

in India for the retail vend of opium amount in one year to nearly £500,000. Officers who have an intimate knowledge of the people and their requirements think that it would be a hardship to enhance the price of opium any farther. Those who inveigh against the opium revenue forget that opium is in India what brandy is in England. A moderate consumption of it is believed to ward off fever and to be useful in the case of many other diseases. It finds a frequent place in the prescriptions of native physicians, while the British Pharmacopœia itself proves that it is extremely efficacious in a number of cases. The drug is not always smoked or eaten. It is sometimes dissolved in water and drunk. In cases of cold and ague it is mixed with oil and rubbed into the body; and its external application with other ingredients is considered very useful in the case of rheumatism. The excessive opium-eater is quite the exception: the large majority of consumers take it in moderation and with the firm conviction that it does them good. The same can scarcely be said, or at any rate not nearly to the same extent, of those who drink spirits. The Collector of Cuttack writes in 1883:—

The people of Orissa are notoriously addicted to this drug [opium]. From the highest to the lowest caste, and without distinction of age and creed, the drug is taken freely by the people; caste rules exercise no deterrent influence to check the progress of consumption as they do in the case of spirits. On the other hand, an impression generally prevails that the use of opium has a salutary effect on the health of its con-

sumers, especially during old age. So long as this idea exists in the minds of the people, the revenue derived from opium will always increase as steadily as it seems to have hitherto done.

"I remember, when I was Sub-divisional Officer of Khorda, that a rise in the rate of duty compelled the retail vendors to raise the price by one or two annas a *tola*. Most persistent petitions were presented, complaining of this, and asking that the retail vendors should be ordered to sell at the same price as heretofore. Neither mukhtars (native bar), *amla* (ministerial officers), nor the general public, could understand why it was considered necessary to make the drug dearer. Many intelligent men informed me that those who indulged to such an extent as to impair their mental faculties were extremely rare exceptions, and I have certainly never heard of any one going mad from the use of opium. This is what Mr. Grant, who has been Collector of all three districts of Orissa, writes:—

The decrease of £419 on the sale of opium is due to the fact that the people are generally getting practised to reduce their daily consumption, owing to the increased rate of duty. I am afraid that this is something very like an unmixed evil. It does not mean that the people are beginning to restrict themselves in the use of deleterious drugs on account of their costliness. It means that owing to the greatly enhanced price of opium the people are substituting ganja, a cheaper and infinitely more mischievous and deleterious drug. I strongly advocate a return to the old rate for opium, not because the new rate has so materially decreased the revenue, but because it is fast driving the people of Balasore to that resort to ganja which we know to be the root of the evils in the Oorya character.

With regard to consumption of liquor *versus* drugs, the same Collector writes:—

In both Balasore and Pooree, it is beyond any doubt that the reigning vice is not drinking, but the enormously more mischievous use of ganja. I do not hesitate to say that I most heartily wish that the people would substitute alcohol for ganja, and the only way in which this is likely to be done is by making alcohol easily accessible. It will mark a very great improvement in Orissa when the consumption of ganja is diminished considerably, even if this be accompanied by a considerable rise in the use of spirituous liquors. The consumption of ganja is extravagantly large; that of spirituous liquors remarkably small. The latter might be increased very considerably indeed without causing the least alarm.

Not a word is said against the use of opium.

Mr. Vincent Richards, who has made some minute inquiries regarding opium in the Balasore district of Orissa, is of opinion that the excessive use of the drug by the agricultural classes, who are the chief consumers in Orissa, is very rare indeed. The moderate use may be, and is, indulged in for years without producing any decided or appreciable ill-effect, except weakening the reproductive powers. It must have a slightly soporific effect, as opium of good quality contains from 8 to 17 per cent. of morphia, the average amount being 10 per cent. Dr. W. Dymock, of Bombay, speaking of Western India, concurs in Mr. Richards' opinion regarding the moderate use of the drug. He believes that excessive indulgence in it is confined to a comparatively small

number of the wealthier classes. Dr. Moore's experience of Rajpootana strongly supports the same views. It seems probable that the spread of the practice is connected with the Hindoo aversion to drink, the ban imposed in Mahomedan countries on the use of alcoholic beverages, and to some extent with the long religious fasts of the Buddhists, Hindoos, and Moslems, in which opium is used to allay hunger. In Orissa, opium-eaters take their opium twice daily (morning and evening), the quantity taken varying from two to forty-six grains daily, large doses being the exception, and the average five to seven grains daily. In the Brahmaputra valley opium is generally dissolved in water and drunk. The average dose is nine and half grains per diem, or one pound per annum.

In China, opium is smoked; in Asia Minor, Persia, and India, it is eaten. Its consumption is not altogether confined to the East, for it is eaten both in England and the United States, but more generally smoked in the latter. The number of opium-eaters in the United States has been estimated at 82,696, and the number of opium-smokers at nearly a million. The average amount of opium consumed by each opium-eater in the State of Michigan is estimated at one ounce avoirdupois a week. In India opium is sometimes smoked in the form of a preparation called *mudut*, formed by mixing the opium with betel-leaf and boiling it in small iron pans.



The imperial opium revenue yields on the average about seven millions sterling net, after deduction of all expenses. It is levied in two ways—one, as above described, on the Bengal side, the other, on the Western or Bombay side, by the levy of duty on the export of the drug made from poppy grown in Native States. If Government were not to maintain its monopoly of opium cultivation, it would immediately be taken up by capitalists, who would supply the wants of China in the same way that Government now supplies them, with the exception that much impure and bad opium would be exported; for it cannot be expected that private manufacturers would have the conscience to refrain from sending out such opium, and thereby incur loss. Government does and can afford to refrain from doing so. All arguments against the opium monopoly appear to vanish away before this simple but incontrovertible fact. The Government in India taxes opium heavily, just as the Government in England taxes spirits heavily. Surely it cannot for a moment be doubted that, if this fiscal burden were removed, the Chinese would get the opium far more cheaply (and therefore presumably in far greater quantities) than they do at present. Neither can it be urged that Government, if it gave up its monopoly, should suppress altogether poppy cultivation; for what Government could venture so far to interfere with the liberties of its subjects? It might as well suppress the cultivation of onions, betel-nut, or

tobacco. On this subject Sir Richard Temple has well remarked :—

To abandon the taxation would be to injure the treasury, leaving no check upon the consumption of the drug, but rather giving some encouragement thereto. . . . The culture is very profitable to thousands of cultivators, and as the exportation is still more profitable to traders and capitalists, any attempt on the part of the State at suppression would be futile, and would only lead to dangerous abuses. Nor do the British territories comprise the only area fit for poppy culture, for much of the best soils for the poppy are in the Native States. The question, too, is not confined to the opium exportable to China; the Indians consume opium to some extent, though much less than the Chinese. At present the drug is taxed for the Indians as for all others, a check being thus imposed on the local taxation. In this respect, then, the Government plays, as levying a tax, the same part in respect to its own subjects as the Chinese (<sup>1</sup>).

Opium was commonly used in China as a medicine long before the trade with India commenced. In a Chinese herbal compiled more than two centuries ago both the plant and its inspissated juice are described, and in the "General History of the Southern Provinces of Yunnan," revised and published in 1736, opium is noticed as a common product. *At the present time it is estimated that South-Western China produces not less than 224,000 piculs (<sup>2</sup>) of opium, while the entire import from India does not exceed 100,000 piculs.* The total export of opium from India to

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(<sup>1</sup>) "India in 1880." John Murray.

(<sup>2</sup>) A picul = 133½ lbs.

China and other places during the year 1882-83 amounted to 91,798 chests (126,789 cwts.), valued at £11,481,376.

The amount of drinking and drunkenness in India is still infinitesimal as compared with that in European countries. Drunken men are seldom seen, and it is a most rare and unusual thing for a woman to drink. During nearly ten years' residence in the country, I do not think I have seen more than half a dozen drunken persons on the public roads. Drinking is generally considered a vice—the same stigma does not attach to the consumption of intoxicating drugs—and educated opinion is strongly opposed to any policy the tendency of which is to increase drinking in any shape. It has been said that the wave of intemperance invariably reaches its highest, not when nations are the most highly civilized, but either before they are fairly educated, or during the national decadence. The wave of intemperance appears to have reached its highest in England, and is now receding, as is shown by the diminution in excise receipts. This wave has not reached its highest in Bengal. It is true that among the upper and educated classes temperance societies have been formed, and that they would like to see a system of local management and even local option introduced. But the wave will not recede till primary education has reached the lower castes—that is, the principal drinking classes. In England the worst times for intemperance have not been during

the present, but during the eighteenth century, when the people were steeped in ignorance, and even gentlemen had less education than the artisan of to-day. 1736 is considered to have been the *annus mirabilis* of drink. In that year the consumption of *spirits only* was nearly a gallon per head of the population. In Macfarlane and Thompson's "History of England" (vol. iii. p. 258) and Locky's "Eighteenth Century" (pp. 476-482) it is stated that announcements were hung out before the ginshops informing passers-by that they could get drunk for a penny, dead drunk for twopence, and that when they were in the desired state, clean straw would be gratuitously provided for them in convenient cellars! The *annus mirabilis* of drink in Bengal has probably still to come, but the disease will not be very acute, for the reasons above alluded to. It is probable that, for some years to come, more money will be spent on drink, but that is because there will be more money to spend on luxuries generally. In 1860 the expenditure in the United Kingdom on intoxicating liquors was £84,222,172, or £2 18s. 6½d. per head of the population; in 1870 it had risen to £118,836,284, or £3 16s. 2d. per head; and in 1876 to £147,288,759, or £4 9s. 0¾d. per head. Referring to these figures, the Select Committee of the House of Lords on Intemperance <sup>(1)</sup> remarks:—

This increase of expenditure cannot by itself be taken as a proof that drunkenness has increased in the same ratio. It is

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(1) "Parliamentary Reports: Intemperance."

probable that a large portion represents the moderate consumption by the temperate. With increasing incomes the spending power of all classes has grown, and a higher scale of comfort has been gradually introduced. Just as the consumption of meat has increased, so has that of intoxicating liquors, but in neither of these cases does the increased general consumption necessarily imply a proportionate excess on the part of individuals. Further, it has been shown that the use of tea, sugar, wine and tobacco has increased far more rapidly than the use of spirits or beer.

It has been shown above that these remarks are to some extent applicable to the increase in the consumption of drink in Bengal during the past five years or so.

It is a patent fact that the amount of drinking and drunkenness in Bengal is infinitesimally small when compared with European countries. The incidence of the excise revenue varies in different divisions of the Province from 12s. to 32s. per 100 of the population, whereas the incidence in the United Kingdom is £71 15s. 5d. per 100 (1880-81)! In England the single item of drink contributes £28,000,000 to the revenue <sup>(1)</sup>; in India the excise revenue (including

(1) The following table shows the growth of temperance in England since 1876:—

	Customs, &c. (Foreign Spirits and Wine)	Malt, &c., or Beer	Excise (British Spirits).	Total.
1865-6	£4,912,197	£6,793,104	£10,437,168	£22,142,469
1875-6	7,894,373	8,584,710	15,154,327	31,633,410
1884-5	5,547,037	8,544,749	13,987,472	28,079,258

drugs) yields only  $3\frac{1}{2}$  millions. The population of England is 35,000,000, that of British India nearly 200,000,000. There is room for considerable expansion of the revenue in Bengal, *without any increase of drinking or drunkenness*. An able administration of the excise department in any particular district often produces the most brilliant results; and the report of the Excise Commission and the orders issued on it will doubtless conduce to more uniformity and method and generally to a more efficient administration. For some years to come increased excise receipts may be expected from the increase of wealth and of the material comfort and prosperity of the people.

Missionaries, blue ribbonists, Brahmos, and other educated natives sometimes allege that there was no drinking in India before the advent of the British. To refute such an allegation resembles the process of breaking a fly on a wheel; but it is necessary to do so, as the allegation is sometimes put forward in the columns of the native press.

It is quite a mistake to suppose that whites have introduced wine among savages. Drunkenness is essentially a savage vice. Tartar tribes have from time immemorial made an intoxicating drink from mare's milk, called "koomiss." The Red Indian tribes have always drunk, while consumption of the juice of the palm-tree is immemorial, both in Asia and Africa (Herodotus, iii. 20-22).

Untutored races have never been slow to discover

intoxicating beverages. Barley and other cereals were used long ago. We have instances in the Hebrew Scriptures, such as that of Noah. The monuments of ancient Egypt are covered with representations of vineyards and wine-presses. Confucius (478 B.C.) partook liberally of drink; Mencius mentions drink as one of the vices of his day (288 B.C.). Gautama Sakya (540 B.C.) enjoined on priests total abstinence from intoxicating drinks. Brahmanical writings show that the god Indra was to be propitiated and made intoxicated with unlimited offerings of brandy; the nature of the deity was but a reflex of the character of his worshipping multitudes. The Rig-veda abounds with references to the drinking proclivities of the deities, especially of Indra—*e.g.*, "Come hither, O Indra, and intoxicate thyself." Both "soma" and "sura" are mentioned in the Vedas. From the later Sanskrit literature it is clear that, though Manu forbade drinking, intoxication was still rife among the Aryan races. Palastya mentions twelve kinds of liquor as being made from the grape, honey, sugar, dates, the palm, pepper, rice, &c. Large quantities of foreign wines were imported into India 2,000 years ago, such as the wine of Loadicea in Syria, Italian and Arabian wines. There has always been much drunkenness in India in connection with religious observances. (See description of Holi, in "India and its Native Princes," by Louis Rousselet, p. 175 )

Coming down to a more modern period, the reports of Collectors and District Judges, published in the Fifth Report of the House of Commons, show that the lower castes had, from time immemorial, been addicted to drink, and in the year 1805 the increase of crime was attributed to the increase of intemperance.

At the present time the excise administration is keenly and jealously supervised. Shops are never established except after a *bond fide* demand has made itself known, and the object of the administration is to keep the price of liquors and drugs as high as is safe and compatible with the prevention of smuggling. There has perhaps been some lack of discrimination in the application of the "normal number" principle; I mean that there has been some tendency to reduce the number of shops in populous tracts, containing a number of *bond fide* consumers, and to increase the number where there is little or less demand <sup>(1)</sup>. But no

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(1) It has been remarked that there is a regular geographical distribution in the consumption of liquors and drugs. I may perhaps note a few instances in which the "normal number" principle has been applied too rigidly. In Bhagulpore district a number of outstill-shops were opened in the Soopole and Muddehpoorah divisions. Outstills are not required in these two divisions, in the absence of exceptional causes such as the construction of railways or public works, which may attract coolies from other parts. In making the Bhagulpore Settlement for 1884-5 I found that these outstills could only be settled by putting them up in one lot with the opium and ganja shops.



administration can be entirely free from faults. Each fresh year gives additional experience, and, wherever faults and flaws are found to exist, no time is lost in remedying or removing them. The appointment of the Excise Commission is but one instance out of many in which the Bengal Government has shown itself ever ready to give an ear to legitimate complaints, and to remedy mistakes and remove abuses, wherever and whenever found to exist.

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A fee of only Rs. 8 or Rs. 9 was paid for the outstill, and if the ganja shop had been put up alone, it would have fetched this additional amount. The same remark may be made of a portion of the Durbhanga district. The people are Bhagats, do not drink spirit, but are addicted to ganja. Again I notice from the Administration Report for 1883-84 that Mr. Grant, Collector of Balasore, speaks of a "shopless area," and thinks it is supplied by illicit distillation. The people in this part are strict Vishnuvites, and I venture to think a very careful inquiry may show that there are really few or no drinkers. They all consume opium.

## CHAPTER VI.

### CENSUS OPERATIONS AND THE CENSUS OF 1881.

The Census—Census Act—Taking of Census a Fiscal Operation—*Modus Operandi*—Difficulty of getting correct Boundaries and Lists of Villages—Circle-Officers and Enumerators—House-Lists—Preliminary Census—Final Enumeration—Attitude of the People—Wild Rumours—Information required—Cost of Census—Boat-Population—Increase of Population since former Census—Decrease in Burdwan Division due to Virulent Fever—Density of Population—Proportions of Urban and Rural Population—Statistics of Religious Belief—The Hindu Religion of to-day—Conjugal Condition—Restrictions on Inter-Marriage—Disappearance of Polygamy—Widow-Re-Marriage—Proportion of Female to Male Births—Female Infanticide—Statistics of Occupations and Castes—Infirmities.

THE District Officer in Bengal is denominated Collector in respect of some of his duties, and Magistrate in respect of others. As Collector, he supervises the collection of the various branches of the revenue, and as District Magistrate he is invested with certain well-defined original and appellate criminal powers. So far the distinction between his double offices is easy to

follow. But there are certain branches of the administration, with reference to which the District Officer is styled either Collector or Magistrate in a purely arbitrary manner. He is called the Magistrate, in so far as he supervises jails, municipalities, the telegraph and postal administration, emigration, medical relief, sanitation, vaccination, and education. Some of these duties are not so much magisterial as fiscal or collectorate. As has been said, the distinction is purely arbitrary. The work is done by the District Officer, or, as he is often styled, the Magistrate-Collector. In Acts passed by the Legislature, or in orders and circulars issued by the Executive Government, he is styled either Magistrate or Collector, as the case may be. The Government regards its District Officer as a veritable "*rara avis*," and whatever new Act is passed, whatever fresh taxation is imposed, the burden of administration, the duties of assessment and collection, are thrown on this hard-worked and long-suffering biped. It is assumed that he is "*expers utriusque linguae*," though it is often the case that a good Collector is a bad Magistrate, and *vice versa*.

In the Census Act the District Officer is called the Magistrate. By it he was vested with power to demand and enforce assistance in the census operations, and to punish obstruction or disobedience. As a matter of fact, it was only in two or three instances found necessary to have recourse to the penal clauses of the Act. The taking of a census is in reality a

fiscal operation; the circulars issued by the Deputy Superintendent of Census speak of the District Officer, and not of the Magistrate. This must be my excuse for giving some account of the census in a work which professes to notice only the revenue and collectorate duties of a District Officer. *Quoad* all the preliminary operations of the census, the District Officer was invariably spoken of as the Collector, though the *sunnuds*, or letters of appointment, given to supervisors and enumerators were signed by him as Magistrate (<sup>1</sup>).

A district consists of a certain number of Thanas or Police Stations. These thanas were taken as units for the census, each thana being split up into a certain

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(<sup>1</sup>) A census may be a political necessity in countries like India and the United States, but it is impossible to divest the word entirely of its fiscal element. It is not surprising that natives should connect it with increased taxation, considering that poll-taxes were levied under native rule. In Rome the census was especially devoted to fiscal objects, and it does not appear that the enumeration of the people was then deemed of value as a source of statistical knowledge, which might influence moral's or legislation. The Roman census even analyzed landed property into several classes according to its character and produce, and the word was often used to signify the patrimony or property qualification of a particular grade, *e.g.*, *census senatorius*, *census equester*. In later times it is employed to indicate taxation, *e.g.*, *census duplicatus*, *census dominicatus* (a feudal tax to the superior); and the word "cense," used by old English writers, was abbreviated in modern use into *cess*, a word to which the natives are well accustomed. See chap. VII., on Road Cess, etc.

number of circles, and the circles being again subdivided into enumerator's blocks. The greatest difficulties were experienced in the matter of boundaries: it was frequently found that the actual boundaries of a thana, that is, the boundaries actually observed for purposes of criminal and police administration, differed considerably from the boundaries as laid down at the previous survey. The *de facto* differed from the *de jure* boundary, and they had to be reconciled. Again, it was necessary to see that each circle officer knew the limits of his own circle, so as to prevent any villages from either being omitted or counted twice over. Maps or tracings of their circles were supplied to them, together with extracts from the survey village-lists, and these they had to compare with those of the adjoining circle officers. It was found that many villages had disappeared, while many new ones had sprung up: others had split into several hamlets, each having its own name: local names often differed from survey names: one survey mouzah or village was found to contain several distinct inhabited villages, while other survey numbers were found to be *bechapar* (Anglicè. without roof), *i.e.*, areas of forest or waste or cultivated lands. For purposes of obtaining a complete and accurate record of the existing state of things, duplicate registers were prepared of survey mouzas and inhabited villages, with cross references in each to the other.

The circles were then subdivided into convenient

enumerators' blocks, each enumerator taking from fifty to a hundred houses. Large villages had to be split up into as many as ten or twenty blocks. But for the willing co-operation which was almost everywhere rendered gratuitously by the more intelligent inhabitants of the districts, the charge to Government for paid enumerators would have been a very heavy one. The enumerators had to prepare house-lists and to number the houses in their respective blocks; and they were particularly instructed to number every house, inhabited or uninhabited; for on the night of the census they were to visit every place where persons might possibly be found taking shelter, such as temples, mosques, serais, shops, dâk bungalows, &c. The plan of the census was that the enumerators leisurely and completely wrote up their schedules from about the 5th January to the end of the month. Their books were meanwhile examined and corrected by the supervisors, and other superior officers. Finally, on the night of the 17th February, each enumerator visited every house in his block, taking with him the book of schedules prepared during the preliminary enumeration, and then and there corrected and completed it, striking out the entries for those persons who had left the house, and entering those persons who had come to the house since the preliminary counting. Special arrangements were made for the enumeration of the boat population, those travelling by road or railway, for persons

in camps or collected at fairs, for jails, hospitals, and other public institutions.

The demeanour and attitude of the people during the census operations was for the most part all that could be desired. Here and there reluctance was manifested, and in a few isolated instances there was some slight show of resistance; but there was no actual disturbance anywhere except in the Sontal Pergunnahs. These wild hill-men became very excited, and it was found necessary to march detachments of troops through the country to overawe them. Of course the wildest rumours were set afloat in all districts, and were to a certain extent believed by the more ignorant of the population. It was said that the males were required for military service in Afghanistan; that the young women were to be taken to be the wives of British soldiers; that one family in every ten was to be compelled to emigrate, and so on. In one district an ingenious assistant magistrate gave out that the Government wished to store up a maund of grain per head of the population in case of famine, and it was therefore necessary to count everybody. It is to be hoped that his *anemoen phronema* did not cause any undue exaggeration of numbers.

The schedule of 1881 required far more information than that of 1872, and very minute inquiries were thereby necessitated. The columns were as follows :—

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|--|-------------------------|
| 1. Age (to be given as exactly as possible). | 5. Caste or Sect.       |
| 2. Sex.                                      | 6. Birthplace.          |
| 3. Civil or conjugal condition.              | 7. Mother tongue.       |
| 4. Religion                                  | 8. Degree of education. |
|  | 9. Occupation.          |
|  | 10. Infirmities.        |

With regard to women, the enumerators were strictly forbidden to ask their names. If names were spontaneously given, they were to be inserted; otherwise only the word "female" was to be entered. I found that in the district of Burdwan the names of females were, as a rule, readily given. Burdwan is one of the three or four most advanced and educated districts in Bengal.

It will be seen from Mr. Bourdillon's Census Report that the census of 69,536,861 persons was taken at a total cost of about eight and a half lakhs of rupees, which gives a rate of a little more than 2 pie a head, or rather more than five persons completely censused for one anna! "Another calculation," says Mr. Bourdillon, "shows that the cost per 1,000 has been Rs. 12 : 2 : 2, and how favourably this compares with the expenditure in England will be evident from the fact that the cost per 1,000 in that country was £5 9s. in 1841, £5 4s. in 1851, £4 15s. 5d. in 1861, and about £5 4s. 2d. in 1871; that is to say, the census of England in 1871 cost, in comparison with the population, about five times as much as that just taken in Bengal; and although our returns are of course not so elaborate as



those of the English census, they have been prepared in a much shorter time ; both enumeration and compilation have been carried out with a vastly inferior agency, and in the face of difficulties to which the Registrar-General of England is a complete stranger." The imaginative crew of Hyndmans, Osbornes, Blunts, *et hoc genus omne*, would do well to ruminate over quiet facts such as these.

The extent of the boat-traffic on the navigable rivers of Bengal may be inferred from the fact that the number of persons sleeping in boats on the census night was 309,336 or 44 of the whole population ; and this number probably falls short of the actual boat population, as on the census night many persons purposely stayed in their houses with their families. There was an idea that it would not do to be away from home on the census night, an idea which was fostered by the enumerators, who were very proud of the neatness and accuracy of their preliminary schedules, and did not wish to have to make too many erasures and additions on the census night. Moreover, if there had been many alterations to make, many of them could scarcely have got round their blocks by the morning. It was owing to the same idea that very few persons travelled by rail on the census night. I was at the Burdwan Station myself, and found that those in the trains produced tickets showing they had been censused at the sudder stations of districts higher up the line. No passengers

appeared to have got in at intermediate rural stations, and there were fewer passengers than usual.

The increase of the population of Bengal between 1872 and 1881 was 10·89 per cent. Some of this increase may be due to the more elaborate arrangements and greater accuracy with which the last census was taken. The increase took place in all divisions except Burdwan, in which the decrease was as much as 3 per cent. In certain areas the decrease varied from 12 to 16·86 per cent. This decrease is due to the notorious Burdwan fever, which has ruined populous villages, and left a shattered, asthenic, and anæmic population. It was emphatically declared by the Civil Surgeon of Burdwan and the Sanitary Commissioner that the death-rate from fever in 1872 was seventy or eighty per thousand; it is true the recorded death-rate was only twelve per thousand, but vital and mortuary statistics for rural Bengal (excluding municipal areas) are very defective. In the North-Eastern portion of the Midnapore district people are now fleeing from the fever as from a plague. Numbers of abandoned and ruined houses may be seen; tanks are choked with weeds; paths are overgrown with jungle. The true cause of the fever has not been ascertained; it has attacked with equal virulence jungly and populous areas, the low-lying alluvial thanas, and the loftier laterite soils.

Only the littoral thanas along the Bay of Bengal have been attacked in a lesser degree. Even where

the fever has disappeared, it has left its victims with permanently enlarged spleens and other complications, which frequently convert ordinary assaults into cases of culpable homicide. If an accused is aware of the prevalence of such disease in a district, and also aware of the risk to life involved in striking a person afflicted with such disease, he may find himself committed for culpable homicide, or at least, under sec. 304A of the Penal Code, for causing death by a rash act. In Burdwan and Midnapore it is a common thing to have to postpone cases owing to the parties or their witnesses being down with fever. A Mukhtar commences to shake when addressing the Court, and a witness is often seized with a fit of ague in the witness-box; while the amount of casual and sick leave that has to be given to clerks and ministerial subordinates is heartrending to officers, who feel that they must get through their work and leave no arrears.

The area of the Lieutenant-Governorship of Bengal is 193,198 square miles, with a population of 69,536,861, a number which does not fall far short of the total population of France and the United Kingdom added together. There are forty-five districts in Bengal, nine of which have a population of more than two million souls each, while only seven fall below three-quarters of a million. The average size of a district is 3,323 square miles, which is larger than any county in England and Ireland except Yorkshire. The largest district (Lohardugga) exceeds the area of

Wales and the county of York added together. The next largest (Hazaribagh) contains 7,021 square miles, and is larger than the Irish province of Connaught. Sub-divisions of districts are a little larger than Middlesex.

According to the report of the Registrar-General upon the English census of 1871, "any density of a large country approaching 200 to a square mile implies mines, manufactures, or the industry of cities." But in India a density of thrice this limit is often attained throughout large districts which are entirely dependent upon agriculture. The average density of the Valley of the Ganges is 500 to the square mile. The Province of Behar has a mean density of *rural* inhabitants of 499.15 to the square mile, while Bengal proper has 371.41. The districts of Sarun and Mozufferpore have more than 800 inhabitants to the square mile, while Howrah (which, however, is not entirely rural) has as many as 1,130. The Côtes du Nord Department of France has only 170, while in the United States of America an average of from 18 to 45 indicates a successful state of agriculture. The Patna Division is the most densely populated, and the Commissioner of this division rules over thrice as many people as the King of the Belgians or the Khedive of Egypt. There may be said to be a "*congeries gentium*" (or a "*colluvies gentium*," having regard to the number of thieving castes) at the confluence of the Ganges, the Gogra, the Gunduck, and the Sone.

A comparison of the respective proportions of the urban and rural population with European countries is even more striking. In Bengal the urban population is only 5.26 of the whole, while in England and Wales it is 66 per cent., in America 22, and in France 31. In the Province of Orissa only 3 per cent. of the population is urban, while in the Feudatory States the proportion is less than one-half per cent. In the whole of British India only forty-four towns have more than 50,000 inhabitants, with an aggregate population of five and-a-half millions or less than 3 per cent. of the total population, whereas the thirty-four towns in England and Wales exceeding the same limit have an aggregate urban population of nearly seven and-a-half millions, or 32 per cent. of the total.

As regards religious belief, the population of the province has been divided into Hindus (45,452,806), Sikhs, Mahomedans (21,704,724), Christians (128,135), Buddhists, Brahmos, Jains, Jews, Parsees, and "all others" (such as Sontals, Kols, and other aboriginal tribes). It is noteworthy that the number of Christians has increased since 1872 to the extent of 40.71 per cent., the increase being partly due to immigration from Europe, and partly to conversions from heathendom, chiefly among the hill-tribes. As to the Hindu religion, the "Sacred Books of the East" and works like "Indian Wisdom" give us no conception of the beliefs of to-day. It may be said roughly that if two Hindus are taken at random, and

asked what they believe in, their answers will not be the same. The Hindu religion of to-day is a medley of religions, an *olla podrida*, a cosmogony rather than a code of ethics. Burning of the dead is not an invariable characteristic of Hinduism, for some Hindu ascetics, such as Boishtoms, are buried. Some of the lower castes burn and bury indifferently, and cremation is a common Buddhist practice. Perhaps the cardinal feature of Hinduism is Brahmanism, the receipt of religious services at the hands of Brahmans. Almost every low-caste or outcast tribe has its own priests of undoubted Brahman origin <sup>(1)</sup>. Even converts to Islamism retain and fee Brahmans as a matter of course, while some actually employ them to conduct their marriages after the Hindu ceremonial, only adding the Mahomedan ritual as a legal precaution.

But Brahman sacerdotalism is not so exacting as in former days, the instinct of self-preservation having compelled it to allow more latitude. A Hindu must observe caste rules and restrictions, and he must reverence and feed the Brahmans; but so long as he does this, he may worship what gods he pleases without any limit as to number. New gods are constantly being added to the Hindu Pantheon, especially where Hinduism comes into contact with hill-tribes. In this respect the Hindu religion is very accommodating to all beliefs indigenous to India, but draws the line at

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(1) Even the Domes have Dome Pundits or Dome Brahmans.

foreign importations (Christianity and Islam). The Hindu gods will brook disbelief and sin, but not neglect; they are propitiated by sacrifices and ceremonial observances, and so long as they get these; they do not mind if other gods are worshipped as an additional precaution against evil. Indeed, certain gods can only ward off certain sorts of evil.

Not the least striking feature of Hinduism is Totemism, or nature-worship. It is well known that Hindus worship certain animals and numerous inanimate objects <sup>(1)</sup>. But, in spite of the above characteristics of Hinduism, there can be no doubt that a strong monotheistic bias is making itself visible not only among educated Hindus, but also among the peasantry. This is due, no doubt, to

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(1) "The Hindus," says the Abbé Dubois, "pay honour and worship, less or more solemn, to almost every living creature, whether quadruped, bird, or reptile. The cow, the ape, the eagle (garuda), and the serpent receive the highest honours." Among the Todas, when the herd of cattle is driven back at evening to the tuel, such of the members of the family as are present assemble and make obeisance to the animals (*Trans. Ethn. Soc.*, N.S., vol. vii., pp. 250, 253). In Pooree, Hindus will not even kill a cobra, when they find one in their houses. They catch it, and let it loose on the sea-shore, whence, of course, it makes its way back to their houses. But it must not be supposed that there is everywhere the same veneration for animals. The sacred monkeys of Benares used to do so much damage that the shopkeepers subscribed for their deportation, and many advocated their slaughter. I have had cases before me in which Hindus have sold cows to Musulmans, knowing the latter were going to slaughter them.

the juxta-position of Islamism, and, I venture to think, of Christianity, though in a far smaller degree. Low-caste Hindus often become converts to Islamism, as they thereby gain a certain status. A large proportion of the Musulmans of Eastern Bengal were originally Hindoos. In the North-Western Provinces, Behar, and some parts of Bengal, the lower classes of the Hindus join in the Mohurram festivities, and even prepare and carry the *taboots* and *taseahs*, which are carried in procession, and afterwards thrown into rivers <sup>(1)</sup>.

As regards conjugal condition, 46·71 of the males are single, 49·30 are married, and 3·98 widowed, while the corresponding figures for females are 29·71, 49·00, and 21·27 respectively. Out of every 100 boys below the age of 10 years, rather less than 4 are married,

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(1) I have seen a Hindoo make an obeisance on passing a Mahomedan mosque. In the same way Hindus, who live among aboriginal hill-tribes, sometimes worship their deities. The Sontals worship large trees, and suppose their deities to reside in them, and Hindus located in Sontal villages have a feeling akin to reverence for these trees. Again, Mahomedans are influenced by Hindu religion. I may mention the following remarkable illustration which has come under my notice. When small-pox is prevalent, Hindus fix long bamboos, with bits of cloth attached, near their houses to propitiate the goddess *Takurani* (the disease itself is known as *Takuranā*). I have noticed that low-class Musulmans do the same thing. The idea is much the same as that with which a suitor fees the Hakim's amla, constables, or chaprassees. The bestowal of an illegal gratification cannot do any harm, and it *may possibly* do some good. It is as well to propitiate everybody.



while the number of married girls of the same age is 11. From 10 to 20 years of age, 71 boys in 100 are still bachelors, while among girls of the same age only 19 are unmarried, 76 being married, and 4 being widows. The marriage ceremony constitutes the marriage, though the bride does not go to her husband's house (as a general rule) before reaching the age of puberty. If before that date the husband dies, the girl is a virgin-widow, and remains so for life. Cohabitation is not necessary to consummate marriage — *consensus, non concubitus, facit matrimonium*.

Restrictions on intermarriage are either religious or social. A man may not marry a woman of the same patronymic (gotra) as his father, or who is descended from his paternal or maternal ancestors within six degrees. Among Musulmans, only the sister, niece, and aunt are excluded, in addition to those in the direct line of descent. With the exception of the Konds, who consider it more manly to seek their wives in a distant country, I am not aware of the existence in Lower Bengal of any laws of endogamy or exogamy<sup>(1)</sup>. Social restrictions may be referred to the laws of

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(1) These words refer to tribal restrictions. An exogamous tribe may not marry within the tribe. Mr. Ibbetson mentions the prevalence of exogamy in the Punjab; for instance, a *Mán Ját* may not marry a *Mán Ját*. The rule obtaining in parts of Bengal that a man must not marry a woman of his own village, or of any conterminous, or even contiguous, village, but must take a wife from a distance, is probably a relic of exogamy.

isogamy and hypergamy. Those who infringe these rules sink in the social scale, but the marriage is none the less binding. Ordinarily, where a caste consists of several sections or sub-divisions, marriage can only take place between members of the same section. But this is not always so. The father of a Brahman girl (who belongs to the Piroli or Mowlík section) must try and obtain a Kulin for her husband (=hypergamy). Kulins are the highest section, and a Kulin girl would be utterly disgraced if she married any man below the rank of Kulin (=isogamy). Kulin bridegrooms often receive large sums of money for marrying girls of inferior caste. A Kulin may perhaps have twenty wives, and live on his fathers-in-law, visiting each in turn, and taking away presents on his departure <sup>(1)</sup>. It is shameful for a nubile daughter not to be married, and it is impossible to marry her to a man of lower caste.

By law and custom alike a Musulman may marry four, and a Hindu two, wives. But, as a matter of fact, it is very rare for a Hindu to have a second wife, and rare even among Musulmans (except perhaps the more wealthy), unless the first wife proves barren, or

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<sup>(1)</sup> This practice is disappearing, and is looked on with disfavour among educated Brahmans. Still poor fathers of high-caste girls often have to marry them to old men, owing to the expense of procuring a young bridegroom of the same caste. There have been instances in which young girls have been married to Kulin octogenarians, just as the latter were stretched on charpoys, and about to expire on the banks of the Ganges.

bears daughters only. The man who marries a second wife, though his first wife is good and faithful and has borne him a son, is a mark for reproach. Among certain castes (notably the cultivators of Orissa) the natural process of devolution, by which the widow of the elder brother descends to the younger brother, leads to a man often having two wives. It must not be supposed from this fact that widow-re-marriage is common or even permitted in Bengal. Though such marriages were declared legal in the viceroyalty of Lord Bentinck, yet there have been very few of them. Among the lower castes, widows are allowed to re-marry, and commonly do so. Among Hindus proper it is not so<sup>(1)</sup>. Having regard to the social life of the natives, I am inclined to think that the circle of widow-re-marriage, so far from increasing, has a tendency to become narrower. As any caste or portion of a caste becomes wealthy or influential, the seclusion and jealous appropriation of the weaker sex becomes stricter, and the tendency to enforce perpetual widowhood becomes stronger. The upper classes of cultivators are introducing the purdah system more and more, and a low-caste man, on becoming well-to-do, invariably builds his *pucka* (masonry) house, with a high brick wall surrounding it, constructs a private

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(1) In Bengal, whether a certain caste is or is not within the pale of the Hindu community, might be decided by the fact of prohibition or permission of widow re-marriage. This test would be less satisfactory in Behar and Orissa.

privy, and has a well dug in his yard, so that his women shall not have to go out for their diurnal ablutions. Even among the higher classes of Mahomedans a prejudice is gaining ground against the re-marriage of widows. These facts show how difficult it is to alter social customs, though a Government may do much in shaping moral and material progress <sup>(1)</sup>.

It is a significant fact that in Bengal the increase in the number of females since the previous census was nearly 1 per cent. more than that of males ; and in this connection a few remarks as to the disappearance of infanticide may not be inappropriate. Though there is no actual infanticide, there still appears to exist among certain classes a certain depreciation of female child life. This depreciation is confined to certain sections of the upper classes, among whom strict ideas of hypergamy and isogamy prevail, and generally to those castes who have to pay large sums on the marriage of their daughters. On the other hand, among other classes, a girl is a "marketable commodity," which can be disposed of for a price. Many castes depend on their daughters to procure wives for their sons by exchange of betrothal. Among

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(\*) Any action taken by Government officials in such matters might be liable to misconstruction. Individuals unconnected with India might do real good by devoting their attention to these and kindred subjects, and leave the Government to look after the revenue administration.

the lower castes especially girls are considered as a valuable property and well taken care of, and large sums are often demanded and paid on their being given in marriage. Darwin has shown that a practice such as female infanticide would result in an hereditary tendency to produce more male than female children, and that this tendency is sufficient of itself to explain any present deficiency of females without supposing that the habit still survives <sup>(1)</sup>. In India there is an excessive female mortality during middle and mature age, which is to a great extent accounted for by unhealthy confinement and seclusion among the upper classes, and overwork among the lower.

The statistics of occupation are not altogether reliable, but a few prominent facts may be briefly noted for the information of English readers in particular. The agricultural class absorbs more than half the population in every division of the province, ranging from 50·12 per cent. in the Presidency Division to 68·56 per cent. in Rajshaye. The Hindus have altogether outstripped the Mahomedans in the race for Government and professional employment, and we find that, out of the population capable of work, the number of

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(1) Even in the Panjab, where female infanticide was most prevalent, the number of female births per 1,000 male births is 948. The number in England is 957; in France and Austria, 942; in Russia only 918; in Philadelphia, 905. Darwin mentions that the proportion is only 833 among the Livarian Jews, but 962 among Christians in Livaria.

Hindoos engaged in agriculture is only 49·28 per cent., while the proportion of Mahomedans is as high as 62·81 per cent. Of the whole female population of the province, 83 per cent. were returned as unemployed; but each of the following occupations has more than 100,000 female followers, namely, cultivators, grain-huskers, thread-spinners, beggars, maid-servants, shop-keepers, agricultural labourers, fish-sellers, and cotton cloth-weavers. It is notorious that numbers of women of easy virtue returned themselves as paddy-huskers or thread-spinners, and perhaps this was half the truth, as paddy-husking is often but an ostensible occupation, adopted by widows as a cover for intrigues and illicit amours.

Thirteen castes have more than a million representatives each:—Gwala (3,992,949), Brahman (2,754,100), Koibortto (2,100,379), Koch, Chandal, Kayasth, Rajput, Chemar, Teli, Kurmi, Koeri, Dosadh, and Babhan. Thirty castes may be called ubiquitous castes, as they are found in every division of the province, and are all castes of general utility indispensable to the microcosm of the Bengal village. The occupations of some of them may be briefly referred to. The Bania sells spices and condiments; the Barui and Tamuli grow and vend pan-leaf and betel-nut; the Madak and Kandu (confectioner) are a necessity among a people whose food is chiefly farinaceous; the Chemar skins carcasses and makes shoes, while his wife is the midwife of the village; the Dom and Hari are scavengers;

some Domes weave baskets and are employed at cremations to apply the torch to the corpse; then we have the Dhobi (washerman), Gwala (cow-keeper), Tanti and Jogi (weavers); Teli (oil-presser and seller); Bhuinya and Kharwar (labourers); Jaliya, Teor, Mallah (fishermen and boatmen); Napit (barber—also used at marriage ceremonies); Soonri (distiller of country spirit); Mali (grower of flowers for the local shrine); Karmakar (carpenter); Kumhar (potter); Kahar (palki-carrier); Brahman, Rajput, Kayasth, and Kurmi. It is a noteworthy fact that the castes, who are most required for ordinary village life, have taken least to agriculture, and the restriction of caste to its eponymic occupation is most marked in the case of trades requiring special manual training, *e.g.*, weavers, tailors, goldsmiths, coppersmiths, &c. The large body of artisans is due, not to any special addiction to industrial enterprise, but to the self-sufficing constitution of the Indian village. That the goldsmiths should outnumber the blacksmiths appears somewhat extraordinary; but the fact is due to the unsettled state of the country in former times, which led to hoarding and to the investment of savings in jewellery, habits which are still strong even now. Moreover, even among the poorest castes, the endowment of the bride with fresh ornaments constitutes a leading feature of the marriage ceremonial.

As regards infirmities, Bengal has four insanes, fourteen blind persons, twelve deaf-mutes, and eight

lepers, for every 10,000 of its population. The number of lepers has probably been understated. Insanity is most prevalent in the Rajshaye division, where the population is largely Mahomedan, and where the pernicious drug ganja with its various preparations is largely consumed.



## CHAPTER VII.

### ROAD CESS AND PUBLIC WORKS CESS, DRAINAGE, EMBANKMENTS, AND IRRIGATION.

Road Cess and Public Works Cess—Mode and Rate of Assessment—Application of District Road Fund—Road Cess Committees—Village Roads and Communications—Tree-Planting—Various Sorts of Irrigation—Tank-Irrigation—Duties of Zemindars—Embankments—Drainage—Variance in Rainfall—Distribution of Rainfall—Canal Irrigation in Bengal—Compulsory and Voluntary Systems—Surreptitious Irrigation—Well Irrigation—Mileage of Canals—Direct and indirect Benefits of Canals.

“THE CESS ACT, 1880,” is an Act which provides for the construction and maintenance of district roads and other means of communication, and of provincial public works, and for the levy of a road cess and a public works cess on immoveable property, and for the constitution of local committees for the management and expenditure of the proceeds of the road cess. The public works cess is paid into Government, and the local committees have nothing to do with its expenditure.

These cesses are assessed on the annual value of lands and on the annual net profits from mines, quarries, tramways, railways, and other immoveable property. The rate for each cess may not exceed  $3\frac{1}{2}$  per cent. It is the duty of the Collector to make a valuation of his district from time to time. Proclamations are issued calling on landholders to lodge certain returns, and if they omit to furnish the necessary information within the time allowed, they may be fined by the Collector, and they are, moreover precluded from suing for or recovering rent until the return has been lodged. The Collector sends a list of defaulters to the Civil Court, and such Court is bound to take judicial notice of the same. When once a valuation or re-valuation has been made, it remains in force for five years; but, with the sanction of the Board of Revenue, the Collector may, at any time, reduce it.

The rate at which the road cess is to be levied for any particular year is fixed by the Road Cess Committee. The majority of the Committee are native members, some of them being landholders, and, in their own interests as well as those of the public, they generally advocate the imposition of the maximum rate, which is barely sufficient for the thorough maintenance of existing communications. Landholders are allowed to recover from subordinate tenure-holders and ryots one-half of the entire amount of cesses payable by them. As a matter of fact, in districts where the zemindars are powerful (in perhaps twenty-five

or thirty out of forty-five districts) they recover much more and sometimes even the whole amount. Sitting as a Civil Court, I have often had plaints for arrears of rent presented, in which the plaintiff actually claimed the whole amount of cesses. It is facts such as these that prove the necessity for a revision of the rent law. The Tenancy Bills first drawn up may have gone a little too far in curtailing the rights and privileges of the zemindar class; but all men who know the country and have studied the subject are agreed that the ryots require further security and protection from eviction, arbitrary enhancement, and imposition of illegal cesses <sup>(1)</sup>.

The District Road Fund of a district is applicable to the payment of establishments, to the repair, maintenance, and construction of roads, bridges, water-channels, and other means of communication, to the planting of trees by the road side, and to the construction and maintenance of any means and appliances for improving the supply of drinking-water, or for providing or improving drainage. All works are carried out by the District Engineer and his subordinate staff. The District Committee frame estimates of income and expenditure for each year; which, with certain exceptions, have to be sanctioned by the Commissioner and Superintending Engineer of the Division. The Committee meets once or twice a

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<sup>(1)</sup> The Tenancy Bill has since become law. (Act VIII. of 1885).

month, and the accounts are audited monthly by a Sub-Committee especially appointed for the purpose.

In India the ordinary official year commences on the 1st April. During this month the multifarious annual reports for the previous year are submitted. The police and criminal year, however, corresponds with the calendar year, while the cess year commences on the 1st October. Works cannot ordinarily be commenced till after the cutting of the paddy crop in December, and contractors are generally given up to July or August to complete their contracts. This leaves time for the auditing of accounts, and for the preparation and sanction of estimates for the new year. The current demand of the cess year, 1883-84, in respect of both road cess and public works cess rose from £701,099 to £731,081, the total increase amounting to £29,986. This was wholly due to re-valuations, no change having been made in the rates at which either of the cesses was levied. Only half the above amount (*i. e.*, the road cess only), is available for expenditure on roads. The average size of a district in Bengal is 3,323 square miles, and each district has, on an average, about £8,000 a year to spend on its roads. About 15 per cent of this is swallowed up by cost of establishments. Small village roads and communications are generally made under the direct supervision of the Joint Magistrate or Assistant Magistrate. Often small sums are made over to indigo-planters, trustworthy zemindars, village-

headmen, or committee members on their personal receipt and undertaking that they will execute some particular work during the coming season ; oftener, half is given as an advance, and half on the completion of the work, which is inspected by the Joint or Assistant Magistrate. In the advanced districts, near Calcutta, the applications made by villagers for the repair and improvement of their village roads are very numerous. Some Collectors discourage such applications, thinking that money is frittered away and wasted ; but the proclamation issued in 1873, after the passing of the Road Cess Act, stated that "every taxpayer is encouraged and invited to claim that the tax shall be fairly applied to the village roads and local paths or water-channels in which he is interested. The Government will use every effort to see that such local claims are fairly met, and that every taxpayer derives a fair benefit from the tax which he pays." Whether the money is wasted or not depends very much on individual energy and activity. If the officer in charge of village roads is lazy or apathetic, the money is very probably wasted. On the other hand, if he is an active and energetic officer, rides out and inspects 75 per cent. of the work, not only are the sums allotted fully spent, but those who receive them often add money of their own to make a better show, and to get some words of praise or acknowledgment from the *kakim*. In the advanced districts, near Calcutta, there is very little opportunity for peculation. There

are *dola-dolees* or rival factions in almost every village, and if the man who receives the money delays in spending it, or does not do the work properly, some member of the opposite faction very quickly brings his shortcomings to the notice of the officer in charge of village roads.

Tree-planting is carried on to a great extent. Some Collectors have been particularly energetic in this respect, and have planted hundreds of miles of roads in their districts with beautiful trees. Where these trees are fruit trees, such as mango, jack, and even tamarind, they are likely to be of great service in times of scarcity ; and at all times they afford a welcome shade for the weary traveller. Regular nurseries of trees have been established at most head-quarter stations, under the charge of the District Engineer, who every year plants a few additional miles of road with trees.

The country is still backward in the matter of communications, both by road and railway. Under native rule, the absence of roads and the impassability of the country were regarded as a sort of natural defence against the incursions of neighbours ; and, even at the present time, such ideas prevail among many of the Rajas and zemindars of tributary States, such as those to the west and south of Orissa. For a long time the English were too much taken up with the pacification of the country to turn their attention to systematic road-making ; and it was only during

the last thirty years of their existence that the East India Company keenly realized the importance of having good lines of road, and took action accordingly. Still, even at the present time, very much remains to be done. There are thousands of miles of unmetalled roads, which are almost impassable during the rainy season, and in many districts almost the whole of the available road cess money is swallowed up in the maintenance of existing metalled roads. Pack-bullocks have not been entirely superseded by carts, and there are vast areas of country inaccessible even to pack-bullocks during the rains. Local taxation in India is very light, but it is, perhaps, better that the country should be backward than that the popularity of our rule should be endangered by additional taxation.

There are special Acts dealing with drainage, embankments, and irrigation, which are administered by the Collectors. Irrigation is of three sorts, from tanks, from wells, and from canals. In the first case, the works either impound a supply from rivers, or small catchment areas, or collect a supply by means of embankments thrown across valleys or gorges. Tank-irrigation is of especial importance in the Madras Presidency. The public duty of maintaining ancient tanks, and of constructing new ones, was originally undertaken by the Government of India; and, upon the settlement of the country has, in many instances, devolved upon zemindars. Such zemindars have no power to do away with these tanks, in the maintenance

of which large numbers of people are interested, but are charged under Indian law, by reason of their tenure, with the duty of preserving and repairing them. The question often arises how far a zemindar is liable for damage caused by the breach of the banks of any tank in his possession. It has been held by the Privy Council that the rights and liabilities of zemindars, in such a case, are analogous to those of persons or corporations on whom statutory powers have been conferred and statutory duties imposed ; that is, they are not liable unless negligence can be proved. It was held by the Exchequer Chamber in the case of *Vaughan v. The Taff Railway Company*, that a railway company are not responsible for damage from fire kindled by sparks from their locomotive engine, in the absence of negligence, because they are authorized by statute to use locomotive engines. The same principle has very properly been applied to public tanks and embankments in India.

In the lower valleys of the Ganges and Brahmaputra, and along the deltaic sea-board, flood is a more formidable enemy than drought, and embankments there take the place of canals. There is an important schedule attached to the Embankment Act for Lower Bengal, which shows that the total length of embankments under State control is 1,170 miles. But the Public Works Department actually inspects and looks after some 2,800 miles of embankments, including all those that are repaired by zemindars. There are



embankments 130 miles long on both sides of the river Gunduck in Behar; and there are extensive lines of embankments along the principal rivers in Orissa, such as the Mahanadi and Brahmini. On the security of these embankments depends the safety and welfare of teeming populations; and when breaches are caused by unusual floods and inundations, and the low-lying country becomes one vast lagoon, it is to these embankments that the villagers repair for safety until the floods subside. In Lower Bengal, with its plenteous rainfall, there is perhaps more need of drainage than of irrigation. In 1875, the Bengal Government estimated the area under swamps, needing drainage and reclamation, at full half a million of acres, and much of this is being gradually reclaimed. During the year 1882-83 more than five lakhs of rupees were spent from Imperial funds on drainage and embankment works.

Though there is no demand for irrigation in the greater part of Bengal, still a benevolent Government has constructed works in a few exceptional tracts where experience has shown that occasional drought has to be feared. Not only does the amount of rainfall differ considerably in different districts, but it varies not a little from year to year even in the same district. Moreover, even when the number of inches does not fall short of the average, the distribution may be so irregular as to cause a partial or total failure of the crops. India has been divided into twenty-two

"meteorological tracts;" and the following extract from a table of average annual rainfall <sup>(1)</sup> illustrates the above remarks :—

	Rainfall in inches.
Sind and Cutch . . . . .	9
Punjab plains . . . . .	22
South Deccan . . . . .	25
North Deccan plateau . . . . .	28
Upper Ganges plains, N.W.P. . . . .	38
Central Provinces (South) . . . . .	49
Western Bengal . . . . .	56
Lower Ganges plains . . . . .	68
Assam and East Bengal . . . . .	96
Malabar and Ghats . . . . .	112
Concan and Ghats . . . . .	145
Arakan . . . . .	193

The above table shows how the Madras Government has been able to make irrigation compulsory, while the Bengal Government has not ventured to do so <sup>(2)</sup>.

In Bengal, the ryots may take the water or not, as they please. If they take it, they pay an irrigation rate of three shillings per acre. The battle of compulsory versus voluntary rates has never troubled the Madras Government. A "wet" assessment is

<sup>(1)</sup> Report for 1879 of the Select Committee on Indian Public Works.

<sup>(2)</sup> Perhaps irrigation might safely be made compulsory in the case of the Sone canals.

imposed on what is known as, the irrigable *ayacut*, that is, the total area *capable of being irrigated*. In this matter the Madras Government have perhaps shown good sense, and at any rate they have saved themselves an infinity of trouble. In Bengal, villages sometimes intentionally abstain from taking out leases for water, knowing that they will have many opportunities of getting it surreptitiously. For instance, the village A adjoins a canal. The village B lies beyond A, and the villagers take leases for water. The cultivators of A know that, to get to B, the water must be conveyed by a channel through their village. They therefore abstain from leasing themselves, in the hope of getting the water for nothing. Some fine morning a canal overseer or patrol sees that the bunds of the distributary channel have been cut in several places, and that the lands of A, which sadly needed water, have now got all they require. Such an act of course amounts to the offence of mischief under the Penal Code; but the bunds are cut at night, and nothing can be proved against any particular individuals. Sometimes a patrol swears to having seen particular persons do the act, but the villagers are combined, and it is impossible to procure any independent evidence to corroborate him. For these reasons the Collector is empowered to impose a penalty rate of assessment on all lands surreptitiously irrigated. He must of course find that the villagers have cut the bund, or have actively taken the water in some other

way. If the water has made its way on to their lands by overflow or percolation, or without any contributive action on their part, they cannot be assessed. When there is any doubt, the cultivators get the benefit of it, and in this way a certain amount of revenue is lost to Government. Five-yearly leases are granted at reduced rates to induce the cultivators to lease. Under the optional and voluntary system it is of course very aggravating for a canal officer to find that a number of villagers half a mile distant from the canal have all leased, while the intermediate villages hold back and refuse to. This renders it necessary to make irrigation as popular as possible by cheapening it and holding out special inducements to lease. It sometimes happens (notably in the case of the Midnapore canal) that in some particular year the rainfall is considerably above the average, and that, owing to the want of drainage, lands that have leased get more water than they require, and the crops suffer in consequence. In such cases the Collector, after satisfying himself by due inquiry, remits the water-rate.

A vast amount of irrigation is carried on by means of wells, which are often mere holes in the earth sunk at a cost of four or five rupees. Some of the very best cultivation is carried on by well-irrigation, for instance, the wheat of Northern India, the sugar-cane and poppy of Behar, the potato and other vegetable crops of Bengal, the turmeric and tobacco of Orissa.

The cultivators appear to think that well-water is warmer and more fertilizing than canal water.

There are altogether about 18,000 miles of canals and branches in India, not counting the length of distributing channels. The area irrigated amounts to 1,935,000 acres in Madras, 411,000 acres in Bengal, Behar and Orissa, 1,811,000 acres in the North-Western Provinces and Oudh, 668,000 acres in the Panjab, and 324,000 in Bombay and Sind, in all more than five millions of acres. This is the irrigated area, the irrigable area being even larger. The capital outlay by the State on this canal system may be set down at 20½ millions sterling, on which the net returns yield an interest of 6 per cent. "Apart from the direct receipts from the canals," says Sir Richard Temple, "there are many indirect benefits which accrue in all cases. These benefits are represented by the security afforded to agriculture, the insurance provided for the people against the extremities of drought and famine, the protection of the land revenue, the instruction of the husbandmen by the example of the superior husbandry established, and the introduction of superior products. The value of the canals during the recent famines has been inestimable; without the irrigation, these calamities, great as they were, would have been indefinitely greater. The value of the produce which the canals saved in order to feed a famishing people, equalled the capital outlay on their construction."

## CHAPTER VIII.

### LAND ACQUISITION, LAND REGISTRATION, AND LEGAL PRACTITIONERS.

Land Acquisition—Procedure—Rules for awarding Compensation—Fairness of Collectors—Appeal to Civil Court a Mistake—Difficulty of apportioning Compensation—Land Registration—Register of Estates and Revenue-free Lands—Mutations—Prevention of Litigation—Advantage of Collector's Inquiry—Legal Practitioners—Insolence of Native Bar towards the Bench—Introduction of irrelevant Matter—Prolix Cross-Examinations—Contempt of Court—The Native Press—Persistent Defamation of Government Officers—Invidious Position of Subordinate Courts—Difficult Position of Judicial Officers—Revenue Agents—Conclusion.

IN some districts the Collector has a good deal of work in connection with the acquisition of land for public purposes. Land may be required for a railway, a new road, a police station, a dispensary, a staging bungalow, or a post-office; and the duty of taking up the land in accordance with the Land Acquisition Act (X. of 1870) devolves on the Collector. A declaration of the intended acquisition is

published in the local Official Gazette, and the Collector, or a Deputy Collector working under his orders, then proceeds to mark out and measure the land, and to ascertain the names of all persons possessing any interests therein. He then proceeds to find out the value of the land, and having determined the amount of compensation which should be allowed to each of such persons, he tenders such amount. If the persons interested agree, the Collector makes an award under his hand. If they do not agree, he refers the matter for the determination of the District Judge. Two assessors are appointed to aid the Judge, one being nominated by the Collector, and the other by the persons interested.

The law lays down what matters are, and what matters are not, to be taken into consideration in determining compensation. In the former category are the damage sustained by the person interested by reason of severing the land acquired from his other land <sup>(1)</sup>, or, if he is compelled to change his residence, the reasonable expenses incidental to such change. In the latter category are the degree of urgency which has led to the acquisition, any disinclination of the person interested to part with the land acquired, any increase to the value of the land acquired likely to accrue from the use to which it will be put when ac-

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<sup>(1)</sup> In England this is called intersectional or severance damage. Compensation is also given for the damage done to the beauty or amenity of the place.

quired, any outlay or improvements on such land made with the intention of enhancing the compensation. This last provision is very necessary, as land is sometimes purchased simply with the intention of getting compensation. In the year 1880 or 1881 the Sub-divisional Officer of Raneegunge reported a remarkable instance of this. It has long been intended to shorten the route from Calcutta to Bombay by extending eastwards the line which has already reached Raipur. Several rival routes were advocated, but immediately it was known that the Government of India had decided in favour of the route from Barrakur through Chota Nagpore, indigo planters and others began to buy up land (then almost valueless) along the line of survey in the hope that it would be required for the railway: of course, even if not actually required for the line of railway, stations, or the like, it would become more and more valuable, as being in the vicinity of a railway.

If the Judge and one of the assessors agree, their decision is final. If the Judge differs from both assessors, his decision prevails, but either the Collector or the person interested may appeal to the next higher Court. Fifteen per cent. over and above the market value of the land is always awarded in consideration of the compulsory nature of the acquisition. If the award of the Civil Court exceeds the amount tendered by the Collector, Government pays all costs; otherwise they are paid by the parties interested.



It is no easy matter to apportion the compensation, when there are different persons interested in the land. In some parts of Eastern Bengal there are found no fewer than six or seven grades of intermediate tenure-holders between the zemindar and the actual cultivator—such is the extent to which sub-infeudation has proceeded. But even when there are only the zemindar annuitant, the *putneedar* (permanent lease-holder), and the cultivator, it is very difficult to decide what proportion of the total compensation each should receive. The Calcutta High Court have laid it down that, as a rule, ryots having a right of occupancy, and the holders of the permanent interest next above the occupancy ryots, are the persons entitled to the larger portion of the compensation-money (I. L. R. 7 Calc. 585). In Orissa the Deputy Superintendent of canals, when taking up land for irrigation canals and channels, dealt only with the zemindars, and gave nothing to the ryots, who in many instances were compelled to go on paying rent for lands they had lost. I quote this as an instance of hardship, but I should add that the Deputy Superintendent was neither a civilian nor one of the regular uncovenanted Deputy Collectors, and therefore so important a revenue duty as land acquisition should never have been entrusted to him. The Collector's award must of course cover all interests in land; and, generally speaking, his awards are fair, and usually accepted. In such a matter as compulsory acquisition of land, it may be advisable and politic to

allow an appeal to the Civil Courts; but, as a matter of fact, experience has in not a few cases shown that it is an appeal, if I may so term it, from Philip sober to Philip drunk, in short an appeal from a more competent to a less competent tribunal. The Collector is the fiscal authority, he submits weekly reports concerning the crops, prices of grain, and similar matters, and he, *par excellence*, is best able to ascertain the market value of land. If he errs, it is better that his proceedings should be revised by the superior fiscal authorities, namely, the Commissioners and the Board of Revenue. In the Patna District the Judge in a number of cases made some very high awards, considerably in excess of the amounts tendered by the Collector. It so happened that soon afterwards the lands were no longer required, and were re-sold by the Collector for Government. The prices realized amounted to less than one-half of the amount tendered by the Collector. This showed that the award of the Collector had at least been sufficiently liberal. In fact, in matters that affect the welfare of the people the District Officer is kind, sympathetic, and (if indigo-planters and other non-officials are to be believed) too considerate and hyper-sensitive. The District Officer does not oppress, grind down, or ride rough-shod over the people, as certain venomous and rabid native prints would have their readers believe. The administration is so ordered and regulated, there are so many checks in the shape of review, revision, appeal,

and general control, that he has not the means or opportunity to do so, even supposing he had the inclination

Another of the duties of a Collector is to prepare and maintain Registers of Revenue-paying and Revenue-free lands, showing the names of the proprietors and managers thereof. This work is called Land Registration. Where there is more than one proprietor, the names of all, and the extent of interest possessed by each, have to be entered. Changes of proprietorship by purchase, gift, inheritance, or otherwise, are entered in the registers as they occur <sup>(1)</sup>. Thus the task of keeping up correct registers is formidable and laborious. Of course there are rules requiring proprietors to give the necessary information, and penalties for their failure to do so; and

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<sup>(1)</sup> In India the system of land transfer is exceedingly simple and cheap. A proprietor can sell an acre of his land almost as easily as he can sell a bit of furniture or a sack of potatoes. Mortgages are effected with the greatest ease, and at a trifling cost. Sales and mortgages are often carried out without even the aid or intervention of a revenue agent (lowest grade of lawyer on the revenue or collectorate side). "No country in the civilized or uncivilized world possesses so barbarous and extravagant a system of land transfer as this country (England). A brokerage of 10 to 15 per cent., and a delay of three to six months, weigh like a tombstone on every transfer operation in the land market."—Duke of Marlborough's letter, *Times*, Sept. 22nd, 1885. Title has to be investigated, at considerable cost, by regular conveyancers, and purchasers and mortgagees are exposed to fraud, owing to the artificial distinction of legal and equitable estates, and the want of registration.