11:—

	Number of Municipalities.	Total Number of Members.	By Qualification.			By Employment.		By Race.	
			Ex-officio.	Nominated.	Elected.	Officials.	Non-Officials.	Europeans.	Indians.
<i>Presidency Towns, &c.:—</i>									
Calcutta	1	50	—	25	25	8	42	19	31
Bombay	1	72	—	16	56	6	66	17	55
Madras	1	35	1	14	20	5	30	12	23
Rangoon	1	25	—	6	19	5	20	13	12
<i>District Municipalities:—</i>									
Bengal	130	1,776	146	711	919	258	1,518	246	1,530
Bombay (including Sind)	157	2,182	402	883	897	481	1,701	148	2,034
Madras	61	940	71	403	466	189	751	149	791
United Provinces	87	1,175	99	178	898	197	978	144	1,031
Punjab	107	1,220	224	424	572	249	971	102	1,118
North-West Frontier Province	7	130	39	91	—	39	91	19	111
Central Provinces and Berar	57	758	32	248	478	167	591	73	685
Eastern Bengal and Assam	51	668	70	262	336	125	537	73	595
Burma	45	571	177	309	85	193	378	160	411

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. Progress was made in 1910-11 with great schemes of water supply and drainage (see Chapter XVI. under "Sanitation"). With the growth of prosperity the valuation of the city has increased by 58 per cent. in ten years to £2,364,658, and the revenue shows great elasticity. Retrenchments have been effected in establishment and other charges, and the financial position is stronger than for many years. The revenue collected in 1910-11 amounted to £577,338, while the expenditure was £524,974. A loan of £200,000 was raised, and the debt at the close of the year amounted to £3,221,800. The interest and sinking fund charges for 1910-11 were £168,922. Byelaws relating to dairies, stables, public buildings, and markets were issued. Progress in the improvement of bustees was well maintained. Special attention has been paid to the question of road repair. The lighting of the town is being taken over by the corporation, and a new lighting department has been formed. An Act was passed in August 1911 constituting an Improvement Trust with powers to undertake schemes for clearing congested areas and making street improvements, the cost to be met from an increased duty on property transfers within the municipality, a terminal tax on passengers entering and leaving the town, a duty on jute, and contributions from the municipality and the Government of India.

Interior of Bengal.—Contested general elections were held in 9 out of the 130 municipalities. The percentage of voters varied from 96 to 18 per cent. The total number of ratepayers is about one-sixth of the total population of the municipalities. The average attendance of members at the meetings was fairly satisfactory. The incidence of municipal taxation for the whole province averaged 2s., as against 2s. 1d. in 1909-10—the difference, however, is due to the former figure being chiefly based on the 1911 census. There were revisions of assessments in 89 municipalities. The number of municipalities who levy a tax on persons somewhat exceeds that of those who levy a rate on holdings—a few levy both. The total revenue of the Bengal municipalities amounted to £370,826, and the ordinary expenditure to £337,311. Forty municipalities were in debt at the close of the year to a net amount of £270,703, more than half of which was on account of Howrah, which adjoins Calcutta. A free hand in respect of their budgets has been allowed to four large municipalities as an experiment. The result in two cases is reported as satisfactory, as regards the other two there is no report.

United Provinces.—Numerous changes in the working of municipalities have been introduced as a result of the report of the Decentralisation Commission. In 18 municipalities the boards have elected non-official chairmen. The work of these non-official chairmen, so far as can be judged by short experience, is satisfactory. Polls were held in 60 municipalities, and 51 per cent. of the electors voted. The income of the municipalities was £469,219, of which about £249,082 was derived from octroi duties. It has been decided to abolish octroi in a number of the smaller towns in accordance with the report of the recent Special Committee on Municipal Taxation. The subject of the replacement of the tax is being considered. The incidence of taxation as a whole was about 2s. 5d. per head. The expenditure amounted to £492,983. The draft of a new municipal bill is in preparation. Trust Funds have been formed in Lucknow, Allahabad, and Cawnpore for the purpose of opening out congested areas.

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. This process continued in 1910-11, and at the end of the year there were 107 municipalities, besides 102 notified areas, in which cheapness and simplicity of administration are the chief requisites. The system by which each religious community elects its own representatives is being tried in some towns. In the Northern Divisions elections are largely arranged without contest. In the Southern Division contests were keener. The working of the municipal committees was on the whole satisfactory. The total income of the year amounted to £412,856, and the total expenditure to £395,532. Octroi, the receipts from which improved, accounts for over 60 per cent. of the total income. There appears to be no immediate likelihood of abolishing octroi, possible substitutes, such as the house tax, being highly unpopular. The machinery of collection, however, has been improved. The average incidence of taxation was 3s. 1d. per head. A new municipal Act, defining and extending the functions of municipalities in the Punjab, was passed in April 1911.

North-West Frontier Province.—One municipality was converted into a notified area. The ordinary income of the municipalities amounted to £45,564, of which about 56 per cent. was derived from octroi duties. The average incidence of taxation was 3s. 5d. per head. 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 £246,606, and the expenditure to £231,428. Apart from normal growth, the increase in the former case was due principally to the enhancement of assessments, and in the latter case to increased expenditure on public works of various small descriptions—the paving of the main thoroughfares occupied special attention—and an outbreak of glanders. The incidence per head of direct taxation was 13s. The outstanding loans at the end of the year rose to £1,245,000, including the reclamation works loans of £403,300. The tax on Government property has been fixed at 7½ per cent. of the taxation demand on private property.

Interior of Burma.—In some municipalities members had to be nominated owing to lack of candidates for election. Plague had again a serious effect on the finances,

and expenditure in other directions had to be postponed. A recurring contribution of £20,000 is granted from imperial revenues to meet special sanitary expenditure in the province. Municipalities have been generally administered with efficiency, and most of the members take an interest in the affairs of the towns. The notified area of Insein was converted to a municipality, and two new notified areas were created. The aggregate income, excluding debt heads, was £252,806, of which £98,865 came from rates and taxes, and £94,433 from markets and slaughter-houses. The expenditure amounted to £257,274. The average incidence of taxation was 2s. 9d. per head of population. New taxes were imposed in several municipalities.

Central Provinces and Berar.—The elective principle is in force in all but seven of the 57 municipalities. The interest taken in elections varies greatly in different places. The attendance of members was generally satisfactory. The total income of the municipalities was £168,046, over 60 per cent. of which was derived from rates and taxes. The expenditure amounted to £185,578, an increase over 1909-10, chiefly under the heads of water-supply and roads. The average incidence of taxation was about 2s. 5d. per head. The octroi rules have been revised with a view to greater facilities in the matter of refunds. Octroi is not levied in Berar. Of the 44 municipalities in the Central Provinces proper, no less than 15 subsisted during 1910-11 on revenues smaller—in most cases considerably smaller—than £700. The total indebtedness of the municipalities to Government was £125,690, over half of which was owed by Nagpur and Jubbulpore. The financial position of the borrowing municipalities is sound.

Eastern Bengal and Assam.—Keenly contested elections were rare. The improvement shown in the previous year's returns of attendance at meetings was not maintained. The income of the 51 municipalities in 1910-11 was £111,416, and the average incidence of taxation was 2s. 1d. per head. The tax on holdings was in force in 17 towns, the tax on persons in the remainder. The expenditure amounted to £108,899. Unwillingness to fix adequate rates of taxation, poor collections, and a general lack of interest are the faults most complained of in the municipal administration of this province.

Madras.—Madras City.—The income in 1910-11, excluding loans and advances, amounted to £208,889, and the expenditure to £243,969. The average incidence of taxation was about 4s. 4d. per head. The principal taxes are a graduated tax on trades, 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 outstanding debt of the municipality at the end of the year was £540,416, against which must be set a sinking fund of £170,880.

Interior of Madras.—The number of municipal councils in the mufassal was 61, in 58 of which the elective system was in force. The total electorate was 2·1 per cent. of the aggregate municipal population. No candidates appeared for two elective seats. Out of 1,566 meetings 113 were adjourned for want of a quorum. Seven councils consisted entirely of Indian members. The income increased to £372,599, and the average incidence of taxation was nearly 1s. 9d. per head. The total expenditure was £370,224. The outstanding debts at the end of the year amounted to £196,760, against which there was a sinking fund of £13,040. A fair standard of efficiency was maintained in some municipalities, but in seven (including Ongole, Tanjore, Vizagapatnam, and Madura) the administration left much to be desired.

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 1910-11 was £813,077, and the expenditure £752,125. There was thus, as against a deficit in the previous year, a surplus, due to general expansion of revenue and increases in taxation on the one hand and a decrease, principally under conservancy, on the other. But, although the financial position is assured beyond question, apprehension is expressed that the permanent rate of ordinary expenditure is expanding faster than the natural growth of revenue, and expenditure is being carefully watched in consequence. During the year the general tax was raised from 9½ to 10½ per cent., and additional taxes were imposed on grain and firewood. The average incidence of taxation per head was 14s. 4d. At the end of the year the outstanding debt was £3,752,543, and the invested sinking fund £697,881. The expenditure on loan works amounted to £167,266. The expenditure on plague preventive measures from the outbreak of the epidemic in 1896, to the end

of March 1911, has amounted to £494,570, of which £96,700 was received from the Government, and the remainder met partly from loans and partly from municipal revenues.

The capital expenditure of the Bombay City Improvement Trust, which is engaged in reclaiming land, clearing slum areas, laying out new streets, erecting chawls, &c., amounted to £375,460. During the year the large area of 690,290 sq. yds. of land was acquired, and good progress was made in erecting chawls. A sterling loan of £333,300 was raised in 1910, the amount of the loans being thus brought up to £2,999,600. The year's revenue, derived from the municipal contribution and receipts from investments, rents, and other property, amounted to £170,882, and the expenditure, exclusive of capital charges, to £160,191. A grant of £333,000 has been made to the Trust out of the Government of India's surplus of 1910-11.

Interior of Bombay.—During 1908-9, with the object of quickening interest in local affairs, Government relaxed its control by empowering 87 municipalities not specially excepted to select non-official presidents and by conceding to five city municipalities the privilege of electing two-thirds of the number of their councillors on their agreeing to appoint a Government servant as chief officer of the executive. These privileges have since been extended to other municipalities, and in other cases extended franchise has been conferred. This policy of extending the powers of local bodies is safeguarded by strict measures when such powers are abused. Ahmedabad and Kaira municipalities have been superseded by special committees of management, and the same fate befel Rajapur during the year. Government continues to give considerable grants in aid of deserving projects. The aggregate income fell to £498,623, the decrease being almost entirely in Sind, and the aggregate expenditure rose to £644,862.

DISTRICT AND LOCAL BOARDS.

(For further details see *Statistical Abstract for British India*, Table 104.)

General.—In rural areas district and local boards perform the duties assigned to municipalities in urban areas. In each district there is a board subordinate to which are two or more local boards. The boards contain a varying proportion of elected members. Elected members form a large proportion of the boards in the United Provinces and the Central Provinces and Berar. On all boards the great majority of members are Indians. The total number of district boards in 1910-11 was 197, and of local boards 521. There are no boards in Burma. The following table shows the general constitution of the boards in each province, the figures in italics relating to local boards, the others to district boards :—

Province.	Number of Boards.	Total Number of Members.	By Appointment.			By Employment.		By Race.	
			Ex-officio.	Nominated.	Elected.	Officials.	Non-Officials.	Europeans.	Indians.
Madras	23	696	117	265	314	268	428	129	567
	83*	1,404	97	989	318	373	1,031	74	1,330
† Bombay	25	540	5	295	240	135	405	79	461
	212	3,103	20	1,698	1,385	632	2,471	156	2,947
	29	614	162	198	254	202	412	184	430
Bengal	78	963	78	625	260	124	839	91	872
United Provinces	48	892	3	272	617	246	646	102	790
Punjab	29	1,123	248	511	364	261	862	77	1,046
	17	313	17	108	188	17	296	2	311
N.-W. Frontier Province	5	218	51	167	—	51	167	25	193
Central Provinces and Berar	21	509	9	129	371	74	435	16	493
	78	1,311	33	345	933	139	1,172	6	1,305
Eastern Bengal and Assam	14	283	73	108	102	95	188	54	229
	52	684	104	270	310	138	546	147	537

* Besides 390 union committees or *panchayats* (with 3,502 members, of whom only 36 are Europeans) in Madras, 52 in Bengal, and 9 in Eastern Bengal and Assam.

† Figures for 1909-10.

The funds of district and local boards are largely derived from rates or cesses levied upon agricultural land over and above the land revenue. Up to 31st March 1908 the proceeds of these rates were included in the general revenues, and assignments from them were made to the boards. From April 1908 the accounts of the boards have been excluded from the general provincial accounts, and their funds

treated independently in the same way as municipal funds. The new system remedies certain practical inconveniences and gives the boards freedom of reappropriation. Government makes grants-in-aid to the funds of all boards amounting to about one-third of their income from rates or cesses levied on land. The chief object is to enable the boards to provide improved roads and other local needs. The boards have also other sources of income, such as cattle pound receipts (except in Madras), 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 1910-11 was about £3,250,000. The expenditure of the boards is chiefly for roads and bridges, hospitals, vaccination, conservancy, drainage, water supply, primary education, markets, and resthouses.

Bengal.—In Bengal, the attendance at the district, and still more at the local board, meetings, was not very satisfactory, though there was absence of friction in working. Little interest was shown in elections. Efforts are being made to encourage the growth of village organisation in the form of union committees in suitable localities, but of village organisation in the form of union committees in suitable localities, but lack of revenue has greatly handicapped their development. The ordinary income of the district boards was £443,862, including £252,269 from provincial rates, and the expenditure, excluding debt, was £453,777, of which £102,161 from civil works. The expenditure, excluding debt, was £453,777, of which £80,126 was spent on education and £298,644 on civil works, chiefly roads and bridges. Four light railways constructed under the guarantee of district boards continued to work satisfactorily, and some extensions were made. A fifth has recently been started.

United Provinces.—Interest in the work of the boards requires stimulating. On the suggestion of the Royal Commission on Decentralisation local committees of the boards have been formed in most sub-divisions. Their working presents considerable difficulties, but on the whole they are justifying their existence. The aggregate income amounted to £523,736, including provincial grants. The expenditure amounted to £498,134. There was a considerable decrease in both revenue and expenditure under education, owing to the district high schools having been taken over by Government. Apart from this, there was a falling off in the number of scholars, largely due to the prevalence of plague and to the weeding out of worthless schools. The expenditure on sanitation is inadequate, and there is insufficient interest shown in this subject. The provincial contributions have been revised.

Punjab.—A lack of interest is still shown in elections to district boards, and candidates are hard to find, but the working of the boards shows an improvement. The formation of sub-committees, both departmental and local, is on the increase. The ordinary income of the boards for 1910-11 was £345,800. The expenditure was £329,000, including £127,900 under civil works. The local rates have been raised in some districts, and it is proposed to raise it in others.

North-West Frontier Province.—There is no elective system in this province. The working of the district boards and the attendance of members were on the whole satisfactory. The aggregate income of the boards was £27,492 and their expenditure £24,347. Sub-committees are being appointed. Of the expenditure, about 22 per cent. was on education.

Central Provinces and Berar.—The interest taken in elections is small, but this is because local notables are re-elected without opposition. Any further extension of activities is hampered by the limited sources of income. The attendance of non-official members of the boards at the meetings is not good, but increased powers have now been given to the boards, and this may stimulate the interest taken in them. The ordinary income amounted to £158,553, excluding debt heads, while the expenditure was £145,867. The bulk of the expenditure was on civil works, including roads and schools and other buildings, and on education. Local fund engineers are to be appointed for the various divisions.

Eastern Bengal and Assam.—There was a slight falling off in the attendance of members of boards. In Eastern Bengal the improvement recorded last year in the representation of the Muhammadan community, which includes two-thirds of the population, was maintained. Of the income of the boards, £317,078, nearly one-half accrued from provincial rates, and nearly one-third from Government contributions for education, roads, &c. Their expenditure amounted to £319,360. There are nine union committees in the province.

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, the elected members being generally limited to one-third of the maximum strength. In 46 cases during 1910-11 Government nominations had to be made owing to lack of candidates. There were in Madras 23 district boards, 82 taluk boards, and 390 village unions. 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 £897,760, and the expenditure to £814,015. The Tanjore and Kistna District Boards railways yielded net profits of 6.6 and 7.3 per cent. respectively on the capital outlay.

Bombay.—The average attendance of members at meetings of the boards did not alter greatly. There were numerous complaints of the apathy of non-official members. The income of all boards in 1910-11, excluding debt heads, was £454,649, a fall, as compared with 1909-10, due to a smaller yield from the one-anna cess. The total expenditure of the boards fell to £455,623, the increase under medical relief and education being more than counterbalanced by decreases under water supply and civil works. Of the total expenditure, 37 per cent. was for education, and 50 per cent. for roads, schoolhouses and other buildings, water supply, and other works. One local board was superseded.

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 numbered 36, and had an aggregate income of £233,000 and an expenditure of about £244,000 in 1909-10. Those in Lower Burma, known as "District Cess Funds," are the largest, as they include the proceeds of a 10 per cent. cess on the land revenue, and account for £198,000 of the expenditure, of which about £25,000 was on education and about £100,000 on 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.—After a temporary set-back in 1909-10 the receipts of the Port Trust rose by £66,000 to £855,100 in 1910-11, while the expenditure was £854,900, as against £800,000 in 1909-10. Greater debt charges (including £13,000 repayment of the first instalment of the Kidderpore Dock Loan) and the greater amount of traffic handled account for this increase. Receipts have almost doubled in the last 10 years owing to the enormous expansion in the trade of the port, especially trade in coal, jute, tea, and sugar, although considerable reductions have from time to time been made in the charges on goods. Lands and buildings are a growing source of income. The expenditure upon capital works amounted to £272,200. The more important works completed or in progress were the extension of docks and sidings, the construction of a "heavy lift" yard at the jetties, the re-modelling of the petroleum depôt,

and improvement of the inland wharves, including the construction of a landing stage at Outram Ghat. The ferry service, opened in October 1907, has met a great public need. In connection with the scheme for the extension of the Kidderpore Docks and the general improvement of the port, large areas of land have been acquired. The capital debt of the Trust on 31st March 1911, after allowing for £728,900 at the credit of sinking funds, was £5,622,500, of which about £2,022,400 represents Government loans, and the rest mainly debenture loans, which latter were increased during the year by £200,000. Against this total debt may be set assets amounting to £7,119,500.

Bombay.—The receipts of the Port Trust in 1910-11 (after deducting the rebate on certain charges which is temporarily in force) amounted to £546,000. This is an increase of £51,000, due to increased traffic. The expenditure was £482,000. There was a surplus of £62,435 on the year's working, appropriated to the Revenue Reserve Fund, which was thereby raised to £454,000. The new capital expenditure amounted to £581,700, including £361,900 spent on the new dock construction, and £154,300 on the Mazagon-Sewri reclamation. A 4 per cent. sterling loan of £500,000 was raised in London, and a 4 per cent. debenture loan of 56 lakhs in India. The debt of the Trust amounted at the end of the year to £6,878,000, of which £2,011,000 is due to Government, while the remainder consists of foreshore securities and debenture loans. The cost price of the properties vested in the Trust was £6,133,000, and various depreciation, reserve, and sinking funds amounted in the aggregate to £890,500. Works for the excavation of the new docks made rather slow progress, owing to shortage of labour. The progress of the Mazagon-Sewri reclamation scheme was hampered by breakages in the dredgers.

Karachi.—The revenue receipts, owing to the heavy exports of grain and seeds, again constituted a record, advancing by 8 per cent. to £236,000, while the expenditure was £210,000. The activity in improvement works continued, and the east wharfrage was completed. The policy of providing trade facilities at great cost has been justified by the increased advantage taken of them. The capital expenditure on improvements fell to £140,000. The total liabilities of the Trust at the end of the year stood at £1,244,600, of which £71,600 is due to Government.

Rangoon.—In 1910-11 the ordinary revenue amounted to £231,000, while the revenue expenditure was £230,500. The revenue shows a large increase chiefly owing to the raising of river dues. Though financial equilibrium has thus been achieved, the position is one which still requires watchfulness, and expenditure is being cut down as far as possible. A bill amending the Rangoon Port Act is under consideration, which prohibits competition with the Port Commissioners as public wharfingers, and grants them certain additional facilities. An Indian loan of 6 lakhs was raised with a view to the acceleration of the river training works, with which substantial progress was made. The capital expenditure of the year was £229,000, or less than half that of the previous year, and the total debt amounted to £1,634,000. Improvements were made in the system of wharf administration, and a new river channel was opened.

Madras.—The receipts of the Madras Port Trust rose from £70,000 in 1909-10 to £70,500 in 1910-11. The expenditure was about 76 per cent. of the revenue. The substitution of a northern for an eastern entrance and the building of the new north sheltering arm were completed, and various other improvements were made in the wharves, sidings, &c. The debt at the close of the year was £558,000.

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 to 199.)

General Population. Registration.—The statistics given below are based on the 1901 census figures. As the date of that census recedes, the birth and death rates calculated upon the census returns of that year necessarily become unduly high. 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. An increase in the registered death-rates cannot, therefore, be regarded as proving the impoverishment of the masses. 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 and faulty midwifery, but to some extent it is only apparent, being calculated on imperfect returns of births.

Birth-rates and Death-rates.—The population of the areas in which births and deaths were registered was 226,438,733 according to the census of 1901, and the number of births registered in 1910 was 8,947,991. The provincial rates are given in the table below. The calculated birth-rate in 1910 was 39.52 per mille, compared

Province.	BIRTH-RATES.		DEATH-RATES.					
	1909.	1910.	1909.			1910.		
			Rural.	Urban.	Total.	Rural.	Urban.	Total.
Bengal	37.8	39.7	30.7	28.7	30.6	33.4	28.0	33.1
Eastern Bengal and Assam	40.5	38.0	34.1	23.7	33.9	33.9	23.2	33.7
United Provinces	33.3	41.0	37.3	37.6	37.3	38.5	40.2	38.7
Punjab	35.1	42.7	30.5	34.6	30.9	33.2	34.4	33.3
North-West Frontier Province	34.7	38.1	26.6	25.1	26.6	27.0	25.7	26.8
Central Provinces and Berar	51.6	55.4	32.4	39.3	33.1	45.0	43.6	44.9
Madras	33.1	33.6	21.2	26.4	21.8	24.1	28.9	24.7
Coorg	27.6	25.7	26.5	46.2	28.2	36.5	51.8	37.8
Bombay	35.6	37.3	25.8	34.8	27.4	29.0	35.7	30.3
Burma	35.3	35.5	25.9	40.0	27.7	25.4	38.0	27.0
Upper	37.1	37.1	33.2	47.6	34.8	29.2	39.1	30.3
Ajmere-Merwara	37.8	42.7	43.0	72.3	50.1	51.5	46.2	50.1

with 36.65 in 1909 and a quinquennial mean of 37.61. In the Central Provinces the birth-rate per mille of population was again exceptionally high. In all the major provinces, except Eastern Bengal and Assam, the birth-rate was higher in 1910 than in 1909; the increases in the United Provinces and the Punjab was particularly striking, and represents the recovery of the population from the malaria epidemic of 1908. In all the major provinces the birth-rates exceeded the death-rates, the most

considerable excesses being 10.5 per mille in the Central Provinces, and 9.4 in the Punjab. The mean percentage of male to female births was 106.93 per mille, ranging from 124.4 in the North-West Frontier Province to 104.7 in Madras.

The number of deaths registered during 1910 was 7,518,034, compared with 6,998,044 in 1909, while the death-rate was 33.20 per thousand, or 2.29 higher than in 1909, and 2.2 below the quinquennial mean. The death-rate showed a sharp increase in the Central Provinces, and slighter increases in all the other major provinces except Burma and Eastern Bengal and Assam. The lowest death-rate, 24.7, was again in Madras. In almost all provinces the male death-rates exceeded the female.

The greatest mortality occurred in December, while the lowest was June. Infantile mortality was highest in the Central Provinces, Upper Burma, Bombay, and the United Provinces. Inquiries in all these provinces tend to show that the chief causes of infantile mortality are the lack of competent midwives and insanitary conditions.

The following table gives the ratio of deaths per mille in cities of British India whose population exceeded 150,000 in 1911:—

City.	1909.	1910.	City.	1909.	1910.	City.	1909.	1910.
Calcutta	34.1	28.0	Benares*	50.8	57.7	Allahabad*	17.1	20.2
Bombay	36.0	36.0	Delhi	42.2	43.2	Amritsar	39.1	31.4
Madras	38.3	40.3	Lahore	34.7	32.7	Poona*	33.7	39.5
Lucknow*	49.4	41.2	Cawnpore*	54.8	51.7	Karachi	46.0	44.5
Rangoon	39.6	36.8	Agra*	26.3	30.0			
Howrah	37.4	29.4	Ahmedabad*	56.2	47.3			

* Excluding cantonment.

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, and the death-rates per 1,000 from each of the principal diseases recorded, in British

Years.	Cholera.	Small-pox.	Fevers.	Dysentery and Diarrhoea.	Plague.	Respiratory Diseases.	All causes.
1908	591,725 2.61	170,694 0.75	5,424,372 23.96	285,921 1.26	113,888 0.50	227,817 1.01	8,653,007 38.21
1909	239,231 1.05	101,152 0.45	4,487,192 19.82	216,956 0.96	145,333 0.64	203,363 0.90	6,998,044 30.91
1910	430,451 1.90	51,315 0.23	4,341,392 19.17	267,672 1.18	413,355 1.83	234,308 1.03	7,518,034 33.20

India, during the three years from 1908 to 1910. With regard to special diseases, no province escaped the visitation of cholera, which was chiefly prevalent in Bengal and Eastern Bengal and Assam and the United Provinces. Small-pox reached the lowest point of the decade. Plague, the mortality from which showed a recrudescence, 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 from 27.07 in the United Provinces to 8.7 in Madras. As a result of the Simla Malaria Conference of 1909 a permanent committee was set up with a central bureau at Kasauli and a laboratory at Amritsar, and provincial committees have now been formed in the different provinces to carry out the policy recommended at the Conference. At Amritsar lectures are given to medical officers from the different provinces; a periodical is published, and pamphlets have been issued. The provincial committees during 1910 have been at work on the lines recommended by the Conference. They have investigated the local distribution of the disease and other problems, and have carried on an active campaign of quinine distribution and the extermination of mosquitoes by drainage, petrolage, &c. Special investigations have been carried out at Saharanpur, Nagina, Bombay (where it is now hoped that the drainage of certain mosquito breeding places may stamp out the disease), Amritsar, Delhi, and elsewhere.

The second Malarial Conference met in November 1911 at Bombay. Among other resolutions it was resolved that no one measure can be suitable for all local conditions. Recent investigations tend to show that anti-mosquito measures may not be as costly as was at one time feared. The importance of educating the people to co-operate in an anti-malaria policy was dwelt on.

Vaccination.—The total number of vaccinations performed among the civil population during 1910-11 was 9,081,194, being a slight decrease on the previous year's work. Of primary vaccinations 96·24 per cent., and of re-vaccinations 70·4 per cent., were successful, about 35·06 per mille of the population being successfully vaccinated. The number of infants successfully vaccinated was 46·44 per cent. of the number born.

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

1896-97	57,543	since that date. In 1907 the deaths from plague attained the
1898	116,285	highest total yet recorded, viz., 1,315,892, for India as a whole, the
1899	139,009	number in British India alone being 1,166,223, or 5·16 per mille.
1900	92,807	In 1908 the mortality declined enormously, falling to 156,480, the
1901	282,027	lowest total since 1900. In 1909 there was once more a relatively
1902	576,365	low mortality, namely, 178,808 deaths, or fewer than in any year
1903	883,076	since 1900, excepting 1908. In 1910 and 1911 there was a severe
1904	1,143,993	recrudescence, especially in Bengal, the United Provinces, and the
1905	1,069,140	Punjab. In the latter part of 1911 the virulence of the epidemic
1906	356,721	abated, and there is reason to hope that 1912 will see a much smaller
1907	1,315,892	mortality from the disease.
1908	156,480	Plague is so local in its visitations that all general and unanalysed
1909	178,808	statistics are likely to prove misleading. Many parts of India have
1910	512,605	been almost entirely free from its ravages, and in the greater part of
1911	842,086*	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 so severe as to disorganise the labour market and to affect the level of wages.

The reasons for this uneven incidence are at present under investigation. The mortality in Eastern Bengal and 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 large expenditure on plague-measures, and how far to natural causes, is undecided.

The efforts of Government to discover and apply the most effective methods of remedial action have not been relaxed. 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 continued their investigations, which have already 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.
- (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, the diminution of the food supply to which they have access, and, in the course of time, such improvement in the structure of houses as shall render them reasonably rat-proof.

SANITATION.

General.—The first All-India Sanitary Conference was held in Bombay in November 1911. Proposals for reorganising and developing the Sanitary Department by appointing medical officers of health and sanitary inspectors in the larger municipalities are under consideration. The following paragraphs give some account of the chief sanitary works undertaken in the various provinces during 1910.

Bengal.—In Calcutta steady progress was made with the great projects of water-supply and drainage, which are of vital importance to the health of the citizens. The water-supply is being doubled and the whole system of distribution reconstructed, so that the legal requirement of a continuous supply of filtered water at a pressure of 40 feet may be complied with. The principal feature of the scheme is a great elevated reservoir at Tallah, which was completed in January 1911. This reservoir contains nine million gallons; all the water will be pumped into it and distributed by gravitation through a large steel main. The pumps are capable of pumping 40 million gallons a day. Tolly's Nullah Sewage Syphon, a difficult piece of work, was opened in July 1910, and is working satisfactorily, while over half the drainage scheme in the Fringe Area, estimated to cost £200,000, has also been carried out. The death-rate of Calcutta was the lowest for 20 years. The Act constituting the Calcutta Improvement Trust was passed in August 1911. (See Chapter XV., Municipalities.)

The 130 municipalities in Bengal (excluding Calcutta) spent 40 per cent. of their income on sanitation. The greater part of a grant of £30,000 by the Government of India was expended on drainage. Much attention was paid to the working of septic tanks, especially those installed by mills on the banks of the Hooghly, and they are now acting with ease and efficiency. Schemes of water-supply were in hand at Puri, Gaya, Monghyr, and elsewhere. Drainage schemes were in progress in Howrah, Bhatpura, Garulia, and other municipalities. Details are in preparation for a further portion of the comprehensive Howrah drainage scheme. The work of improving the sanitary systems of villages was actively carried on.

United Provinces.—In the United Provinces a large proportion of their income was again expended by municipalities on conservancy, water-supply, and drainage. Sanitation made a considerable advance, especially in the larger municipalities. Important improvements in water-supply are under consideration or in progress at Benares, Cawnpore, Mirzapur, and elsewhere; progress was made with the drainage works at Lucknow, Moradabad, Jaunpur, and Budaun. The municipalities are eager to improve their drainage systems, but are hampered by lack of funds.

Punjab.—A sum of £10,000 was distributed to local bodies as a grant-in-aid for sanitary works. A reservoir was completed at Lahore, the Delhi and Dharmasala waterworks were extended, and progress was made with the Amritsar sewage disposal works and the Delhi suburban drainage scheme. In rural areas sanitation makes little advance, although the District Boards offer rewards for village sanitation.

North-West Frontier Province.—There was no sanitary work undertaken of outstanding magnitude, but there was a large expenditure on small improvements. The sanitation of Peshawar city continues to be a subject of controversy—the question of incineration being much debated.

Burma.—In Rangoon the urgently needed pumping station at Yegu was completed, but the bursting of a pipe delayed its commencing work. Reclamation work was carried steadily forward, the total expenditure being £100,000.

The Burma municipalities (exclusive of Rangoon) spent less than 30 per cent. of their income on sanitation, the cost of plague measures having left only a small amount available. Sanitation in Burma is in a very backward condition. Drainage improvement was undertaken at Henzada, Bassein, and Mandalay. Water-supply schemes were under consideration for Mandalay, Pegu, and other towns. The sinking of tube and Abyssinian wells, the improvement of bazaars and houses, and the protection of the drainage area of village tanks from contamination were the other chief activities of the year.

Central Provinces and Berar.—Out of the special Imperial grant of £13,333, £5,000 was allotted to the Nagpur municipality for its drainage scheme. Other large drainage schemes are on foot at Wardha, Akola, Jubbulpore, and elsewhere, and water-supply schemes at Gorewara, Chiklada, and Harda. A separate sanitary commissioner has been appointed, and the appointment of a sanitary engineer has been sanctioned. The scheme for improving the municipal sanitary staff proceeds slowly, owing to the financial weakness of the municipalities. The application of the Village Sanitation Act to Berar has been sanctioned.

Eastern Bengal and Assam.—The expenditure on sanitation amounted to about 54 per cent. of the income of the municipalities. Schemes for improving the sewerage and drainage of Dacca were under consideration, while the remodelling of the waterworks was completed. In most of the district headquarter towns there are at present important sanitary schemes in progress. Conservancy operations throughout the province are hampered by a shortage of sweepers. A grant of £5,333 was allotted for improving water-supplies in rural areas.

Madras.—In Madras city the construction of the new water-supply and drainage works inaugurated in 1907 proceeded steadily. A new water distribution scheme was completed during the year, and a general scheme for the drainage of the city is under preparation.

A special grant of £24,800 was made from provincial funds to local authorities for sanitary works. Sanitary progress in mofussil municipalities is slow, owing in some cases to want of money, in others to lack of interest and capacity for management on the part of the councils. No addition was made to the 18 municipalities provided with piped water-supply during the year, but waterworks were under construction at Salem, Vizianagram, and elsewhere. Comprehensive drainage schemes are contemplated in several of the larger municipalities, including a £138,000 scheme for Madura. The Sanitary Board supervised many sanitary works undertaken by local bodies.

Bombay.—The water-supply and drainage works in Bombay city were extended. Large areas of land (690,000 sq. yds.) were acquired by the Bombay Improvement Trust. Several improvement schemes for transforming insanitary areas were advanced, and chawls capable of housing nearly 14,900 people have been provided or are under construction.

Under the stimulus of liberal grants-in-aid, amounting to about £37,000, many improvements in water-supply and drainage are being carried out. At Hubli, Hyderabad, Pandharpur, and elsewhere extensive water-supply schemes were in progress. A project estimated to cost £116,000 has been commenced at Poona. Plans for a water-supply scheme for Aden are being prepared.

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 18,014, were medically inspected and their clothing and bedding thoroughly disinfected before embarkation.

HOSPITALS, DISPENSARIES, ASYLUMS, &c.

Hospitals and Dispensaries.—The civil hospitals and dispensaries in India, which numbered 2,685, against 2,652 in 1909, treated 456,755 indoor and 28,030,365 outdoor patients during the year. The great bulk of their income is derived from government and local and municipal funds, and their total expenditure in 1910 was £784,806. In addition there is a large number of special police and other medical institutions, as well as many private institutions which are not State-aided. These numbered 1,485, and provided treatment for 137,409 indoor and 6,631,253 outdoor patients. The United Provinces had the largest number of indoor patients, followed

by Bengal and Madras. Madras had by far the largest number of outdoor patients. The principal diseases treated are malarial fevers, diseases of the digestive system, ulcers and other skin diseases, diseases of the eye, diseases of the respiratory system and diseases of the ear. About 1,193,000 surgical operations (including dental operations) were performed.

During 1910 new hospitals have been opened, or old institutions enlarged, in Calcutta, Lucknow (where a medical college is being established), Delhi, Rangoon, and elsewhere. The success of the new general hospital at Rangoon in attracting women and children is a satisfactory feature. In Lahore the Medical College and the attached hospitals are to be enlarged and improved as a memorial to the late King Edward. The nursing system in the big Calcutta hospitals has been reorganised. The system of payment for treatment when the patient can afford it has been adopted from Bombay into the Punjab and Central Provinces. In most provinces the pay of the subordinate medical service has been, or is being, raised. Increasing attention is being paid, both by provincial and local authorities, to the training of female assistants and midwives in Bombay, Burma, the Punjab, and Eastern Bengal. In the United Provinces, in consequence of the inquiry into infant mortality at Cawnpore, a scheme has been prepared by the Provincial Committee of the Dufferin Fund for this purpose.

Pasteur Institutes.—There are Pasteur Institutes for anti-rabic treatment at Kasauli (Punjab) and Coonoor (Madras). The number of patients treated in the former in 1910 was 2,073 as against 1,937 in 1909, the corresponding figures for Coonoor being 827 as against 658.

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 1910 was 1,517, the average for the five years to 1910 being 1,563. The total asylum population of the year was 7,483. The causes of insanity are not very accurately classified, but the most important alleged cause is the use of hemp drugs. The expenditure on the asylums amounted to £69,800, most of which was borne by the State.

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 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 sufficient provision is made in them for the protection of Indian immigrants; and a similar provision is extended to natives of India engaged to emigrate, individually or in small parties, to work as artisans, for the purposes of an entertainment or exhibition, or for service in restaurants or other places of public resort. Emigration, otherwise than under contract to labour or work in one of the above capacities, is not controlled by legislation.

An amending Act was passed in July 1910 empowering the Government of India to prohibit emigration to any country, not only on certain specified grounds as under the 1908 Act, but whenever it is considered that there is sufficient reason for taking such action. Emigration to Natal was prohibited under this Act after the close of the year under review.

Calcutta.—There were five emigration agencies at work during the year at Calcutta, all representing British colonies. The total number of labourers requisitioned rose from 9,347 in 1909 to 12,153 in 1910. The number supplied during the year was

8,340. There was no alteration in the terms offered to intending emigrants. The number of recruiting licences granted was 658, as compared with 571 in 1909; 22 licences were cancelled. The total number of emigrants registered during the year was 12,968, giving an average of 19 emigrants per recruiter, as against 22 in the preceding year. This number was contributed by the different provinces in the following proportions:—United Provinces, 81 per cent.; Punjab, 7½ per cent.; Bengal, 6 per cent.; Bihar, 5 per cent.; Central Provinces and Ajmere, ½ per cent.

The number of emigrants admitted to the Calcutta depôts was 11,042, or 655 more than in 1909. Of the remainder, 1,473 were rejected subsequently to registration as unfit to emigrate. The percentage of deaths in the depôts was 0·67, as compared with 0·71 in the preceding year, and the percentage of rejections increased from 11·68 to 11·80. The percentage of desertions increased from 0·63 to 1·01. After deducting casualties of all kinds, there remained 8,963 emigrants available for despatch to the colonies, of whom 8,441 actually embarked during the year, as against 8,686 in the previous year. They were distributed as follows:—Fiji, 2,256; Natal, 2,030; Trinidad, 2,006; Demerara, 1,616; Mauritius, 533. The total number shipped included 2,209 women and 475 returned emigrants who re-emigrated. The death-rate on the ships carrying emigrants was 0·54 per cent., chiefly due to cerebro-spinal meningitis and respiratory diseases.

The number of emigrants who returned from the several colonies was 2,727, and their ascertained aggregate savings amounted to nearly £28,000. The average savings per head varied from about £56 in Surinam to about £7 in Natal, no figures being available for Mauritius; but 1,046 adults—over half of the total number—brought back no savings.

There was a slight increase in the average amount remitted by resident immigrants in respect of all the colonies save Fiji. The average was again highest in the case of Natal (nearly 13s.), and Fiji was again the only other colony where the average remittance exceeded one rupee.

Madras.—The total number of emigrants under the Emigration Act regulations was 5,979, as against 2,735 in 1909. Three thousand nine hundred and sixteen went to Natal, and the remainder to Fiji and Trinidad. Two thousand three hundred and sixty-nine emigrants returned from Natal bringing about £21,000 in savings.

As regards non-regulated emigration, the number of emigrants to the Straits Settlements increased from 48,719 to 85,015. The number of passengers on vessels bound for Ceylon likewise increased. In each case the demand for labour on the rubber estates was the cause. Passengers to Burma showed a slight increase, due to low steamer fares and high wages in Burma.

Bombay.—The number of emigrants shipped from the port of Bombay rose from 78 to 232. Of these, 86 were destined as artisans for British East Africa and 108 were engaged by the Anglo-Persian Oil Company for service in Persia. From Karachi 41 emigrants left for service on the Uganda railway, and 230 for Mohammerah. About 1,000 other emigrants, mostly from Surat, left for African and Asiatic ports. The number of emigrants who returned to Bombay was 118.

Migration.

Assam.—The total labour population at the end of March 1911 was 763,239, an increase of 4,920 on the figures for the preceding year. There was a further decline in the number of "Act" labourers, who now number only 20,868. The number of immigrants was 43,657, as against 39,332 in 1909-10. Of the 34,292 adults who immigrated, 28,482 were free labourers. The largest number came from the plains districts of the United Provinces and Bengal. The improvement in the health of coolies during transit was maintained, and the number of deaths fell to 23. The number of proved cases of fraudulent recruitment was 42. The number of contracts made in recruiting districts rose from 5,268 to 5,809, the number of coolies recruited by *sardars* being 616. The rate of wages slightly fell. The rate of mortality among adults fell to 32·2. Five complaints of ill-treatment were lodged by coolies against employers, of which three were dismissed. Desertions rose from 2,067 to 2,137. The relations between planters and villagers continued to be satisfactory. It is hoped that legislation tending towards the ultimate adoption of a free labour system will shortly be brought forward.

Burma.—During 1910, 331,170 immigrants and 298,613 emigrants passed through the ports of Burma.

Madras.—The number of passengers, excluding indentured emigrants, who arrived at the several ports of the Madras Presidency during the year was 303,628, against 300,712 in 1909.

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 to 1910 has been compiled from Government

Year.	Index Number for Articles imported.	Index Number for Articles consumed or exported.	Index Number for Food-grains (Retail Prices).
1873 -	100	100	100
1899 -	87	100	137
1900 -	96	124	192
1901 -	96	116	157
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

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 there was a general decline in prices, which was continued in 1910. 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 prices 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.

The following paragraphs relating to prices are based on statements contained in agricultural and other reports.

Bengal.—Prices, which had attained an unusually high level in 1906-7 and 1907-8, began to fall in 1908-9, and, owing to a favourable harvest, there was a considerable and universal drop in the price of food-grains in 1909-10 and again in 1910-11.

United Provinces.—Prices, which had been generally at a high level since 1905, and had been exceptionally high in 1907-8 owing to famine, declined substantially with the improvement in agricultural conditions in 1908-9, and the improvement and the decline have been continuous. There was a marked fall in the prices of food-grains, especially wheat, gram, and dal, though prices did not go back to the rates considered normal prior to 1905.

Punjab.—With good harvests in 1909-10 and 1910-11, the prices of the principal food-grains have gradually fallen. Except cotton, wheat, and rape-seed, all harvest prices were considerably lower than in 1909-10. Cotton prices again rose very considerably. Grain stocks are large, and the people are holding them up in anticipation of better prices.

North-West Frontier Province.—The prices of food-grains were generally easier than in 1909-10, except in the Hazara district. This decline was the natural result of good harvests. The price of cotton was higher than ever owing to the world-shortage.

Central Provinces and Berar.—The damage done to kharif crops by rain was compensated for by a good rabi crop. Prices were lower, except cotton and oilseeds, which were affected by external demand.

Burma.—Paddy prices were abnormally high owing to diminished outturn throughout the province, and consequently the stock held up was less than in 1909-10. Prices of cotton, ground-nut, sesamum, and millet also rose.

Eastern Bengal and Assam.—The fall in prices of food-grains has been continuous since 1907-8. The exports of rice have exceeded the imports since 1909. Jute rose again after the fall of the last three years.

Madras.—The prices of food-grains were easier in most, but not all districts. The general level of prices was, however, still high. Net imports of food-grains decreased.

Bombay.—Owing to the excellent season the prices of food-grains (rice, millet, wheat, and gram) slackened in almost every district, but were still above the normal. The keen demand for cotton, combined with the damage to the Bombay crop, sent prices up from 9 to 14 per cent. over the very high prices of the previous year.

WAGES.

(For further details see *Statistical Abstract for British India, Tables 206 to 208.*)

Bengal.—The high level of wages reached in 1907-8 and 1908-9 was generally maintained during 1909-10, money wages being kept up in spite of lower food prices. This is due partly to the growing demand for skilled labour in towns and in mills, collieries, and brickfields, and on railways, partly to the high prices of food-grains, and partly to the general rise in the standard of comfort. The Bengal Government has arranged for a quinquennial wage census.

United Provinces.—The year was such as to afford full occupation to labourers. Wages show no sign of returning to the level customary a few years ago, but are still tending to rise, although the renewed epidemic of plague, by disorganising the supply of labour, tended to check agricultural enterprise. The rise of wages is all to the good for the labourer, and the low-caste small cultivator who works the land with his family and occasional help has little ground for complaint, but high-caste cultivators feel the change in cases where they cannot command labour at the old customary rates. Landholders who cultivate any considerable portion of their land feel the change acutely, and are taking much interest in all kinds of labour-saving machinery. A wage census was taken in 1911.

Punjab.—The demand for labour is still in excess of the supply, and wages continue to increase. In December 1909 a wages survey was carried out in 4,728 Punjab villages. Purely cash rates obtain in 49 per cent. of these, cash rates with supplementary allowances in 48 per cent., and purely grain rates in 3 per cent. Wages of unskilled agricultural labourers have generally doubled in the last 20 years, the advance being specially rapid in the last five years. Actual rates vary much, and a few examples only can be given. Wages are highest, 6 to 8 annas per day, in the Central Punjab and in the new canal colonies, where development has been most marked and plague most severe. Hissar and the submontane districts of Hoshiarpur, Gurdaspur, and Sialkot return 5 annas, but later reports give 10 annas a day as the minimum wage for unskilled labour in Hissar and Lyallpur during 1910-11. In other districts the rate is 4 annas, except in Rohtak (3½ annas), Delhi and Kangra (3 annas), and Gurgaon (2 to 3 annas). The Delhi district has not been so much affected as other districts by plague or by the opening up of irrigated areas. The wages of village artisans and ploughmen have also practically doubled in 20 years. The causes of the great increase in wages are the marked rise in the prices of food-grains, heavy mortality from plague, and the greater demand for labour owing to extensions of cultivation, irrigation works, railways, and buildings, and the starting of factory industries. Since about 1900 labourers have been in a position to dictate terms to employers. Customary rates have given place to competition wages, and labourers move freely in search of more remunerative employment. The shortage of adult labour in factories is serious, though the wages earned are higher than those of agricultural labourers, as, indeed, are urban wages generally.

North-West Frontier Province.—There is no separate class of agricultural labourers in the province. The demand for field-labour remained the same. There is a great demand for unskilled labour for canal and other works and for military and other non-agricultural purposes. Where such works are in process, wages vary from 4 to 8 annas.

Central Provinces and Berar.—Wages continued very high during 1910-11, and the prevalence of plague caused a shortage of labour which more than counterbalanced the decreased activity of the cotton mills. As usual, there were frequent complaints of a shortage in the supply of labour.

Burma.—The poor harvest in Lower Burma did not adversely affect the agricultural labourer, who is paid a stipulated quantity of rice, but in Upper Burma there was a change for the worse. Rubber plantations offer increasing employment at good wages. The supply of labour is short in many districts. Factory coolies get from Rs. 12 to 15 a month.

Eastern Bengal and Assam.—The year was favourable to agriculturists, and the average wages of unskilled agricultural labourers remained at the high level of the previous year, while food prices were lower. An inquiry into the prevailing rates of wages is in progress.

Madras.—Wages are slowly rising to counteract the attractions of the rubber-planting districts in India and elsewhere. Owing to the high price of produce many small cultivators, who ordinarily would have had to supplement their income by working as coolies, were able to make a living off their land.

Bombay.—The demand for labour again exceeded the supply, and there was an upward tendency of wages for unskilled labour despite the falling prices. There was an almost general complaint of lack of labourers. The cotton industry continued depressed. The rise in wages for skilled labour was less noticeable than for unskilled. No labour troubles of importance occurred. The commercial and industrial expansion of cities like Bombay, Karachi, and Ahmedabad, the growth of mining, and the construction of public works, offer a wider field every year for skilled and unskilled labour. Everywhere the labouring class has improved its position and is becoming more independent.

FAMINE OR SCARCITY.

In two districts of Burma partial failures of crops caused a scarcity which, however, was sufficiently met by local measures without resort to the Famine Code.

GENERAL REMARKS.

The following general notes on the condition of the people during the year are based on observations recorded by the Provincial Governments.

Bengal.—The comparative poorness of the harvest of 1908-9 (especially in Behar), succeeding two years of bad crops, made that year one of hardship for all classes. In the early part of 1909-10 distress continued in some districts, but with good rainfall normal conditions of agriculture returned, prices of food-grains fell, and labourers found full employment. The condition of agriculturists improved considerably through the good harvests. The standard of living is rising among the labouring classes as shown by their increased demand for petty luxuries. The agricultural population are beginning to clear themselves of debt.

United Provinces.—The year brought a further marked improvement in general prosperity, with falling prices and rising wages. The great malaria epidemic has come to an end and the mortality is normal, despite an epidemic of plague and local outbreaks of cholera.

Punjab.—Agricultural conditions were favourable, though not quite so good as in 1909-10. There has been an unquestionable advance of late years in the standard of comfort and in the intelligence and enterprise of the agricultural classes. Food, clothing, houses, and utensils all show an improvement. The prosperity of the irrigation colonies in particular is shown by the large circulation of sovereigns, and £147,000 was remitted from the Lyallpur Colony district alone by money order to other districts.

North-West Frontier Province.—The condition of the people was generally prosperous and improving. The harvests, both spring and autumn, were above normal.

Central Provinces and Berar.—The year 1910-11 continued the good conditions of 1909-10. The harvest was excellent, prices low, and demand for labour keen. The shortage of cotton was compensated for by the high prices obtained.

Burma.—In Lower Burma the harvest was not so good as in 1909-10, but high prices compensated the agriculturists for this. In various districts it is reported that the demand for labour exceeds the supply. Rubber cultivation is employing an increasing number of well-paid labourers. In Upper Burma the bad harvest was more severely felt, and deteriorated conditions were reported from some places. Prices, though lower than in the previous year, were sufficient to yield a good return. A good deal of Indian loanable capital has been withdrawn from agriculture in recent years for investment in oil and other industrial companies. The population in general is increasing in prosperity, comfort, and intelligence.

Eastern Bengal and Assam.—Although rice and jute gave somewhat smaller outturns than in 1909-10, the increase in prices made up for this, while the price of the chief foodstuffs fell, and the year was on the whole distinctly favourable. There were floods in Mymensingh which did some damage.

Madras.—Both the south-west and north-east monsoon were more favourable than the average. Prices continued high, and wages are rising. The latter tendency adversely affects the large landholder, but the small cultivators who work on their own land are doing well, and in many cases acquiring sufficient capital to make them independent of the money-lender.

Bombay and Sind.—Owing to the excellence of the season many small agriculturists found it unnecessary to supplement their means of livelihood by undertaking day-labour, thus increasing the scarcity of labour in this province. This was the third good season running in Bombay, and there are signs in all directions of increasing prosperity.

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 1910-11 and its actual strength on 1st April 1911 were as follows:—

	Sanctioned Establishment.	Actual Strength.
British officers	6,255	6,318
British warrant and non-commissioned officers and men	73,613	74,263
Native officers, non-commissioned officers, and men	159,426	151,974
Total, 1910-11	239,294	232,555
„ 1909-10	238,989	232,814

During 1910-11, as in the previous year, four battalions of Native infantry were employed in the colonies. One battalion from the Indian establishment continued to be absent in North China. One battalion was employed for a short time in Somaliland.

The sanctioned establishment of the Native army reserve was 35,736, and its actual strength on 1st April 1911 was 39,732, as against 37,422 on 1st April 1910.

The number of Volunteers in the whole of India on 1st April was as under:—

	1910.	1911.
Enrolled strength	38,402	39,012
Efficients	36,816	35,009
Reservists	2,461	2,859

The net expenditure on the army (exclusive of Special Defence Works) in 1910-11 as compared with that in 1909-10 was as follows:—

	1909-10.	1910-11.
	£	£
Effective charges	14,878,644	14,997,969
Non-effective charges	3,044,809	3,075,162
Total	17,923,453	18,073,131

During 1910-11 special funds were allotted for the purchase of arms and for the reconstitution of the reserve of artillery horses. Progress was made in the construction of a better type of lines for Indian infantry.

The operations of a combined military and naval force sent to the Persian Gulf in January 1910 for the suppression of the illicit traffic in arms were continued during the year 1910-11.

Health of the British and Native Armies.—During the year 1910 there were no adverse conditions to check the remarkable improvement of recent years. In the British Army the rates of admission to hospital, of constantly sick, of invaliding, and of mortality, shown in the table on the next page were the lowest ever recorded. Every chief disease, except tubercle of the lungs and diseases of the respiratory system, shared in the decrease of sickness. An important cause of the recent and rapid improvement in health is personal hygiene, soldiers being instructed how to protect themselves against enteric fever and malaria. As regards enteric fever, they are taught by leaflets and lectures the advantages of inoculation, and mosquito curtains, anti-larval operations, segregation, and quinine treatment are employed to guard against malaria. The marked decline in venereal diseases is attributed to the encouragement of healthy pastimes, to education and a better moral tone, and to the growth of temperance, as well as to improvement in the methods, and the longer duration, of hospital treatment. There was much greater sickness and mortality during 1910 in the Northern than in the Southern Army. There was a decline in

invaliding, from 649 to 563, tubercle of the lungs, nervous, mental, and ear diseases being the chief causes. The decline of admissions for malaria from 14,511 in 1909 to 9,572 in 1910 (*i.e.*, from 203 to 132 per mille) is particularly gratifying. The rate for all venereal diseases was 58·9 per mille, which compares favourably with 67·8 in 1909 and still more with 486 in 1897. The chief causes of death were enteric fever and abscess of the liver, the mortality from these being 0·63 and 0·48 per mille respectively. The mortality from enteric fever was the lowest ever recorded, and the number of deaths was only 46 as against 113 in 1909.

The health of the Native troops was extremely good, all the rates shown in the table below (save that of "constantly sick") being the lowest on record. The chief cause of sickness was, as usual, malaria, the admission rate for 1910 being 160 per mille, or 28 per cent. of all cases of sickness, as against 180 in 1909. Pyrexia, dysentery, and respiratory diseases were other important causes of sickness. Pneumonia, which, as usual, was the chief cause of mortality, accounted for 27 per cent. of all deaths, the rate being 1·34 per mille. Enteric, respiratory diseases, and malaria helped to swell the mortality. There were 22 deaths from plague during the year. The chief causes of invaliding were tubercle of the lungs, injuries, venereal diseases, and debility. Sickness and mortality were much higher in the Northern than in the Southern Army.

	Ratio per Mille of Strength.					
	British Troops.			Native Troops.		
	Average 1904-8.	1909.	1910.	Average 1904-8.	1909.	1910.
Admissions into hospital -	840·6	716·9	576·5	635·6	584·2	572·8
Constantly sick -	50·6	40·3	31·9	22·9	20·8	21·1
Deaths -	9·86	6·25	4·66	7·34	5·62	4·89
Invalids -	25·23	9·07	7·77	8·13	5·74	5·21

MILITARY WORKS.

The net expenditure on military works in 1910-11 amounted to £829,844. There was also an expenditure of £7,987 on Special Defence Works. The corresponding figures for 1909-10 were £782,569 and £28,604.

MARINE.

The net expenditure on marine services amounted to £354,080 in 1910-11, as against £377,697 in 1909-10. 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 1st April 1911 the Royal Indian Marine consisted of three troopships and ten other sea-going vessels, three inland vessels, three flats, one hulk, and a number of small steamers, launches, &c. There was an establishment of 104 executive officers, 82 engineer officers, 65 warrant officers, and 12 assistant surgeons of the Indian Subordinate Medical Department; while the native crews of the vessels (seamen, artificers, and others) numbered, in all, 1,961.

CHAPTER XVIII.

FRONTIERS AND NATIVE STATES.

FRONTIER STATES.

Baluchistan: Frontier and Native States.—The province was generally peaceful during the year 1910-11, though the Northern Zhob frontier was considerably harried by trans-border outlaws. Serious crime decreased by nearly 22 per cent.

The whole of the country, with the exception of Kharan, was included in the census of 1911. The provisional total of the population was given at 811,000, to which should be added that of Kharan, estimated at 19,000.

Owing to want of rain, the year was not a prosperous one for agriculture. As a result of a visit to the Allahabad Exhibition, some modern machinery has been introduced by leading Zamindars, and far reaching results are hoped for. An attempt is to be made to introduce the European olive into Baluchistan, and the development of the fruit industry is proceeding. Large irrigation and water storage projects are in contemplation in the Loralai, Quetta-Pishin and Sibi districts.

The land revenue, amounting to £59,400, was £7,400 less than in the preceding year. The raising, from 1st April 1910, of the duty on bhang to the rate imposed in Sind, resulted in a reduction of the amount consumed in Baluchistan during the year by 60 per cent. Large quantities of the drug had in previous years been smuggled into Sind.

A reorganisation of the civil offices took place during the year. The posts held by trained teachers in the elementary schools were made pensionable.

The total value of trade with Persia and Afghanistan showed a small advance. Trade with Persia, £82,300, was somewhat less than in 1909-10. Exports to Afghanistan slightly increased. English piece goods appeared to be preferred to Indian manufactures in the Afghan market. On the other hand, the export of Indian cotton piece goods to Persia more than doubled, while there was a heavy reduction in the demand for the European product. Owing to a decrease in imports, the total trade between Baluchistan and India fell off to the extent of £75,600.

Apart from a few minor raids by trans-border tribesmen, the Quetta-Pishin frontier was generally peaceful. But in Zhob many border disturbances took place, especially during the latter half of the year, and the Zhob Levy Corps was attacked on several occasions. The raiders were mostly Mahsuds, Sulemankhels, and Shiranis. The weapons of the Zhob Levy Corps having been found inferior to those of the tribesmen, it has been decided to issue 303 rifles to the corps.

Several murders were committed in the Loralai district, without the detection of the offenders. Dissensions among the Hamzazai tribesmen caused some trouble towards the close of the year.

The only tribe whose conduct proved distinctly unsatisfactory were the Shiranis of the Zhob district. Their condition of unrest was attributed partly to their lack of unity, and remedial measures have been proposed, though no decision was arrived at during the year.

In the Sibi and Zhob districts, 2,000 cases in which natives were concerned were disposed of by reference to tribal jirgas. The system has been found to work satisfactorily and tends to spread. The findings of the jirga are usually accepted by the Political Agent.

The combined naval and military operations in the Persian Gulf were continued during the year. Several large consignments of arms and ammunition were captured by H.M.'s ships, and the landing of arms on the Mekran coast was rendered more difficult. A large proportion of the Afghans and tribesmen who proceeded to the gulf with the object of purchasing arms are reported to have failed to obtain them, and the trade is now looked upon as extremely difficult and hazardous.

In consequence of unfavourable seasons the revenues of the six Niabats that are administered by the Political Adviser to the Khan of Kalat fell off considerably. In Jhalawan the relations between the tribesmen and their Sirdars were not satisfactory.

Sericultural operations in Kalat were temporarily abandoned, after a seven years' trial, owing to the loss incurred. It is proposed to repeat the experiment in a few years' time when the State has at command an adequate supply of mulberry trees.

The unsatisfactory attitude of the Chief of Kharan* continued, despite a meeting with the Political Agent, in August 1910, at which he admitted his past misconduct and promised amendment.

North-West Frontier Province.—During the year under report conditions varied considerably on different parts of the border. The relations with Government of the tribes north of the Kabul river and west of the Indus remained friendly. The tribes south of the Kabul river, viz. the Afridis, Orakzais, Wazirs, and Mahsuds, at times gave cause for anxiety. In particular the Adam Khel Afridis made a bold, but entirely unsuccessful, attempt to obtain compensation from Government for losses due to the suppression of the trade in smuggled rifles and ammunition. The outstanding feature of the year, especially on the Kohat and Bannu borders, was the great growth in the number and importance of gangs of professional outlaws, who, from bases across the border, harassed and kidnapped inhabitants of the settled districts. The matter engaged the attention of the Government of India, who addressed H.M. the Amir, with the result that all the captives then in Afghanistan were released, and most of the notorious outlaws in Khost arrested by the Governor of that province. The remaining outlaws were thereby driven into the belt of independent territory between our administered districts and the Afghan border, and it was then possible, by putting pressure upon the tribes, to deal with many of the more notorious raiders. At the close of the year the border was quieter than it had been for some time.

The Indo-Afghan Commission, referred to in the previous Report, which met from May to October 1910 for the consideration of outstanding disputes, besides settling a large number of cases, came to an agreement with regard to the removal of outlaws from both countries to at least 50 miles from the border. In addition the presence of the Commission, indicating as it did some solidarity between the British and Afghan Governments, exerted a pacific influence locally. This was particularly the case in Kurram. Within the Kurram valley a steady advance in prosperity was recorded.

In Dir, Swat and Chitral the year was not marked by any striking events, and relations with the chiefs and tribes continued satisfactory. The harvest in Swat was the finest ever known.

As regards the Mahsuds the year opened inauspiciously. Raiding was prevalent, and the well-behaved sections were suffering for the misdeeds of others. But subsequently, owing to the efforts of the local officers, better relations were established, raiding was greatly reduced, and employment in connection with road-making and railways was found for large numbers of Mahsuds. The reports received on the quality of the work done were very satisfactory. At the close of the year the conduct of the Mahsuds was better than at any time in their history.

Caravan traffic through the Khyber went on throughout the year without interruption, and the receipts from tolls increased. The fact that two of the Amir's motor cars ran through to Peshawar from Jalalabad deserves to be placed on record, as a landmark in the history of the road.

A high standard of discipline and behaviour was maintained in all the Frontier Militia Corps. The difficulty of obtaining suitable recruits for the Northern and Southern Waziristan Militias was still experienced. The question of the reorganisation of the Border Military Police, the state of which was very unsatisfactory, remained under consideration.

Kashmir.—In Kashmir the year 1910-11 was uneventful and marked by no great changes in the administration.

The finances of the State were in a satisfactory condition. The actual receipts for the year were £757,700, against £761,400 during the preceding year, which was financially the most prosperous year in the recent history of Kashmir, and the actual expenditure was £707,500, against £706,900 during 1909-10, resulting in a surplus of £50,200. This satisfactory result was brought about largely by the generally prosperous revenue receipts, especially in the Forest and Sericulture Departments. The year closed with a cash balance of £225,000 as against an opening balance of £161,600.

There was great activity in the Public Works Department during the year. A new rest-house at Baramulla, a new Palace at Anantnag, and improvements to both the Jammu and Srinagar inner palaces were completed. A building for seed selection

* Shortly after the close of the year under review the Chief was murdered by the Sepoys of his guard. The Government of India have since recognised the succession of his eldest son, Sardar Habibulla Khan, and approved measures for the administration of the State during his minority.

and testing in connection with the silk factory was constructed at Srinagar. A cocoon shed, an office, a sorting room, and a weighing shed were completed at Jammu. A boarding house in connection with the Prince of Wales' College in Jammu and New Body Guard Lines at Satwari in Jammu were completed. A lunatic asylum was commenced in the Srinagar Jail, and a leper asylum at Jammu. Under irrigation, the Tawi Protection Works against erosion of the Tawi river at Jammu, which were commenced in 1905-06, were completed. Various improvements were effected on existing roads and certain minor bridges were repaired or constructed. The Jhelum Power Electrical scheme worked most satisfactorily and considerable progress was made with the connected dredging scheme.

The working of the Sericulture Department was very satisfactory. The number of rearers in Kashmir and Jammu rose from 27,109 to 36,111, and the cocoons produced increased from 37,663 to 42,093 maunds.

During the year two high schools, two secondary schools, and thirty-two primary schools were opened, besides one college and three girls' schools. Three primary schools were raised to the standard of secondary schools, and the total number of educational institutions stood at 212.

A cattle fair was held at Jhiri, near Jammu city, in November 1910, and was a great success. Prizes were distributed for the best animals as a stimulus to horse and mule breeding.

A serious epidemic of cholera lasted from June to November and accounted for 9,218 deaths out of some 18,448 seizures. Plague appeared in the Jammu province during the winter and there were 598 deaths out of 1,015 seizures.

Sikkim.—During the year 1910-11 the weather conditions were generally favourable and the rainfall was normal. The staple crops, maize and rice, were good and prices ruled low. The orange crop was an abnormally large one. Labour was scarce and high wages prevailed.

The public health was on the whole good. The State was free from all serious epidemics. A small dispensary was opened at Vok near Namchi by the Church of Scotland Mission.

5,675 persons were vaccinated, against 6,105 persons during the preceding year. Progress of education in the two boarding schools maintained in the State was fair, and the health of the boys was good. The Maharaja continues to take an interest in both the schools. Vernacular schools were opened by the Maharaj-Kumar in Namchi, Rhenok, and Pathing. The Church of Scotland Mission, assisted by the State, maintained 12 day schools, 12 night schools, and 3 lace schools. Efforts are being made by the Mission to improve the teaching in the schools by the adoption of some kindergarten methods.

A census of the population of the State was taken during the year. The result showed an increase of 49·4 per cent. upon the figures of 1901.

The demarcation of the forest areas in the State was completed and the survey of the same was nearly finished.

The receipts and expenditure of the State during 1910-11 amounted to £12,766 and £13,096, against £12,770 and £13,170 respectively during the preceding year.

The Sikkim Debt Regulations were passed by the Council in November 1910.

The most important domestic event of the year was the death of the Maharani of Sikkim.

Frontier Tribes of Eastern Bengal and Assam.—The customary distribution of *posa* was made to the Bhutias, Kapachar Akas, and the Charduar Dalias. With a view to stimulating Bhutia trade the reconstruction of the road between Darranga and Dewangiri was taken into consideration. A punitive expedition had to be sent against certain Dalia raiders. In consequence of disturbances among the Gachi Miris, in which settlers in British territory were involved, orders were given for the removal of the latter to a distance from the Inner Line. The Mishmis were still blockaded, with the few exceptions noted in the Report for 1909-10. In the course of a tour early in 1911 in the direction of Rima, Mr. Williamson, Assistant Political Officer, Sadiya, found that the Chinese had asserted their authority over all the Tibetan villages in this region, and had placed two flags, as boundary marks, within a short distance of Menikrai.

In March 1911 Mr. Williamson, accompanied by Dr. Gregorson, visited the Meyong villages to inquire into the extent of Tibetan influence in that direction. On advancing to Komsing Mr. Williamson was at first treated well, but a sudden attack was made on his party, and, with the exception of five coolies, all were killed. Dr. Gregorson and his men, who had remained at Sishin, were also murdered.

There was reason to believe that the murder was prearranged, and that several of the Meyong villages were involved. The five refugees were picked up by a force of Lakhimpur military police, who advanced to Pasighat.*

In the Naga Hills a raid committed during the previous year was punished by an expedition which destroyed the offending village. The deforestation of certain areas in the Garo Hills was sanctioned, and house-tax paying Garos were granted privileges with regard to wood cutting. The education of the rising generation of Lushai chiefs, several of whom showed considerable promise, received careful attention, in view of a tendency towards the weakening of the chiefs' authority, owing to the rapid progress made among the Lushais in recent years. The Siems of the Khasi and Jaintia Hills generally behaved well, but those of Mawsanram and Nongspung continued to seek opportunities of extending the boundaries of their territory. There was some opposition to the census operations, due to a fear that evidence would be collected that might prove of value in the event of a boundary suit.

Information as to the Manipur State is given on page 131.

Burma.—Kachin Hills and North-Eastern Frontier.—The condition of the Chinese marches was in the main peaceful, only one raid into British territory taking place. In unadministered territory the most notable event was the despatch of columns to Hpimaw and Hkamti Long from Myitkyina. The attitude of the tribes encountered was friendly. A military police post was established at Lauhkaung, on the Nmaikha. The total number of criminal cases instituted in the Kachin Hill Tracts fell, but violent crime increased in the Bhamo district. The amount of tribute demanded rose, but collection was effected without difficulty. The work done by headmen was generally good, and inter-village paths were well maintained.

The Chin Hills.—During the year joint columns of military police were successfully despatched, from the Upper Chindwin district and the Naga Hill Tracts respectively, for the purpose of punishing the village of Makware, in unadministered territory, for a raid perpetrated in Upper Chindwin. In the Chin Hills proper the rate of tribute was raised, but the enhanced demand was realised without difficulty. In the other administered regions inhabited by Chins the year was uneventful.

Shan States.—The condition of the Southern Shan States remained peaceful; the rainfall was favourable to cultivation, and trade and the revenue of the States expanded. The new railway line to the Southern Shan States was surveyed as far as Yawngghwe, the proposed terminus. Government was compelled to reduce its grant to the Shan States for ordinary public works, but the contributions of the Chiefs were greater than in the preceding year. Throughout the States serious crime showed an increase, though the amount of crime of the less heinous kinds diminished. In the Northern Shan States the border was not free from disturbance. In the unadministered regions in the east of the States there were also dissensions, and measures of re-organisation were found to be necessary in the management of the State of North Hsenwi. The State of Mong Mit enjoyed an uneventful and prosperous year.

Five new public schools were registered in the Northern Shan States.

Karenni.—The year was notable for the success of the efforts of the Council administering the State of Kantarawadi to restore its finances, and for an extension in the cultivated area, affording a new means of subsistence to a population that had chiefly depended on forest occupations for a livelihood, until the decline of the timber trade during recent years.

NATIVE STATES.

Hyderabad.—The information regarding the administration of Hyderabad is for the calendar year 1910, during which period the State was ruled by Lieutenant-General His Highness Sir Mahbub Ali Khan, G.C.B., G.C.S.I. His Highness died on the 29th August 1911 and was succeeded by his son, Usman Ali Khan.

The rainfall in the State averaged 36 inches or 7 inches more than during the year 1909 and was ample except in the Raichur district. The prices of food grains were uniformly lower than during the preceding season.

The State was almost free from plague during the early part of the year. The disease, however, steadily increased during the latter part of the year and between July and December the monthly number of deaths rose from 115 to 1,399.

* Punitive operations against the Abors were undertaken by an expeditionary force at the close of 1911.

Some advance was made towards the settlement of the long-standing dispute between Ushtepalli in the Hyderabad State and Gudimetla in the Krishna district of the Madras Presidency.

A Commission met in November 1910 to settle the boundary disputes between the Nizam's Dominions and the Kurundwad States in the Bombay Presidency.

In January 1910 the late Nizam entered into a reciprocal arrangement for the service of processes, free of charge, with certain States in the Malwa Political Agency and subsequently extended this arrangement to certain other States in the Central India Agency.

Owing to the difficulties experienced in the extradition of criminals between British India and Berar, negotiations were opened with His Highness's Government with a view to the conclusion of a treaty providing for the unrestricted extradition of offenders from Berar to British India and *vice versa*. The agreement was eventually signed in 1911.

With a view to preventing the dissemination of seditious literature in his State, the late Nizam issued a notification prohibiting his subjects from taking in certain extremist papers published in British India. At the same time an arrangement was made with the British Government for the seizure by the postal authorities of such objectionable literature as might be received through the Imperial post offices in the Hyderabad State.

The output of gold mined by the Hutti (Nizam) Gold Mining Company, Limited, was 15,762 ounces, valued at £60,450 2s. 6d., showing an increase of £4,029 7s. 2d. over the returns for the previous year. The cost of working, however, increased. The Singareni Collieries, which are owned by the Hyderabad (Deccan) Company, Limited, produced 506,173 tons of coal during the year under review, against 412,893 tons raised in 1909. The average number of persons employed daily in the collieries was 9,031, against 8,517 during the preceding year.

In June 1910 the Hyderabad Government agreed to the construction of a telegraph line along the road from Raichur to Hutti, and to the opening of a combined post and telegraph office at the latter place, the line to be constructed and maintained as part of the Imperial system.

The money order system was introduced in the Nizam's post offices with effect from the 20th September 1910.

His Highness the Nizam's Government sanctioned the grant of a licence to the Indian and Colonial Development Company, Limited, of London, for a motor-car service in the Hyderabad State.

His Imperial and Royal Highness the Crown Prince of the German Empire and of Prussia visited Hyderabad in December 1910, and was the guest of the late Nizam. Before his departure the Prince invested His Highness with the first class of the Order of the Red Eagle.

Remission of sentences, on the same scale as that prescribed in British India, was granted by the Nizam's Government to prisoners in the State jails to mark the accession of His Majesty King George V., Emperor of India.

Mysore.—The rainfall during the year 1910-11 was timely and general, the average for the State being 48·29 inches or 10·11 inches more than in the preceding year. As a result the outturn of crops was distinctly good and the prices of food-grains fell to some extent.

The public health was not satisfactory. The birth-rate was 18·25 per mille of population, against 16·63 in the preceding year. The death-rate was higher, the ratio being 19·92 against 18·70 during 1909-10. Though small-pox and cholera were less virulent than in the previous year, fever continued to be the cause of an increasing number of deaths. Plague also prevailed widely and claimed a large number of victims. The usual preventive measures were adopted in all the affected places, particular attention being paid to prompt evacuation and inoculation.

The total number of persons vaccinated was 62,261, against 102,438 in the preceding year. The decrease was due to the prevalence of plague and in part to the failure of an adequate supply of lymph for some days owing to a difficulty in obtaining the required number of calves. The system of compulsory vaccination was continued in the Mysore and Bangalore cities, on the Kolar Gold Fields, and in certain other municipalities in the State.

Eight cattle shows were held and were well attended. A pony show at Harihar and an Agricultural and Industrial Exhibition on a small scale at Channagiri were also held in connection with the cattle shows at these places. An Industrial and

previous year. The area under opium diminished and the out-turn was only moderate. The prices of food-grains ruled higher than the average except in a few localities. This was partly due to the absence of rain during the month of August, but a few showers received towards the end of December caused a fall in prices. The condition of the agricultural stock was generally good, except in Narsingarh, where the cattle suffered during the months of August and September. Generally speaking, there was a return to more prosperous conditions—a change which, coming after a series of lean years, was much appreciated by the people and helped to improve the finances of the States. In all States forestry continued to receive increased attention. Experiments made in the propagation of lac promised good results.

Small-pox again visited Central India, but though more or less widespread it was not severe. The total number of deaths from plague was 3,533, against 1,404 during the preceding year. An outbreak of cholera occurred during the Singhasht Mela at Ujjain in May, and spread to the adjoining parts of the Indore, Gwalior, Bhopal, and Malwa Agencies.

The total outlay on Imperial Public Works amounted to £53,040, against £78,920 during the preceding year. The total length of roads maintained by the Department in Central India was 755½ miles, against 750½ during the year 1908-09.

The actual strength of the Central India Agency Police Force was 49 below the sanctioned strength of 470 of all ranks. This was chiefly due to the difficulty experienced in recruiting. An increase of Re. 1 per month in the pay of constables, to which provisional sanction was accorded during the year, relieved the situation.

The expenditure incurred on the Daly College buildings during the year was £11,660, bringing the total expenditure up to £50,350. The number of boys on the rolls was 55, against 69 during the preceding year. The health of the boys was satisfactory on the whole. The College, however, had to be closed for some time owing to an epidemic of plague.

Ruling powers were granted to Rana Ranjit Singh of Barwani in January, 1910.

Rajputana.—The following information regarding the Native States in Rajputana is for the year 1909-10.

The rainfall was timely and well distributed throughout the Agency, except in Jaisalmer, Kishangarh and Sirohi. Generally speaking, the outturn of crops was satisfactory and the condition of the people good. No coercive measures were resorted to for the collection of State dues. The prices of foodstuffs exhibited a general tendency to fall, and there was a general immunity from famine and a decrease in serious crime.

The public health was not on the whole satisfactory. Cholera broke out in Kota and Dungarpur city, and in the latter State malaria was prevalent. The usual measures to combat the disease were taken. Plague occurred in an epidemic form in Jaipur, Bharatpur, Marwar, Mewar, Tonk and Alwar. In the infected villages evacuation, disinfection, and segregation were carried out largely by the people themselves, the poorer being aided by the State.

The condition of agricultural stock was generally fair, and there was no scarcity of water or fodder supply.

In Jaisalmer there was a rise in the prices of food grains, which was mainly attributable to deficiency of rainfall and greater exports and smaller imports as compared with the preceding year.

In Banswara a considerable amount of waste land was brought under cultivation. Cattle disease was severe in certain villages of the State.

In Shahpura the out-turn of kharif crops was good. Maize, which is the staple food of the chiefship, grew abundantly.

*In Dholpur excellent crops were harvested, yielding a full out-turn. Trade was remarkably brisk.

In Dungarpur both the kharif and rabi crops were of very fair quality and good harvests were reaped. The area under cultivation for rabi rose from 7,635 in 1908-9 to 13,091 acres in 1909-10. Fodder reserve as a precaution against famine was started on a moderate scale throughout the State.

There was an appreciable increase in the cultivated areas under kharif and rabi in Bharatpur.

In Bundi the agriculturists were specially benefited by good harvests.

Egyptian cotton was grown on the experimental^a farm in the Sirohi State, and attempts were made to encourage its cultivation by agriculturists.

* The Maharaj Rana of Dholpur, who died in March 1911, has been succeeded by his brother.

The Stratton Cattle Fair was held at Dig in Bharatpur from the 27th August to the 2nd September 1910. The number of cattle at the Fair was the largest on record.

In Bharatpur a second cotton ginning factory was started during the year under review.

The year 1909-10 was one of great activity in the Public Works Department of the Marwar* (Jodhpur) State, the total outlay aggregating over six lakhs. The survey of the proposed extension of the Jaipur State Railway northwards to Churu in Bikaner was completed, and the Durbar were ready to begin construction operations.

The number of State schools in Bharatpur fell from 107 to 103. The number of private institutions rose from 33 to 40. A lower primary school was opened. The school at Khamera in Banswara was closed owing to the small attendance, and a new school at Bori was opened. The foundation stone of a girls' school to be called "The Colvin Girls' School" was laid at Jhalawar.

At Lohari in Mewar (Udaipur) a Hindu school was instituted for educating the Mina boys. In Marwar (Jodhpur) two vernacular schools were converted into Anglo-vernacular schools and one Anglo-vernacular school and ten new vernacular schools were opened during the year. Six new schools were opened in the Kota State. Three Patwari schools were opened in Tonk.

Two new dispensaries were constructed in Marwar (Jodhpur).

The offer of the Maharaja of Bikaner to convert his infantry regiment, 500 strong, into Imperial Service Troops, was accepted.

His Highness the Maharaja of Bharatpur returned to India in October 1910 after absence in England for nearly two years.

Bengal.—In the Cooch Behar State the harvests of 1910-11 were good and prices were satisfactory. The area under tobacco increased by 40 per cent. upon the preceding year, and the tobacco sold at high rates. The year was a healthy one and there was no cholera. Measures were actively prosecuted for improving the supply of drinking water, and a distribution of quinine at cost price was inaugurated, with a view to the prevention of malaria. The Legislative Council held two meetings during the year, while the State Council held 41 meetings on the executive side, 36 on the judicial. The new Tenancy Act came into force on August 1st, 1910. Good progress was made in education, especially in the primary schools.

The Maharaja, who attended the Coronation in June 1911, died at Bexhill in the following September.

In Chota Nagpur, the Seraikela State was administered by its chief. The Kharsawan State continued under Government management, but the minor chief, having completed his education at the Rajkumar College, was being trained in administrative work. Government sanctioned a scheme for the preservation of the forests of Kharsawan.

The Tributary and Feudatory States of Orissa enjoyed a prosperous year, and the public health was on the whole exceptionally good. The steady increase in expenditure on public works during the last few years was maintained, and an Agency engineer was appointed in 1911. An Agency forest officer has also been appointed, in order to check the denudation of forests in the Orissa States. Negotiations continued on to check the extension of the Moharbhaj Light Railway. The States of Bonai, the project for the extension of the Moharbhaj Light Railway. The States of Bonai, Hindol, Kalahandi, Keonjhar, Nayagarh, and Rairi Khol were under Government administration. There were more pupils in boys' and girls' schools, although in pursuance of a policy of concentration the number of schools was reduced. The Maharaja of Moharbhaj† visited England and the Far East during the year under report.

Eastern Bengal and Assam.—*Manipur.*—The Manipur State continued to make steady progress during the year 1910-11. The abnormal rainfall caused damage to seedlings on low-lying lands, but the crops obtained from the high lands compensated for the loss. Steps were taken to popularise the cultivation of mulberry trees, and the use of improved hand-looms and improved methods of sugar making, and to encourage fruit culture. The income of the State was considerably enhanced by the revenue on timber removed from the State forests on the Cachar borders. A scheme for their preservation and proper working has been considered by the local

* The Maharaja of Jodhpur died in March 1911, and was succeeded by his son, a minor. Maharaja-dhiraja Sir Pertab Singh has abdicated the Chiefship of Idar and been appointed Regent of Jodhpur.
† The Maharaja died at Calcutta in February 1912 in consequence of an accident.

Government. The Durbar adopted a waterworks scheme for Imphal at an estimated cost of nearly £20,000, and the Government of India have sanctioned a loan of £13,000 in its support.

Hill Tippera.—In August 1910 the Raja married a cousin of the Maharajadhiraj of Nepal.

The prosperity of the people in this State is shown by the excess of immigrants over emigrants during the year.

The satisfactory outturn of the crops and the high prices of *til* and cotton, coupled with high wages, placed the agricultural and labouring classes in a very satisfactory position. The gross receipts rose to £133,000, and old liabilities to the extent of £27,000 were discharged.

There is a possibility of the opening up of mines or quarries. Red ochre, limestone, and kaolin have been found in considerable quantities, and the quality of some of the deposits has been pronounced excellent.

United Provinces of Agra and Oudh.—The financial position of the Rampur State was satisfactory, showing an improvement on the figures of the preceding year. At the end of the year there was a surplus of more than £75,000. Owing to good and seasonable rains the area under cultivation increased by 11,000 acres, and, although in the autumn of 1910 much damage to crops resulted from floods, and relief measures were necessary in some parts, the harvests were good. To this is attributable a further decrease in crime, especially in burglary and theft. Vital statistics showed a marked improvement on those of 1909-10, but malaria and plague prevailed for part of the year. An offer by the Nawab to contribute six companies of infantry to the Imperial Service Troops was accepted.

In Tehri some crops were damaged owing to abnormal rains and snow, and the price of all food staples rose considerably. The general health of the people was good. Vaccination was introduced during the year, and more than 10,000 persons were treated. A leper asylum was also opened at Barahat, and 113 patients were admitted. Education made considerable progress, as shown by an increased number of students and by the higher standard of efficiency attained. The State corps of Imperial Service Sappers, which continued to improve, was employed for three months on the Coronation Durbar works at Delhi.

Punjab Native States.—Agricultural conditions throughout the year 1910-11 were favourable, though somewhat less so than in the previous 12 months. Apart from a recrudescence of plague, which was experienced in the States of Patiala, Jind, Kapurthala, Maler Kotla, and Patandi, the public health was good.

The Maharaja of Patiala was on 3rd November 1910 formally invested with full powers by the Viceroy, who visited the State for the purpose. The new Khanpur-Chachran feeder line in Bahawalpur was opened by the Lieutenant-Governor in February 1911. The line, 22 miles in length, is likely to be of great value to the State, which provided the funds for its construction.

In the Nabha State* a council of three was appointed by the Chief to assist him in the administration. The restoration of order after the disturbances in Mandi that were referred to in the Report for 1909-10, was followed by the loan to the State, on the application of the Raja, of an officer of the Indian Civil Service for employment as settlement officer. Disturbances were at one time threatened in a tahsil of the Bashahr State, but steps were taken to deal with the ringleaders and tranquillity was restored. The Chief of the Jubbal State died in April 1910; his half-brother succeeded him, and was invested with full powers. The Raja of Kapurthala was absent in Europe during the summer of 1910.

Since the close of the year under report, the Raja of Sirmur has died, and the succession of his son has been recognised.

Central Provinces.—The Report is for the calendar year 1910, in which the monsoon was very favourable in the States, the crops were good, trade was brisk, and prices were lower than in the preceding year. In almost all cases, the land revenue was collected without resort to any form of coercive process. Serious crimes, apart from those committed in the Bastar rebellion, referred to in the Report for 1909-10, were few. The public health was good, though cholera appeared in some of the States. In all the States except Bastar, where several schools were burnt by rebels, education made steady progress. The forest tribes in Bastar settled down to their cultivation as soon as the ringleaders had been dealt with and appeared

contented with the rule of the Chief, who was assisted by two British officers. With a view to the removal of grievances among the population, various reforms in the administration of this State have been introduced.

Bombay.—Though plague appeared during the year in Kathiawar, Kolhapur and the Southern Maratha States, the epidemic was nowhere severe and the public health was generally good in the States under the Bombay Government.

The harvest in most of the States was satisfactory. In Kathiawar and Cambay, and to some extent in the Mahi Kantha and Rewa Kantha States the crops were damaged by late rains and by frost. The cotton crop in Kathiawar was disappointing. Elsewhere the monsoon was favourable, and as prices continued high, the output realised generally sufficed to bring the cultivator substantial profit. The agricultural classes, which form the great bulk of the population, were thus fully able to meet their liabilities, and remission of revenue on any large scale was nowhere called for. Wages remained high, and in a few localities agricultural operations were impeded by a scarcity of labour.

The Kathiawar ports did not share in the trade expansion that was experienced elsewhere in the Presidency. Imports increased slightly, but there was a fall of 23 per cent. in exports, though it should be remembered that the volume of trade in the previous year was exceptional. A marked increase, however, took place in the sea-borne trade of Janjira and Jafraabad.

Most of the States showed expanded revenues and increased abkari receipts. A series of good seasons has done much to secure conditions of general prosperity and rendered possible the progress in many branches of administration that has marked recent years.

In several States an increased expenditure on police organisation was accompanied by a decrease in reported crime. More money was laid out on public works and medical relief, especially in Kathiawar, Rewa Kantha and Kathiawar. Educational progress was indicated by an increase of 2·5 per cent. in the number of schools.

The institution of tagai funds (State advances to cultivators), the establishment of grain depôts and systems of famine insurance, and the efforts made to introduce modern implements and to spread a knowledge of improved agricultural methods are signs of continued development along progressive lines, and of increased provision for the welfare of the cultivating classes.

The deaths occurred of three ruling Chiefs of Kathiawar, H.H. the Nawab of Junagadh, H.H. the Raj Saheb of Dhrangadhra and the Thakor of Wadhwan. The Nawab of Radhanpur was installed on the *gadi* in November 1910. In the same month the Dewan of Palanpur received the title of Nawab.

Madras.—The following information for the States of Travancore and Cochin is for the year ended 15th August 1910:—

In Travancore the season was favourable on the whole and the price of food grains fell slightly. A scheme for re-organising the Forest Department in all its branches was sanctioned by the Durbar. There was a slight decrease in the tonnage of vessels calling at the various ports, and the want of shipping facilities at Alleppey was still felt. Expenditure on the Public Works Department rose by more than £26,000. The Shencotta-Quilon railway continued to work at a loss. There was a surplus over expenditure of more than £10,000, but owing to the writing off of abnormal losses, the Durbar balance fell by more than £26,000. More than 5,000 deaths were due to virulent small-pox. Education received considerable attention; education and inspection bodies were introduced, and fees abolished in lower-grade elementary schools. There was a substantial increase in the number of schools and scholars.

In the Cochin State the season was favourable for agriculture. The net revenue of the Forest Department and the percentage of receipts to capital outlay on the tramway both rose. Land revenue almost reached the high-water mark expected under the new settlement demand, and the receipts of the Stamp Department were the highest on record. The net earnings of the State railway rose to 3·73 per cent. on the total capital outlay. Increased attention was paid by the Public Works Department to roads and navigable canals. The sinking fund was augmented by £26,000, and the State's net liabilities were reduced by more than £40,000.

The number of State schools rose from 75 to 93. A special educational officer was appointed and the grant to education was substantially augmented. In January 1911 announcement was made of the increase of the Raja's salute by two guns, as a personal distinction.

* The Maharaja of Nabha died on Christmas Day, 1911.

The Pudukkottai State's Report is for the year to 30th June 1911. The season, though more favourable than in 1909-10, was disappointing; prices, however, were below the average. The Settlement scheme for the whole State was sanctioned in January 1911. The total revenue was the highest on record. The public health was generally good and the new water supply for the town of Pudukkottai proved entirely successful. A new Forest Regulation was under the consideration of the Durbar, and a police re-organisation scheme was worked out. In the Educational Department there was a general advance.

The Raja returned to the State in December 1910, but left again for Europe in the following January.

In Banganapalle, the year 1910-11 was prosperous on the whole, though the land revenue receipts fell short of the budget estimate. There was no epidemic, but, owing principally to fever, the death rate rose from 14.96 to 23.73.

In the Sandur State a much improved rainfall resulted in a reduction in the price of food grains during the year 1910-11; wages of labourers were good; the public health was fair and there was no epidemic disease. The revenue showed an advance upon that of the preceding year. The Mission Girls' school was in a flourishing condition, but attendance at the lower secondary school fell off. The Raja remained during the year at the Court of Wards' College at Newington.

APPENDIX.

CENSUS OF 1911.

The fourth general census of India was taken on the night of 10th March 1911. The date was chosen so as to avoid as far as possible religious festivals and fairs, and other ceremonial occasions. Unfortunately, a serious recrudescence of plague interfered considerably with the enumeration in some parts of India, and caused a large temporary decrease in the population of certain towns, many of the inhabitants having left their homes. The census included the whole of Baluchistan (except Kharan), the agencies and tribal areas of the North-West Frontier Province, and several remote tracts of Burma not previously dealt with. Arrangements were made for the enumeration of persons travelling by rail, road, or river, or otherwise absent from home. The total strength of the census staff was about two millions.

The figures show that the total population of British India was 315,132,537 (viz.:—British territory 244,267,512, and Native States 70,864,995), an increase of 20,771,481 on the returns of the census of 1901. To this increase British territory contributes 12,661,602, and Native States 8,109,879. Allowing for the fact that areas for the first time included had a population of 1,731,116, the increase of the Indian population during the decade 1901-11 was 6.4 per cent.

During the decade 1891-1901, India was afflicted by two severe famines followed by severe epidemics of fever, cholera, and other diseases, which caused great mortality. The decade 1901-11 was fairly prosperous; there were no very wide-spread famines, and the birth-rate was higher. Plague, however, extended its ravages much more widely, causing 6½ million deaths in the decade, while, in 1908, malarial fever was accountable for heavy mortality in the United Provinces and the Punjab Provinces, which have also suffered severely from plague and local famines.

The following tables show the results of the census as regards the population of (I.) the provinces and Native States; and (II.) the principal towns. The population returned at previous Censuses has been corrected, as far as possible, in order to allow for subsequent interprovincial transfers. The largest changes are those necessitated by the partition of Bengal. The population of Manipur State (total 284,465—males 139,632, females 144,833) which was included under the head British Territory in 1901, has now been included under the head Native States. The tribal areas in the North-West Frontier Province have also been shown under the latter head. Sikkim, which in 1901 was classed under Bengal States, is now shown separately.

The areas newly included within the scope of the enumeration are noted below :—

Name of Tract.	Manner in which Population ascertained.	Population.
<i>Burma.</i>		
Unadministered area in Pakokku Hill tracts	Estimated - -	9,123
West Manglun - - - - -	Estimated - -	18,562
Kokang - - - - -	Estimated - -	25,604
<i>Baluchistan.</i>		
Mekran - - - - -	Enumerated - -	71,942
Western Sanjirani country - - -	Enumerated - -	1,620
<i>North-West Frontier Province.</i>		
Agencies and Tribal areas - - -	Estimated - -	1,604,265
	TOTAL - -	1,731,116

STATEMENT EXHIBITING THE MORAL AND MATERIAL

CENSUS OF INDIA, 1911.

I.—TOTAL POPULATION AND VARIATION, 1901-1911.

PROVINCE, STATE, OR AGENCY.	POPULATION, 1911.			POPULATION, 1901.			VARIATION, 1901-11.	
	Total.	Males.	Females.	Total.	Males.	Females.	Actual.	Per cent.
1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Ajmer Merwara -	501,395	266,198	235,197	476,912	251,026	225,886	+ 24,483	+ 5.1
2. Andamans and Nicobars -	29,459	19,570	9,889	21,649	18,635	5,954	+ 1,810	+ 7.3
3. Baluchistan (Districts and Administered Territories).	411,112	239,181	175,231	401,618	230,108	171,510	+ 32,306	+ 8.5
4. Bengal -	52,668,269	26,278,865	26,389,404	50,715,794	25,151,960	25,563,834	+ 1,952,475	+ 3.8
5. Bombay (Presidency)-	19,372,642	10,245,847	9,126,795	18,559,650	9,589,456	8,976,194	+ 1,112,992	+ 6.0
Bombay -	16,113,042	8,275,333	7,837,809	15,304,766	7,791,436	7,513,630	+ 808,276	+ 5.3
Sind -	3,513,455	1,939,324	1,574,111	3,210,910	1,761,790	1,449,120	+ 302,525	+ 9.4
Aden -	46,165	21,290	14,875	43,974	30,530	13,444	+ 2,191	+ 5.0
6. Burma -	12,115,217	6,183,494	5,931,723	10,490,624	5,342,033	5,148,591	+ 1,624,593	+ 15.5
7. Central Provinces and Berar -	13,916,308	6,930,392	6,985,916	11,967,132	5,924,192	6,042,940	+ 1,944,856	+ 16.2
8. Coorg -	174,978	97,279	77,697	180,607	100,258	80,349	- 5,631	- 3.1
9. Eastern Bengal and Assam -	34,918,527	17,113,910	16,604,617	30,510,344	15,513,023	14,967,321	+ 3,508,183	+ 11.5
10. Madras -	41,405,104	20,332,955	21,022,149	38,229,654	18,851,329	19,378,325	+ 3,175,750	+ 8.3
11. North-West Frontier Province (Districts and Administered Territories).	2,196,933	1,182,102	1,014,831	2,046,218	1,110,378	935,840	+ 155,319	+ 7.6
12. Punjab -	19,574,956	10,992,067	8,982,889	20,330,337	10,942,682	9,387,655	- 355,381	- 1.7
13. United Provinces of Agra and Oudh -	47,182,044	24,641,831	22,540,213	47,691,238	24,616,617	23,074,621	- 510,233	- 1.1
Agra -	34,624,040	18,157,131	16,466,909	34,858,070	18,048,411	16,809,659	- 235,069	- .7
Oudh -	12,558,004	6,484,700	6,073,304	12,833,168	6,568,206	6,264,962	- 276,164	- 2.1
Total, Provinces -	244,267,542	124,373,691	119,393,851	231,624,807	117,665,757	113,959,050	+ 12,661,602	+ 5.5
14. Baluchistan (Agency Tracts).	396,432	214,413	182,019	409,098	215,112	193,686	- 32,208	- 7.5
15. Baroda State -	2,032,798	1,055,935	976,863	1,952,692	1,008,634	944,058	+ 80,106	+ 4.1
16. Bengal State -	4,538,161	2,271,673	2,266,488	3,881,418	1,954,974	1,926,474	+ 656,713	+ 16.9
17. Bombay States -	7,111,675	3,765,401	3,346,274	6,908,559	3,512,956	3,395,603	+ 503,116	+ 7.3
18. Central India Agency -	9,354,989	4,801,459	4,553,521	8,514,114	4,369,388	4,144,726	+ 859,175	+ 10.1
19. Central Provinces States -	2,117,002	1,053,630	1,063,372	1,631,110	811,970	819,170	+ 485,862	+ 29.8
20. Eastern Bengal and Assam States -	575,835	292,486	283,349	457,790	232,127	225,663	+ 118,045	+ 25.8
21. Hyderabad State -	13,371,676	6,797,118	6,577,558	11,141,142	5,673,629	5,467,513	+ 2,233,534	+ 20.0
22. Kashmir State -	3,158,126	1,674,367	1,483,759	2,905,578	1,542,057	1,363,521	+ 252,548	+ 8.7
23. Madras States -	4,811,841	2,411,758	2,400,083	4,188,085	2,098,048	2,090,038	+ 623,755	+ 14.9
Cochin State -	918,110	457,342	469,768	812,025	405,200	406,825	+ 106,085	+ 13.1
Travancore State -	3,428,975	1,731,363	1,697,612	2,952,157	1,490,165	1,461,992	+ 476,818	+ 16.2
24. Mysore State -	5,806,193	2,934,621	2,871,572	5,539,399	2,797,024	2,742,375	+ 266,794	+ 4.8
25. North-West Frontier Province (Agencies and Tribal Areas).	1,622,094	864,876	757,218	79,278	48,939	30,339	+ 1,538,132	-
26. Punjab States -	4,212,794	2,322,908	1,889,886	4,421,338	2,469,869	2,014,589	- 211,604	- 4.8
27. Rajputana Agency -	19,530,132	5,515,275	5,015,157	9,842,416	5,165,891	4,676,525	+ 577,066	+ 6.9
28. Sikkim -	87,920	45,059	42,861	59,011	30,795	28,219	+ 28,996	+ 49.0
29. United Provinces States -	832,036	431,440	400,596	802,097	414,414	387,683	+ 29,939	+ 3.7
Total, States and Agencies -	70,864,995	36,452,419	34,412,576	62,736,219	32,286,067	30,450,182	+ 8,109,879	+ 12.9
Total, India -	315,132,537	161,326,110	153,806,427	291,361,656	149,951,824	141,409,832	+ 20,771,481	+ 7.1

II.—POPULATION OF PRINCIPAL TOWNS.

In some towns where plague was prevalent at the time of the Census, many of the inhabitants were absent from their homes and the population was shown as far less than it would otherwise have been. A fresh enumeration was taken later, after the epidemic had subsided, and the figures for Nagpur and Cawnpore given in the following table are provisional results of this enumeration.

II. POPULATION OF PRINCIPAL TOWNS AND VARIATION, 1901-1911.

CITY.	POPULATION, 1911.			POPULATION, 1901.			VARIATION, 1901-11.	
	Total.	Males.	Females.	Total.	Males.	Females.	Actual.	Per cent.
1.	2.	3.	4.	5.	6.	7.	8.	9.
Calcutta with Suburbs and Howrah.	1,222,313	812,433	409,880	1,106,738	724,759	381,979	+ 115,575	+ 10.4
Bombay*	979,445	640,288	339,157	776,006	479,786	296,220	+ 203,439	+ 26.2
Madras -	518,660	256,465	252,195	509,346	256,730	252,616	+ 9,314	+ 1.8
Hyderabad -	500,623	258,454	242,169	448,166	232,295	216,171	+ 52,157	+ 11.6
Rangoon -	293,316	208,111	85,205	245,430	174,587	70,843	+ 47,986	+ 19.5
Lucknow -	259,798	144,785	115,013	264,049	140,759	123,290	- 4,251	- 1.6
Delhi -	232,837	133,864	98,973	208,575	114,815	93,760	+ 24,262	+ 11.6
Lahore -	228,687	143,249	85,438	202,964	119,996	82,968	+ 25,723	+ 12.7
Ahmedabad -	215,835	116,469	99,366	185,889	97,343	88,546	+ 29,946	+ 16.1
Benares -	203,804	105,815	97,989	213,079	110,782	102,297	- 9,275	- 4.4
Cawnpore†	195,498	115,243	80,255	202,797	114,573	88,224	- 7,299	- 3.6
Bangalore (including Civil and Military Station).	189,485	97,749	91,736	159,046	81,086	77,960	+ 30,439	+ 19.1
Agra -	185,449	101,335	84,114	188,022	99,903	88,119	- 2,573	- 1.4
Allahabad -	171,697	96,208	75,489	172,032	91,762	80,270	- 335	- .2
Poona -	158,856	85,319	73,537	153,320	80,065	73,255	+ 5,536	+ 3.6
Amritsar -	152,756	88,879	63,877	162,429	93,199	69,230	- 9,673	- 6.0
Karachi -	151,903	90,233	61,670	116,663	68,386	48,277	+ 35,210	+ 30.2
Mandalay -	138,299	69,718	68,581	183,816	93,583	90,233	- 45,517	- 24.8
Jaipur -	137,098	70,846	66,252	160,167	83,854	76,313	- 23,069	- 14.4
Patna -	136,153	70,841	65,312	131,785	67,038	67,747	+ 1,368	+ 1.0
Nagpore†	134,712	70,941	63,771	127,734	66,255	61,179	+ 6,978	+ 5.5
Madura -	134,130	67,091	67,039	109,760	54,512	55,248	+ 24,370	+ 22.2
Bareilly -	129,462	70,601	58,861	133,167	70,933	62,234	- 3,705	- 2.8
Srinagar -	126,344	68,378	57,966	122,618	65,542	57,076	+ 3,726	+ 3.0
Trichinopoly -	122,028	60,513	61,515	101,721	51,215	53,506	+ 17,307	+ 16.5
Meerut -	116,227	66,286	49,941	118,129	65,568	52,561	- 1,902	- 1.6
Surat -	114,868	59,634	55,234	119,306	61,653	57,653	- 4,138	- 3.7
Dacca -	108,551	63,091	45,460	89,733	49,871	39,862	+ 18,818	+ 21.0
Jubbulpore -	100,651	56,035	44,616	90,533	46,989	43,544	+ 10,118	+ 11.2

* Plague was raging in Bombay when the Census of 1901 was taken. At a special Census taken in 1906 the population was 959,537.
† The 1911 figures for Cawnpore and Nagpore are based on the provisional returns of a later Census taken after the plague had subsided.

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