

This list shows a great rise in the price of agricultural produce, pulse, ghee, and tobacco; while cotton yarn and oil have cheapened, and there is but little change in sugar, salt, or in the betelnut which every Uriya chews. Thus the cultivating classes gain both on the better price they get for their surplus produce and the smaller price paid for their imported luxuries.

## CHAPTER VIII.

### MATERIAL CONDITION.

168. Abul Fazl considered the Uriya to be very effeminate, and early writers such as Stirling and Ker describe what they term the intellectual dulness of the Uriyas. Stirling concludes his remarks by saying :—

*The character of the Uriya.* “In justice, however, to the bulk of the agricultural population, it must be said that the raiyats of Cuttack are extremely industrious, though they work with little spirit or intelligence and altogether the Oorias of the plains, whatever their faults, are certainly the most mild, quiet, inoffensive, and easily managed people in the Company’s provinces.”

He also mentions—

“The Balasore bearers, in whom the virtues of fidelity and honesty (according to their own conceptions of those qualities) are conspicuous”.

These early impressions have never been eradicated and to this day Orissa is by general consent the Boeotia of Eastern India.

This low opinion of the Uriya is not wholly without justification, but it is equally certain that there is much to be said on the other side and the following criticism taken from paragraph 34 of the report of the Famine Commissioners of 1866 holds good to the present day :—

“The people of Orissa are also separate and distinct, of a character and language peculiar to themselves. Their personal character has been a subject of much discussion during our enquiry and opinions are much divided about it. The Oriyahs are, we should say, physically somewhat larger boned and not so slight looking as the average Bengali though they would be at a disadvantage compared with other Indian races. Their features are on the whole good, and both features and language indicate that they are to a great degree Aryan in race. Most of them are very Hindu in religion and have much caste prejudice. The truth respecting their character is probably to be found between the two extremes of opinion. They seem to be certainly less quick and pushing than the Bengalis, and the higher classes have had much less education, it may almost be said no education; in fact, they are altogether more Boeotian. On the other hand, we do not see reason to believe that they are in their own way less industrious, they have a certain intelligence of their own, and are thought to be less skilled in fraud and in some respects more reliable. They come freely to Calcutta for service, and may be said to bear a good character there. In short, those who are accustomed to them and have become habituated to their obstinate and prejudiced ways, generally like them; those who are not accustomed to them cannot endure them. The well known Uriya bearer, so common in the European domestic service of Lower Bengal, is probably a very fair type of his country men.”

The labouring classes and the lower castes of cultivators are somewhat stupid; but for that matter the peasant of Bihar or of Western Bengal is but little, if at all, cleverer, and physically is certainly inferior. The Brahmans are obstinate and bigoted, but they are of a refined and intellectual type, and the Mahantis of the Mahanadi valley have quite as high a reputation for acuteness as the Lalas of Bihar. In our work we have had no difficulty in finding hundreds of vernacular knowing muharrirs, writing a good Uriya hand, fair arithmeticians, and for the most part careful and not unintelligent. Some of these men have shown considerable ability and a most creditable capacity for methodical work, and have been found perfectly reliable.

Even, however, among the literate class, the want of enterprise, the slowness, and the hopeless conservatism are in marked contrast to the versatility and quickness of their Bengali cousins. An Uriya can hardly be made to hurry himself, and he regards absence without leave and disregard for orders as the most venial of offences. He would as a rule far rather make Rs. 12 a month by a moderate amount of work than half as much again by staying over time. The same love of ease and dislike of hard work permeates all classes. When times were hard and numbers of agriculturists were driven to do earth-work on the railway, they might easily have earned four annas or more a day, but as a rule they would only make two annas or three annas, and then would go home for a rest two days in the week.

There is no doubt that the last century of unrest and oppression by the Moghuls and specially by the Mahrattas, before the British accession, made some permanent effect in the Uriya character. To sow year after year without knowing by whom the fruits would be gathered, to be continually harried and plundered must necessarily discourage thrift and promote improvidence. For this reason it seems to me that in his own country at any rate the Uriya is not disposed to be a hard worker. Outside Orissa, as domestic servants, chuprassies, and coolies, the Uriyas have a reputation for good work, which may in part be accounted for by the natural selection of the best of the young men as emigrants and their natural fitness for the duties in which they are commonly engaged, and in part also to the unfitness of the Bengali.

We find the Uriya cultivating the lands of well-to-do Bengalis, who themselves are engaged in the jute trade or in selling dairy products in Calcutta. We find them as carpenters, making doors, boxes and tables, as pullers of punkhas, as dockyard labourers, as *palki* beareas, and generally in most kinds of labour requiring more physical than mental capacity.

Generally speaking, the people are kindly and good humoured, remarkably law-abiding, and given only to the committing of the pettiest of crimes. A contractor, employing large numbers of labourers from all parts of the country, put the difference between the Uriya and the up-country man in these terms: "If I give an advance to an up-country man, he will first think how he can cheat me out of part of it. If he gets a chance, he will decamp with the money; if not, he will try to get inferior work passed. The Uriya on the other hand will, sooner or later, work off the value of the advance, but without the slightest consideration for the time within which the work should have been completed."

Physically, the men of the better castes are well-made, with good shoulders and straight backs. Except among the Brahmans and the naturalised Bengalis, infant marriage is unknown, and the last census showed only 1.93 per cent. of girls under ten to be married. In most castes widows may re-marry, and even among Brahmans and Karans do not lead the hard life that they do elsewhere.

169. The consequence of this marriage system is seen in the rapid development of the population, which in 1872 was returned at 30,34,690, and in 1891 had increased to 38,77,294, or by 28 per cent. At a moderate estimate, the population must in the last eight years have increased by 8 per cent. and may be taken at 42,00,000, viz:—

	Males.	Females.	Total.
Cuttack. ....	1,020,000	1,080,000	2,100,000
Balasore. ....	520,000	560,000	1,080,000
Puri ....	510,000	510,000	1,020,000

Of these we may take to be Hindus 4,090,000; to be Mahomedans 98,000; to be Christians 4,000; leaving 8,000 to be divided between Parsis and other denominations.

170. The following table, showing the distribution of the people according to their occupation, has been prepared from the census returns, making due allowance for the increase of population:—

Name of District.	Class A. Government.	Class B. Pasture and Agriculture.	Class C. Personal service.	Class D. Preparation and supply of Materials.	Class E. Commerce, Transport and Storage.	Class F. Professional.	Class G. Indefinite and Independent.
Cuttack ...	37,000	1,126,000	125,000	373,000	46,000	67,000	334,000
Balasore ...	10,000	826,000	22,000	95,000	10,000	16,000	100,000
Puri ...	13,000	561,000	44,000	200,000	12,000	43,000	147,000
Total ...	60,000	2,513,000	191,000	668,000	68,000	126,000	581,000

These figures are but an approximation, but they are not likely to be far out. The most striking feature of them is the very much larger proportion of the population returned as agricultural in Balasore than in the other two districts, and the smaller number of persons engaged in manufacture, such as weavers and brass founders. In Balasore it is to be noted the culturable area is still comparatively more extensive than in the other districts.

171. As to education it may be assumed that the Karans and Kayesths, who form about 4 per cent. of the people, can all read and write, and so can all those in classes A and F, and most of class E. The census returns showed the proportion of literate persons and pupils as altogether 6.7 per cent. of the population, and with the impulse given to reading and writing by the settlement it is probable that the percentage is increasing fast.

The census figures of 1891 showed that of males between the ages of 19 and 46, 85 per cent. were married, 4 per cent. widowed, and 11 per cent. unmarried, and of women between the ages of 15 and 49 only 3 per cent. were unmarried, 77 per cent. married and 20 per cent. widows.

172. It is very difficult indeed to get any accurate understanding of the material prosperity of the people at large. Enquiries at once put the villager on his guard, and he makes such answers as he thinks will conduce to his gain, without any great regard for the truth. The general opinion of the officers who have for years worked among the people and gained their confidence is that 80 per cent. of the rural population are more or less permanently indebted to the *mahajan*, proprietary tenureholder, or zamindar. The remainder are themselves landed proprietors, or have other means of maintenance than agriculture. It does not, however, follow that because the villager is in debt and has no capital or savings to meet the strain of a bad season that he is very much to be pitied. The *mahajan* is almost always a local man, and generally the tenant cultivates the fields over which the *mahajan* has a lien. Again, the proprietary tenureholders are local men, and frequently have stocks of grain. Advances of grain for food and seed are not infrequently given by zamindars, especially in times of scarcity, and are repaid by return of the principal with 25 per cent. interest when there is a sufficient crop. Such conditions, however, become oppressive when for two years in succession there is scarcity. The Uriya cultivator is content with very little and that he generally gets. A full meal of rice once a day, taken with a little salt, some pulse or vegetables, and perhaps fish, suffices him, and he eats cold in the morning what is left over from his evening repast. Animal food is a luxury, but well-to-do men eat a little mutton and goat's flesh, and all classes eat game whenever they have the luck to kill any. The poorest classes take to supplement their rice boiled *kutthi* and *mandia* cakes, and find a substitute for vegetables in the many herbs and grasses that grow wild, and it is very few indeed who cannot fill their bellies with food which, if not appetising, is certainly satisfying. If the harvest fails or supplies run short, the cultivator finds in the *mahajan* a banker always ready to advance money on good security, and able and willing to tide him over hard times, provided there is no abnormal general distress; and the history of the floods and drought of 1896 shows that the agricultural community can withstand very serious calamities if the bad season is followed by a good harvest in the next year.

Indeed, the increase of population is in itself a sufficient proof that the people are habitually maintained above the level of the minimum standard of comfort compatible with the health and reproductive power of the species.

For a further investigation of this subject I propose first to consider the wealth of the country as a whole and the sufficiency of its food supply. Then to discuss the condition of the several classes of persons in the country; and lastly to give some account of the natural calamities to which Orissa is subject and of the possible remedies.

The Wealth of Orissa.

173. The wealth of Orissa may be said to consist of —
- |                               |                   |
|-------------------------------|-------------------|
| (1) 1st agricultural product. | (3) Fisheries.    |
| (2) 1st live-stock.           | (4) Manufactures. |
| (5) Forest and mines.         |                   |

Of these the last two are but of small importance, and I will deal with them first.

174. The most important manufacture is that of which 162,551 maunds were manufactured in 1897-98 and 195,000 maunds in 1896-97. The Coast Railway, which brings cheaper salt from Madras, threatens to ruin this industry.

Manufactures.

The only other article manufactured for export is the silver filligree work of Cuttack, which is highly prized everywhere, but it does not give occupation to any but a very insignificant portion of the urban population.

Brass and bell-metal utensils and ornaments, coarse cotton cloth and certain other articles manufactured for local consumption supply nearly all the wants of the people, who require very few such articles of foreign manufacture.

The artisans who manufacture these articles form in fact a component part of the village organisation, some of them still holding service lands for their work.

175. There are extensive stretches of forests along the sea-board and the western boundary of the Regulation Districts, which can supply all the firewood required; but the difficulty of communication is so great that except in the big towns the people generally use dried cowdung as fuel. Large quantities of bamboos and wood are annually brought down from the western hills in the Tributary Estates for building purposes.

There are reserved and protected forests under the Forest Department in the Khurda Government Estate.

176. Minerals in Orissa are the property of Government, but there are at present no mines, and it is not likely that any will be opened in the near future. (See the discussion regarding the terms of the *Kabuliyat*, Appendix A, and paragraph 262.)

Sandstone, laterite, and rubble are quarried from the hills in the western border, but only for local consumption. Coal has to be imported.

177. The nature of the crops grown and the method of cultivation has been discussed in Chapter VI, and the question to be here considered is the sufficiency of the food-stocks and the margin available for purchases.

178. By far the most important article of food in the Province is rice, which, with a comparatively smaller quantity of pulse (*Dal*) and vegetables (and among the well-to-do class some fish and flesh), forms the daily meal of the Uriya.\*

The first difficulty in estimating the food stocks and their sufficiency is to ascertain the outturn per acre and the area cropped; the second, to find the average consumption per head. The area we may take from the statements of cropped areas prepared in the course of the settlement proceedings,† making an addition on account of the areas excluded from settlement. For Kujang, Kanika, and Banki correct figures are to be had; in other unsurveyed estates I have assumed half the total area as under rice.

The outturn of rice I estimate at  $13\frac{1}{2}$  maunds (standard weight) for irrigated, and 12 maund per  $\frac{1}{4}$  for unirrigated land. From the latter figure some further deductions have to be made for losses by flood and drought. The Commissioners who enquired into the difficulties connected with the Orissa Canals estimated the average annual loss from drought at one-twelfth and that from flood at one-tenth of the total crop. These figures agree with my own conclusions, and I would accept them, applying the loss from drought to the whole unirrigated area, but that from floods to one half only, as about half the unirrigated area is safe from inundation.

The average produce of an acre of unirrigated rice land, good years and bad, is therefore  $12 \left( 1 - \frac{1}{12} - \frac{1}{2} \times \frac{1}{10} \right)$  maunds =  $10\frac{2}{5}$  maunds. This is for the winter rice only. For *biabi* and *dahut* rice and the millets I take the average outturn of food-grain at about 8 maunds, and for the pulses and other *rabi* crops 5 maunds per acre.‡

These figures are a little lower than those assumed by the Collector in his report on the failure of crops in 1896, when calculations were made on an average yield of 11 maunds of winter rice,  $9\frac{1}{2}$  maunds of autumn rice, 10 maunds of spring

\* See Appendix O.

† See Appendix F.

‡ Vide paragraph 137 and 109.

§ Probably it is more in most years, but I have adopted this figure in deference to the low estimates of Mr. Nathan and Mr. N. N. Banerji.

rice, and 9 of *rabi* food-grains per acre; but if the losses in abnormally bad years are to be taken into account in striking an average, I do not think my estimate can be very far wrong.

As to consumption, the Famine Code allows 12 *chataks* of rice and 2 of *dal* for an adult male labourer, half of this for a child, and for a women 10 *chataks* of rice and 2 of *dal*.

In the Behar famine of 1874, 12 *chataks* of all food-grains for an adult, and two-thirds of this for a child was the allowance, and the Jail Code gives a figure intermediate between these two estimates.

Sir Antony MacDonnell took the average consumption of the agricultural population at three-fourth of a seer per head, and in 1874 Mr. Commissioner Ravenshaw \* put the average consumption in Orissa at half a seer per day for every man, woman and child, and Mr. N. N. Banerjei gives half to three-fourths of a seer of rice as the consumption of an adult Uriya †. We may, I think, assume that the consumption for adults is not more 12 *chataks* of rice a head, and that for children 6 *chataks* a head, giving an average of 10 *chataks* a head, besides fish, vegetables and green food.

In famine time the people will live on much less‡, but in an ordinary season this is a safe average for Orissa.

The following statement shows the estimated area under the principal food-crops and the estimated outturn :—

Crop.	District.		Area cropped in acre.	Estimated out-turn in Maunds =82.14 lbs.
<i>Biali rice</i> ....	Cuttack	....	135,000	1,080,000
	Balasore	....	10,000	80,000
	Puri	....	40,000	320,000
<i>Sarad rice</i> ....	Cuttack.	{ Irrigated	185,000	....
		{ Unirrigated	815,000	10,974,000
	Balasore	....	850,000	8,840,000
	Puri	....	650,000	6,000,000§
<i>Dahua rice</i> ....	Cuttack	....	17,000	136,000
	Balasore	....	1,000	8,000
	Puri	....	6,000	48,000
<i>Mandia</i> ....	Cuttack	....	30,000	240,000
	Balasore	....	Nil	....
	Puri	....	15,000	120,000
<i>Other food-grains</i> ....	Cuttack	....	170,000	850,000
	Balasore	....	12,000	60,000
	Puri	....	65,000	325,000
Total food-grains			3,001,000	29,081,000
<i>Sugarcane</i> ....	Cuttack	....	1,000	....
	Balasore	....	500	....
	Puri	....	3,000	....
<i>Oilseeds</i> ....	Cuttack	....	8,000	....
	Balasore	....	500	....
	Puri	....	9,000	....
<i>Other cropped areas</i> ....	Cuttack	....	50,000	....
	Balasore	....	30,000	....
	Puri	....	30,000	....

179. Taking the population at 4,200,000 and their average consumption of food-grains at 10 *chataks* per head, the average requirements of the Province are  $4,200,000 \times 365 \times \frac{10}{16 \times 40}$  or 23,703,000 maunds of rice per annum. To this we must add some 2,500,000 maunds of seed, bringing up the total to about 262 lakhs of maunds. This leaves

\* Note on Col. Gulliver's memorandum printed at page 68 of Selections from Correspondence on Orissa Canals,

† Page 31 of Agriculture of District of Cuttack.

‡ Famine Commissioner's report, paragraph 86, Part III, They take 1 lb. of rice as sufficient.

§ Owing to the great inferiority of much of the Puri land, I have taken the outturn at about a maund per acre less than the other districts.

an available surplus of 29 lakhs of maunds. This is clearly a little high, for the actual exports by sea in 1897-98 came to 26 lakhs of maunds, and it must be remembered that the estimate is for the average of a cycle of years, including those of scarcity, and that in a year of plenty like the last both production and consumption are much above the estimate. Probably in such a year 40 to 50 lakhs of maunds should be added to the normal outturn, of which 25 lakhs above the average were eaten and as much more went into reserve.

Anyhow, the figures show that in any ordinary year there must be a considerable excess of production over consumption, and that, on the average of a number of years, the outturn of food-grains after allowing for the amount required for seed leaves nearly three-fourths of a seer per head.

180. To the plain meal of rice and pulse there are nearly always added some vegetables. Fish and vegetable curries form a favourite dish, and spices are used to season and add flavour. The vegetables most largely grown are —

<i>Baigun</i> or Brinjal.	Yams.	Gourds and Pumpkins.
<i>Saru</i> or Caladium.	Radishes.	Plantain.
Onions.	Cucumber.	

The latter, though perhaps strictly a fruit, is more eaten as a vegetable, and with the *baigun* forms the basis of most of the vegetable curries.

None of these vegetables are exported, as they are generally inferior in quality and barely suffice for the wants of the people. Potatoes have recently been introduced and are grown with some success near Cuttack, but are not much eaten outside the town.

Spices, turmeric, chilli, coriander, mustard and ginger are used largely in cooking and the supply is not equal to the demand, so that there is a considerable import, especially of the more valuable kinds.

181. The principal fruits found in Orissa are the mango, jack, papaya, custard apple, pineapple, plantain, cocoanut, and palmyra palms. The *bael*, the cashew nut, the wild plum, and other fruits are also found, but are of less importance.

Mangoes form a very valuable addition to the food of the people in a good year such as 1897, when they certainly helped to keep the Province going until the *biali* harvest was reaped. The quality is inferior to that of the mangoes of Malda or Bombay, and the outturn very precarious.

Pineapples are grown in many villages, but are not plentiful enough to form a very valuable article of food. Plantains are grown in the gardens of many well-to-do persons, but are most used as a vegetable. The cocoanuts form a very valuable crop, of which there is a considerable export, and are eaten both while young and when fully ripe. The fruit of the palmyra tree is usually eaten young, when the kernel or *talsaj* is considered a great delicacy. When mature, however, it forms a useful article of food boiled with a little rice flour, and numbers of persons are said to have lived on it in the famine of 1866. Except of cocoanuts, there is no balance of any fruit available for export.

182. Spinach (*Sag*) is a very common article of food in Orissa, and a portion of the homestead called *saghari* is invariably set apart for growing it. A little *sag* fried in oil often takes the place of *dal* and curry. The following varieties are ordinarily grown in *baris*—

- (1) *Neutia*.
- (2) *Kosala*.
- (3) *Bathua*.
- (4) *Khara*.
- (5) *Piranga*.
- (6) *Poi*.

The following varieties which grow wild are also largely consumed—

- (1) *Puruni*.
- (2) *Paunsapansia*.
- (3) *Kanseri*.
- (4) *Moti*.
- (5) *Kanta neutia*.
- (6) *Suni suniu*.
- (7) *Kalama*.
- (8) *Gaicha*.
- (9) *Pitagahama*.
- (10) *Madaranga*.

*Puruni*, *madaranga*, *moti*, and *kalama* (water herb) are in times of severe scarcity boiled and eaten with a little salt. *Puruni* and *kalama* are very rare, but the country contains a sufficient supply of *madaranga* and *moti* to keep alive about 2 per cent, or 40,000 persons for about eight months from *Kartick* to *Jaishtha*. But these herbs should not be regarded as a food reserve for human beings, as on failure of straw they must take its place as fodder for cattle.

The following roots are eaten ordinarily by the low caste people and in times of scarcity by more respectable people—

- (1) *Bano Ola*.
- (2) *Tunga Alu*.
- (3) *Sankhu Alu*.
- (4) *Koraba*.
- (5) *Pitamasia*.
- (6) *Surkuti*.
- (7) *Koi Munda*.
- (8) *Mar Murua*.
- (9) *Bhuin Kakharu*.

These are available almost throughout the country.

183. Fish abound in the tanks and rivers, and are eaten by all classes and castes. The chief supply is derived from the

**Fisheries.** Chilka Lake and the larger rivers, in which numbers of fish are caught and either eaten fresh or preserved by drying in the sun. This dried fish, or *sukwa*, is highly odoriferous, and not likely to be appreciated by foreigners until some better mode of curing is adopted; but it is much eaten by boatmen, carters, *et hoc genus omne*.

In the rains fish get into the rice-fields and are caught by the boys as the waters subside, and form a welcome addition to the family meal of those who cannot afford to buy such luxuries.

It is very difficult to estimate the value of the fish eaten, but the minimum consumption per house must be a rupee's worth a year, which would give the value at 10 lakhs.

184. After food-grains; cattle form the principal wealth of the people.

**Live Stock.** Large herds are grazed during the hot weather on the *palanda* lands of Kujang and Kanika and the other estates near the coast, and in the rains are driven off to the jungles of Khurda and other high tracts; their flesh is but rarely eaten even by Mahomedans, but milk and ghi are consumed in the country by well-to-do persons.

Unfortunately, there are no complete statistics of the number of cattle in the Province or of the number exported for sale, but a considerable number are known to be sold every year.

Sheep and goats are met with everywhere in considerable numbers. The goats are kept both for their milk and their flesh, which is eaten by Hindus except by Brahmins and Baishanabs; a good many are also exported for sale.

From Survey returns for eleven Parganas in Cuttack, I find that in an area of 243 square miles containing 45,800 houses there were 46,400 bullocks, 46,300 cows, 700 buffaloes, 3,200 goats, 3,600 sheep, besides small numbers of other domestic animals. There are in this area 18,200 ploughs. We may take it then that there are nearly 200 plough cattle, and rather more of other cattle to the square mile: say for the Province 1,000,000 plough cattle, and as many cows

besides 200,000 sheep, goats, and pigs. Their value is difficult to estimate : at half a seer of milk a day a cow's yield should be worth Rs. 6 per annum; the value of the calves may be set off against the cost of feeding. Sheep and goats must bring a profit of at least Rs. 2 each per annum.

185. I think it has been made clear that the Province produces much more than is sufficient to feed it, and we are in a position to make an estimate of its wealth, excluding interest on capital and value of labour.

				Rs.
Value of food—grains less amount for seed at Rs. 2—4 per maund.	...	...	...	6,50,00,000
Oilseeds and other agricultural produce	...	...	...	50,00,000
Live stock and dairy produce (excluding value of purely agricultural cattle)	...	...	...	60,00,000
Salt	...	...	...	4,00,000
Fish	...	...	...	10,00,000
Manufactures, etc.	...	...	...	10,00,000
Total				8,74,00,000

or Rs. 22 per head of the population.

Now out of this we must first deduct the amount consumed as food or used for clothing, etc., and the balance must suffice to pay the taxes and the price of all articles imported from abroad, besides leaving a surplus for remittances to absentee proprietors. We must assume that this balance is all exported.

The taxation of Orissa is roughly as follows :—

				Rs.
Land Revenue	....	....	....	24,00,000
Excise	....	....	....	6,60,000
Stamps	....	....	....	5,00,005
Registration	....	....	....	40,000
Road Cess	....	....	....	1,35,000
Public Works Cess	....	....	....	1,35,000
Municipal taxes	....	....	....	1,15,000
Income tax	....	....	....	60,000
Water Rate	....	....	....	3,15,000
Dak Cess	....	....	....	20,000
Total				43,80,000

Imports by sea in 1897-98 were valued at 82½ lakhs, but this includes railway material which being deducted leaves 78 lakhs as against 67 lakhs in the previous year. To this we must add imports by road, river, rail and canal, and I think we may take the total imports of the Division at 80 lakhs of rupees.

The remittances to absentee landlords who spend their money in Calcutta cannot be placed at less than 2 lakhs. The value of the exports by sea in 1897-98 were returned at 96½ lakhs and we may safely add another 3½ lakhs for grain, cattle, and other produce exported by rail or road. The total exports will then stand at 100 lakhs, of which 80 lakhs are for food-grain, 5 lakhs for hides, and the rest made up of various articles of minor importance.

There is thus a large apparent surplus of expenditure over income, which may in part be accounted for by the remittances of emigrants.

The census table show that there are about 72,000 Uriyas living out of Orissa, and most of these are in service earning good pay and remitting money by money-order or *hundis*. Taking their savings at Rs. 40 per head, the total amount would be nearly 28 lakhs, and I think the remittances may be put down as 20 lakhs. The postal returns show 27 lakhs of money-orders received and most of this is from other districts, so that the above estimate is not excessive.

Even so, the accounts will not balance; but the reason is that the equation is by no means so simple as it appears. A great deal of the money collected as taxes finds its way back into the pockets of the people as wages of employees and labourers, so that no accurate adjustment can be expected, but I believe that these estimates, rough as they are, give a fair idea of the income and expenditure of the Province as a whole.



186. The estimate given in paragraph 170 shows that very nearly 60 per cent.\* of the population is engaged in agriculture, and I propose first to deal with their condition.

Size of agricultural holdings.		The number of holdings, as recorded in the Settlement paper, is as following :—		
District.		Number.	Area in acres.	Average area of a holding.
Cuttack	....	650,600	822,500	1.26
Puri	....	204,400	373,300	1.82
Balasore	....	376,600	692,600	1.80
Total	....	<u>1,231,600</u>	<u>1,888,400</u>	<u>1.53</u>

Sometimes, however, it occurs that one man holds land in more than one village, and enquiries made in 26 agricultural villages† show that out of 100 heads of families, 56 hold over 2 acres each, 30 hold 2 acres or less, and 14 have only homesteads.

The last are, for the most part, labourers; the 30 are artisans, weavers, and others who combine agriculture with their proper pursuits. It is all a question of degree, but the figures bear out the estimate above given that about 60 per cent. depend chiefly on agriculture.

The average holding of the agriculturist works out to 3.23 acres, and of the whole population to 2.21 acres per head of a family.

These villages were selected with care, and much trouble was taken in compiling the figures, but I fear they are still below the mark. ‡

Taking the number of persons in each family at five and the cultivated area of the Province at 4,930 square miles (viz., Cuttack 2,200, Balasore 1,460, Puri 1,270), the average area of cultivated land per family is a little over 3½ acres per family, which would give about 5 acres to the agriculturists.

187. Let us, however, see what is the condition of the Uriya, supposing him to hold 3 acres of rice land and quarter of an acre of homestead. Taking the land to be unirrigated and all to grow *sarad* rice, the outturn would be, according to my estimate 57.2 maunds of paddy, besides straw about 75 maunds. Setting aside 3 maunds of paddy for seed, the cultivator will get 33 maunds 35 seers of clean rice.

His family will consist of himself, his wife, one grown up and two small children, requiring altogether four adults' rations or 40 *chataks* of rice a day. They will, therefore, eat in the year at least 22½ maunds, leaving only 11 maunds 5 seers for all expenditure. He will, in his own compound, grow all the vegetables he uses, and with the straw and chaff can keep a pair of bullocks. He can do all his own ploughing, but will require some help, for which, and his other expenses, the following estimate has been made by Babu J. M. Das, an officer intimately acquainted with Uriya peasant life§.

	Rs.	A.
1. For weeding, 30 labourers besides himself, at one anna six pies each.	2	13
2. For reaping, binding, and carrying to the threshing floor, 24 paid labourers at two annas each besides himself and <i>badla</i> labourers or labourers working in exchange for his own labour.	3	0
3. Rent	10	2
4. Carpenters and blacksmiths for repairing agricultural implements (18 seers of rice)	1	2
5. Chaukidar (8 seers of rice at 2 <i>gaunis</i> of paddy per acre)	0	8
6. Washerman and barber	1	0
7. Salt and oil	5	0
8. Spices, betelnut, tobacco, etc.	2	0
9. Fish <i>dal</i> (pulses) and other petty expenses.	3	0
10. Cloth	7	0
Total	35	9

\* 57 per cent. was the recent estimate of the Secretary of State for the whole of India.

† Five groups in five Thanas of Cuttack,

‡ Similar figures compiled in Balasore gave an average of 3½ acres per tenant.

§ Mr. Nathan in his note on Kotdesh puts the cost per acre at from Rs. 7 to Rs. 9, including, however, the value of the man's own labour and that of his cattle. Mr. N. N. Banerjee puts the cost at Rs. 9.9 for broadcast and Rs. 10 for transplanted rice (excluding rent and seed).

The value of the rice left over after feeding the family is only Rs. 24-6, so there is a deficit of Rs. 11-3, equal to another 5 maunds of rice. If the land were wholly irrigated, there would be an additional margin of 4½ maunds, so that the expenses and receipts would nearly balance, and we may, I think, take it that quarter of an acre of homestead with 3 acres of irrigated, or 3½ of unirrigated land would just support the ordinary agricultural family of five on a subsistence allowance of food. \*

Expenses such as marriages and a bad season would have to be met from other sources such as the son's earnings as a labourer, and in a bad season the riyat would inevitably become indebted to the *mahajan*, and would in all probability never again be clear of debt.

188. In his report on Balasore, † Mr. Kingsford has arrived at some-what different conclusions to those given in the preceding paragraphs. Starting with an estimated outturn of 14 maunds ‡ of paddy to the acre, he finds that after paying their rents, the cultivating classes have left 8,198,300 maunds which, divided over 143,535 families, gives an average to each of 57 maunds, the whole of which will be required for food, according to the following estimate §.

"If the family consists of three adults and two children, one of whom is an infant, the following will be the details of their consumption of rice annually :—

"(1) Rice for four persons at 10 *chataks* per head daily amounts to 2½ seers per day, 75 seers per month, and 22½ maunds per annum.

"(2) The infant will consume cakes of rice flour to the amount of 2 seers a month and 24 seers per annum.

"(3) *Arua*, or rice husked and unboiled, will be required for festivals at 5 seers per month, or 60 seers per annum.

"(4) *Khai*, fried rice, sometimes seasoned with sugar. The monthly consumption will be 2 seers and the annual 24.

"(5) Rice for making gifts, also 24 seers annually.

"The total annual consumption of rice is, therefore, 25 maunds and 32 seers, which, at the conversion of 22 of paddy to 10 of rice, amounts to 57 maunds. As the paddy is husked by the women of the family, the yield of rice is likely, in fact, to be somewhat greater, and may leave a balance of a few maunds, of which two will be disposed of as the perquisites of the village washerman, barber, carpenter, blacksmith, and *chaukidar*."

The total expenses of the family Mr. Kingsford estimates as follows :— ¶

"For a family of five, three adults and two children, in ordinary circumstances, the annual expenditure of which particulars have not already been given, may be thus stated :—

	Rs.	A.	P.
"(a) Living—			
Paddy to be husked by the women of the family, 57 maunds	Nil.		
<i>Dal</i> from his own <i>bari</i> , or obtained in exchange for some of the rice which would otherwise be consumed ....	Nil.		
Condiments, etc., at Rs. 2-2 per month. ....	25	8	0
"(b) Thatching —			
Straw from his own field ....	Nil.		
Labour, his own ....	Nil.		
Bamboos and twine ....	0	10	0
"(c) Clothing. ....	9	1	0
"(d) Miscellaneous ....	1	14	9
Barber, Washerman and <i>Chaukidar</i> — One maund of paddy	Nil.		
"(e) Comforts and luxury—			
Ornaments, average for the year ....	1	5	0
Utensils ....	0	8	0
Stimulants ....	2	8	0
Total ....	41	6	0

\* See Mr. N. N. Banerjee's report, page 37. He makes out that even with 10 *mans* of land a riyat has to meet an annual deficit of Rs. 17, but this cannot be correct with 10 *mans* a man is well off.

† Report on Settlement of Balasore, Part V.

‡ That is, on the whole cultivated areas.

§ Balasore report, paragraph 199.

¶ Balasore report, paragraph 200.

		Rs.	A.	P.
“(f) Agricultural—				
Rent, already deducted from the produce	....		Nil.	
<i>Abwabs</i>	....	2	8	0
Seed grain, 32 seers per acre	....	2	12	0
Manure, not purchased	....		Nil.	
Labour, his own or that which others supply him in return for his own			Nil.	
Total	....	46	10	0
Repairs of implements—1 maund of paddy to the Carpenter and Smith.			Nil.	
Total	....	46	10	0

The deficit of Rs. 46-10 Mr. Kingsford proposes to meet by assuming one of the children to earn two annas a day by labour or Rs. 34 per annum, and other members of the family a few rupees by odd jobs, which, with sale of garden produce, may make up an income of Rs. 40 to Rs. 50.

I doubt whether the equation is correctly worked out, but the estimate may be taken as a very fair picture of the expenses of a family depending partly on agriculture, say three acres, and having some additional means of sustenance such as remittances by a grown-up son gone into service, or a profession such as that of a potter.

The large item for condiments and spices must, however, be reduced by the produce of the homestead; the payments to village servants are rather too large for a small holding, and in Cuttack the large payments for “*abwabs*” and stimulants could be considerably reduced.

The most interesting point of the estimate is that no allowance is made for expenses of cultivation, the whole being put down as the labour of the family, while in most estimates we find large payments for labour. As the number of labourers is less than a quarter that of the cultivators, and many of the former are tillers of zamindar’s *nijchas* or employed by Brahmans and Karans, it is clear that the small cultivator cannot employ much outside labour, and for such as he does he pays in the form of his own labour.

The conclusion I come to is that if he has less than 3 acres of average land, a man must earn something by labour or by cultivating a few *gunths*\* of sugarcane or other valuable crop.

With 3 to 4 acres of land a man can live and support a family in an ordinary year, but with no margin for luxuries or comforts; with 5 acres or more he is fairly well off.

In the Government estate of Khurda I found 4 acres to be the average area of the cultivator’s *jote* (see paragraph 50 of my covering report).

189. If we except well-to-do raiyats holding themselves 8 or 10 acres or more of land, there are very few cultivators not indebtedness of raiyats, in debt to the *mahajan*. Enquiries made by the Assistant Settlement Officers have not resulted in much definite information, but it appears to be well established that the petty cultivator pays away as rent and interest the whole of his crop, except what is left to him for subsistence allowance, and has almost always to borrow again before the next harvest is ripe. In a good year he will pay his debts and rent in full in January or February and have enough to carry him on throughout the year if he has no unusual charges to meet, but he will probably seize the opportunity to marry off a son or daughter which may leave him indebted to the extent of Rs. 50 for which he will probably execute a mortgage on his land or a portion of it.

In bad years payment of rent and loans will not leave the cultivator enough to eat, and he will probably borrow again in June or July enough to carry him on to the end of the year. Most of the money, or rather grain, lending in Orissa is in the hands of zamindars or proprietary tenure holders, and they are by no means hard creditors. Very occasionally a bad tenant gets sold up, but as a rule the zamindar knows that it is to his interest to keep his raiyat going, and will supply him on the usual terms with the necessary grain, even though there be

\* 25 *gunts* = 1 *man*, see paragraph 124.

a large accumulated debt. As security he nearly always requires a bond (*tamsuk*) pledging the land, but these are not often used, and sometimes even particulars of the land and of the consideration are not filled in.

The only matter in which I have known raiyats to show any providence is that of preserving grain for seed, and several instances were brought to my notice in 1897 where the cultivator, though reduced to great straits for food, getting practically no rice to eat, refused to touch his little seed-store.

Grain loans,

190. Agricultural loans \* are most commonly made in the form of grain or of cash to be repaid in grain.

Sometimes raiyats lend grain to one another, but more often they apply to their *mahajan*, who is as a rule their zamindar. The commonest of all loans is one of grain for food and seed advanced in May and June or July or later, and repayable in kind in the following December. These loans are generally known as *sawai*, implying that one-fourth more than the amount lent is to be repaid, or as *panchpai*, which has the same meaning. Often, however, a yet higher interest is taken by *mahajans*; half as much again as was borrowed (*derdhi*), or even twice as much (*dwigun*) have to be repaid at harvest time.

Cash loans.

191. The raiyat requires very often to borrow money in order to meet the *kist* of rent due in November before the winter rice is ripe. This he must obtain from a *mahajan* on the "*Karhia*" system, *i. e.*, he will in February repay the loan in grain at the market rate then current, with two *gaunis* (about 8 seers or 20 per cent.) as interest. Opinions differ very much as to the extent to which such borrowing is resorted. Mr. Nathan, whose intimate acquaintance with the Kotdes estate is unrivalled, reported † that in Puri the raiyat does not pay his rent through the agency of the *mahajan*, while Babu Jamini Mohan Das in Jajpur stated that the great majority of raiyats have to borrow for paying the *kist* that falls due in November.

I take it that much depends on the season and much also on the punctuality with which the zamindar realises his rents; some allowance also must be made for the nature of the country, and in Puri and south Cuttack a comparatively larger area is under *biali* rice and *mandia* than in northern Cuttack and Balasore.

Ordinary money loans (*karja*) are made at monthly interest of half an anna per rupee per month. Sometimes an anna per rupee is charged or even more, and if the sum be large and the security good, the rates may be as low as 12 per cent per annum.

If the sum is not very petty, repayment is secured by a bond with or without a surety. Loans on simple mortgage (*rahan bandhak*) usually bear interest at 6 pies per rupee per month. In the case of a usufructuary mortgage (*dakhal bandhak*) no interest is charged, but the *mahajan* obtains possession until such time as the debt is repaid.

192. In spite of their indebtedness, and of the liability of the crops to injury by extremes of drought and flood, it is still the case as it was thirty years ago that in times of real scarcity the agricultural classes have more resources than any other, and I can quote as true of Orissa at this day the words of the Commissioners who visited the Province in 1867 ‡ :—

"Still more remarkable than in the North-Western Provinces (as noticed in such striking terms by Colonel Smith) was the advantage possessed by all the classes having any sort of rights in the land. In this instance, not only they had better means and better credit than the labouring classes, but being to a considerable extent in the habit of keeping grain for home consumption, those who had crops of some kind were better provided than the nonagricultural classes when grain was not to be bought."

Indeed, land is yet more valuable now than it was then, owing to the greater freedom of transfer. A revenue free property fetches Rs. 100 to Rs. 150 an acre, and tenant-right with fixity of rent Rs. 40 to Rs. 80 per acre.

\* See N. N. Banerjee's Agriculture of the district of Cuttack, Page 38.

† Mr. Nathan to Settlement Officer, No. 238, dated 24th February. 1893.

‡ Report on Famine of 1866, Paragraph 77.

Condition \* of non-agricultural classes or classes who depend for their subsistence either wholly or chiefly on means other than agriculture. 193. These may be divided into—

- (1) Artisan or skilled labourers.
- (2) Unskilled labourers.
- (3) Others.

The wages given to classes (1) and (2) by the Public Works Department during the thirty years 1869-99 may be taken as fairly representative of the prices of such labour. A carpenter or a blacksmith now gets from 7 to 8 annas per diem, an ordinary male day-labourer gets from 2½ to 3 annas, a women gets 2 annas, and a boy gets from 1½ to 2 annas per diem. In the last few years there has been a decided rise in the earnings of these classes owing to the great demand for labour on the Bengal-Nagpur Railway. These are wages which a labourer can get away from his home. In his own native village a skilled labourer gets from 4 to 6 annas and an adult unskilled labourer from 1½ to 2 annas per diem according to the demand for labour. For making and repairing agricultural implements carpenters and blacksmiths are always paid in kind, the annual payment averaging about 9 seers of rice from each client. When paid in kind, the day labourer gets varying quantities of paddy equivalent to 2 to 2½ seers of rice. There are two other classes of unskilled labourers—(1) the *kuthia* or *halia* who is engaged by the year and paid daily in kind and (2) the *chakria*, who is also engaged by the year but paid in cash. The following table shows the wages ordinarily given to these two classes of labourers:—

Name of Subdivision.	Kuthia or Halia						Chakria.		
	Rice given daily (paddy converted into rice.)		Loans without interest.	Cloth.		Other allowances, if any.	Annual cash wages with food.	Cloth.	
	Quantity.	Value.		Number and description.	Value.				
1	2	3	4	5	6	7	8	9	
1. Cuttack	S. CH. 1 12	A. P. 1 8	Rs. 3 to 5	Gamcha ...	As. ...	.50 acre of land as jagir and 65 seers of paddy at the end of the year besides the daily wages.	Rs. 12 to 15	2 Pieces of dhoti 1 8 1 gamcha 0 6 1 Winter cloth 1 0 Total ... 1 14	
2. Jajpur	1 to 5 1 10	1 to 3 1 7	Rs. 1 and 40 seers of paddy	1	5	.50 of an acre of land as jagir and 40 seers of paddy at the end of the year besides daily wages.	12 to 18	2 pieces of cloth 1 4 2 gamchas 0 7 1 Winter Sheet 9 14 Total ... 2 9	
3. Kendra para	2 0	1 10	3 to 5	...	...	.40 of an acre of land as jagir.	9 to 18	2 Pieces of Cloth 1 6 2 gamchas 0 10 1 Winter Cloth 1 0 Total ... 3 0	
4. Puri	2 0	1 10	15 to 20	...	...	.50 of an acre as jagir land.	18 to 24	2 Pieces of Cloth 1 8 2 gamchas 0 12 1 Winter Cloth 1 0 Total ... 3 4	
5. Khurda	2 0	1 10	15 to 20	...	...				
6. Balasore	1 10	1 7	5 to 10	1	5	.50 acres of land as jagir.	18 to 24	Ditto	
7. Bhadrak	1 10	1 7	5 to 10	1	5	Ditto	12 to 18	2 pieces of Cloth 1 4 2 gamchas 0 7 1 Winter sheet 0 14 Total... 2 9	

\* This is taken from a note by Babu Jaminî Mohan Das, Deputy Collector and Assistant Settlement Officer.

An artisan with a family of five earning seven annas a day does not spend more than five annas a day, and he is thus able to lay by something which enables him in time to invest his savings in land, the great ambition of every man in Orissa. There is hardly any really skilled artisan who has not, if he is a man of the mufasal, some land and if a man of the town, some money-lending. I do not here include the village artisans who, never going out of the village, form part of the village organisation and are indirectly supported by agriculture. The most helpless class among the artisans are the weavers, who, living from hand to mouth with a scanty income, and having little or no connection with cultivation, seriously, suffer in famine.

The lot of the day-labourers is rather hard in Orissa, as it is in many other parts of India. Spending what he earns from day to day, he has very little to pawn or sell in times of distress, and is therefore the first to succumb, unless constantly watched and provided with work within his easy reach. No labourer cares to go to a distant work leaving his family uncared for with the prospect of only earning enough for himself. Unlike the Behari, the Uriya never moves with his family, and this peculiar characteristic of the Uriya people should be never forgotten.

The *kuthia* or *halia* is a little better off than the day-labourer in that he has a better man to look after him, who, if an old master, does not forsake him until he is himself reduced to the very last strait. In paragraph 23, Part III, of their Report, the Famine Commissioners wrote :—

“Sir H. Strachey puts it thus in the evidence from which we have already quoted: ‘During a great famine dependence, slavery and captivity are for the poor highly available’ and without going quite so far, we may say that the evolution of a body of some in some sense independent labourers for wages, increases the difficulty of abnormal seasons. We doubt if English labourers could as well resist a season in which food should be two or three times its ordinary price as do the people of India.”

The third class comprises beggars and men employed in services and professions of all kinds. Orissa is noted for its *quasi*-public charities; charitable endowments covering immense areas are scattered all over the Province, but unstinted private charity as it exists in Bengal is unknown here.

The beggars ordinarily met with belong to three castes—(1) Brahman, (2) *Jogi* and (3) *Kela*. Their number is very small, probably about  $\frac{1}{2}$  per cent. the total population.

Most of the professional men, combining agriculture with their professional incomes, are fairly prosperous.

Roughly, the proportions of the various classes who live wholly or chiefly by means other than agriculture may be put down as follows :—

	Per cent.
1. Beggar	5.
2. <i>Kuthias</i> or <i>halias</i>	2.5
3. <i>Mulias</i>	5.
4. Artisans, servants, and professionals	36.
Total	44*

194. In page 171, volume II, of his History of Orissa, Sir W. W. Hunter lays down this proposition : “All wages that are paid in money have risen by more than one-third (during twenty years); all wages that are paid in kind remain the same.”

Measured by the quantity of grain which is given, it is quite true to say that there has been no increase in wages in kind during the last twenty years; nay, during the last forty years: but a little calculation will show that their money valuation has increased by 90 per cent. during the last thirty years.

It is mentioned on page 93 of Mr. Toynbee's History of Orissa that in 1814 a day labourer could earn two annas per diem in town when he can now earn three annas per diem, being an increase of 50 per cent. Supposing there has been

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\* This leaves a residue of 56 per cent. of the population dependant upon agriculture. In a previous paragraph the estimate was 60 per cent. The difference is due to the fact that some of the agricultural castes depend in a considerable measure on service for their support.

no increase in the rate of wages in kind, the following table compares the rise in the value of the two kinds of wages :—

YEAR.	Money wages. A. P.	WAGES IN KIND.		PERCENTAGE OF INCREASE.	
		Quantity of rice. SRS.	Money value. A. P.	Money wages.	Wages in kind.
1814	2 0	2 to 2½	$\left. \begin{array}{l} 0 \ 10 \\ \text{to} \\ 1 \ 0 \\ 1 \ 10 \end{array} \right\}$	....	....
1889	3 0	2 to 2¼	$\left. \begin{array}{l} 1 \ 10 \\ \text{to} \\ 2 \ 3 \end{array} \right\}$	50	125

Note—The money wages given in this table are town wages. In villages the wages have risen in the same proportion, and are now slightly less in value than wages in kind.

As money wages have not risen in the same proportion as the prices of the staple food-crops, the condition of town labourers has deteriorated, while that of the village labourer who receives his wages in kind has distinctly improved.

Wages in money are now slightly less in value than wages in kind, and the latter are therefore always preferred by the village labourers. In a conservative country like Oaissa custom takes a long time to change, and money wages may, therefore, lag behind wages in kind for some time to come.

It is extremely difficult to get a coolie in the mufasal for cash wages in the sowing and reaping seasons, when wages in kind are freely given.

The rise in prices has also directly benefited the cultivating raiyats who pay their rents in cash. The diagram facing paragraph 164 shows the fluctuations in prices of common rice from the date of the last Settlement to the present time.

It appears that a severe flood in 1836 and a severe drought in 1840 caused prices to rise very high in 1837 and 1840. Omitting these two exceptional years, the average of eight out of ten years following the last settlement comes to 48.14 against 18.23 during the ten years 1887-96 before expiry of the settlement, giving an increase of 163 per cent. : very nearly the same results are obtained, if instead of ten years averages are taken for fifteen years, including the high prices during both the periods.

Competitive or *pahi* rents have, during the same period, risen by 44 per cent., or 119 per cent. less than the rise in prices which, after a deduction of one-third on account of increase in the cost of cultivation, still leaves a difference of 64 per cent. in favour of the cultivator.

195. So far the condition of Orissa in an average year only has been considered, but the most difficult problem that the administration has to face is the liability of the Province to loss of crops from natural calamities.

The rainfall in Orissa is in most years ample for its needs, the average being 62 inches per annum; \* but it is precarious, and its early cessation is fatal to the rice crop. On the other hand, the channels of the numerous rivers are insufficient to carry off the great volume of water that comes down after heavy rain from the table lands of Chota-Nagpur and the Central Provinces, and the waters overflow the banks and inundate the whole country, causing mere or less injury to the standing crop. Less frequent but even more serious damage has been done by storm waves on the sea face, and though the low lands are to some extent embanked against the salt water, violent cyclones have breached the embankments and caused great loss to life and property.

It is sometimes said that the effect of these natural calamities has been aggravated by the attempts made to restrict the rivers within their channels by means of embankments, but a retrospect of the early history of the Province will, I think, show this view to be erroneous.

Historical records + show that great famines occurred in the fourteenth, fifteenth, and sixteenth centuries of our era, in the reigns of Raja Kahil Indra Deo, Raja Rai Uriya, and Raja Pestub Madra Deo. The great Bengal Famine of 1770

\* See Paragraph 107.

† Paragraph 51 of Report of Commissioners on the famine of 1866.

was grievously felt in Orissa, and a few years later in 1774-75 another serious scarcity is said to have occurred. Again in the *Amli* year 1200 corresponding to 1792-93 A. D., in the time of the Mahrattas, the last great famine of the 18th century devastated the Province.

In the famine of 1769-70 Stirling says that "rice was not to be had for two seers per rupee. In 1183 (1775 A. D.) rice was hardly to be purchased in the bazar of Cuttack at ten *pans* the *Katki* seer," or 10 annas for a seer of 105 tolas. He adds that a remission of 7 lakhs of revenue was given in that year. In Mr. Toynbee's history we find that during 1803 and 1804 there was scarcity in Cuttack but not in Balasore. In 1806 there was "total failure of the rains between 17th September and 18th November."

In July 1807 there were heavy floods followed by scarcity, and 1809, 1817 and 1828 were years of bad crops and great distress.

The most serious calamity of the first half of the century was the inundation of the sea on the Balasore coast in the years 1831-32. By this a large tract of country was temporarily thrown out of cultivation and almost depopulated, and the whole agricultural system of the district greatly disorganised. In 1834-35 the country was laid waste by inundation and in 1836, 1837 and in 1842 Orissa suffered severely from drought; but the only general famine of this century comparable with that of 1770 is that of 1865-66.

Like all the greatest famines of Indian history it was due to drought, though the effect of this was aggravated by that of floods in August in the following year. More than half of the rice crop was lost, and prices rose to 5 seers to the rupee in June, 1866, and were much higher in some tracts on the Dhamra. The mortality was estimated by the Lieutenant-Governor at one-fifth, and by the Famine Commissioners at one-fourth of the whole population; and even if these estimates be somewhat high (see also paragraph 198), they are near enough to show what frightful suffering such a failure of the harvest entailed. In 1877-78 there was a famine in the neighbouring province of Madras and a partial failure of the rains in Orissa in the same year, with the result that prices rose rapidly and there was a good deal of local distress but nothing of the nature of real famine.

Again there was failure of the October rain of 1888 and 1891, followed in the latter year by heavy floods which caused a considerable loss of crops, and there being at the sametime scarcity in parts of Bengal and Behar prices rose to above 14 seers.

In 1896 there occurred in all the principal rivers a flood of great height and unprecedented duration followed by short rain in September and an almost complete failure in October. Similar causes led to scarcity and famine throughout India, and at one time there was some fear lest we might find ourselves in Orissa face to face with such an insufficiency of food stocks as there had been in 1866.

The outturn of rice was estimated at 7 to 8 annas of a normal crop and the deficit to be supplied by import was put at 10 lakhs of maunds in Cuttack alone, allowing for the stocks in hand and the outturn of *rabi* crops \*. In the event, however, though there was considerable local distress, very little relief was found necessary in Balasore beyond such as was afforded by the facilities for obtaining earthwork on the railway; in Cuttack the grants by the District Board were supplemented by contributions from the Indian Famine Relief fund. In Puri in the neighbourhood of the Chilka Lake distress was more serious, but on the whole the people proved capable of supporting themselves.

196. The difference between the two years 1865-66 and 1896-97 is very striking, and seems to show a great improvement in the resources and communications of the country. The years preceding the famine of 1866 had been a most prosperous era, distinguished by a great development of the exports, \* and the terrible distress that followed the drought of 1865 seemed to disprove the truth of the popular belief that the food stocks left after a good year are sufficient to meet the wants caused by a single harvest's failure †. The years 1890-95 were marked by failure

\* Commissioner to Government, No. 5R. of 5th January 1897.

† Report of Commissioners of Orissa famines, paragraph 8, Part II. There was however a poor crop in 1864-65, especially in Puri.



of rain and floods in 1891-92 and heavy exports in subsequent years which might have been expected to deplete the stocks in reserve, yet not only did the Province escape famine but it exported some 30 lakhs of maunds of grain in 1896-97 and 26 lakhs in 1897-98. The following \* statement compares in a tabular form the two years :—

Year	Rainfall.			Estimated outturn of harvest.	Average price of clean rice.	Highest price of clean rice. Seers.
	September.	October.	Total for the year.			
1865-66 ....	5.20	Nil	36.30	$\frac{1}{3}$	9.36	3
1896-97 ....	6.33	.31	53.13	$\frac{1}{2}$	11.87	9

In 1863-64 the exports from Orissa mounted to 5½ lakhs of maunds; in 1864-65 to 9½ lakhs. In 1865-66 they fell to 62,000 maunds, and in the following year were practically nil, while from May to November 1866, 2¼ lakhs of maunds were imported. On the other hand, in 1896-97 exports reached their highest limit of 30 lakhs of maunds, and in the following year again there were large exports.

197. It is difficult to account for this great difference. An interesting estimate was prepared by the Collector of Cuttack of the produce and food-stocks of the district for the years 1890-96 †. He assumed the average produce at 120 lakhs of maunds of rice, which is a fairly high estimate - see paragraph 178 above - and that of other grains at 8½ lakhs of maunds, plus 1½ lakhs imported. The annual requirements are taken at 124 lakhs of maunds for food, plus 16 lakhs of maunds for grain; total 140 lakhs of maunds, or, deducting other grains, 138 lakhs of maunds of rice.

The exports averaged 11 lakhs of maunds, making an average annual deficit of 22 lakhs of maunds, for six of which the Collector accounts by imports from the Tributary Mahals, Balasore, and Khurda.

After examining the liability to error, the Collector found the stocks available for sale or export to be 10½ lakhs of maunds and the outturn of the year, 68½ lakhs of maunds, making a total of 79 lakhs of maunds, against requirements of 131 lakhs.

It is obvious that this was not the actual state of affairs, and I do not think the outturn of winter and autumn rice can have been underestimated. The *rabi* crop was, however, exceptionally good, and we may add on this account another 15 lakhs of maunds instead of 8½ mentioned by the Collector, and perhaps 5 lakhs of maunds for *dalua* (spring rice), raising supplies to 100 lakhs of maunds. Taking the consumption at 100 lakhs of maunds for food, or under half a seer a head per diem, and adding 10 lakhs of maunds for seed, we get a minimum deficit of 10 lakhs.

The exports were certainly greater than imports from the Tributary Mahals or elsewhere, and the stocks cannot have been less than of 20 lakhs of maunds at the lowest figure.

I think the error lay in underrating the stores of grain held by large raiyats and petty *lakhirajdars*. It is certainly a fact that the grain trade is in the hands of the big dealers who have agents all over the country, but officers of experience, such as Mr. Nathan, have denied that the well-to-do raiyats hypothecate their produce to grain-dealers to any great extent, and state that they take their own surplus produce to the nearest market to sell. Certainly this is the case with the petty zamindars and *lakhirajdars* and all classes who are in the habit of letting out land on produce rents; and not only do they sell the crop directly, but they are capable of holding it up in expectation of good prices. I have heard of cases where considerable stocks were found in a secret chamber of an ordinary raiyat's house, and the *Mohants* of the charitable institutions in particular are supposed to keep very large reserves.

\* Report of Commissioners of Orissa famines, paragraph 8, Part II. There was however a poor crop in 1864-65, especially in Puri.

† Collector to Commissioner, No. 2860, dated 9th December, 1896.

198. It is difficult to reconcile the various estimates of the population in the early years of the century. In 1821 we learn from Mr. Stirling that the total population of the Province was 1,300,000 and that there were but 3 towns of any size,—Cuttack, Balasore and Puri,—with populations of 40,000, 10,000 and 30,000, respectively. During the settlement operations of 1840-45 an estimate was made of 2,500,000. It is hardly conceivable that there should have been an increase of 1,200,000 in twenty years, and I think Mr. Stirling's estimate must have been below the mark; the other is probably somewhat high, for in 1854 an estimate, based on the counting of houses \* gave a population of but a little over 2,400,000. Just before the famine the population was estimated—chiefly from data furnished by the police—at three millions, and after it in 1867 at 2,100,000 †. In 1872 the first regular census showed the population to be 3,035,000, so that if the estimates of 1867 were correct, the population had in four years increased by 935,000, or by more than 44 per cent. This is obviously impossible, especially in days when immigration was almost unknown and the locomotion was slow and difficult. I think that the outside increase in five years, allowing for the return of those who had fled to other districts, may be put down at 20 per cent., which would give the population of 1867 at about two-and-a-half millions and make the loss of life in 1865-66 only half a million, which is not improbable.

The reliable figures as to population may be taken as :—

1843	....	....	....	2,500,000
1865	....	....	....	3,000,000
1867	....	....	.... (a)	2,500,000
1872	....	....	....	3,000,000
1881	....	....	....	3,600,000
1891	....	....	....	3,800,000
Present day	....	....	.... (a)	4,200,000

(a) Estimate.

This steady increase is in itself the most valuable evidence of the prosperity of the Province under British administration. It cannot, however, be said to be an unmixed blessing. In rather more than half a century the population has increased by 1,700,000, or 68 per cent., and in the same time cultivation has increased by about a third, and there is not much room left for further extention. The amount of land and agricultural produce available for the support of each individual has thus been reduced in the ratio of 100 to 79. The population now averages about 700 per square mile cultivated in Balasore, about 570 to the square mile of cultivation in Puri, and nearly 800 to the square mile of cultivation in Cuttack; while in some Thanas the density is much greater. So far the increase in the value of the surplus produce has gone far towards recompensing the cultivator, and a general modicum of necessaries has replaced the alternate want and abundance of former years. It is, however, certain that the limit has been nearly reached, and either the increase of population must be checked or the pressure relieved by immigration, or the standard of comfort reduced to a dangerously low level.

\* See paragraph 36, Famine Commissioner's report of 1866, Part I.

† Commissioner to Board, No. 501, dated 24th July. 1867.