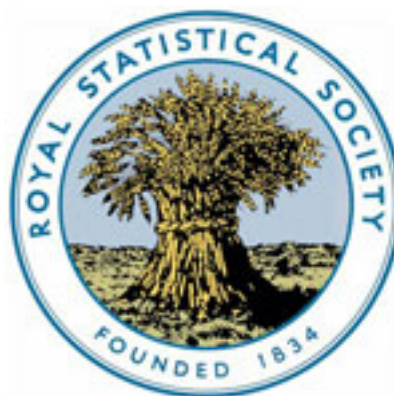


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A REVIEW of INDIAN STATISTICS. By F. C. DANVERS.

[Read before the Royal Statistical Society, 15th January, 1901.
LESLEY C. PROBYN, Esq., Vice-President, in the Chair.]

IN the year 1853 the Court of Directors of the late East India Company, under the influence of Colonel Sykes, one of their body, caused certain "Statistical Papers relating to India" to be prepared by their statistical reporter, and this was, I believe, the first attempt made to publish a collected series of statistics regarding the several branches of administration of that Empire. The information at hand for this purpose was, however, very defective, but it was the first step towards the initiation of an organisation, at home and in India, for the purpose of collecting and publishing the comprehensive tables of statistics now issued annually from the India Office. It would not be fair to criticise too strictly the tables given in these Papers, as the information on many points was, at that time, admittedly defective. The subjects therein dealt with were as follows:—1. Native States; 2. Land Tenures; 3. Native Agency; 4. Civil Servants; 5. Languages; 6. Trade and Navigation; 7. Salt; 8. Cotton; 9. Opium; 10. Education; and 11. Public Works.

This was followed shortly afterwards by the printing of a series of tables for the years 1853 and 1854, dealing with:—1. Area and Population; 2. Education; 3. Trials and Convictions; 4. Military Returns; 5. Revenue and Expenditure; 6. Debt; and 7. Navigation—vessels entered and cleared. In this also the tables showing area and population were necessarily defective, for it was not until the year 1871-72 that the first approach was made to the taking of a general census for the whole of India within the space of three or four months, and the survey of India was far from complete. Previously to the last mentioned date enumerations of the people had been made in the North-Western Provinces in 1853 and 1865; in Oudh in 1869; in the Punjab in 1855 and 1868; in the Hyderabad Assigned Districts in 1867; and in the Ceded Provinces in 1866; while in Madras quinquennial returns had been prepared since 1851-52 by the Officers of the Revenue Department, giving with more or less accuracy the numbers of the people in each district; and in British Burma a tolerably correct census had been made each year for the purpose of the capitation rate. Nor was the Government supposed

to be without some means of forming an estimate of the numbers under its rule in Bengal, in Bombay, and in the minor provinces; though in Bengal, at least, the estimate was subsequently found to have been very inaccurate. Unfortunately the census of 1871-72 was not carried out in all the provinces, it being thought undesirable to incur the expense, or disturb the village administration, in the Punjab, Oudh, and Berar so soon after the census taken in those parts of the country. That census was, therefore, neither complete nor accurate.

The next census, taken on the 17th February, 1881, was the first synchronous enumeration which had been attempted for all India; it included, with the exception of Kashmir, the entire continent of British India, including under this term the feudatory States in political connection with the Government of India. It did not, however, include the French and Portuguese colonial possessions, though, through the courtesy of the Portuguese Government, a census of the Portuguese colonial dominions in India was effected at the same time as the British Indian census. It also included the outlying province of Lower Burma. The second general census was taken on the night of the 26th February, 1891.

In 1858 our esteemed colleague, Mr. Frederick Hendriks, read a paper before this Society, "On the Statistics of Indian Revenue and Taxation," in which he made the following remark: "There is certainly wanting a condensed report for each presidency, upon the same order and classes of statistical facts, illustrative of their agriculture, trade, manufactures, prices, markets, means of communication, and rates of wages for skilled and for general labour. The difference in the social, family, and conjugal condition of the people; and last, but not least, a sufficiently near approximate estimate of their wealth, in real and personal property, all deserve and demand investigation. It may be true that to set on foot and carry out such an inquiry and report would be an expensive and laborious undertaking, but there is reason to infer that it would repay itself a thousandfold, and contribute to the material prosperity, and through that to the moral wellbeing of the population of India, to an extent which even the sanguine would not be found to have over-estimated."

This paper, at the time, attracted a considerable amount of attention, and, nine years after, the Secretary of State for India published the first "Statistical Abstract relating to India, from 1840 to 1865," based very much upon the model of the "Statistical Abstract for the United Kingdom," which had then, for some years, been issued by the Statistical Department of the Board of Trade. This was followed, in 1869, by a return to

Parliament, moved for by the late Colonel Sykes, for "Copy of "Maps and Statistical Information with reference to India," which was compiled by the author of the present paper. Thus was a beginning made of the publication of Indian statistics in various forms, which have been developed from time to time, and continued up to the present date.

The "Statistical Abstract relating to India" has now been published in a tolerably uniform manner since 1867, and the object of the present paper is to lay before the Royal Statistical Society a brief analysis of the figures contained in these annual returns, with the view of showing, in some manner, the general development of that country since 1840, from which date some of the figures have their commencement. In order to make this review intelligible, however, it has been necessary to consult other returns and publications of the Indian Government. Valuable as these "Statistical Abstracts" are, I have often felt that they would be much more appreciated if certain of the tables—where causes as to variation from the previous year's figures are not clear upon the face of them—had short explanatory notes attached. The required information may, no doubt, be found in the "Moral and Material Progress Reports," in the "Financial and Commercial Statistics of British India," or in some other of the numerous published annual reports relating to India, but these may not always be available, and the result is that the "Statistical Abstracts" are, by themselves, not always quite so clear and intelligible as I think they might be made. To add these notes would no doubt tend to increase the bulk of the "Statistical Abstracts," but it would make them more intelligible.

Area and Population.—The areas given in the statistical tables must not be taken as absolutely accurate, since the whole country has not yet been surveyed on one and the same system, and differences of opinion as to area exist in parts between the Revenue and Survey Departments. In the earlier tables the figures fluctuated in a remarkable degree, and did not attain to anything like stability until after the census of 1881. Thus, the area given in 1865 for the whole of India was 1,553,282 square miles, of which 955,238 square miles constituted British India, 596,790 square miles Native States, and 1,254 square miles French and Portuguese possessions. According to the census of 1881 the area was (exclusive of French and Portuguese possessions, which have been omitted from that date) 1,378,044 square miles, of which 868,314 square miles are returned as British India, and 509,730 square miles Native States, thus showing a reduction on the previous figures of close upon 175,000 square miles. The returns, according to the census of 1891, give 1,560,160 square

miles, of which 964,993 square miles are British territory, and 595,167 Native States. Between 1865 and 1881 there were various small alterations in the area of British India, due to accessions of territory and exchanges. By proclamation of the 1st January, 1886, Upper Burma was annexed, which added 83,473 square miles to British India, but this is entirely omitted from the "Statistical Abstracts" for the ensuing years until 1889-90 (published in 1891), which first gives the figures of the census of 1891.

For the reasons already given it would not be safe to use any figures regarding population earlier than those of the 1881 census. Comparing these with the figures of the 1891 census, it will be found that the increase of population is therein shown to have been close upon 28 millions, or nearly 11 per cent.; but that whereas the increase in the Native States had been 15·6 per cent., that in British India had been only 9·7 per cent. This increase, however, in the Native States, has been considered to a very considerable extent due to more accurate returns rather than to actual increase.

The last census shows that the proportion of rural to urban population, which was as 90·9 to 9·1 per cent. in 1881, has changed to 90·5 to 9·5 per cent. in 1891, thus exhibiting a slight rise in the proportion of urban population.

In the tables for 1886-87 and some subsequent years, the population of India was assumed to have increased annually by one-half per cent., but this was discontinued after the census of 1891, the frequent annexations of new territory, together with the prevalence of local famines and diseases being elements of uncertainty calculated to break in upon any uniformity that might otherwise have been discovered. Further, in estimating the growth of the population of India by an excess of births over deaths, the aid of complete registers of these occurrences was wanting. It was remarked, in the census report for 1891, that the death of an adult male member of a family was an event known to the whole village, and was registered accordingly, as was also the birth or death of a son. But mothers, wives, and daughters passed away without notice or registration. On the other hand it is stated in a memorandum, drawn up at the India Office and published in 1889, that a regular system had been established, and was maintained, of registering births and deaths. Thus it would appear that the machinery for registration is complete, but that full advantage has not accrued from it.

The census of 1891 cannot be accepted as a complete enumeration of the population of India, since the chief Himalayan State of Nepal—the political relations with which are on a different footing

from those of the Indian States properly so called—was excluded, as well as the State of Bhotan, further east. The small State of Sikhim, which lies between these, was only enumerated informally, and the population is not included in the general returns. The same process was adopted with regard to the Cis Salwin Shan States, on the east of Burma, and in the rural parts of British Baluchistan. Table A gives some details of the last two census returns.

Finance.—Coming next to the question of finance, we tread upon much more certain ground than when considering the subjects of area and population. Here, however, it must be observed that whereas these “Statistical Abstracts” give the revenues and expenditure in pounds sterling up to and including the year 1875, the “Abstracts” for subsequent years give the figures in tens of rupees for expenditure in India, and in pounds sterling for expenditure in England.

Sovereigns having now been made legal tender in India, and being at present interchangeable with rupees at the rate of one sovereign for fifteen rupees, the Government of India have decided to alter the form of the accounts. Beginning with the year 1899-1900, the accounts are to be prepared so as to show the transactions in India in rupees; there will then be given the equivalent in pounds of the rupee totals, the rupee being taken for the purpose as one-fifteenth of a pound; the sterling transactions in England will then be stated, and the last two sets of figures will be added together, so as to show in pounds the combined transactions in India and England. Thus, whereas formerly the English transactions were brought into tens of rupees by adding the exchange, under the new plan the Indian transactions will be converted into pounds, and added to those in sterling. The column entitled “Exchange” will no longer appear, and the comparatively small sums which have to be brought to account owing to the facts that the remittances are not effected at exactly 1s. 4d. to the rupee, and that the Government is under obligations to carry out various transactions at fixed rates, differing from the rate of 1s. 4d. to the rupee, will be included in a single line under the head of “Exchange” in the miscellaneous group of revenue and expenditure.

In 1870 it was decided to invest the several local governments with wider financial responsibilities and powers than had previously been the case; the entire management of certain heads of civil expenditure was transferred to the provincial authorities, and they were granted a more complete control over expenditure from all funds raised for local purposes. In 1877 and again in 1882 the provincial system was carried much further, and the management

of all heads of provincial, and of certain heads of Imperial, revenue was delegated to the local governments. As the provincial finance system now stands, the supreme Government keeps under its own control the opium, salt, customs, post office and telegraphs, tributes, mint and currency receipts, and also the expenditure under these heads, on the army and military works, on political relations, on the public debt, and on certain trunk railways. The administrative control of other heads of revenue and expenditure devolves on the local governments; these, however, are included with the accounts of the supreme Government.

Revenues.—Referring to the annexed Table B, it will be seen that whereas the revenues of 1840 amounted to Rx. 20,124,038, they had risen by 1898-99 to no less than Rx. 101,426,693, thus showing an increase of Rx. 81,302,655. The British India of 1840 was, however, a totally different country from that of 1898-99. In the first place the area under the dominion of the British Government had, at the latter date, increased by nearly 40 per cent. by annexations, cessions, purchase, &c., and the population also had largely increased—if not in a similar proportion, at least to a very considerable extent. The opening out of the country by railways had also contributed towards an increase of cultivation and business of every kind, thus leading to a development of the resources of the country, with a corresponding degree of prosperity and wealth; whilst, as will be seen from this table, several fresh sources of revenue had been introduced.

Taxation.—It will also be seen from Table B that the total direct and indirect taxation amount together to Rx. 25,489,789, being, at the present rate of exchange, equivalent to about 1s. 5d. per head of the population. Probably no country in the world can show such a result as India, with regard to its revenue, where almost exactly three-fourths are received from sources other than taxation, and only one-fourth from taxation, direct and indirect. It has been held that at the present time the salt tax is the only impost which falls upon an Indian of moderate means, who neither holds land, nor goes to law, nor consumes spirits or opium. This tax, as will be seen from the table above referred to, amounts to Rx. 9,099,871, which, on the total population of India, averages just five annas, or 5d. per head.

Debt.—The funded debt of the Government of India has risen from 34,484,997*l.* to an equivalent, at the present rate of exchange, to 194,871,737*l.*; the debt in India amounting to Rx. 112,654,698, and in England to 119,768,605*l.*, or, as it is given in one place, 232,423,303 Rx. and £. This has been apportioned as follows: 136,052,037 Rx. and £ on railways, 33,319,372 Rx. and £ on

irrigation works, and 63,051,894 Rx. and £ on "other purposes."¹ As the expenditure has exceeded the income in India during the period under review by Rx. 60,592,566, it does not seem necessary to search very far for a definition of these "other purposes." This, however, will be best explained by the following observations: From 1838-39 to 1861-62 deficit was the rule and surplus the exception, for nineteen years of the former were arrayed against five of the latter. The permanent debt of India amounted on the 30th April, 1842, to 33,577,414*l.* On the 30th April, 1857, immediately before the mutiny, it amounted to 51,327,958*l.*, an increase of 53 per cent. in fifteen years. The 30th April, 1862, marks the close of the mutiny expenditure, and the permanent debt had then risen to 97,037,062*l.*, an increase in twenty years of nearly 190 per cent.² The old, or unproductive, debt ceased to grow from the date at which the mutiny expenditure came to an end. During the thirty-five years which elapsed between 1862 and 1897 war and famine imposed heavy burthens on the Indian taxpayer,³ but, in spite of war and famine, this portion of the debt, far from increasing, had, by the 31st March, 1897, actually diminished by 23,279,000*l.*, or by rather more than 24 per cent.

There is besides an unfunded debt, amounting on the 31st March, 1899, to Rx. 19,088,661. This includes obligations inherited from the king of Oudh; deposits on account of savings banks, and the capital of various other funds, besides other forms of temporary indebtedness. On all these moneys interest is paid. On the other hand, Government lends largely to municipalities and other public bodies, to cultivators and landowners. The balance of the moneys for which the Government is liable, has been, as far as possible, appropriated to expenditure on reproductive works.

¹ This is a most confused manner of accounting for expenditure, and conveys no meaning as to cost, either in sterling or in rupees. In another place the expenditure on State railways chargeable to capital is stated to be Rx. 135,585,582, and on irrigation works Rx. 33,319,372. The difference in the figures for railway construction is 466,455*l.*, which was the net discount involved in raising the money for the purchase of the Oudh and Rohilkund and South Indian railways, and for the discharge of debentures, the liability for which was assumed by the Secretary of State on the dates of purchase. Exchange could not be added to such a figure to bring it to rupees, as it is a sterling obligation.

² The war in Sind occurred in 1843; the first Sikh war in 1845, the second Sikh war in 1848-49, the second Burmese war in 1852, and the mutiny in 1857-58. Famines also occurred in Southern India in 1854, and in the North-Western Provinces in 1860-61.

³ In 1878-80 occurred the Afghan war, in 1885-86 came the third Burmese war, and occasional expeditions had to be undertaken against tribes that harassed the north-west or the north-east frontier of India. The pressure of scarcity or famine was felt in 1866 in Orissa, in 1869 and 1874 over parts of Bengal and Behar, and in 1877 over Southern India.

There has been a substantial decrease in the rate of interest paid on loans since 1840. In that year it averaged a little over 4·6 per cent.; whereas, at the present time, the highest rate paid on loans in India is $4\frac{1}{2}$ per cent., but the bulk of Indian loans carry only $3\frac{1}{2}$ per cent., whilst a substantial portion pays only 3 per cent. The sterling debt in England ranges between $2\frac{1}{2}$ and $3\frac{1}{2}$ per cent.

Land Revenue.—Time will not admit of an examination of all the sources of revenue in detail, but a few observations may be made with regard to the most important of them.

The receipts from land revenue have risen from Rx. 12,273,982 to Rx. 27,459,313, or by Rx. 15,185,331. This, in the first place, is largely due to increased area yielding revenue, and, so far as I have been able to work it out, the present land revenues derived from territories acquired since 1840 amount to over Rx. 9,776,916 (see Table C). With regard to increased cultivation, it is impossible to give exact figures, as for the greater part of India agricultural statistics only date from 1885-86, and are even now little more than conjectural for certain important tracts; from 1886-87 for Ajmere; from 1888-89 for Upper Burma, and from 1892-93 for Bengal. Taking the earliest figures available, it appears that the total area under crop has, since the above dates, increased from 183,970,345 acres to 196,487,658, or by 12,517,313 acres. The gradual growth of land revenues in the several provinces before those dates is sufficient proof that the process of agricultural development had been in progress almost continuously in the preceding years. On this subject it is remarked, in a memorandum published by the India Office in 1889, that since 1856 the cultivated area had more than doubled in thinly-peopled tracts like Burma and Assam; it had increased by 30 to 60 per cent. in the Central Provinces, Berar, and parts of Bombay; and even in the thickly-peopled Province of Oudh it had increased 20 per cent. In addition to provision for increased population, the extension of railways and roads had provided outlets for surplus agricultural produce, and had caused a general rise of prices in remote districts that were absolutely land-locked thirty years ago. New staples, such as jute, tea, coffee, and ground nut had been largely grown for export, while the exports of rice, wheat, cotton, and oil-seeds had greatly increased. In this way vast sums of money had reached the agricultural classes, who were thus enabled to raise their standard of living, and pay their land revenue more easily than before.

The average rent for cultivated land works out at about R. 1 6as., or 1s. 10d. per acre at the present rate of exchange. This must not, however, be taken as the mean rate on land in

purely agricultural districts, since, apart from the great differences in the quality of the soil, lands in the vicinity of towns pay much higher rents. Some lands pay as little as $1\frac{1}{2}$ to 2 annas, which is equivalent to $1\frac{1}{2}d.$ to $2d.$ per acre, whilst others, in advantageous contiguity to towns, will fetch as much as from R. 16 to 18 an acre.

Another subject for remark with regard to these agricultural statistics is the fact, therein shown, that, in addition to the acres already cultivated, they show a reserve for future extension amounting to 106,292,719 acres of cultivable land still unoccupied, in addition to 41,200,284 acres of current fallows; thus showing that over 42 per cent. of the total cultivable area of India still remains available for additional cultivation to meet the wants of a growing population, and the demands of commerce for export.

The charges connected with the collection of land revenue (apart from District Administration, Survey, and Settlement Charges, &c.) amount to Rx. 716,195, or a trifle over 2.6 per cent. of the gross receipts.

Salt.—Duty on salt being the only tax paid universally in India, some details concerning it may not be out of place. This tax has been in existence from time immemorial. As remarked by the late John Stuart Mill, in a memorandum drawn up by him in 1858, “this is the only considerable tax existing in India which can be regarded as objectionable in principle, and the entire abandonment of which, if financially practicable, would be a benefit to the people at large. It is impossible, however, to look upon this impost in the same light in which it would deserve to be considered if it were levied in addition to other heavy burthens. We must bear in mind, in extenuation of the objections to a tax on salt, that it is, speaking generally, the only tax which the labouring ryot of India pays.”

The proceeds of the salt tax have increased from 2,696,745*l.* in 1840, to Rx. 9,099,871, inclusive of the duty on salt imported by sea, in 1898-99, and the consumption has risen from about 14,000,000 to 35,769,581 maunds.⁴ The Indian sources of salt supply are the coast, where salt is manufactured for the consumption of all southern and western India, and part of Burma and Central India; the salt lakes and other sources of Rajputana, which supply the North-Western Provinces, Oudh, and a part of Central India; the salt mines of the Punjab, which supply that province, and a varying area southward, and importations from beyond the sea, which supply Bengal and the greater part of Burma. The importations from foreign countries have increased from 2,193,138 maunds in 1854-55—the earliest year for which I

⁴ The maund = 82.2857 lbs.

have been able to procure the figures—to 9,713,655 maunds in 1898-99. Of these imports 1,399,277 maunds and 6,276,968 maunds in those years respectively were from the United Kingdom.

In dealing with the consumption of salt in India, I have met with some difficulty. The figures given for certain years in different issues of the "Statistical Abstract" do not always correspond, so, in order to ascertain which were the correct amounts, I referred to other publications. None of these, however, afforded me the desired assistance, for not only did they not agree with one another, but they differed also from those given in the "Statistical Abstracts." The importance of having all Government statistics drawn up upon the same principle cannot too strongly be insisted upon, and all returns bearing upon the same subject should of necessity agree. Particulars of the consumption of salt are only given in these "Abstracts" from 1875-76, and the figures relating thereto are shown in the annexed Table D from that date.

Previously to 1844 the duty on salt in Bengal was R. 3 4as. per maund; this was reduced in November, 1844, to R. 3; in April, 1847, to R. 2 12as.; and in April, 1849, to R. 2 8as. per maund. This last reduction was followed by a considerable increase in consumption in Bengal, viz., from 6,082,254 to 7,343,388 maunds. In Madras the duty was 12as. per maund, but in 1844-45 it was increased to 14as. In Bombay, previously to 1844 the duty was 8as., but it was in that year increased to 12as. In Northern India the rate was R. 2 per maund. In 1859 the rates were raised to R. 3 for Bengal, to R. 2 2as. for Northern India, and to R. 1 for Madras and Bombay. This caused a falling off in the consumption—which, however, soon recovered itself—but an increase in the revenue. In 1861 the rates were again raised in all the presidencies excepting Bombay, which resulted again in a temporary decrease of consumption. In 1865 the rate in Bombay was also raised, and in that year the salt revenue amounted to 5,523,584*l.*

Between the years 1870 and 1878 arrangements were made with native States owning salt sources, whereby the British Government was allowed to control and tax the manufacture of salt within those States; and in 1878, as a necessary step towards the abolition of the inland customs line, the salt duty was raised in Madras and Bombay, and reduced over the rest of India. In 1882 the duty was fixed at a uniform rate of R. 2 per maund over all India, except in Burma, where a low rate of 3as. was maintained, and in the trans-Indus districts, where, till the 23rd July, 1896, the duty was only 8as.

The abolition of the inland customs line, and the above-mentioned alteration in the rates of duty, relieved the people and

the trade along a broad belt of country, 2,000 miles long, from much harassment; whilst at the same time the salt duty was reduced by about 36 per cent. on 150 millions of the Queen's subjects, and it was raised by about 10 per cent. on 50 millions. These measures were followed by an increase of consumption, but a reduction of Rx. 1,200,000 in revenue.

In 1888 the salt duty was raised from R. 2 to R. $2\frac{1}{2}$ per maund, in order to meet financial difficulties mainly caused by a fall in the gold price of silver; but that this did not injuriously affect the consumption may, I think, be taken as an indication of an improved condition of the people. That rate has since been maintained.

Except in parts of Madras and Bombay, salt is everywhere far cheaper than it formerly was; and this is mainly the result of the extension of railways and lessening of the cost of carriage. The consumption of salt varies from $7\frac{1}{8}$ lbs. per head in Rajputana to 19 lbs. per head in Burma; $17\frac{1}{3}$ lbs. in Madras, $11\frac{7}{8}$ lbs. in Orissa, $10\frac{1}{4}$ lbs. in the rest of Bengal, $12\frac{3}{4}$ lbs. in Bombay (excluding Guzerat, where the consumption is small), $10\frac{3}{4}$ lbs. in the Central Provinces and Berar, $8\frac{3}{4}$ lbs. in Behar, $7\frac{1}{3}$ lbs. in the North-Western Provinces and Oudh, $7\frac{1}{2}$ lbs. in cis-Indus and $11\frac{1}{8}$ lbs. in trans-Indus Punjab.

Opium.—The opium revenue is raised on opium sent from India to China, partly by a monopoly in Eastern India, and partly by an export duty in Western India. The duty on imported opium, not covered by a government pass, is Rx. 24 per *ser*⁵ of 80 tolas. The revenue from this source has risen from 784,266*l.* in 1840 to Rx. 5,725,330 in 1898-99. This revenue annually increased until 1881, when it reached its highest figure of Rx. 10,480,051, since which date it has had a downward tendency. This has been due to the fall in the price of Indian opium in the Chinese market.⁶

Though the poppy can be grown in most parts of India, its cultivation in British territory is permitted only in parts of Bengal, and of the North-Western Provinces and Oudh. Opium is also grown in the native States of Rajputana and Central India. Some of these States have agreed to assimilate their internal opium arrangements to the British excise system, and to prevent contraband dealings. They levy heavy duties on opium exported from their territories for the Chinese market, and this also pays to the Indian Treasury a duty which had been 40*l.* per chest for several years until December, 1894, when it was raised to $43\frac{1}{3}$ *l.*

⁵ The *ser* = 2·057 lbs.

⁶ Of late years the quantity of opium produced in China has greatly increased, and the quality of the native drug has improved.

The duty was again reduced to 40*l.* in July, 1896, and to 33½*l.* in October, 1897.

Particulars of the number of chests⁷ of opium sold in Bengal are given in the "Statistical Abstracts" only from the year 1876,⁸ when 45,510 chests were sold for export, and 3,800 chests were issued to the Excise Department for consumption in India. The exports from Bengal rose to 59,100 chests in 1880, which was the highest figure attained; they fell to 48,852 chests in 1892-93, and to 39,450 chests in 1898-99. Excise opium reached its highest figure in 1885, when it amounted to 5,522 chests. It has since fluctuated between that figure and 4,000 chests, and in 1898-99 it amounted only to 3,874 chests. These figures appear to indicate that the use of opium in India has no tendency to increase, but rather to decrease.

Excise.—The receipts in 1840 from excise, sayar,⁹ abkarree,¹⁰ and forest amounted to 783,379*l.* The receipts from forests were then only nominal, but since 1864-65 they have been carried to a separate heading in the accounts. The receipts under the head of "Excise, &c.," had risen to Rx. 5,743,422 by 1898-99. Before 1858 the excise revenue from spirits, liquors, and drugs was raised all over India under the contract system, whereby a liquor dealer paid an annual sum for the monopoly of the liquor trade within a defined area, and was then permitted to make and to sell as much liquor as he could within that area. Now the excise revenue is raised principally from the following sources:—1. Monopolies for the sale of liquors and intoxicating drugs over defined areas; under this system the monopoly is leased to the highest bidder—2. Still-head duty on all spirits manufactured at distilleries—3. Licences for the working of stills at specific places, and 4. Licences for the sale of various kinds of liquor.

The present tendency is to restrict, as much as possible, plans 1 and 3—called the "farming" and "out-still" systems respectively—in favour of the second, or "central distillery system." Owing to the improvement in wages and in industrial employment, the classes which consume intoxicating drinks are able to spend more on liquor than formerly, but they pay much more for, and contribute a higher revenue per gallon on, what they consume than they did under the old system. To this fact the large increase in the excise revenue is to a considerable amount due, as well as to improved excise administration which, whilst increasing the

⁷ A chest of opium weighs 300 lbs.

⁸ In the "Financial Statistics" particulars are given as to the sale of opium from 1829.

⁹ Miscellaneous revenue receipts.

¹⁰ Licences for the sale of spirituous liquors, and drugs other than opium.

rates of taxation, has, at the same time, restricted the use of illicit intoxicants.

Customs.—Customs duties amounted to 1,244,533*l.* in 1840. The duty levied on British goods imported into India was 5 per cent. *ad valorem*. There was a distinctive duty on many articles imported from foreign countries, and there was a general duty of 3 per cent. (from which, however, cotton was exempt) on the produce and manufactures of India. In 1860 the import duties were enhanced to meet, in part, the financial difficulties consequent on the Sepoy mutiny, and the receipts rose from 2,867,681*l.* in 1859 to 4,161,501*l.* in 1861. Since then gradual reductions of duties have been made, and by 1882 the receipts from this source had fallen to 2,361,388*l.* In that year all customs duties were abolished except on importations of salt, opium, wine, beer, spirits, and arms, and export duties were retained only on opium and rice. By 1885 the customs revenue had fallen to Rx. 1,029,943, derived principally from the import of liquors (Rx. 403,067) and the export of rice and paddy (Rx. 593,440). This was the lowest figure reached. From that date the receipts began to improve, and by 1894 they had increased to Rx. 1,682,373. In the last-mentioned year, owing to the largely increased charges caused by the fall in the gold price of silver, import duties were re-imposed, generally speaking, to 5 per cent. *ad valorem*, an exception being made in favour of machinery, food grains, raw materials such as coal, jute, wool, gold, and unset precious stones, which were all admitted free; petroleum and iron and steel paid a reduced rate of duty. A 5 per cent. duty was also imposed on imported cotton goods and yarns, while a countervailing excise duty of 5 per cent. *ad valorem* was imposed on all yarns, and counts above 20, spun at power mills in British India.

By 1895-96 this source of revenue had risen to Rx. 5,017,278. In February, 1896, the cotton duties were revised; all cotton yarns, whether imported or manufactured in India, were freed from duty, while a uniform duty of $3\frac{1}{2}$ per cent. *ad valorem* was imposed on all woven cotton goods either imported from abroad or manufactured at power mills in India. This was followed by a fall of the customs revenue to Rx. 4,491,477. It had subsequently increased to Rx. 4,802,162 by 1898-99.

Stamps.—Before 1858 stamp duties were levied mainly on litigation and on legal documents. Between 1840 and 1859 they had risen from 427,687*l.* to 593,213*l.* In the year 1860 the stamp law was revised, and duties were imposed on commercial transactions recorded in writing, such as conveyances, bonds, cheques, bills of exchange, receipts and the like. The following year these duties brought in 1,182,781*l.* Since that date the rates of duty

have been periodically revised, and the original scale of duties has been reduced in many respects. The receipts in 1898-99 from this source amounted to Rx. 4,797,650, of which about 70 per cent. was levied from litigants in courts of justice, and about 30 per cent. on trading and other documents. The net receipts from stamps amounted to Rx. 4,649,896.

Railways and Irrigation Works.—There can be no doubt but that the two causes that have contributed mostly to the advancement of India have been railways and irrigation works. The former have rendered incalculable benefit in time of need by carrying food from prosperous districts to famine-stricken provinces, and they have further given impulse to production and trade by carrying to the seaports surplus products that would otherwise have found no market, and might have rotted in granaries, besides adding enormously to the military strength of the country. The latter have also contributed largely to increased cultivation of the land, and have proved invaluable aids in times of drought and famine.

It must be remembered that in 1840 the country possessed no railways, and but few roads. The first section of railway was opened in Bombay in 1854, and there are now in British India 20,830 miles of railway, 2,575 miles in native States, and 73 miles in French and Portuguese territories, making a total for the whole of India of 23,478 miles at the end of 1898-99.¹¹ Exclusive of the last-named 73 miles, the railways in British India and in native States conveyed 160,307,568 passengers in 1899, and 40,317,054 tons of goods.

The capital expenditure by the Government, by companies, and in native States on railways in British India had amounted, on the 31st December, 1899, to 190,684,647*l.*, the gross receipts from these lines for the year amounted to 19,364,012*l.*, the working expenses to 9,225,879*l.*, and the net receipts to 10,138,133*l.*, thus yielding 5.32 per cent. on capital outlay on open lines. The working expenses of the guaranteed railways averaged 52.4 per cent. of the gross receipts, and of State lines just under 46 per cent. The net result to Government of railway construction in India, however, shows, for the last year under review, 1898-99, a deficit of Rx. 942,126. Details of this deficit are shown in Table E.¹²

¹¹ From the "Railway Report" for 1899-1900 it appears that 1,266 miles of line were opened for traffic during that year. The particulars given in this report are very confusing, some being for the calendar year, whilst others correspond with the financial year.

¹² The "Report of the Royal Commission of the Expenditure of India" states (pp. 75 and 76) that for the year 1895-96 the net charge on the taxpayers on account of railway construction in India was Rx. 1,620,000. The net charge for

Details are wanting of the aggregate length of canals and regarding other irrigation works in India, but it is shown that the net receipts from the more important of these, constructed by the State from borrowed capital, after paying interest on the debt raised for their construction, amounted in 1898-99 to Rx. 269,637. The capital expenditure chargeable against irrigation works is Rx. 33,319,372; the area irrigated in 1898-99, whether by canal, tank, or well, in the tracts for which alone statistics are available, amounted to 30,414,499 acres, or nearly one-sixth of the area sown with crops. The additional value of crops secured by State irrigation works is not stated, but in a memorandum drawn up in 1889, it was estimated that of those grown on 10,951,000 acres irrigated in 1886-87, the additional value due to irrigation was not less than Rx. 14,500,000. Since then the amount has probably largely increased, owing to the extension of irrigation to wheat in the Punjab. Considering the importance of canals in India, the information regarding them in the "Statistical Abstracts" might, I think, with advantage be given more fully.

Forests.—As has been already stated, up to 1864-65 the Forest receipts were included under "Excise, &c." Some beginning was made in the Forest administration and conservancy of Southern India in 1844. Ten or twelve years later similar work was begun in Western and Northern India, and was taken up systematically all over India when the Mutiny troubles were over. In 1863-64 a regular Forest Department was established, and within the last twenty years forest laws have been enacted for, and forest administration has been placed on a permanent basis in, every part of India, with the result that upwards of 82,000 square miles of State forests have now been marked off as forest reserves. Since 1868 the forest revenues have risen from 331,088*l.* to Rx. 1,859,868, and the net receipts from that source now amount to Rx. 869,137.

Post Office and Telegraphs.—The earliest information regarding the Post Office in India, contained in the "Statistical Abstract," only dates from 1855, at which time there were 700 Post Offices in the country; 28,797,600 separate covers were, in that year, conveyed over 30,594 miles of road, &c.; the receipts amounted to 201,462*l.* and the expenses to 245,716*l.*, thus showing a deficit of 44,254*l.* At this date no mails were conveyed by railway.

Since 1855 the postal system has been greatly extended and improved, and the Post Office undertakes a vast amount of work connected with money remittances, parcel insurance, savings

1898-99 was in sterling 620,165*l.*, whilst according to the estimate for 1899-1900, it was in that year only 8,400*l.*

banks,¹³ and other public requirements. The extent to which Indians of all races use the Post Office has increased amazingly. With regard to postage rates in India, a letter now travels safely for half an anna ($\frac{1}{2}d.$) stamp, and a postcard for a quarter anna ($\frac{1}{4}d.$) stamp, over a distance of 3,000 miles, from Quetta, in Beluchistan to Bhamo, on the border of China, by road, railway, ocean, and river.

There are now 10,505 post offices, 18,617 letter boxes; the length of railways, roads, &c., over which the mails are conveyed is 90,395; the number of letters, postcards, parcels, &c., delivered in 1898-99 was 489,076,823; the gross revenue Rx. 1,904,689; the expenses, Rx. 1,427,938, and the net revenue, Rx. 476,751.

Telegraphs were first commenced in India in 1851, and in the following year 82 miles were open. There are now 51,769 miles of line, 160,650 miles of wire, and 275 miles of cable open. These have been constructed at a total cost, to the end of 1898-99, of Rx. 6,251,541; they were worked during the year at a profit of Rx. 104,150, which gave 1.60 per cent. interest on the outlay. The total number of paid messages sent in the year was 5,448,600, and of Government and other free messages, 8,773.

The Indo-European Government Telegraph, connecting the Indo-European Company's telegraph at Teheran with the Indian Government system at Karachi, comprises 1,721 knots of cable, 1,378 miles of line, and 3,454 miles of wire. The cost of the line has been Rx. 1,155,397. The number of words telegraphed during the year was 1,995,740, and the net receipts Rx. 69,730, yielding interest on capital expenditure of 6.03 per cent.

Expenditure.—Expenditure within the period under review has risen from 22,228,011*l.* in 1839-40, to 64,954,942 in 1898-99, of which 2,578,966*l.* and 16,303,197*l.* were on account of expenditure in England in those two years respectively. This total Indian expenditure was the highest on record up to that date, with the exception of the preceding year, 1897-98, when it amounted to Rx. 101,801,215, the excess being more than accounted for by an increase of Rx. 4,175,811 on account of "Famine Relief and Insurrection," and of Rx. 2,986,004 for "Army Services." Under several other headings the expenditure was not so great as in 1898-99.

Details of expenditure are not given in the earlier "Statistical Abstracts"; these only commence with the year 1864. Table F shows the expenditure for 1898-99 under the several principal headings, distinguishing those under headings appearing in the

¹³ In the Post Office savings banks there are 755,871 depositors, of whom 686,663 are native depositors or local institutions; the amounts of their deposits aggregate Rx. 83,862,562, as against 69,208 European or Eurasian depositors, with aggregate balances of Rx. 10,417,479.

accounts for the earlier year (1840) from those due to items which have since been added to the accounts, and Table G shows the net receipts from the revenue branches of the administration, and the net expenditure of the non-revenue branches. It is not proposed to enter into an examination of the charges under all the several heads under which expenditure is accounted for, but some remarks may, with advantage, be made with regard to the principal non-revenue branches.

The increase of expenditure since 1840 has, it will be observed from the above figures, amounted to Rx. 75,237,372. Of this, Rx. 39,877,358 is on account of items which found no place in the earlier year's accounts, and with a very small exception do not involve taxation; Rx. 14,091,830 represents the increase in military expenditure since 1839-40, and Rx. 1,436,218 increase of interest on debt, exclusive of railway and irrigation loans. The above items together amount to Rx. 55,405,406, thus leaving Rx. 19,831,966 to represent the charges due to increased cost of administration over a vastly extended territory, as well as for the collection of additional revenues, amounting to Rx. 48,605,593.

Roads and Buildings.—Previously to 1850 there was no systematic method in India for carrying out public works. In that year the subject attracted the attention of the authorities, with the result that a regular Public Works Department was formed in 1855. The building and roads branch of this department now embraces all its operations which are not classed under the special heads of "Railways" and "Irrigation." This includes the extension and maintenance of the main road system; the construction and repair of all 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 harbours, lighthouses, embankments, boat bridges and ferries, and the water supply and sanitation of towns. The operations of this branch of the department are classed primarily under two divisions, viz., military and civil works. The military works are executed entirely from imperial funds, whilst civil works are chiefly construction from provincial and local resources.

The greater part of the expenditure from local funds is absorbed by the maintenance and extension of roads. New trunk roads are rarely required, and additional roads are now, for the most part, made to facilitate access to railway stations. No information is given in the "Statistical Abstracts" of the extent of main and branch roads in existence.

With regard to buildings, improved quarters have been provided for troops all over India; better prisons have been erected; lighthouses have been provided all round the Indian coasts; a

great number of court-houses, public offices, hospitals, police stations, and school houses have been constructed; and forts, batteries, and places of arms have been constructed at obligatory points on the frontiers, at some of the seaports, and at a few places on the great routes in the interior.

The accounts of expenditure under this heading appear in the "Abstracts" from the year 1853-54, since which date over Rx. 219,000,000 have been expended on these works out of revenue, or at the average of nearly Rx. 5,000,000 per annum.

Education.—The first entry in the "Abstracts" of any figures relating to education appears for the years 1852-53, when the number of educational institutions belonging to and aided or maintained by Government was 413, with an average attendance of 28,179 pupils, which were maintained at a total cost of 100,210*l.* In 1854 orders were sent out for an extension of educational advantages for the natives of India. This was quickly given effect to, and by 1859-60 the number of these institutions had increased to 13,550, with an average attendance of 306,506 pupils, and an expenditure from all sources of 315,372*l.*, of which 233,444*l.* was contributed by the State. The cost per head was therefore a little over Rs. 10 4*s.* (or about 13*s.* 8*d.*) per head.

By 1882-83 there were brought into the return 109,216 institutions (Government aided and private), which provided education for 2,790,773 students, of which 3,487 schools were for females, and these had 162,371 pupils. In that year a Special Commission was appointed to inquire into the educational system and progress of every province, the result of which was a renewed enforcement and a further extension of the educational principles and policy prescribed in 1854. The system of education now in force operates, generally speaking, through three grades of institutions, viz.: 1. Primary schools; 2. Secondary schools; and 3. Colleges.

There are now 107,143 public educational institutions on the books, of which 6,164 are for females. Of the former, 169 are colleges, 5 being for females; 5,396 secondary schools, 472 of which are for females; 100,858 primary schools, 5,618 being for females; and 720 training and other special schools. There are also 42,805 private schools, thus making a total of 149,948 educational establishments in India, which educate 4,357,821 students, or less than 2 per cent. of the population according to the census of 1891. Of the total number of students 402,153 are females. It will thus be seen that whereas the total number of students has increased by 56 per cent. since 1882-83, the number of female students has increased by 147 per cent. The above institutions were maintained at a total cost of Rx. 3,621,535, or at the rate of Rs. 8 5*s.* (11*s.* 1*d.*) per head. Of this sum Rx. 1,507,065—

Rs. 3 10as. (4s. 10d.) per head—was contributed by Government, Rx. 146,877 from municipal funds, Rx. 1,108,414 from fees, and the balance from “other sources” which are not specifically stated.

Military.—At the beginning of the period to which these statistics refer, the army in India comprised 20,217 Royal troops (Europeans) in addition to the East India Company's forces, which latter consisted of 15,387 Europeans and 199,839 native troops; or, together, 35,604 Europeans and 199,839 natives, forming an army 235,443 strong, the cost of which amounted to 9,273,580*l.* These last figures are taken from the “Home Accounts of the East India Company,” as the statements of military expenditure are not given in the “Statistical Abstracts” earlier than for 1862. Just before the Mutiny (in 1856), the army comprised 45,522 European troops and 232,224 natives, making a total of 277,746. At the outbreak of the Mutiny the European forces were considerably increased, and, in 1859, out of 302,533 troops, 106,290 were Europeans and 196,243 natives. In 1862 the total military expenditure amounted to 16,189,404*l.*, and it remained at about that figure until 1872, when the military charges fell to 15,678,112*l.* The army then numbered 189,043, of whom 67,062 were Europeans, and 121,981 natives. It now (1898-99) numbers 219,454, viz., 76,261 Europeans and 143,193 natives, which force is maintained at the largely increased cost of Rx. 24,012,233.¹⁴ The non-effective charges within the last-mentioned period have increased from 2,008,692*l.* to Rx. 4,570,700. The increase in the cost of the army in recent years is attributed (1) to the fall in the rate of sterling exchange for the pay of British troops, &c.; and (2) to the increased annual cost¹⁵ of requirements of troops, owing to augmentation of strength and the provision of improved weapons.

Besides the above military force, the position in India has been strengthened by the enrolment of 30,749 European volunteers, of whom 28,326 were efficient in 1898-99. Their cost to the State was Rx. 195,310. Before the Mutiny, the Artillery comprised 7,202 Europeans and 9,188 natives; after that crisis the relative strength of the two forces was altered, and the European Artillery now numbers 15,739, and the native Artillery 2,157. A reserve force of native soldiers who have passed through the ranks has also been organised, and the men of this force will be liable to

¹⁴ In 1872 the military expenditure in India amounted to Rx. 12,036,098, and in England to 3,642,014*l.* The expenditure in 1898-99 amounted to Rx. 17,489,178 in India, and Rx. 6,523,055 in England, including exchange.

¹⁵ One of the causes of increase is the growth of the non-effective charge, but the Royal Commission say that this will gradually diminish owing to short service.

rejoin the colours in case of need. I find no reference to the Volunteers and reserve force in the "Statistical Abstract."

Famine Relief.—The greatest scourge to which India is subjected is that of famines, which recur with painful rapidity; and although the country is better adapted to meet and combat these troubles than formerly, the results of the famine which is now happily drawing to a conclusion, seem to show that the works for famine prevention, though completed so far as the recommendations of the Famine Commission of 1878 are concerned, may with advantage be capable of further extension. Much has, however, been done in this direction, and whilst railways and other means of conveyance ensure the supply of food to almost any part of India, continued cultivation in seasons of drought has been facilitated in many parts by the construction of irrigation works where hydrographic conditions render them practicable, whilst, for many years past, comprehensive systems of relief organisation and relief works have been arranged for every part of India.

Lord Curzon, referring a short time since to the recent famine, remarked that the estimated loss of crops had been 50,000,000*l.* sterling; that half a million of deaths in British India might be fairly attributed to famine conditions, and that the cost of the famine—exclusive of the loss of land revenue—might be estimated at 1,000 lakhs of rupees or *Rx.* 10,000,000.

The expenditure on protective railways and irrigation works, chargeable to famine relief and insurance, is first shown in the "Statistical Abstract" for 1882, on the introduction of the system of famine insurance, and since that date *Rx.* 9,151,143 has been expended on these works, in addition to *Rx.* 13,538,386 on relief during famines. The statements do not admit of a similar separation of charges for the years preceding 1882, but "Famine Relief and Insurance" charges are shown together for the first time for 1874, since which date they have aggregated *Rx.* 37,244,141.

Shipping and Trade.—No better evidence can, perhaps, be produced of the advancement of India than is shown in the extension of its foreign trade. This, amongst other causes, has been primarily due to the improvement and extension of the means of communication, the improvement of sea-ports, increase of cultivation, and reductions in the tariff.

The total shipping of 1841, entered and cleared, including native craft, is given as 52,476 vessels, of 2,181,360 tons aggregate burthen, whilst in 1898-99 the figures were 9,686 vessels having a total capacity of 9,115,646 tons, of which 7,870 vessels, of 7,708,588 tons, were with cargoes, and the remainder arrived or left in

ballast. In 1899-1900 the number of vessels carrying cargoes was 7,122, of 7,435,786 tons. In the first-named year the European and other vessels, not native, numbered 2,977, of 954,586 tons burthen, whilst the native craft numbered 49,499, with an aggregate capacity of 1,226,774 tons. The native craft in the last two years engaged in coasting trade were, in number, 172,061, and 177,594, of carrying capacities of 3,054,804 tons and 3,116,555 tons respectively. The numbers and tonnage of native craft engaged in foreign trade amounted in 1899-1900 to 1,180, of 74,523 tons capacity.

The number of British vessels entered and cleared at ports in British India in 1841 was 2,363, of 814,781 tons, or over 85 per cent. of the non-native vessels, and over 37 per cent. of the total tonnage. Of the total tonnage carrying cargoes in 1899-1900, over 62 per cent. were to and from countries forming parts of the British Empire, and of these about 31·5 per cent. were to or from the United Kingdom. The number of British and British Indian vessels (other than native craft) employed in the Indian foreign trade amounted to 4,554,¹⁶ of an aggregate capacity of 6,114,487 tons, of which 912 were British vessels, of 1,709,005 tons, traded between India and foreign countries. The total shipping in this foreign trade amounted to 2,445 vessels of 2,784,384 tons, from which it would appear that over 60 per cent. of the tonnage employed in the trade with countries other than parts of the British Empire consisted of British vessels.

The value of imports and exports from and to foreign countries amounted, in 1841, to 10,202,193*l.* and 13,822,070*l.* respectively, whilst in 1898-99 they had increased to Rx. 86,264,298 and Rx. 120,229,654, and in 1899-1900 they were Rx. 196,278,163 and Rx. 117,070,032 respectively. From the annexed Table H, which was compiled before the figures for 1899-1900 were available, it will be seen that the proportion of imports into India from the United Kingdom has increased, during the period embraced by this review, from 59·9 to 65·7 per cent. of the total trade, but that with regard to exports from India, these have decreased from 51 to 29·2 per cent., and the total trade with the United Kingdom is now 44·5 per cent., as compared with 54·8 per cent. in 1841. The trade with other parts of the British Empire, including also Great Britain, amounts, however, to 58·3 per cent. of the whole, but it has fallen to that figure from 70·6 per cent. in 1841. Excluding China, which country now engrosses 7·9 per cent. of the total trade, as against 15·5 per cent. in 1841, no other foreign nation

¹⁶ Of these 3,765 vessels, of 6,026,099 tons capacity, were British, and 789 of 88,388 tons, were British Indian.

possesses so much as 5 per cent. of the trade of India, the two largest traders with that country being Germany and France, which possess 4·8 and 4·4 per cent. of that trade respectively.

Since the opening of the Suez Canal, in 1869, the Indian trade has had a tendency to revert, to some extent, to its old channel, and many of the Mediterranean ports now receive their imports direct from India. An examination of the figures shows unmistakably that this is the case with regard to Austria-Hungary, Turkey, Greece, Italy, and France, and the trade of these Mediterranean ports has increased from 22,568*l.* in 1841, and from 191,248*l.* in 1868, the year preceding the opening of the canal, to Rx. 15,784,242¹⁷ in 1898-99. The number of steamers of the Indian trade that passed through the Suez Canal in the year last mentioned was 1,656, having an aggregate capacity of 3,969,779 tons.

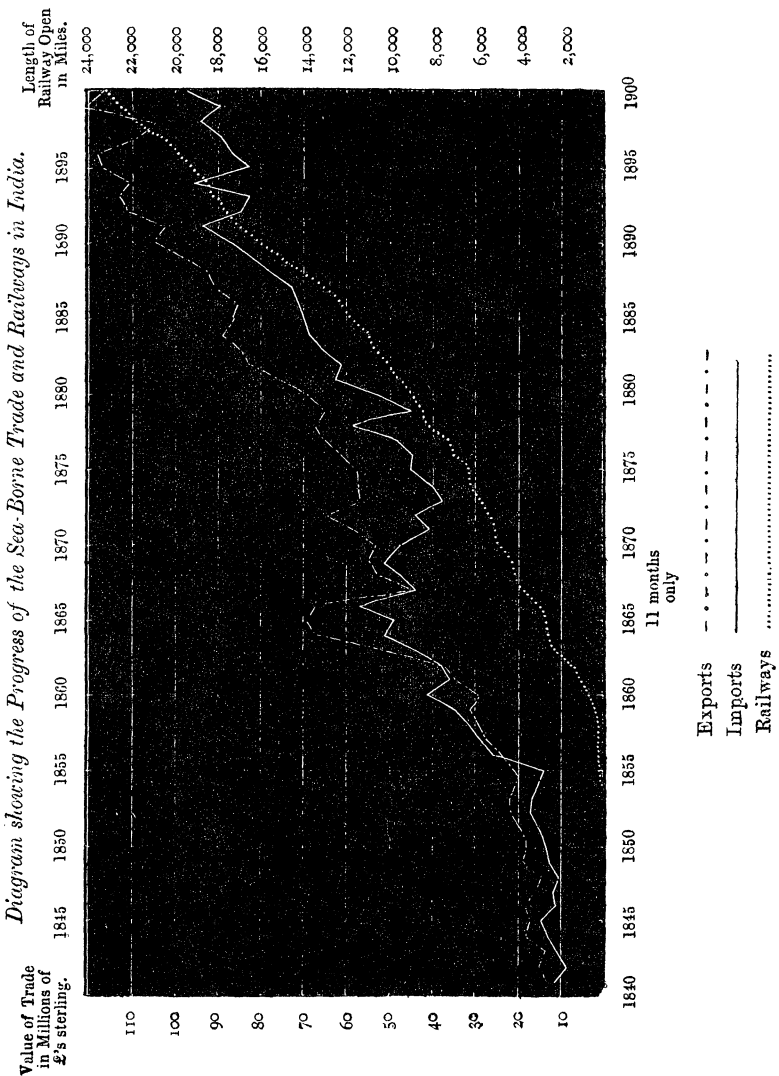
The external land trade of India, principally with Siam, Nepal, Cashmere, Beluchistan, and the Shan States, had also increased—though less rapidly than its sea-borne trade—from Rx. 9,844,839 in 1881 (the first year for which particulars are given) to Rx. 11,382,668 in 1898-99.

The annexed diagram shows how the import and export trade of India has increased with the extension of her railways, and points a moral too obvious for further comment on the present occasion. The average increase in the exports from India has been, in round figures, at the rate of 4½ millions per annum for every thousand miles of railway opened, whilst the increase in the imports has been at the rate of a little over 3 millions per annum per thousand miles.

General.—The Census Report for 1891 stated that the numbers in India occupied in connection with pasture and agriculture amounted to 61·06 per cent. of the total population. The country, however, possesses great capabilities for a development of manufacturing industries, but these are as yet in their infancy. In 1856 there was hardly a power loom in the country, but now there are 176 cotton mills, with 37,540 looms and 4,456,177 spindles, employing 156,056 hands. There are also 33 jute mills, with 13,371 looms and 278,858 spindles, giving employment to 94,540 hands. There are besides 4 woollen mills, 8 paper mills, 23 breweries, besides cotton spinning, cleaning and pressing mills, coffee works, flour mills, rice mills, oil mills and wells, jute presses, indigo factories, timber mills, sugar factories, and silk

¹⁷ Exclusive of the trade with the French Mediterranean ports, particulars of which I hope shortly to receive from the British Consul at Marseilles, who has kindly promised to endeavour to procure them for me. (This has not yet been received, 8th February, 1901.)

filatures. Several of these are carried on by joint stock companies, of which there are 1,417 in existence, with an aggregate



paid-up capital of Rs. 35,598,946, some of which are engaged besides in banking and loan businesses, insurance, navigation, railways and tramways, tea and coffee planting, coal, gold and other mining. The production of minerals in British India,

as given in the "Statistical Abstract" for 1898-99, was as follows:—

Salt	985,703 tons
Coal	4,075,632 ,,
Iron ore.....	46,555 ,,
Saltpetre	230,362 cwt.
Petroleum.....	18,972,368 gallons

One result of education has been a great increase in the number of books, magazines, and newspapers published in India. In the year 1858 hardly any vernacular books were published, save a few educational or religious works, and there were few vernacular newspapers. There are now in India 2,061 printing presses, which in 1898-99 turned out 686 newspapers, 462 periodicals, 1,125 books in English or other European languages, and 6,079 books in Indian languages.

Previously to 1858 local committees had been formed in the districts of some provinces, and in parts of India the town panchayets still survived. Since 1860 laws have been passed for every province of India, under which urban affairs are placed in the hands of local bodies, the members of which are, in large places, mostly elected by, and in small places mostly nominated from among, the townfolk. These municipal bodies, subject to the law and to the general control of the Government, raise funds or receive grants of public money for local purposes. There are now in India 757 municipal towns, containing a population of nearly 16 millions, which, in the last year under review, raised an income of Rx. 6,656,453, of which Rx. 3,055,129 was from taxation and Rx. 3,601,324 from "other sources." The incidence of taxation was Rs. 193 per head of population. The expenditure of these municipalities included, besides general administration, lighting, police, water supply, drainage, conservancy, hospitals and dispensaries, roads, bridges, &c.

There are also district and local boards, mostly of more recent creation than the municipal bodies, to which is committed the duty of self-government in rural tracts. The population within the area of these boards is 193,289,295. The income which they control amounts to Rx. 3,161,623, or at the rate of 2 as. 7 p. per head. This was expended on education, civil works, sanitation, hospitals, &c.

In most parts of India wages have of late years shown a decided tendency to increase, and instances of a few of these are given in the "Statistical Abstracts," so far as they can be estimated in cash (see Table I). As a general summary of the improved condition of the several classes of the community, it may be briefly stated that both the landowning and tenant classes

are better off than formerly, in consequence of the profits of agriculture being larger, owing to the rise in prices and the export demand for surplus produce; lawyers and soldiers enjoy better incomes than they used to do; the salaries of native servants of Government average higher than they formerly did, though the rise in the price of food and other necessaries must be allowed for in the opposite scale; whilst with regard to the labouring classes, the wages of skilled labour, and the amount of skilled labour finding employment, have increased considerably, and in some districts, more especially along railway lines, the standard of wages for unskilled labour has advanced. The price of food, however, has risen, but as a rule not in proportion to the rise in wages; this rise, however, makes little difference to agricultural labourers, most of whom are paid in kind.

Thus have I endeavoured, however imperfectly, to place before the Society a review of Indian Statistics, from which it will, I think, be fully admitted that the progress of that Empire during the past sixty years has been without parallel. If this progress has from time to time been checked by occasional wars, these have resulted in bringing further territories within the benign influence of the *Pax Britannica*; if the country has periodically been thrown backwards by local recurrences of famine and disease, these have been instrumental in bringing into prominence the benevolence and liberality of the Anglo-Saxon race, and the masterful resources of the Indian Governments to combat those evils; whilst the successful administration of the country has brought into prominence some of the most able financiers of the age, whose united abilities have secured for India the enviable notoriety of being the lightest taxed country in the world.

I cannot conclude these remarks without acknowledging my sincere thanks to Sir Henry Waterfield, the Financial Secretary of the India Office, for his valuable assistance and advice, as well as to Mr. Seabrooke, the Assistant Revenue Secretary, for kindly supplying me with information required for the purpose of this paper.

APPENDIX.

TABLE A.—No. 1. Population, &c.

Year.	Territory.	Number of Towns and Villages.	Number of Houses Occupied.	Population.		
				Males.	Females.	Total.
1881	British territory ...	544,856	33,032,007	101,292,504	97,498,349	198,790,853
	Native States	169,903	10,507,826	28,684,722	26,465,734	55,150,456
	Total.....	714,759	43,540,433	129,977,226	123,964,083	253,941,309
1891	British territory ...	537,991	40,005,105	112,542,739	108,630,213	221,172,952
	Native States	178,163	12,504,455	34,184,557	31,865,922	66,050,479
	Total.....	716,154	52,509,650	146,727,296	140,496,135	287,223,431

No. 2. Division and Density of Population.

Year.	Territory.	Urban.	Rural.	Density per Square Mile.	
1891	British India	20,391,129	200,781,823	229	Varies from 35 per square mile in Upper Burma to 471 in Bengal.
	Native States	6,860,047	59,190,432	111	
	Total.....	27,251,176	259,972,255	184	Varies from 31 per square mile in Kashmir to 531 in Cochin.

No. 3. Numbers of various Religions.

Hindus	207,731,727	Christians	2,284,380	Jews	17,194
Mahomedans	57,321,164	Sikhs	1,907,833	Others	42,763
Aboriginals.....	9,280,467	Jains	1,416,638		
Buddhists	7,131,361	Parsis.....	89,904	Total.....	287,223,431

TABLE A Contd.—No. 4. Occupation or Means of Livelihood of the Population.

Administration	5,600,153	Provision of glass, pottery, and stoneware	2,360,623
Defence, naval and military	664,422	Provision of wood, cane, matting, &c.	4,293,012
Service of foreign States	500,030	Provision of drugs, dyes, and gums	391,575
Provision and care of cattle.....	3,645,849	" leather, hides, and horns	3,285,307
Agriculture	171,735,390	Commerce	4,685,579
Personal, household, or sanitary services }	11,220,072	Transport and storage	3,952,993
Provision of food and drink	14,575,593	Learned and artistic professions ...	5,672,195
" light, firing, and forage }	3,522,257	Sport and amusements	141,180
Construction of buildings	1,437,739	Earthwork and general labour	25,468,017
vehicles and vessels }	146,508	Undefined and disreputable means of livelihood	1,562,985
Provision of supplementary requirements }	1,155,267	Means of livelihood independent of work	4,773,993
Provision of textile fabrics and dress }	12,611,267		
Provision of metals and precious stones }	3,821,433	Total	287,223,443

No. 5. Population of Principal Towns of over 100,000 Inhabitants.

Town.	Total Population.		Town.	Total Population.	
	1891.	Compared with 1881.		1891.	Compared with 1881.
Bombay and cantonment ...	821,764	+ 48,568	Patna.....	165,192	- 5,462
Calcutta, fort and suburbs...	741,144	+ 56,486	Poona and cantonment ...	161,390	+ 31,639
Madras and fort	452,518	+ 46,670	Jaipur	158,905	+ 16,327
Hyderabad, cantonment and suburbs }	415,039	+ 60,077	Ahmedabad and cantonment }	148,412	+ 20,791
Lucknow and cantonment...	273,028	+ 11,725	Amritsur and cantonment	136,766	- 15,130
Benares "	219,467	+ 4,709	Bareilly "	121,039	+ 7,622
Delhi "	192,579	+ 19,186	Meerut "	119,390	+ 19,825
Mandalay "	188,815	....	Srinagar "	118,960	....
Cawnpore "	188,712	+ 37,268	Nagpur	117,014	+ 18,715
Bangalore "	180,366	+ 24,509	Howrah.....	116,606	+ 11,400
Rangoon "	180,324	+ 46,148	Baroda and cantonment ...	116,420	+ 9,908
Lahore "	176,854	+ 19,567	Surat "	109,229	- 615
Allahabad "	175,246	+ 15,128	Karachi "	105,199	+ 31,639
Agra "	168,662	+ 8,459	Gwalior	104,083	+ 16,017

TABLE B.—Details of Increase of Revenue.

Hheads of Revenue.	1839-40.	1898-99.	Increase.	
<i>Direct Taxation.</i>	£ = Rx.	Rx.	Rx.	
House, trade, income,* and assessed taxes }	122,985	1,922,191	1,799,206	Introduced in 1877.
Provincial rates .....	....	3,922,143	3,922,143	
	122,985	5,844,334	5,721,349	
<i>Indirect Taxation.</i>				
Excise, sayer, &c.	783,379	5,743,422	4,960,043	Abolished in 1854.
Customs	1,244,533	4,802,162	3,557,629	
Salt	2,696,745	9,099,871	6,403,126	
Tobacco	84,586	....	- 84,586	
	4,809,243	19,645,455	14,836,212	
<i>Other Sources of Revenue.</i>				
Land	12,273,982	27,459,313	15,185,331	
Tributes	594,204	909,701	315,497	
Opium	784,266	5,725,330	4,941,064	
Stamps	427,687	4,797,650	4,369,963	
Mint	95,270	77,932	- 17,338	
Post office	140,378	1,914,067	1,773,689	
Judicial, law, &c.	116,539	1,113,620	997,081	
Indian navy, pilots, &c.....	93,295	190,663	97,368	
Miscellaneous.....	666,189	1,051,566	385,377	
	15,191,810	43,239,842	28,048,032	
	20,124,038	68,729,631	48,605,593	
<i>Sources of Revenue introduced since 1840.</i>				
Railways .....	....	22,740,802	22,740,802	Separate heading commenced in 1870. Previously included under "public works."
Irrigation	3,463,074	3,463,074		Previously to 1870 included under "public works."
Forest .....	....	1,859,868	1,859,868	Shown separately from 1868. Previously included with "excise, &c."
Telegraph	1,080,820	1,080,820		Commenced in 1855.
Registration .....	....	441,176	441,176	First appears in 1873.
Interest .....	....	1,059,487	1,059,487	First shown in 1864.
Education .....	....	230,848	230,848	This item commenced from 1877.
Scientific, &c., depart- ments	191,409	191,409		First shown separately in 1873.
Buildings and roads .....	....	705,036	705,036	Public works receipts com- menced in 1858.
Military department.....	924,542	924,542		First shown separately from 1864.
	....	32,697,062	32,697,062	
	20,124,038	101,426,693	81,302,655	

* Income tax was first introduced in 1860 on trading and professional incomes and incomes derived from investments. Under the present law, incomes amounting to R. 2,000 per annum pay 5 pie in the rupee (2'6 per cent.), and if less than R. 2,000, 4 pie in the rupee (about 2 per cent.). Companies pay 5 pie in the rupee on their net profits, and income derived from other sources pays, according to a graded scale, from R. 10 on R. 500 to R. 42 on R. 1,999, the tax on incomes of Rs. 2,000 and upwards being 5 pie in the rupee. All incomes less than Rs. 500 a year are exempted, and the tax is not levied on profits or incomes derived from agriculture, or on military salaries of less than lt. 500 a month.

TABLE C.—Showing Increase of Land Revenues since 1840, excluding Land Revenue due to Irrigation.

Province.	1839-40.	1898-99.	Increase.
	£ = R. 10.	Rx.	Rx.
Bengal	3,370,602	4,044,785	674,183
North-West Provinces	3,977,513	5,034,666	1,057,153
Madras	3,225,600	5,038,248	1,812,648
Bombay	1,700,267	3,564,698	1,864,431
Net increase of land revenue ...	....	....	5,408,415*
Land revenues from territories annexed since 1839-40—			
India, general.....	....	148,973	148,973
Sind.....	....	1,151,799	1,151,799
Punjab .....	....	2,564,124	2,564,124
Central Provinces .....	....	873,910	873,910
Burma .....	....	2,807,230	2,807,230
Oudh .....	....	1,602,469	1,602,469
Assam .....	....	628,411	628,411
	....	....	9,776,916
	12,273,982	27,459,313	15,185,331

* This increase comprises revenues from numerous tracts of territory annexed since 1840, besides that due to increase of cultivation and revisions of settlements.

TABLE D.—Statement showing Salt Consumption and Revenue.

Year.	Salt Consumed.	Total Revenue from all sources.	Charges for Collection.	Net Revenue.
	In maunds of 82 ²⁸⁵⁷ lbs.	Rx.	Rx.	Rx.
1875-76	25,903,817*	6,229,523	508,692	5,720,831
'76-77.....	25,847,830*	6,291,266	489,507	5,801,759
'77-78†.....	26,441,280*	6,449,458	546,298	5,903,160
'78-79‡.....	27,406,848	6,941,120	404,743	6,536,377
'79-80.....	28,797,977	7,266,413	340,732	6,915,681
'80-81.....	28,621,089	7,115,988	363,537	6,752,451
'81-82§.....	29,620,715	7,375,620	486,209	6,889,411
'82-83.....	31,060,651	6,177,781	449,030	5,728,751
'83-84.....	31,574,426	6,145,413	447,574	5,697,839
'84-85.....	32,531,020	6,507,236	449,328	6,057,908
'85-86.....	32,064,822	6,345,128	401,618	5,943,510
'86-87.....	34,074,088	6,657,644	486,172	6,171,472
'87-88||.....	33,216,615	6,670,728	410,704	6,260,024
'88-89.....	33,485,353	7,675,634	412,979	7,262,655
'89-90.....	33,480,141	8,187,739	412,766	7,774,973
'90-91.....	33,855,096	8,523,368	429,013	8,094,355
'91-92.....	34,851,228	8,636,182	459,034	8,177,148
'92-93.....	35,451,290	8,656,104	458,707	8,197,397
'93-94.....	34,028,156	8,228,876	474,405	7,754,471
'94-95.....	34,550,872	8,665,749	498,415	8,167,334
'95-96.....	35,186,983	8,861,845	521,044	8,340,801
'96-97.....	35,788,366	8,421,705	523,352	7,998,353
'97-98.....	35,121,723	8,594,225	473,747	8,120,478
'98-99.....	35,796,581	9,099,871	465,702	8,634,169

* Exclusive of Burma.

† Duty reduced in Bengal and Northern India, but raised in Madras and Bombay.

‡ Inland customs line abolished. Duty further reduced in Bengal and Northern India.

§ Duty reduced to R. 2 for all India except Burma.

|| Duty raised to R. 2.8 for India and to R. 1 for Burma.

TABLE E.—*Railway Revenue Account, 1898-99.*

<i>Receipts.</i>		<i>Rx.</i>	<i>Payments.</i>		<i>Rx.</i>	
State railways (gross receipts)	}	19,613,969	State railways—			
Guaranteed companies (net traffic receipts)....			}	3,082,673	Working expenses	9,985,291
Subsidised companies (repayment of advances of interest)					}	44,160	Interest on debt .....	5,611,999
Deficit		942,126	Annuities in purchase of railways.....	}			2,574,490
			Interest chargeable against companies on advances		}	461,846
			Interest on capital deposited by companies	}		1,235,956
			Guaranteed companies—			
			Surplus profits, land, and supervision	}	398,234	
			Interest		}	3,256,370
			Subsidised companies—			
			Land, &c.	}	104,405	
			Miscellaneous railway expenditure		}	54,337
		23,682,928				23,682,928

TABLE F.—*Details of Expenditure.*

Heads of Service included in the Accounts for 1839-40.		Heads of Service added to the Accounts since 1839-40.	
Service.	Charges for 1898-99.	Service.	Charges for 1898-99.
	<i>Rx.</i>		<i>Rx.</i>
Land	4,054,559	Provincial rates	55,737
Opium.....	2,373,290	Railways.....	23,682,928
Salt	465,702	Irrigation	3,193,437
Stamps	147,754	Forest	990,731
Excise.....	243,014	Telegraph	1,026,960
Customs	214,942	Registration	248,511
Assessed taxes	32,812	Education	1,598,557
Mint	113,507	Scientific departments ...	554,113
Post office	1,725,413	Buildings and roads	5,868,803
Law, justice, and police ...	8,283,664	Famine relief	1,187,314
Marine	643,649	Provincial adjustments ..	1,467,351
Miscellaneous civil charges*	5,771,169	Miscellaneous	2,916
General administration	1,960,684		
Military	24,010,770		
Interest	3,031,996		
Medical	1,616,665		
Assignments and com- pensation	}		
Political		1,520,130	
Refunds and drawbacks ...	903,037		
Ecclesiastical	304,334		
	170,934	Brought forward.....	57,588,025
	57,588,025	Total expenditure ...	97,465,383

* Pensions, absentee allowances, stationery, printing.

TABLE G.—*Showing Net Receipts from Revenue Branches and Net Expenditure from Non-Revenue Branches, 1898-99.*

Net Revenue.		Net Expenditure.	
Service.	Rx.	Service.	Rx.
Land	23,404,754	General administration ...	1,960,684
Opium	3,352,040	Law and justice	3,425,531
Salt	8,634,169	Police	3,744,513
Stamps	4,649,896	Marine	452,986
Excise	5,500,408	Military	23,086,238
Customs	4,587,220	Roads and bridges	5,163,767
Provincial rates	3,866,406	Miscellaneous civil ex- penditure	5,771,169
Assessed taxes	1,889,379	Education.....	1,367,709
Forest	869,137	Medical.....	1,530,339
Registration	192,665	Famine relief	1,187,314
Tributes	909,701	Interest.....	3,031,996
Interest.....	1,059,487	Assignments, &c.	1,520,130
Post office, telegraph, &c....	206,939	Provincial adjustments ...	1,467,351
Irrigation	269,637	Railways	942,126
Miscellaneous	1,051,566	Political	903,037
		Scientific departments ...	449,030
		Ecclesiastical	170,934
		Refunds	304,334
		Miscellaneous	2,915
			56,482,103
	60,443,404	Balance surplus	3,961,301
			60,443,404

TABLE H.—Showing the Amounts and Percentages of Imports, Exports and Total Trade of India with Principal Countries for 1841 and 1898-99.

	1841.					
	Imports.	Per Cent.	Exports.	Per Cent.	Total Trade.	Per Cent.
	£		£		£	
Total	10,202,193	—	13,822,070	—	24,024,263	—
British Empire	7,029,684	68·9	9,946,304	71·9	16,975,988	70·6
United Kingdom	6,113,845	59·9	7,054,388	51·0	13,168,233	54·8
China, including Hong } Kong and Treaty ports }	1,554,916	15·2	2,179,055	15·1	3,733,971	15·5
Arabian and Persian Gulfs	731,128	7·1	842,792	6·1	1,573,920	6·4
France.....	220,233	2·1	478,096	3·4	698,329	2·9
America, North and South	178,137	1·7	256,309	1·8	434,446	1·8
Africa, coast of	42,929	0·42	65,282	0·47	108,211	0·45
Germany	17,139	0·17	8,018	0·05	25,157	0·10
Mediterranean ports	16,395	0·16	6,173	0·04	22,568	0·09
	1898-99.					
	Imports.	Per Cent.	Exports.	Per Cent.	Total Trade.	Per Cent.
	Rx.		Rx.		Rx.	
Total	86,264,298	—	120,129,654	—	206,393,952	—
British Empire	66,022,724	76·5	54,378,513	45·2	120,401,237	58·3
United Kingdom	56,666,852	65·7	35,176,778	29·2	91,843,630	44·5
China, including Hong } Kong and Treaty ports }	3,185,101	3·7	13,148,037	10·9	16,333,138	7·9
Austria-Hungary*.....	2,475,983	2·9	2,097,513	1·7	4,573,496	2·2
Belgium*	2,230,432	2·6	4,749,212	3·9	6,979,644	3·4
Russia*	2,053,698	2·3	130,079	0·10	2,183,777	1·05
Germany	1,728,183	2·0	8,254,755	6·8	9,982,938	4·8
United States.....	1,459,645	1·7	5,387,304	4·5	6,846,949	3·3
France	1,275,607	1·4	7,827,015	6·5	9,102,622	4·4
Egypt*	1,189,079	1·3	6,865,202	5·7	8,054,281	3·9
Arabia.....	1,037,275	1·2	1,762,028	1·4	2,799,303	1·3
Persia	721,615	0·83	1,616,619	1·3	2,338,234	1·1
Japan*	655,122	0·76	5,238,037	4·3	5,893,159	2·8
Italy*	556,928	0·64	3,320,613	2·7	3,877,541	1·9

* These countries did not apparently trade directly by sea with India in 1841, or, if they did, only to an infinitesimal extent, and were included in "other countries." Belgium first appears separately as an exporter in 1846 and an importer in 1847, Austria in 1872, and Russia in 1871; whilst previously to 1872 Egypt was included with the "East Coast of Africa, Madagascar, &c.," and previously to 1871 Japan was included "in other countries in Asia," and Italy was included in "other countries in Europe" or in "Mediterranean Ports."

TABLE I.—No. 1. Average Monthly Wage, in Rupees, of Skilled and Unskilled Labour.

	Burma.		Assam.		Bengal.	
	1873.	1899.	1873.	1899.	1873.	1899.
Able-bodied agricultural labourer	13·57 to 14·29	14·77 to 15·41	6·34 to 6·72	7·12 to 8·75	5·12 to 5·2	6 to 7·06
Syce or horsekeeper.....	13 to 14·14	12·86 to 13·5	6·5 to 7·12	8 to 10·5	4·89 to 5·11	5·85 to 6·62
Common mason, carpenter, or blacksmith	26·43 to 30·71	26·82 to 32·73	12 to 16·75	13·5 to 34	7·59 to 10·96	10·27 to 14·52
	N. W. Provinces.		Oudh.		Rajputana.	
	1873.	1899.	1873.	1899.	1873.	1899.
Able-bodied agricultural labourer	3·87 {	3·9 to 4·4	3·5 {	2·79 to 3·5	5 {	3·83 to 5·75
Syce or horsekeeper.....	4·37 {	4·32 to 4·9	4·5 {	4 {	5·5 to 5·83	4·67 to 7·33
Common mason, carpenter, or blacksmith	9·5 {	8·75 to 9·59	7·37 {	6·79 to 7·42	10·7 to 12·83	12·33 to 20·42
	Punjab.		Sind.		Bombay.	
	1873.	1899.	1873.	1899.	1873.	1899.
Able-bodied agricultural labourer	5·16	7·62 {	10 to 12·5	13 to 14	7·32 {	6·43 to 6·86
Syce or horsekeeper.....	5·63	6·3	8 to 10	10 to 12	8·51 {	7·84 to 8·41
Common mason, carpenter, or blacksmith	12·78	19·42 {	22·5 to 25	27·5 to 32·5	18·36 to 24·25	17·39 to 25·5
	Central Provinces.		Madras.		Mysore.	
	1873.	1899.	1873.	1899.	1873.	1899.
Able-bodied agricultural labourer	4	3·67	4·15	5·33 {	5·75 to 7·75	23·37 to 24·37
Syce or horsekeeper.....	5·33	6·33	5·69	6·51 {	5·12 to 6·12	8
Common mason, carpenter, or blacksmith	12·67 {	10·83 to 12·5	12·67 {	13·38 to 15·36	14·06 to 18·75	18·75 to 22·5

TABLE I *Contd.*—No. 2. *Average Monthly Wage, in Rupees, of Skilled Labour in certain Selected Stations.*

	Common Mason, Carpenter, or Blacksmith.			Common Mason, Carpenter, or Blacksmith.	
	1873.	1899.		1873.	1899.
Calcutta	7·5 to 10	18 to 20	Ahmednagar {	13·12 to	} 12 to 25
Patna.....	5·62 to 7·5	6 to 7		20·62	
Rangpur	7·5 to 10	15	Bombay	25 to 50	27·5 to 42
Backerganj	8 to 15	8 to 15	Ahmadabad	19·69	18 to 22·5
Cawnpore	7·5	7·58 to 9·37	Jubbulpore	15	10 to 15
Fyzabad	8	5·62 to 7·5	Nagpur	12	15
Meerut	9	10·25	Raipur	11	7·5
Delhi.....	10	15·5	Bellary	15	15 to 16·87
Amritsar	12·67	15	Madras	14·06	13 to 16
Rawalpindi	12	22·5	Salem.....	13·5	12 to 14
Karachi.....	20 to 25	25 to 35	Rangoon	40 to 45	45
Belgaum {	18·75 to	} 14	Toungoo	20	30
	22·5				

No. 3. *Average Rates of Monthly Wages paid in certain (State) and Railway Establishments, in Rupees and Decimals of a Rupee.*

	Postal Runners.		Postmen.	
	1855.	1899.	1855.	1899.
	R.	R.	R.	R.
Bengal.....	3·6	5·72	6·3	10·53
North-Western Provinces	3·33	5 (1893)*	5·17	8·42
Punjab	4·25	5·25	7	9·42
Sind.....	5	7	7·75	11·95
Bombay	5	7	5·25	11·13
Central Provinces	5	6	5·75	9·28
Madras	4	6·5	6·62	10

* Worked by contract after 1893.

No. 4. *Maximum Monthly Wages, in Rupees, at Mirzapur Station, on the East India Railway.*

	Blacksmith.	Carpenter.	Permanent Way Mistries.	Khuliasies and Keymen.
	R.	R.	R.	R.
1867.....	10	8	20	5
1900.....	12	12	30	5·5

TABLE I *Contd.*—No. 5. *Monthly Rates of Wages, in Rupees, paid in certain Private Industrial Establishments.*

	Bricklayers.	Vicemen.	Blacksmiths.	Carpenters.	Enginem and Stokers.
	R.	R.	R.	R.	R.
1867	13	14	13'5	13	9
1900	16	15	14	15	9

No. 6. *Monthly Average Wages, in Rupees, at the Murree Brewery, Punjab.*

	Head Coopers.	Coopers.	Smiths.	Masons.	Coolies.	Head Maltman.	Maltmen. (Coolies.)
	R.	R.	R.	R.	R.	R.	R.
1873.....	17	12'13	9'03	12	6'73	7	6'5
1900.....	19	13'78	14'5	14'25	6'5	8	6'5

No. 7. *Monthly Wages, in Rupees, at a Colliery in Bengal.*

	Ranigang.		Madhapur.		Nimcha.	
	Miners.	Blacksmiths.	Miners.	Blacksmiths.	Miners.	Blacksmiths.
	R.	R.	R.	R.	R.	R.
1882	5'5 to 6	6'5 to 7 and 9	5'5 to 6	8	5'5 to 6	8
'90	6 ,, 8	7 to 10	6 ,, 7	9 to 11	5'5 ,, 6'5	8

	Sanktoria.		Sodepore.		Kiddiha.	
	Miners.	Blacksmiths.	Miners.	Blacksmiths.	Miners.	Blacksmiths.
	R.	R.	R.	R.	R.	R.
1882	5'5 to 6	7 to 8 and 10	5'5 to 6	9	7 to 8	9 to 10
'90	6 ,, 8	9 to 12	6 ,, 8	9	7 ,, 8	9 ,, 11

No. 8. *Monthly Wages, in Rupees, in a Mill in Northern India.*

	1885.	1900.		1885.	1900.		1885.	1900.
<i>Card room.</i>	R.	R.	<i>Weaving department.</i>	R.	R.	<i>Engineering department.</i>	R.	R.
Head mistry	17	34'94	Mistry	13'5	18'81	Boiler mistry...	6	9'34
Feeder.....	5	5'92	Healder.....	5	7'56	Engineman	8	10'76
Mixer	5	6'19	Weaver	6	8'62	Oilman	6	6'21
Card cleaner	5	8'72	<i>Finishing department.</i>			Head carpenter	17	20'31
			Washing and bleach-			Boilerman.....	6	6'91
			ing—			Carpenter	10	11'1
<i>Mule room.</i>			Mistry	8	18'69	Blacksmith	11'5	13'81
Head mistry	8'5	33'96	Man	5	6'04			
Minder	5	6'22	Dyeing mistry	5	9'14			
Piecer	3'5	4'36	Finishing mistry	12	19'91			

DISCUSSION *on* MR. DANVERS'S PAPER.

MR. F. HENDRIKS, after thanking the author for his reference to his own paper read to the Society in May, 1858, called attention to the fact that the gratifying results which Mr. Danvers had chronicled had not been attained without a very great rise in the taxation of the people of India. When he had investigated the matter in his paper of 1858, which was just at the period when the East India Company were giving up the government of the country to the Crown, he found that the taxation in the preceding sixty-four years had been throughout the whole period about 1s. per head of direct and indirect taxation. This was the ratio for the whole of British India, but it varied from 7*d.* to 1s. 4*d.* per head in the five separate Presidencies and Governments. The direct taxation was of very small amount indeed, and he had insisted on the advisability and possibility of greatly extending direct taxation in India. Mr. Wilson, who shortly afterwards went to India as Finance Minister, introduced a large measure of direct taxation. The results of that policy had not been so grand as many expected at the time, because it had turned out that India was a far poorer country than people in England had imagined. This direct taxation now, however, contributed a very considerable portion of the revenue, particularly since it had been extended to the raising of loans for the improvement of towns. Large cities in India had now a direct local taxation, for the interest and redemption of loans secured on their rates. He had made a comparison of the later taxation, as compared with his own figures, from 1793 to 1856, of 1s. per head on a gold valuation. He could not then get figures later than 1856, but the figures for 1858 were not very different. His own calculation showed a taxation, direct and indirect, of 6,600,000*l.* amongst 132,000,000 people. At the present time the population was about 221,000,000, and the taxation, direct and indirect, was 25,500,000*l.*, showing an increase of taxation from the shilling, or half rupee per head, at which it stood in his paper of 1858, to 1*·*15 rupees; equivalent, at the present gold valuation of the rupee at 1s. 4*d.*, to a taxation per head of something more than 1s. 6*d.* sterling value, or rather more than 53 per cent. of increase over the old taxation. If the comparison be made upon the silver rupee valuation, the increase in taxation of 0*·*65 rupee above the old half rupee per head shows an increase of 130 per cent. He would be the last person to say that this increased taxation was ill-spent. It did not, however, include anything for interest on the Government debt, but fortunately the increased debt of India was mostly caused by interest on capital expended upon reproductive works, such as railways and irrigation. The desirability of considerable extension of these works had been a point for which he had contended very

strongly in his paper of 1858. He had only to regret that he was the sole survivor of their excellent Council at that date, which included three of the most distinguished authorities on Indian subjects, namely, Colonel Sykes, the Rt. Hon. Holt Mackenzie, and the Hon. Mountstuart Elphinstone.

Major BROADFOOT, R.E., said, when he was out in India, a quarter of a century ago, the great question was whether they were wise in spending all the money they could borrow upon railways, or whether it would not have been better to spend a larger proportion of it on canals, looking at the matter from the point of view of feeding the people in case of famine. It had always seemed to him that they ought first to grow the crops before they tried to carry them; and he thought that perhaps in the beginning canals had been somewhat starved, in order that the railways might be pushed on. The railways were, however, pushed on for very good reasons, of which the most important was the fact that they were necessary, if we were to hold India with a small number of troops. Since those days he did not think the Government had grudged expenditure on irrigation works, and now the greater part of the country that required irrigation, and was suitable for the construction of canals, either was, or was about to be, irrigated. This paper, he thought, would be invaluable to any one attempting to write the history of the period with which the statistics dealt, if their accuracy might be assumed; and, even if complete correctness were impossible, it was difficult to over-estimate the value of such approximate estimates.

Mr. F. W. LAWRENCE remarked that they were told that India was much better fitted now to deal with famine than formerly, and there was no doubt that, the Government machinery being much improved, it was possible to introduce famine relief works very much more easily than heretofore. He had heard it suggested, however, that famines occurred quite as frequently as, and were, if anything, more disastrous than, formerly; and he would be glad to be informed how far that was true, and whether the position of the agriculturist was really better.

Mr. JOHN S. DYASON suggested that papers of this kind would be made more impressive by the introduction of maps, not merely topographical, but maps in contour and relief, and such as would give an indication of the main produce of certain districts and regions. He thought that much of Lord Curzon's success in dealing with Indian questions was due to his acquaintance with the topographical and physical geography of the country.

Mr. J. A. BAINES, C.S.I., said he should like to add his tribute as to the value and interest of Mr. Danvers's paper, more particularly as he had himself spent some time in ploughing the sands of the very dry field of Indian statistics. He quite sympathised with what Mr. Danvers had said as to the difficulty of finding one's way through summaries and annual abstracts. This was true not

merely of Indian statistics, but of all Government records. They were useful only to people who had some acquaintance with them, and who could read in them more than could be expressed by mere figures. Another great defect which had been found by those who had worked upon Indian statistics, was that there was a great want of co-ordination. The admirable statistics which were available were prepared departmentally, and there was no correlation between those of different departments. As an illustration of the value of such co-ordination, he quoted the admirable returns of sea-borne merchandise which stopped at the ports, and were never compared with the equally useful compilation of rail-borne traffic to see how the imports were distributed. He attached such importance to this need of co-ordination, that of all the statistical work upon which he had been personally engaged, there was none on which he looked back with more satisfaction than the preparation of what was called the Decennial Report on the Moral and Material Progress of India, which gave the opportunity of co-ordinating in one review the whole of the administrative statistics of the decade. Selecting a few of the main topics for comment from the standpoint of administrative experience, he considered that Mr. Danvers was perfectly correct in attributing the increase in land revenue mainly to the expansion of cultivation, either by accretion,—that is the addition of new territory,—or by the increased area under tillage in the territory already in our possession. In addition to extended cultivation, however, there had to be taken into account the revenue due to the increase of assessment, since in India, except in Bengal and parts of Madras, the State taxed what was here called the “unearned increment.” Periodically, generally at intervals of a generation or thirty years, the State demand on land is revised. Only general improvement of the district, such as rise in prices of agricultural produce, and improved communications, and such like, are taken as grounds for an increased assessment, and improvements due to the tenants’ personal efforts are exempted from taxation. He was not so optimistic as the author with regard to the area available for cultivation, because, except in Assam, Burma, and parts of the Punjab and Central Provinces, where the population had not as yet grown up to the margin, the uncultivated land was much inferior in quality to that now under plough, and could not be expected to yield a return equal to the present average. After pointing out the inaccuracy of the figures for Sind and Bombay in Table C, he remarked in regard to the extension of irrigation that, as the present Viceroy of India said the other day, upon a careful examination of the returns up to date, the possibilities of irrigation in India had been greatly overrated. A great deal of the land was not susceptible of irrigation; it got waterlogged or was sterilised by a saline efflorescence evoked by irrigation; whilst in other parts irrigation could only be conducted from rain-fed sources, such as large reservoirs, which were affected by droughts in the same way as the plains they were supposed to irrigate. Except in the great deltas of the east coast and in the Punjab, where there were snow-fed rivers, he did not think there was in

any part of India more than a comparatively small acreage that could be profitably irrigated by canals, either through State or private enterprise. There was, however, a great deal of land that could be irrigated from wells; and it was the policy of the Government to make advances to those who had suitable land, to sink wells from which from 5 to 8 acres could be irrigated, sufficient in a year of drought to provide for the maintenance of a family, with their cattle. They did not really get returned more than a rough and incomplete estimate of the area irrigated by wells. He would supplement the military statistics by mentioning an addition to the forces, more remarkable politically than from a mere military standpoint, viz., the Imperial Service Corps, the outcome of an entirely spontaneous movement on the part of the native chiefs, when, in 1885, the situation on the frontier gave some cause for anxiety. The troops thus provided had fought in Afghanistan and other parts of the frontier, and had volunteered for service even beyond India. He thought, therefore, that in enumerating the Indian forces, mention of those so loyally offered should not be omitted. Another question highly interesting to this Society was that of registration, to which Mr. Danvers had referred. As a matter of fact the machinery for registration was not by any means complete. There were no returns for a certain class of villagers, and in perhaps the greater part of the Native States there were no arrangements for registration at all. Perhaps 60 per cent. of the births in some places escaped registration altogether; and the same might almost be said with regard to the deaths. No normal rates of births or deaths, therefore, could be got out from such returns; so at each census those rates had to be obtained from special data by actuarial methods. The half million deaths from famine, which Mr. Danvers quoted on the authority of the Viceroy, should be considered with due regard to a sense of proportion. The population was between 290 and 300 millions, and the net natural increase of population per annum, allowing for a very large infantile mortality, was about $2\frac{1}{2}$ millions. Half a million extra deaths therefore constituted but a slight check to the growth of the population. Of course they were deplorable from a non-statistical point of view; and he should think that the actual loss to the population was even greater, because although, under the present system of famine administration in India, comparatively few people died of starvation during the famine, in the two years or so after the famine there was an extraordinary decrease in the birth-rate. After that the people began to bring the birth-rate up considerably higher than it had been in normal years. It was an astonishing thing how quickly the population recovered within from four to five years of a famine. In reference to Mr. Lawrence's question, he said that comparison with former famines was not possible, since, in the first place, mortality was now registered much more correctly than it used to be, so that more births and deaths appeared on the record, not because there were more, but because registration had become more accurate. Then again, the only famine of which there was any statistical record before the middle

of this century, was one which occurred in Bengal in 1770. It was the first that occurred after the East India Company had taken over that province, and it was estimated by the district officers, who had just been appointed, that the loss was 33 per cent. of the population. The mortality had been nothing like that in any recent times. As to the frequency of famines, they counted now perhaps as a small famine one which in old times would not have been counted at all. The serious famines of the last thirty or thirty-five years had taken place, roughly speaking, at intervals of eleven years; and the events of the last four years were unprecedented. He did not think, however, there was ground for saying that famines were either more frequent or more severe than in previous centuries, and, on the whole, he thought it might be said that, now that the famine administration was on systematic lines, the mortality was not so great as before, and the class of people affected was much the same, and not any higher than that which the records showed used to apply for relief at an earlier period in Indian history. He pointed to a few cases in which he thought the figures quoted by Mr. Danvers did not convey their full lesson unless reduced to a proportional form: as, for instance, in the case of railways, the passengers *per mile* had increased since 1873 by over 70 per cent., showing how much greater had been the growth of the use made of the lines than that of the lines themselves. Similarly, in regard to the postal service, since the miles served had been increased three times, whilst the number of postal packets was now sixteen times as great as it was in the first year mentioned in the paper. That fact might be co-ordinated with the increase of education in India and the increased knowledge of reading and writing. Another case was the relative growth of imports and exports, the excess of the latter being now far less than in the first year mentioned, showing a marked increase in India's purchasing power as compared with its productivity. The shipping statistics, too, showed an increase, not so much in numbers as in tonnage, the native craft having been relegated to the shorter coasting trade, whilst the foreign vessels had continuously grown in size. He would conclude his somewhat prolonged review of this interesting paper by indicating the importance, under the conditions on which we hold India, of the progress in material prosperity set forth by Mr. Danvers. A foreign Government, ruling a highly complex civilisation entirely different from its own, must necessarily refrain from all attempts to reform India in a British mould, or to impose from outside a foreign code of social and moral laws. India could be brought up to date only on lines of its own, starting from within the community, the impulse growing with the material advance and increasing needs of the population. In promoting that advance, and thus affording every opportunity for self-development, would be found the only sure guarantee of wide-spread and permanent results.

Mr. F. C. DANVERS, in reply, referred to the remarks of Mr. Hendriks that taxation at the time when he went into that

question was only one shilling per head of the population. But the population of India was then absolutely unknown. The figures given were over-estimated, and that made taxation appear lower than it really was. It was impossible to ascertain exactly what the taxation was per head. In the event of the possibility of a reduction of taxation in the near future, he suggested that it might not improbably take the form of a reduction in the salt tax, which most widely affected the mass of the population. Not only did departments not communicate with one another, as had been observed by Mr. Baines, but the same department sometimes took two different views, and produced figures at different periods which did not correspond with one another. Only the previous day, when making his diagram showing the length of railways open, he discovered a discrepancy. At first the department gave the railways open on the 31st March in each year; after a number of years they altered that to the 31st December. Later on they reverted again to the 31st March, and the last figures given were made up to the 31st December. With regard to the figures of land revenue, they were taken absolutely from the land revenue reports, but it was quite possible that he had made an error in copying out the figures, and he would certainly refer to them again before the paper was printed.¹ The question of opium was one which had from time to time created a considerable amount of interest. He had, when he was in Portugal and in Holland searching through the records for the Government, made certain notes on the early trade in opium, which he had never been able to put into tabulated form. A great many people abused the East India Company and the Government for carrying on the opium trade; but the opium trade had really existed from time immemorial, as could be seen by reference to old writers and travellers. On the 1st December, 1513, Alphonso du Alberquerque, the Portuguese Governor-General, referred to the great use made of it in India. Some of it was sent home, and he recommended that poppies from the Azores should be sown in the fields of Portugal, because a shipload was used yearly by the people of India. Portugal subsequently traded very largely in opium between the different factories. In the early Dutch records it appeared that quite at the commencement of the seventeenth century there existed a regular trade in opium between India and the Eastern Islands, and with Siam and China. The Guzerat merchants yearly sent large quantities, and it also appeared that opium was very much wanted in the Malaccas, and could be sold there at a good profit. The Dutch endeavoured to keep the English entirely out of the trade so far as Bantam was concerned, and their activity continued certainly up to 1745, if not later, as he had an account of the amount of opium exported from India by the Dutch up to that date. The East India Company were obstructed to a great extent by the Dutch, but when they had

¹ As remarked by Mr. Baines, the land revenue of Sind had been overstated, the gross assessment of that territory having been inadvertently included in the statement. The figures have now been corrected.

gained possession of Bengal, they established a monopoly, and that cut at the root of the Dutch trade. The Dutch then went to the Levant for their opium, but that trade did not seem to have been so successful as the trade in Indian opium. With regard to the diagram relating to the trade of India, it would be seen that after 1855 the imports increased considerably in excess of the exports, and that continued until 1863, when the exports began to grow in excess of the imports. The excess of imports was of course largely due to the importation of railway materials, and stores and machinery of all kinds. The Mutiny necessarily put a stop to export, but after the country had settled down again there was an enormous increase in the values exported, particularly of raw cotton. The American war put a stop to the export of cotton from America, and that business was transferred to India. Then the exports of grain and jute also began to increase. The diagram showed that trade had increased almost in proportion to the construction of railways.

The CHAIRMAN (Mr. LESLEY C. PROBYN) then proposed a vote of thanks to Mr. Danvers for his paper, which was carried unanimously.