

REPORT
ON THE
FAMINE IN THE CENTRAL PROVINCES

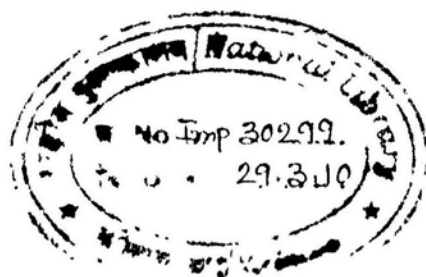
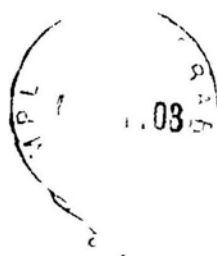
IN
1899-1900.

VOLUME I
REPORT & APPENDIX I.



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CENTRAL PROVINCES SECRETARIAT.

Revenue Department.

FROM

R. H. CRADDOCK, Esq., I. C. S.,

FAMINE SECRETARY TO THE CHIEF COMMISSIONER,

Central Provinces,

TO

THE SECRETARY TO THE GOVERNMENT OF INDIA,

REVENUE AND AGRICULTURE DEPARTMENT.

Nagpur, the 27th February 1901.

SIR,

I am directed to submit the following Report on the famine in this province in 1899-1900.

2. The Report consists of the following Chapters:—

Chapter I.—Descriptive of the Province, its agricultural history, the causes of the famine and the situation at its commencement.

„ II.—The pressure and effects of famine (page 16).

„ III.—The progress of the famine and history of the relief measures adopted (page 34).

„ IV.—Indirect relief (page 110).

„ V.—Mortality (page 124).

„ VI.—Establishment and Expenditure (page 133.)

„ VII.—The Feudatory States (page 138).

„ VIII.—General Summary and Conclusion (page 149).

3. To this Report is appended copy of a Minute on the services of Officers during the famine (page 162).

I have the honour to be,

Sir,

Your most obedient Servant,

R. H. CRADDOCK,

Famine Secretary.

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CHAPTER I.

A BRIEF DESCRIPTION OF THE CENTRAL PROVINCES; OF THE AGRICULTURAL HISTORY UP TO THE DATE OF THE FAMINE; OF THE IMMEDIATE CAUSES WHICH BROUGHT ABOUT THE GREAT FAILURE OF CROPS; AND OF THE SITUATION AT ITS COMMENCEMENT.

For the benefit of those who may be interested in the history of the famine, but have no acquaintance with the Central Provinces or its people, this report may usefully be prefaced by a few descriptive remarks. Further details are available to any who seek these in the Provincial Gazetteer, or in the first chapter of the Report on the famine of 1896-97.

2. The total area of the Central Provinces is 115,500 square miles, of which some 29,000 are comprised in the Feudatory States politically attached to them. The area of the British districts is 86,500 square miles. But of this 19,500 square miles consist of the Government forest reserves, and about 19,000 more fall within the Zamindaris—large estates of feudal origin. The remaining area of 48,000 square miles, known as the khalsa, comprises the estates of private owners, known as malguzars, upon whom proprietary right in the villages they farmed were conferred by the Government some 37 years ago. Each of these territorial divisions is distinctively coloured on the map attached to this report.

3. The Province is divided in two by the Satpura uplands, extending from the Rewa State on the eastern boundary to the confines of Khandesh on the west. Upon these uplands are situated the districts of Betul, Chhindwara, Seoni, Mandla, and the northern half of Balaghat. To the north of the Satpuras and between them and the Vindhyan plateau (upon which the two districts of Saugor and Damoh are situated) lies the valley of the Nerbudda, comprising in it the districts of Jubbulpore, Narsinghpur, Hoshangabad and part of Nimâr, the rest of the district falling within the basin of the Tapti. To the south of the Satpuras the two main plain divisions of the Province are separated from each other by the watershed of the Wainganga and Mahanadi rivers. The former tract falls into the Nagpur Mahratta country; the latter is best known as Chhattisgarh. A reference to the topographical map will show very clearly the main physical features of the country.

The level tracts between the hills and Government jungle (which latter are shown in green on the map) are to be found in the centre of the Vindhyan districts and in the fertile valley of the Nerbudda. In the Satpura districts themselves there are open stretches of elevated plateau land in Betul, Chhindwara and Seoni. The Nagpur country to the south comprises the districts of Wardha and Nagpur of the Deccan trap country, and the three Wainganga rice districts of Bhandara, Chanda and Balaghat. The great plain of Chhattisgarh on the south-west is hemmed in on all sides by the hilly and forest-clad country included in the Feudatory States and Zamindaris. Chhattisgarh, properly so called, includes the districts of Raipur and Bilaspur, Sambalpur on the extreme east being geographically part of Orissa.

4. For administrative purposes the Province is divided into four divisions and eighteen districts, as shown below:—

Jubbulpore Division—	Nerbudda Division—	Nagpur Division—	Chhattisgarh Division—
Saugor.	Narsinghpur.	Wardha.	Raipur.
Damoh.	Hoshangabad.	Nagpur.	Bilaspur.
Jubbulpore.	Nimar.	Chanda.	Sambalpur.
Mandla.	Betul.	Bhandara.	
Seoni.	Chhindwara.	Balaghat.	

All the Feudatory States (except Makrai in Hoshangabad) are politically attached to Chhattisgarh, which they geographically adjoin. The Zamindaris (except the jagirs of Chhindwara in the north of the Satpuras) all belong to the districts of the Wainganga and Chhattisgarh. The most important of the petty chieftains through whom the former Native Governments used to administer the wilder and remoter territories were elevated by the British Government to the rank of Feudatories, the unimportant being designated as before Zamindars. The minor administrative functions exercised by the principal Zamindars are one by one being resumed; and in the case of those of Bhandara and Balaghat already there is no difference between the administration of the Zamindaris and the khalsa. In Chanda, Chhindwara and Chhattisgarh the process of resumption has been more gradual, but must eventually be complete as railway extension opens out the country and patriarchal methods give way to regular administration. A special chapter in this report is devoted to the Feudatory States and they need not be further mentioned now.

5. The foregoing description when read with reference to the map will have made it clear that, while in certain districts like Mandla and Betul hilly and forest-clad country predominates, every district contains some tracts of this kind, and in the Zamindari districts in particular the difficulties of administering famine relief are immensely enhanced by the remoteness and wildness of some of the Zamindari charges.

6. The population of the British districts according to the census of 1891 was 10½ millions, with an average density of 125 to the square mile including, and 160 to the square mile excluding, the Government forests. The approaching census will be of much interest; but as it is probable that the figures of immigration and emigration will have borne an important share in the changes which it discloses, any attempt to deduce the population from the annual record of births and deaths is not likely to give absolutely accurate figures; and it is better for all purposes to adhere to the numbers of the last census.

As a whole the population of the Province is sparse, but there are certain tracts, notably portions of the rice districts, in which the population attains a considerable density. The existence of large forest areas side by side with open, well-cultivated plains tends to obscure the true incidence of the population on area, but it will suffice, as districts must be dealt with as a whole, to give the incidence by districts. This is shown below in tabular form:—

Districts.	Area in square miles.	Area excluding Government forests.	Population by the Census of 1891.	DENSITY PER SQUARE MILE.		Percentage of urban population.
				Total.	Excluding forests.	
Saugor	4,007	3,217	591,743	148	184	11.3
Damoh	2,831	2,043	395,613	115	159	5.2
Jubbulpore	3,948	3,411	748,146	189	213	13.3
Mandla	5,056	2,321	339,373	67	146	1.5
Seoni	3,198	2,331	370,767	116	159	3.7
Total Jubbulpore Division	19,040	13,323	2,375,643	125	178	8.5

Districts.	Area in square miles.	Area excluding Government forests.	Population by the Census of 1891.	DENSITY PER SQUARE MILE.		Percentage of urban population.
				Total.	Excluding forests.	
Narsinghpur ...	1,916	1,644	367,026	192	223	5.2
Hoshangabad ...	4,024	3,329	493,053	115	159	8.3
Nimar ...	3,928	1,475	285,709	76	171	16.7
Betul ...	3,824	2,553	323,196	84	126	3.1
Chhindwara ...	4,630	3,925	407,494	88	104	6.8
Total Nerbudda Division ...	18,322	12,926	1,876,478	103	146	7.8
Wardha ...	2,428	2,257	400,854	165	177	11.1
Nagpur ...	3,832	3,309	757,862	197	229	28.7
Chanda ...	10,749	7,362	697,610	65	95	3.7
Bhandara ...	3,968	3,432	742,850	187	216	4.1
Balaghat ...	3,164	2,190	383,331	122	175	1.3
Total Nagpur Division ...	24,141	18,550	2,982,507	124	160	16.9
Raipur ...	11,724	10,330	1,584,427	135	153	8.2
Bilaspur ...	8,341	7,704	1,164,158	140	151	1.5
Sambalpur ...	4,948	4,555	796,413	161	175	1.8
Total Chhattisgarh Division...	25,013	22,589	3,544,998	142	157	1.9
TOTAL CENTRAL PROVINCES...	86,516	67,388	10,779,625	125	160	6.8

7. Among the most important sections of the population are the aboriginal races. These number about a fifth of the total, and of these the Gonds, once the ruling race of the Province, are the most numerous. The Gonds are found in all forest and hill tracts, and are also interspersed among the general population. There are also, of the more civilized aboriginals, the Korkus, found chiefly in Hoshangabad, Nimar, Betul and Chhindwara, the Kols who are more numerous in the Jubbulpore division, the Bhils of Nimar, and the Halbas in the Wainganga and Chhattisgarh districts. There are also yet wilder tribes to whom the plough is yet strange, among whom the principal are the Baigas of Mandla and Balaghat, the Marias of Chanda, and the Dhanwars of Bilaspur. These castes are really hunting tribes, for whom grain is a luxury and jungle roots and berries their ordinary diet, which they are said to supplement by eating field mice, lizards, and snails.

Intercourse with the population of the plains has considerably civilized some of the superior aboriginal races, but in the jungle tracts to which they retreated before the tide of Hindu immigration, they all retain most of their wildness and original simplicity. In the last famine, it was one of the most difficult problems how to bring relief to the Gonds and Baigas of Mandla and the Korkus of Betul; but these difficulties have been much reduced in this famine by the greater confidence which these tribes now feel in the European relief officers. In the Satpura districts the aboriginal races make up from 40 to 60 per cent. of the population, and in the plains districts the proportion in some cases is as high as 25 per cent.

8. Of the rest of the population the majority are immigrants from Hindustan, Berar and the Deccan, who still retain the characteristics of their place of origin. There are besides to be mentioned the Uriyas of Sambalpur, and the Telingas of Sironcha, the southern taluk of the Chanda district. Muhammadans are principally to be found in the towns, and of the remainder all may be counted as Hindus except the Mahars, or Dhers, and the Satnami Chamars of Chhattisgarh. The former are merely regarded as beyond the pale by respectable Hindu castes,

and accept their inferiority. The latter have thrown off Hinduism for upwards of 70 years; and owing to the antagonism between the two creeds, their presence in Chhattisgarh adds greatly to the difficulties of administration. They number some 400,000 souls, and make up the majority of the cultivating and labouring classes in Raipur and Bilaspur.

It will thus be seen that, accompanying the physical diversities of the country forming the Central Provinces, there are to be found among the people diverse creeds, races and languages, which tend to prevent absolute uniformity in the working of famine relief.

9. Agriculture is the sole employment of 64 per cent. of the population, and 5 per cent. out of the remainder are connected with agriculture as subsidiary to their regular occupation.

Occupation.

In 1891 the agricultural population were classified as follows :—

Land-owners	...	...	...	268,458
Tenants	...	...	...	4,633,579
Farm-servants	...	...	...	820,564
Field-labourers	...	...	...	1,115,636
Total ,				<u>6,838,237</u>

Among the non-agricultural population village servants and artisans number a million and a half, and among the latter 585,000 are classed as weavers and spinners, and the poorest classes of artisans, basket-makers and bangle-makers together number 100,000. When famine and high prices bring about distress these are the sections which suffer severely, but there is a very large class counted among non-agriculturists who are always able to turn their hands to agricultural labour when it is plentiful. These are the casual labourers or coolies, numbering 800,000. A considerable number of these can find employment in the large towns, though they are very much pinched by high prices, but those of them who fail in receiving this are left resourceless in famine times.

10. The proportion of non-agriculturists to agriculturists varies a great deal from district to district, but with the exception of the large weaving communities, who are the first to feel the stress of high prices which accompany the first beginning of famine, it is the agricultural and labouring sections of the population which succumb most rapidly; and it is therefore in the districts where the non-agricultural population is smallest that the largest number may be expected to resort to relief. Of the agricultural community
- Agricultural classes.** land-owners are generally possessed of resources sufficient to stave off actual distress, and the same may be said of a large proportion of the tenantry in the plains tracts; but, wherever aboriginal tribes contribute substantially to the tenant body, or where, as in Chhattisgarh, the distinction between the small tenant and the field-labourer is very slight, there will be found a large number of resourceless tenants with little or no credit to carry them over a long period of scarcity or famine.
- Landlords.**
- Cultivators.** Farm-servants in ordinary years are in a favourable position, but when distress becomes acute all but the well-to-do employers turn them off, and they go to swell the large labouring population out of work. The field-labourers, who at the best of times can only reckon on casual employment, are the worst off of all when the crops fail. These can, as a rule, count on field labour during the rains. There are, it is true, intervals between sowing and weeding, and between weeding and harvesting, when the demand for labour is slack, but their employers or the village banias will give a little credit, and they can save part of their earnings to carry them over the intervals. From the date of the kharif harvest to the end of the rabi harvest they are in fairly good case. From the middle of April to the middle of June is the hardest period. But Nature has come to the rescue with the harvest of

mahua (*Basis latifolia*), and, if the crop is favourable, they can lay by enough to carry them not only over this period, but to supply them with food when employment is slack in the rains. When the crops fail as completely as they did in the year 1899-1900, not only are the harvest earnings insufficient but employment is rigidly curtailed. Cultivators do for themselves what they would usually carry out by hired labour, there is no stock laid by to carry them over the intervals; and if the mahua crop be also scanty, there is nothing but starvation before them. Even when the succeeding rains once more start a demand for labour, the demand is restricted; the wages are small; these wages are paid in cash, and possess only half their usual purchasing power. There is nothing to tide over the intervals, and not until the next harvest is actually gathered is there any hope of improvement.

11. Outsiders unacquainted with the circumstances of the people are apt to look upon emigration to Assam or other sparsely populated parts of India as the panacea for these ills. What they overlook is that even in normal times there are seasons of the year when the labourers are insufficient for the employment available, and seasons when the employment is insufficient for the labourers. If a tenth of the labourers were to be removed, cultivation would decrease in much the same ratio, and the lot of the remaining nine-tenths would in no way be ameliorated. It is only when cultivation has reached its limit, and industrial employments do not absorb the increase in population, that emigration becomes an effective remedy. There may be tracts in the Province where the limit has been reached, but there are always adjacent to them other tracts ready to absorb an overflow of cultivators and labourers. Emigration of this kind, within the district or between adjacent districts, is constantly going on; and recovery from deterioration, as well as the scope for further progress, will for many years be ample to provide for increased population, if only Providence has better years in store.

12. The census statistics, taken at a time when the Province was in its most prosperous condition, shows that for every 100 persons in the landowning and cultivating classes there are only 55 of the farm-servant and field and general labourer classes, that is to say, only one labourer to every two cultivators. The wealthier the tenant and landlord body, the more labourers will they employ to do their work; the poorer they are, the fewer. The proportion borne by the labourers to the landlords and tenants affords a useful index to the powers of resisting famine pressure by the cultivating classes. Wherever the proportion of labourers to cultivators is small, it follows that many of the cultivators must be obliged to labour within their own fields and in those of their richer fellows. It is there that there will be very few labourers able to find employment in famine times, and that large numbers of the cultivators themselves will come upon Government for relief. The following is the proportion referred to in the various districts of the Province:—

Status of agricultural population judged by proportion of labourers to landholders.					
Districts.	Number of farm-servants and labourers to every hundred of the landlord and tenant class.		Districts.	Number of farm-servants and labourers to every hundred of the landlord and tenant class.	
Wardha	...	138	Nimar	...	54
Nagpur	...	91	Damoh	...	50
Hoshangabad	...	80	Betul	...	50
Chanda	...	80	Chhindwara	...	50
Saugor	...	78	Seoni	...	44
Narsinghpur	...	76	Sambalpur	...	44
Bhandara	...	71	Mandla	...	41
Jubbulpore	...	66	Raipur	...	39
Balaghat	...	63	Bilaspur	...	23

It is at once evident how in the Satpura districts and in Chhattisgarh a large proportion of the tenantry are labouring cultivators. The continuous bad seasons which have been experienced since the date of the census must have added both to labourers and labouring cultivators in all districts; it must have decreased the number of employers and increased the number of persons wanting employment. But, save in so far as particular districts have suffered more severely than others, the relative staying power of the cultivator in different localities cannot have been materially changed.

13. Allusion has just been made to the evil times on which the Province has fallen since the last census was made. A detailed account of the cycles of bad years which preceded the famine of 1896-97 was given in the preliminary chapter on the report on that famine, and it will suffice on this occasion to summarize how much of what was then given in detail, and to bring the information up to date, showing what has occurred in the period intervening between the two famines.

14. The land of the Province, though presenting very numerous and minor Agriculture and cropping. varieties, may be roughly resolved into four main heads :—

- (i) The deep black-soil lands.
- (ii) The shallow black-soil.
- (iii) The light sandy and stony lands.
- (iv) The rice lands where the surface yellow soil has been formed from metamorphic rock.

The first-mentioned lands are those most suited to the growth of wheat and cold-weather crops. During the rains they are too heavy and too apt to become water-logged, to suit cotton, juar, and autumn crops. In Chhattisgarh and in small areas elsewhere in the Province rice is also grown on these lands and is generally followed by a second crop of pulses, linseed or occasionally wheat. Heavy black soils of this kind abound in the northern districts, in parts of Wardha and Nagpur, and in the west of Chhattisgarh.

Land of the second kind is specially suited to the growth of cotton and juar. Where it is fairly deep it is well drained by natural position or by the character of the sub-soil. This soil is generally found where the underlying soil is trap and is most commonly met with in Wardha, Nimar and the west of Nagpur and Chanda.

Land of the third description is most common in the Satpura districts, and in the hilly areas to the north of the Province. The chief crops grown upon it are the small millets kodon and kutki, rains til, and the oilseed *jagni* or niger seed. In the trap districts to the west of the Province the stony lands will produce juar, tur, and even cotton if rainfall is favourable.

The last kind of land is found in parts of Damoh, Seoni and Mandla, and in the Murwara tahsil of Jubbulpore; but it has its largest extent in the Wainganga districts, and in Chhattisgarh, where it overlies sandstone or laterite. These are the chief rice-producing tracts of the Province.

In the Wainganga districts, and to some extent in Sambalpur, the practice of growing rice in nurseries and transplanting the seedlings into the prepared plots around the nursery is common, but everywhere else the crop is sown broadcast. In the Chhattisgarh districts there is a peculiar practice of thinning known as *bagsi*. When the plants have attained a certain height they are ploughed in, the plough being run crosswise to the original furrows made at sowing. This practice wastes seed, but cheapens the cost of weeding, and the advantages of the system are an article of faith in the agricultural creed of the Chhattisgarhi.

Normal agricultural features
of districts.

15. The rainfall and cropping of the several districts before abnormal seasons affected them are shown in the following statement :—

Districts.	Average rainfall.	PERCENTAGE OF CULTIVATED AREA					
		Under cold- weather crops.	Under cotton and superior autumn millets.	Under hill millets.	Under rice.	Irrigated.	Double- cropped.
	Inches.						
<i>Non-rice Districts.</i>							
Saugor ...	45	72	6	5	2	1	1
Damoh ...	49	61	6	11	10	0.5	2
Jubbulpore ...	58	59	4	15	16	...	6
Mandla ...	52	33	...	40	15	...	6
Seoni ...	53	47	3	19	13	3	3
Narsinghpur ...	51	58	6	11	4	...	3
Hoshangabad ...	51	65	6	6	2	...	0.5
Nimar ...	33	9	58	1	2	2	2
Betul ...	44	43	9	22	2	1	1
Chhindwara ...	44	39	25	10	...	1	...
Wardha ...	42	36	54	...	...	...	...
Nagpur ...	46	42	38	...	2	2	1
Average ...	47	47	17	12	5	2	3
<i>Rice Districts.</i>							
Chanda ...	50	42	13	...	26	22	3
Bhandara ...	55	29	3	1	64	29	19
Balaghat ...	65	19	...	3	77	23	24
Raipur ...	52	32	1	6	56	1	19
Bilaspur ...	47	29	1	4	59	4	16
Sambalpur ...	59	1	3	...	77	6	1
Average ...	55	23	4	2.5	59	14	14

16. The last decade, that of the nineties, has indeed been an unlucky one for the Province. The year 1890-91 was rather too wet, the year 1891-92 rather too dry for the spring crops, although neither year was a really bad one. With the year 1892-93 began a cycle of wet years which reached its climax in the year 1894-95. In each of these three years *juar* and cotton, in many places *kodon*, and in the Wainganga districts rice, suffered severely from excessive and protracted autumn rains, while moist and unseasonable weather in the cold-weather months played havoc with the spring crops. The damage done to these was greater in the northern districts than in the southern. In 1894 the wheat crop in Saugor and Damoh was almost totally destroyed by rust; and in 1895 rust again attacked and partially ruined the wheat and almost destroyed the linseed over the greater part of the Province.

In 1895-96 began a cycle of dry years. The rice and late millets suffered very greatly, and the spring crops were deficient both in area and outturn.

Then came 1896-97, the year of the famine. Until the end of August all seemed well, but after that date the rain was scanty and unevenly distributed. Cotton and *juar* escaped to some extent, but the unirrigated rice crop perished or

gave a miserable yield. Rain at the end of November came to the rescue of the spring crops, but it was not universal, and even where it secured good yields of wheat and gram, it was too late to affect sowings which were everywhere deficient. The year 1897-98 was a much better one. All autumn crops were good, but again the rain of October and the cold weather was scanty, and the spring crops were only fair. In 1898-99 the rain of July and August was very heavy, that of September light, and from October to February no more fell. The autumn crops were only fair, and the spring crops in places fair, but generally poor. In spite of their defects, however, these two years gave some promise of recovery, when the Province was smitten with the greatest calamity of all, the total failure which has caused the famine of 1899-1900. Figures will presently be furnished to show what effect these persistent failures have had on the character of the cultivation and the resources of the people, to which will be added the results on the cropping and outturn of the failure of 1899. But the circumstances under which that failure came about have first to be described.

17. The character of the kharif crops and the prospects of the rabi depend entirely upon the regularity and timeliness of the monsoon rains, June to October. If these have been favourable, the autumn crops prosper, and the safety of the spring crops from serious damage by drought is assured, though timely cold-weather showers may much improve their yield or excessive rain ruin it. Plentiful rain during June, July and August lays the foundation of good autumn crops, but the fruition of these depends on the character of the rain in the months of September and October, and it is also upon the rain of these months that the successful sowing, germination, and healthy up-springing of the rabi crops depend. Statement I of the Appendices shows month by month for each district the average rainfall and the rainfall of the agricultural year 1899-1900. In the lean years of this closing decade, as well as in the famine year of 1896-97 itself, the chief feature of the monsoon rainfall has been satisfactory or even excessive—rain in the months of June, July and August followed by abnormal conditions either of drought or of incessant rain in the autumn months. But in 1899 it was in these very monsoon months that the rain failed, and there were no compensating falls in the autumn to redeem the failure.

18. There had been abnormal showers in the months of April and May which many read as an omen of disaster. The monsoon was rather late and very weak, and the falls of June were generally scanty. Sambalpur and the districts of the Jubbulpore division received a fair amount from the Bay current, but the rest of the Province received only between a third and a half of its normal fall. This defect of the rainfall would have had no evil consequences had the rain of July been copious. But in that month the Arabian Sea current retreated. Sambalpur and the Jubbulpore division again obtained satisfactory and in some districts normal rain from the Bay monsoon, but in the rest of the Province there were only scattered local showers. Towards the end of July rain ceased all over the Province, and by the end of the month the situation had become critical. This was especially the case in the western districts, in which the recorded falls of the month were only the following:—

			Average for July.	Actuals in July 1899.
Wardha	...	...	12.58	1.09
Nimar	...	...	8.89	3.05
Betul	...	...	13.64	5.69
Chhindwara	...	...	11.03	4.42
Nagpur	...	...	13.36	3.54
Chanda	...	...	16.35	1.92
Bhandara	...	...	15.93	3.21

The rain fell in light falls of a few cents and dried up almost as it fell. In Wardha there was not a blade of grass to be seen over the greater part of the district. In a few favoured localities, where showers had been heavier, the cotton and juar plants survived; but in most of the district they were withering fast; and in some villages nothing had even been sown. In the rice districts of the Wainganga valley the young rice nurseries and the broadcast seedlings stoutly held out. It was

reported to the Government of India that rain must fall by the 10th of August to save the country from famine. Meanwhile in Raipur and Bilaspur the rain though scanty was sufficient to keep the crops alive; but the rice fields held no water and the plants were stunted.

19. At last on the very day named, the 10th of August, a storm from the Bay of Bengal swept across the Province and gave welcome rain. But the Arabian Sea current failed to be drawn into the storm area; the depression filled up; and by the 14th the weather was once again clear and hot. In the hope that further rain might fall attempts were made to transplant rice in the Wainganga districts, and to do *beasi* in Chhattisgarh; but, as the water rapidly dried up, these operations were soon brought to a standstill and remained very incomplete. As the month wore on uneasiness began to spread to the northern districts. At the end of August however there was another spell of rain which was specially heavy in Bilaspur, and fairly heavy in Chanda and the other rice districts. *Beasi* and transplanting were again pushed on, but it was already very late for these operations, and the chance of a good rice crop became very small. In several districts however this rain also gave only scattered showers, and in the following districts the August falls were totally insufficient:—

			Average.	Actual.
Saugor	...	...	13.12	3.06
Seoni	...	...	12.98	3.69
Hoshangabad	...	...	15.30	4.62
Nimar	...	...	8.24	1.95
Betul	...	...	11.94	1.86
Chhindwara	...	...	7.62	3.29
Nagpur	...	...	9.63	2.69

In Wardha though the August rain was 6 inches it was uneven in distribution, and owing to the state of the district in July it did but little good. The cultivators did their best by resowing, in some cases for the second time, a great deal of *juar* and cotton; but neither the young crops which then sprang up, nor the stunted plants surviving from former sowings, gave much hope of success.

20. September opened with clear weather with passing clouds and great heat, and the hopes of cultivators were almost gone when from the 12th to the 15th another disturbance from the east gave some more rain. But it was again unevenly distributed. Mandla, Jubbulpore, parts of Hoshangabad, Wardha and Bhandara received the most, but in the rest of the Province the falls amounted to barely an inch, and in Betul and Nimar to barely half an inch. For a few days hopes revived in some of the districts; but these were soon dispelled by a return of fine hot weather and no further rain fell. Except in a few localities in Mandla and Damoh, and in the east of Sambalpur, where the rainfall up to the end of August had been normal, the rice crop had almost totally failed, and in parts of Bilaspur what the drought spared the grasshoppers ate. Over the Wainganga rice districts and the Chhattisgarh plains only a few of the best localities where irrigation was available yielded some rice crop, but the rainfall had not been enough to fill the tanks and it was only a few of the larger tanks which held water.

21. Outside the rice tracts the principal autumn crops are *juar*, cotton, tur, til, and the small millets *kodon* and *kutki*. Of the last mentioned the earlier sown gave some yield, except in Betul, where the drought had been most intense; but the yield was very small. The later sowings were either impossible or failed to germinate. *Juar* was expected to yield something, and indeed in the middle of September it was hoped that the crop might (outside Betul and parts of Wardha where it had already failed) even yet give an average yield. But this hope proved vain.

the alternate showers and heat had forced the juar plants to a premature maturity, when insects, which flourish in times of drought, attacked the sheaths. The roots could draw no moisture from the ground, and the plants failed to put out ears. The only juar which gave an appreciable yield was the *ringai* or cold weather variety. This crop was sown somewhat extensively in parts of Nagpur, Chanda and Bhandara. It proved of service in a few localities, but was not important enough to affect the general situation. The tur crop survived for a time, but eventually began to dry up rapidly. Cotton and til, which can withstand drought better than any other crops, and usually in this Province suffer from excessive moisture, fared the best, and gave considerable yields in the northern districts and Chhattisgarh; even in Nagpur and parts of Wardha and Nimar they yielded in some parts an average crop, though in others they failed completely.

22. The rainfall was so extraordinary and abnormal that generalizations as to the outturns of the crops became impossible. One tract persistently received light showers when a neighbouring tract went absolutely dry. From village to village, nay even from field to field, there were wide differences of condition and outturn. A few days' difference in the time of sowing might have made all the difference between total failure and a moderate yield. Estimates of crop whether by areas or percentages are always difficult. In a season like that of 1899-1900 accuracy is impossible. In the following table is shown the actual and average rainfall of the months June to November, and the average yields of the chief autumn crops so far as they are capable of being estimated :—

Districts.	RAINFALL—JUNE TO NOVEMBER.			YIELDS OF PRINCIPAL CROPS (100 = NORMAL).					
	Average of 31 years.	Actual of 1899.	Percentage of average.	Rice.	Kodon.	Juar.	Cotton.	Tur.	Til.
	Inches.	Inches.							
Saugor	45.49	22.52	49	12	15	52	79	45	90
Damoh	48.84	29.26	59	22	45	60	100	30	120
Jubbulpore	56.26	33.88	60	...	15	35	100	60	80
Mandla	49.23	27.59	56	40	45	} Production insignificant. }		60	85
Seoni	50.26	21.81	43	15	50	30	105	30	90
Narsinghpur	49.84	23.15	46	30	15	30	90	75	100
Hoshangabad	48.89	21.98	45	15	30	37	70	50	70
Nimar	31.24	8.09	26	...	...	...	25	35	25
Betul	44.67	10.72	24	7	25	15	45	15	60
Chhindwara	40.56	11.46	28	...	25	15	45	15	60
Wardha	39.80	12.81	32	...	...	20	45	15	30
Nagpur	44.65	13.21	30	...	7	45	45	45	50
Chanda	48.59	18.92	38	4	60	45	90	60	30
Bhandara	52.60	21.28	40	5	40	30	...	45	90
Balaghat	60.50	29.93	49	15	55	} Production insignificant. }		50	100
Raipur	50.70	22.42	44	15	45			71	45
Bilaspur	45.50	33.23	70	22	60			100	90
Sambalpur	55.16	45.51	82	37	60	...	105	45	45

23. It will be observed from this table that the districts of Nimar, Betul, Chhindwara, Wardha, and Nagpur received less than 33 per cent. of their normal rainfall, and Chanda only 38 per cent. The fact will be found significant when later on the cause of high mortality

in these districts comes to be considered. On the other hand, the Nerbudda valley and the eastern districts generally fared much better. Although the value of rainfall to crops depends often more upon its distribution than its total amount, yet even so far as crops are concerned the total amount cannot be ignored, while in respect to water and fodder-supply it is all-important. In the rice districts though the proportion received was higher it was not sufficient to avert the failure of the rice crop. The rainfall in Bilaspur was all concentrated into August, and in September the fall was trifling, but the higher proportion of rain then received resulted in saving a great deal of the kodon and tur, and made cotton and til yield well. Were it not that these crops are relatively so unimportant beside rice, they would have materially affected the situation. As it was the kodon and rahar crop in Bilaspur (especially in the Mungeli tahsil) considerably postponed distress. The rice also was better in that district than in Raipur, so that the higher rainfall it received was not without effect.

24. But it is with respect to the rabi crops that the effect of the larger History of the rabi season proportional rainfall told most. The land, owing to the long interval of clear weather during the rainy season, had been prepared as it had never been prepared before. Cultivators desperately hoped against hope that if the autumn crops failed them they might get some recompense in the rabi. But after the cessation of rain in the middle of September prospects became everywhere most discouraging, and in the most severely drought-stricken districts well nigh hopeless. In those districts a great deal of the usual rabi area was left unsown, while on that sown much seed failed to germinate, and a great many of the young plants withered after germination. Rain in December would still have saved some, but no rain fell. In the rest of the districts, however, though the area sown was much below the average, there was sufficient moisture in the soil to admit of fair germination, and to keep the plants alive a little longer, until some showers in January refreshed and rescued them from failure. Later on some showers fell in February, too late to do any good in the south of the Province, but useful to the later crops in the north. The yields of the chief rabi crops were in the end returned as follows :—

Districts				OUTTURN OF RABI CROPS (100=NORMAL)			
				Wheat.	Gram.	Masur.	Linseed
Saugor	...	...	...	70	55	15	24
Damoh	...	...	..	75	75	37	45
Jubbulpore	...	...	...	50	60	20	15
Mandla	...	...	...	100	75	60	70
Seoni	...	...	...	60	50	30	15
Narsinghpur	..	...	...	60	45	15	30
Hoshangabad	...	...	...	45	60	30	20
Nimar	...	...	..	85	60	90	Nil.
Betul	..	...	.	40	50	15	15
Chhindwara	..	...	.	35	35	15	23
Wardha	...	...	...	7	15	7	Nil.
Nagpur	...	...	...	15	45	7	7
Chanda	...	...	...	14	60	..	5
Bhandara	...	...	...	10	50	15	5
Balaghat	...	...	...	10	30	5	5
Raipur	..	...	...	27	60	7	4
Bilaspur	...	...	..	30	45	30	13
Sambalpur	...	...	...		Production	insignificant.	

Linseed was practically a universal failure, for the area producing it in Mandla is very small. Wheat gave a fair yield in the northern districts, and just escaped failure in Chhattisgarh. In Nimar the outturns given refer to the crop raised by well irrigation, the only areas in which it was attempted to grow a rabi crop. But in the Nagpur division, beyond a certain amount of gram, it may be said that there were no rabi crops worth reaping.

25. The disastrous results of the successive failures and famines upon the agriculture of the country are shown by the changes in cropping and the outturns of the past years. The following table gives the statistics of cropping between the years 1893-94 and 1899-1900 :—

Years	Kharif	Rabi.	Total	Double-cropped	Net cropped	Irrigated.
	Acres	Acres.	Acres.	Acres	Acres.	Acres.
1893-94	10,067 581	8,023,105	18,090,686	1,803,784	16 286 902	662,789
1894-95	10 422 811	7,357 287	17,780 098	1,715 997	16 064 101	624,785
1895-96	11,215,624	5,598,468	16,814,092	1,206,792	15 607,300	767 821
1896-97	11,367,577	4 340,146	15 707 723	565,069	15,142 654	790,596
1897-98	11,616,911	4,920 495	16,537,406	1,148 750	15 388,656	562,735
1898-99	11,713 991	5 414 465	17,128 456	1,235,684	15 892 772	654 196
1899-1900	11,622,396	3,421,410	15 043,806	167,855	14 875 951	352,232

There was a steady decline in the cropped area culminating in the famine of 1896-97. In the two following years there has been some slight recovery, but the failure of 1899 has reduced cropping to a figure the lowest on record. For the last five years there has been no rain in October and the area under rabi crops was nearly 5 million acres below the normal in 1899-1900. Of this decline part is accounted for by the substitution of cheaper kharif crops, and a great deal by the decrease in double-cropping, which was practically impossible in the dried-up rice fields of the southern districts; but a million and a half acres of the old cropped area are lying fallow. In particular districts the deterioration has been very great as the following figures show. So far as this decline is due to loss in double-cropping (and this accounts for a third of the decline in Balaghat) it will be made up in good seasons, and is temporary only, but the rest of the damage may take many years to fully repair :—

Years.	CROPPED AREAS PLUS AREA DOUBLE-CROPPED.				
	Saugor.	Damoh.	Seoni.	Betul.	Balaghat.
	Acres	Acres.	Acres.	Acres	Acres.
1893-94	1 040 671	586,251	762 340	661,744	628,002
1896-97	756,157	432 339	577,700	586,148	400,397
1899-1900	692,989	420 933	556,167	456,268	300,032

The figures relating to irrigation tell their own tale. In 1896-97 nearly 800,000 acres were irrigated. In 1899-1900 every acre that could be watered required it; but tanks did not fill and wells gave out, and the irrigated area dropped to 350,000 acres. A great deal of this area was irrigated very imperfectly.

26. The following statement contains an estimate of the actual outturn on the actual area expressed as a percentage of the normal outturn* on the normal area of each district during the past seven years:—

Districts.	1893-1894.	1894-1895.	1895-1896.	1896-1897, Famine.	1897-1898.	1898-1899.	Average of six years.	1899-1900, Famine.
Saugor ...	37	47	50	42	61	35	45	32
Damoh ...	54	49	41	32	71	43	48	43
Jubbulpore ...	66	50	47	49	93	69	62	25
Mandla ...	85	91	53	32	95	74	72	43
Seoni ...	85	76	65	38	73	64	67	34
Narsinghpur ...	79	49	73	40	102	63	68	38
Hoshangabad ...	67	50	65	37	71	61	58	32
Nimar ...	92	88	88	60	116	92	89	16
Betul ...	82	85	56	42	83	73	70	20
Chhindwara ...	107	92	79	59	107	83	88	26
Wardha ...	65	61	89	54	109	70	74	29
Nagpur ...	83	54	85	67	115	85	81	35
Chanda ...	53	64	77	62	109	72	73	27
Bhandara ...	64	58	53	41	98	72	64	12
Balaghat ...	60	66	62	20	58	60	54	11
Raipur ...	105	86	53	40	81	69	72	16
Bilaspur ...	86	79	47	32	87	80	69	18
Sambalpur ...	107	104	84	84	103	96	96	39
Whole Province ...	78	73	68	56	89	73	73	26

Nothing can show more emphatically than these figures the intensity of the famine of 1899-1900. The failure of crops has been more than twice as severe as that of 1896-97. In that year there were five districts which reaped outturns amounting to three-fifths of a normal crop on a normal area; in this only two districts have got in as much as 40 per cent. In that year only one district (Balaghat) failed to get 30 per cent. of a normal yield; in this year no less than ten districts have reaped less than that amount. Five of these latter have had less than a fifth, and of these five four have secured less than a sixth, and two actually less than an eighth of a normal crop.

Causes differentiating effect of the crop failures.

27. The situation in each district naturally varied a good deal with reference to—

- The intensity of the failure of 1899.
- The distribution of the failure over the district.
- The resisting power of the district with reference to its past history, and particularly with respect to the extent to which it suffered in the famine of 1896-97, and the crops it enjoyed in the two intermediate years.

28. In the Jubbulpore division the past history had been most unfavourable in Saugor and Damoh; but the yields of the year were not so universally bad as in the last famine. The

* The outturn estimates given in the last Famine Report have been corrected to the ratio 100 = 13'3 annas.

khariḥ-growing tracts of Damoh and the Khurai tahsil of Saugor and a few small tracts scattered over the district bore the brunt of the losses. Hence distress was more localized there than in the last famine. In Jubbulpore also the area of very disastrous failure was confined to the north of the district, and the rest suffered more from scarcity than famine. Its previous history was better than that of the Vindhyan districts. The district had had its severest losses in the wet years of the first half of the decade. Mandla had a better yield than other districts, and had picked up a good deal in the two preceding years. Seoni had a bad past history, but in 1899-1900 the northern tahsil of Lakhnadon enjoyed a larger rainfall, and the severe failure was concentrated in the rice tracts on the north and east of the district. But for the total failure of the rice its yields would have been at least as good as those of Mandla and Damoh.

The relative position of each district can to some extent be judged by the following statement:—

Districts.				Famine, 1896-97.	Average of two years intervening.	Famine, 1899-1900	Average of all four years.
Saugor	...	...	...	42	48	32	40
Damoh	...	...	.	32	57	43	45
Jubbulpore	..	...	.	49	81	25	59
Mandla	...	...	...	32	85	43	61
Seoni	...	...		38	68	34	52

29. In the Nerbudda division the best crops of the year were those of Narsinghpur (38 per cent.) : the worst those of Nimar (16 per cent.). Betul with a poor past history was next worst, but Nimar (except Harsud, added in 1896 from Hoshangabad) was in a strong position to stand a failure. Hoshangabad had a long list of failures, but the area of failure has somewhat shifted in that district from east to west in this famine. Past years have been more favourable in Chhindwara, and the areas most affected were not those which had suffered in the last famine. The statement for the division is as follows:—

Districts.				Famine, 1896-97.	Average of two years intervening.	Famine, 1899-1900.	Average of all four years.
Narsinghpur	...	...	...	40	83	38	61
Hoshangabad	...	...	...	37	66	32	50
Nimar	...	...	...	60	104	16	71
Betul	...	...	...	42	78	20	54
Chhindwara	...	...	...	59	95	21	69

30. In the Nagpur division, Wardha and Nagpur both suffered as they never had before, but both had escaped severe failure in 1896-97. Chanda lost its rice crop totally ; and as the rice tracts are well defined, it really fared as badly as Bhandara and Balaghat. Its non-rice tracts fared somewhat better and raised the district average. In Balaghat the Lanji tract in the east of it got some rice and the plateau tahsil of Behir some

millets, but portions of Bhandara did considerably better with juar and rabi. In the end there was but little to choose between the Wainganga districts; but Bhandara and Chanda have had better past histories than Balaghat. The figures for the division are :—

Districts.	Famine, 1896-97.	Average of two years intervening.	Famine, 1899-1900.	Average of all four years.
Wardha	54	89	29	65
Nagpur	67	100	35	75
Chanda	62	90	27	67
Bhandara	41	85	12	56
Balaghat	20	69	11	37

31. In the Chhattisgarh division it may be said that both Raipur and Bilaspur entirely lost their rice crops as well as the second crop known as *utera* which is sown broadcast in the best rice fields. Both districts had suffered in the past, but had picked up somewhat in the years between the two famines. Sambalpur had escaped previous failure; and in 1899-1900, though the district outturn works out to 39, there was a marked contrast between the east and west. In the west, especially in the large Phuljhar and Borasambhar estates, the crop was less than 20 per cent., while in the east it was moderately good. The figures for the division are as follows :—

Districts.	Famine, 1896-97.	Average for two years intervening.	Famine, 1899-1900.	Average of all four years.
Raipur	40	75	16	51
Bilaspur	32	84	18	54
Sambalpur	84	100	39	80

32. It is impossible to appraise accurately the extent to which previous history will modify the distress occasioned by the failure of a particular year. When that failure is as complete as it was in Nimar, Wardha, and Chanda, previous harvests cannot prevent distress though they may prevent permanent deterioration. Past experience has shown that a district in which the crops fall below 40 per cent. of the normal yield is certain to suffer some distress. The character of the population and the condition and numbers, absolute and relative, of the cultivating and labouring classes, the proportion of aborigines, all play their share in its actual amount and distribution. The pressure and effects of the famine which actually followed form the subject of the next chapter; but when the average yield of the Province as a whole during the past seven years has only been two-thirds of a normal crop, what is to be expected in districts which during that period have lost the equivalent of three and even four years crops?

CHAPTER II.

PRESSURE AND EFFECTS OF FAMINE.

33. As the previous chapter has shown, the adversities of the past few years have been such as to shake the confidence of the people in the regularity of the seasons. The showery weather experienced in April and May 1899 at once suggested something abnormal to come. Predictions of failure were in the air, and the character of the rainfall in July in the west and south of the Province gave confirmation to these gloomy prophecies. A despondency began to prevail which the rain of August and mid September, though it temporarily checked, could never quite remove. When, accordingly, the final cessation of the rains after the 15th September crushed all hopes of the autumn crops, the blow though severe had for some time been expected. But the spirits of the people sank to a lower level than at any subsequent period of the famine. Over half the Province scarcity of fodder and water was added to the failure of food crops; and men talked wildly of a total loss of plough-cattle and of horrors of thirst to be added to the pangs of hunger. In the midst of the general panic there were, however, two circumstances tending to inspire confidence. In the first place, the people saw a large organization of famine relief springing up in their midst, showing that the Government was ready to give assistance to all who needed it; and in the second place, the North-Western Provinces and Bengal, the two provinces to which the Province has become accustomed to look for help in times of scarcity, were not, as in 1896, themselves threatened with failure. These two causes mitigated the intensity of the panic of September and October, and when, as time went on, famine-relief organization kept on expanding to meet the growing distress, while supplies from the east came pouring in, the greatest apprehensions were allayed. Relievers and relieved alike set themselves to go through with the struggle that lay before them in the strong confidence that, though long and hard, it would be in the end successful.

34. The organization and development of famine relief will be separately discussed in a later chapter; the present chapter deals with prices, food-stocks, and trade, which act and re-act upon each other, with the effects of these circumstances upon the people as shown by crime and migration, and with the condition of the supply of water and fodder, which have so important a bearing upon an agricultural community.

(a) THE COURSE OF PRICES.

35. Statement II of the Appendices shows the prices of the chief staples in each district throughout the famine. Prices began to rise sharply during August and September; but it was not till the end of the latter month that the upward bound of panic, which always accompanies the imminency of certain famine, occurred. The kharif harvest, such as it was, was a month early; but this had hardly any effect on prices, and it was not until rice from Burma and Bengal began to come in that they became easier. The spring harvest, like the kharif, was also a month earlier than usual. Its effect on prices, even where the crop was at all considerable, was very small. In fact from the time when the Bengal rice reached the markets of the Province until the end of the hot weather there was no very marked change in prices. When the rains commenced difficulties of communication began to tell and prices rose. They continued at this higher level until the harvesting of the early crops began to relieve the situation.

36. In the following table is shown for each of the various distinctive tracts of the Province, the average price of the cheapest staple food-grain during the various distinctive periods of the famine. The periods are entered in the first column, the distinctive tracts are grouped as follows:—

Differences in different tracts and seasons.

- I.—Vindhyan and East Nerbudda Valley, including the districts of Saugor Damoh, Jubbulpore, and Narsinghpur.
- II.—Eastern Satpura district—Mandla.
- III.—Western Satpura districts—Seoni, Betul, and Chhindwara.
- IV.—Western Railway districts—Hoshangabad, Nimar, Wardha, and Nagpur.
- V.—Wainganga rice districts—Chanda, Bhandara, and Balaghat.
- VI.—Chhattisgarh.

In the first two tracts the rainfall was not so deficient as elsewhere, and the failure of crops was not so great. The next two tracts include those districts in which the drought was most severe. The last two represent the rice districts where the failure was most extensive and universal.

Period.	Description.	PRICES IN SEERS PER RUPEE OF CHEAPEST STAPLE.					
		I. Vindhyan and East Nerbudda Valley.	II. Mandla.	III. Betul, Chhind- wara, and Seoni.	IV. Western railway districts.	V. Wain- ganga rice districts.	VI. Chhattis- garh.
Normal prices		20	24	20	20	16	17
(i) August 15th	Failure threaten- ing.	17'90	26'00	17'33	19'32	15'15	17'48
August 31st		15'42	20'00	15'53	14'75	13'50	15'82
September 15th		14'20	19'00	13'64	14'71	11'30	14'74
(ii) September 30th to November 15th.	Period of panic	10'66	13'87	10'36	9'46	8'71	11'86
(iii) November 16th to January 31st.	Effect of kharif har- vest and beginning of imports.	11'78	15'00	10'06	10'18	10'20	10'88
(iv) February 1st to April 15th.	Rabi harvest imports continue.	11'88	14'87	10'22	10'24	10'65	10'68
(v) April 16th to June 15th.	Hot weather	10'39	13'00	9'04	10'05	9'22	10'44
(vi) June 16th to August 31st.	Anxious period; com- munication difficult.	10'05	10'00	8'29	9'69	8'06	9'90
(vii) September 1st to October 31st.	Promise of new har- vest.	10'73	10'25	10'46	10'62	9'20	12'42
(viii) November	Harvesting general	15'69	12'00	13'43	12'97	10'54	13'12
Average prices during periods of actual famine (ii) to (vii).		10'91	12'83	9'74	10'04	9'34	11'03
Compare average prices of famine of 1896-97.		9'48	9'20	10'03	9'91	9'03	9'58

37. There are several features which attract attention in this table. The most trying periods of the famine were during October 1899 when the greatest alarm was felt, and in July 1900 when the delay in the establishment of the monsoon occasioned a renewal of that alarm. Difficulties of communication were also added to the anxieties of the rainy season in making prices high. In the first two tracts the harvests postponed the full rise for some time, while in Chhattisgarh,

Commentary on above; and comparison with prices in 1896-97.

which is most accessible to Bengal, the effects of panic were less marked and the steady and continuous imports kept prices down. The sufferings of the districts which are included in groups III, IV and V, were enhanced by the afflictions of their neighbours, Berar and Bombay; they were furthest from the source of supplies, and they had suffered most from the drought. In group III particularly distance from the railway was most felt, and this was the only tract in which prices were on the whole higher than in the previous famine. Everywhere else, in spite of the greater failure that occurred, prices kept lower than in 1896-97, by amounts varying from half a seer to a seer and a half to the rupee.

The amount of food-stocks and extent of imports will presently be examined; but in illustration of the enormous extent to which Bengal rice influenced the prices of the famine, it may be mentioned that in districts which habitually have to import their rice, its price was not very much above normal, and it was not infrequently the cheapest instead of as usual the dearest food-grain. The highest price reached by the cheapest staple in each district at any period of the famine is shown in the following table:—

Districts.	Highest price of cheapest staple at any time.	Compare last famine.	Districts.	Highest price of cheapest staple at any time.	Compare last famine.
Saugor	10'29	8'23	Wardha	10'00	*8'00
Damoh	10'00	6'66	Nagpur	9'70	8'62
Jubbulpore	10'00	9'00	Chanda	7'86	7'60
Mandla	10'00	7'75	Bhandara	8'25	7'50
Seoni	9'00	8'50	Balaghat	7'00	6'25
Narsinghpur	8'00	7'53	Raipur	9'75	7'50
Hoshangabad	8'47	7'46	Bilaspur	9'84	7'11
Nimar	8'08	7'53	Sambalpur	9'25	8'25
Betul	7'68	6'40	Average highest price for the Province.	8'94	7'08
Chhindwara	7'27	7'60			

As in 1896-97, the largest excess over normal prices occurred in the non-railway districts.

38. The prices above-quoted all refer to head-quarter markets. There were of course deviations in the interior. Tiura or lakh (*lathyrus sativas*) was freely sold in the northern districts, generally as a mixture with gram, and was a little cheaper than gram. Kodon and kutki were also procurable at cheaper rates in Damoh and Mandla, and in parts of Seoni, Chhindwara and Balaghat. Generally speaking prices in the interior were lower only in those parts in the north of the Province where some autumn crops were reaped; but, over the greater part of the Province, where prices were regulated entirely by the rate of Bengal rice, grain was procurable in the interior at places remote from the railway only at prices considerably above those quoted, and at one period of the rains rice touched six seers in out-of-the-way localities. Juar and the millets were often not procurable at all.

39. Another remarkable feature is the very slow recovery of prices after a good harvest was assured. The harvest of early millets which are important in the two northern divisions has saved the situation, and these cheap food-grains were procurable during October and November at 14 or 15 seers. The access of a cheap food-supply has acted upon other prices too in these districts. In the south, however, where there has been no similar replenishment, prices have fallen much more slowly, and even by the middle of December rice was still 8 seers in Chanda. A very short area of early rice and a very late harvest of the heavier varieties are the alleged causes of this rate being maintained in spite of a fall in all the other rice districts. They have now (the end of December) at last given way. Rice has fallen to 10 and juar to 15 seers.

(b) FOOD-STOCKS AND MOVEMENTS OF GRAIN.

40. In the two years which preceded the famine of 1896-97, the yield of food-grains was barely sufficient for the requirements of the Provinces; and the supplies yielded in that year of famine required to be supplemented by imports. Stocks at the close of that famine in the hands of the people must have been insignificant. In September 1899, therefore, when this greater famine began, the only stocks existing were the unconsumed balance of the supplies yielded by the harvests of 1897-98 and 1898-99.

41. It has been estimated that in the khalsa tracts of the Province (including the Zamindaris of Bhandara and Balaghat for which survey returns have been longest complete), the full yield of food-grains would be about $3\frac{1}{2}$ million tons, but that, taking one year with another, the average yield may be placed at 3 million tons. Consumption by man and beast and seed requirements are estimated at from 2 to $2\frac{1}{2}$ million tons according as plenty or scarcity prevails, and about half a million tons are on an average available for export. These figures are of course of a very rough description, but they have been worked out on the only data available, and until they can again be revised in the light of later information they must perforce hold good for the tracts which they represent and for the population of about 10 millions which inhabit these tracts.

Until the period of bad years began the position was something as follows —

		Tons
Total production of seven years ending 1892-93	.	21,000,000
Traffic of seven years ending 1893-94—		
Exports	...	2,538,466
Imports	...	116,830
Net exports	...	2,421,636
Net amount available for consumption	...	18,598,364
Estimated consumption of seven years	...	17,500,000
Balance = Stocks	...	1,098,364

42. According to this computation the Province began the cycle of bad years with stocks of about a million tons, but grain being a perishable commodity, about four years' balance alone can safely be estimated as available at any one time. This would give stocks of about 600,000 tons on the 1st April 1894. The crops of 1893-94 and 1894-95 produced about a year's consumption each, the net exports falling to 144,000 and 90,000 tons respectively, amounts of comparative insignificance. When the dry years succeeded the wet cycle stocks in hand could not have been

increased. The production, trade and consumption of the succeeding years is estimated below :—

Agricultural year.	Production of khalsa.	Calendar year.	TRAFFIC OF CALENDAR YEAR.			Balance available for consumption.	Estimated consumption.	Stocks.
			Exports.	Imports.	Net.			
	Tons.		Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Balance from previous years...	600,000	...	...	...	...	...	...	600,000
1895-96 ...	1,800,000	1896	151,594	37,859	Exports. -113,735	1,686,265	2,000,000	286,265
1896-97 ...	1,390,000	1897	68,052	102,134	Imports. +34,082	1,424,082	1,600,000	110,347
1897-98 ...	2,750,000	1898	216,376	20,084	Exports. -196,292	2,553,708	2,250,000	414,055
1898-99 ...	2,250,000	1899	185,151	102,307	-82,844	2,167,156	2,000,000	581,211
1899-1900 ...	833,500	1900*	31,557	395,150*	Imports.* +363,593	1,197,093*	1,500,000	278,304

* For 9 months only.

43. Owing to the time over which the harvesting of both seasons is spread, it is not possible to refer the trade of any particular period to the harvests of the year with any exactitude. The nearest approximation may perhaps be arrived at by taking the trade of the calendar year which represents the second of the two years included in a given agricultural year. Thus, if the year in question is 1894-95, the crops are reaped in December 1894, and March-April of 1895, the trade of the year 1895 will be governed by those crops which must suffice to feed the people at least until December 1895. The only figures in the table which can be accepted with assurance are those of trade. The figures of production and consumption are estimates. The estimates of production have been arrived at by calculating outturns on area. Those of consumption require a word of explanation. It has been stated that in normal times the annual consumption of 10 millions of population may be placed at $2\frac{1}{2}$ million tons; which allows one ton (28 maunds) to every four persons, or 7 maunds a head. If we take 6 maunds per head per annum the total is 2,142,857 tons, leaving a large balance to represent seed requirements, and consumption of animals. Six maunds however are equivalent to 492 lbs. per annum, or 1'34 lbs. per diem per head. When times are hard 5 maunds, and in times of actual famine 4 maunds, would probably represent total consumption. At these rates human consumption would amount to the following :—

	Tons.
At 5 maunds ...	1,785,720
At $4\frac{1}{2}$ maunds ...	1,607,148
At 4 maunds ...	1,428,575

If allowance is made for grain consumed by animals and used as seed, consumption may be estimated as follows :—

	Tons.
Normally prosperous years ...	2,500,000
Years of moderate prosperity ...	2,250,000
Hard times ...	2,000,000
Severe famine, 1896-97 ...	1,600,000

The last figure is very low ; but if the acute privation of 1896-97 be considered, and the great extent to which the people subsisted on forest produce be taken into account, the estimate appears to be justified.

44. So far as the returns go it would appear that when the famine of 1899-1900 began, the people had larger stocks over the Province as a whole than at the beginning of the famine of 1896-97. There were no doubt larger accumulations of old stocks in Chhattisgarh in 1896, and in both famines the rise of prices has caused some very ancient grain to be unearthed ; but of the produce of the harvests immediately preceding there were certainly larger stocks in 1899-1900. The consumption of grain in 1900 has unquestionably been larger than was the case in 1899 ; but the yield of 1899-1900 was so seriously short that not even the enormous imports received from Bengal could have sufficed to feed the people unless there had been stocks to cover the deficiency. It is however certain that, taking the Province as a whole, the stocks have never been so low as they stood in November 1900. On no other hypothesis can the very slow fall of prices which has occurred during October and November be explained. In the first few months of the famine of 1896-97 the dealers sent away grain all over the country, in 1899 they recognized that the harvests were so deficient that they must hold at all costs for local consumption. The last line of figures in the table shown in paragraph 42 relates to nine months only, and it would appear that the Province had at the end of September 1900 some 278,000 tons only to carry them on till the new harvest. This represents some 6 or 7 weeks' supply, which would carry them on until the new crops began to come in. Imports are known to have dwindled very greatly during the last quarter of 1900, but they must have been large enough to eke out the supply until December. Stocks must however have been reduced to complete insignificance.

45. While it is possible to make a rough estimate of food-stocks for the Province as a whole, it is not possible without very troublesome calculations to estimate stocks in individual districts. Estimates furnished in some cases by patwaris are of necessity unreliable, since traders were unlikely to reveal the true extent of their stocks, through fear of being compelled to sell or of being robbed. But Statement III (e) of the Appendices shows the estimated production of each food-crop in the year 1899-1900, and with the aid of trade returns the relative condition of each district may be to some extent gauged. That statement shows that Sambalpur was the only district capable of feeding its population for a year. In several districts the harvest yielded food enough for barely three months, and in Ninar the amount was even less than this.

The following statement shows in a compact form all the available information by districts for food production and trade in food-grains, and at the same time contrasts the two famines :—

District.	Production in 1896-97.	Production in 1899-1900.	Amount required to feed the popu- lation for 10 months	Surplus.	Deficit.	Net imports, October 1st, 1899 to September 30th, 1900.
	Tons.	Tons.	Tons.	Tons	Tons.	Tons
Saugor ..	64,514	61,110	82,180	..	21,070	...
Damoh ...	27,398	36,401	45,220	...	8,819	...
Jubbulpore ...	118,292	58,384	103,940	...	45,556	...
Mandla ...	28,205	40,512	47,140	...	6,628	...
Seoni ...	55,971	48,091	51,500	...	3,409	...
Total Jubbulpore Division ...	294,380	244,498	329,980	...	85,482	50,703

District.	Production in 1896-97.	Production in 1899-1900.	Amount required to feed the popu- lation for 10 months.	Surplus.	Deficit.	Net imports, October 1st, 1899 to September 30th, 1900.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Narsinghpur ...	38,865	44,559	50,980	...	6,421	...
Hoshangabad ...	59,892	67,833	68,480	...	647	...
Betul ...	54,425	30,321	44,880	...	14,559	...
Chhindwara ...	67,272	34,777	47,150	...	12,373	...
Total Nerbudda Division without Nimar.	220,454	177,490	211,490	...	34,000	35,566
Nimar ...	39,285	7,846	39,680	...	31,834	36,625
Wardha ...	56,019	30,439	55,670	...	25,231	...
Nagpur ...	131,008	84,890	105,270	...	20,380	...
Chanda ...	80,464	37,937	77,850	...	39,913	...
Bhandara ...	120,347	24,026	103,170	...	79,144	...
Balaghat ...	28,781	16,225	53,250	...	37,025	...
Total Nagpur Division ...	416,619	193,517	395,210	...	201,693	186,950
Raipur ...	166,379	65,980	174,800	...	108,820	...
Do. Zamindari ...	...	21,613	45,660	...	24,047	...
Bilaspur ...	114,073	58,671	144,400	...	85,729	...
Do. Zamindari ...	...	15,944	46,770	...	30,826	...
Sambalpur ...	140,314	85,519	65,150	20,369	...	...
Do. Zamindari ...	...	61,126	56,690	4,436	...	...
Total Chhattisgarh Khalsa ...	420,766	210,170	384,350	...	174,180	...
Total including Chhattisgarh Zamindari.	...	308,853	533,470	...	224,617	117,984
Grand Total for the Province excluding Chhattisgarh Zamindari.	1,391,504	833,521	1,360,710	...	527,189	...
Grand Total for the Province including Chhattisgarh Zamindari.	...	932,204	1,509,830	...	577,626	427,828

46. The food production of the Chhattisgarh Zamindaris is now included in the return, and the only areas remaining unaccounted for are the jagirs of Chhindwara and the Zamindaris of Chanda. The production of these areas has been computed at about 10,000 tons, but the returns for these tracts are as yet so unreliable that it is better to exclude them entirely. The two features which come into prominence in the table are the stupendous character of the local crop failure, and the extraordinary extent to which the deficiency has been made good by imports from outside. The yield of the year was less than a quarter of the full yield, barely 28 per cent. of a normal yield, and only 60 per cent. of the yield of 1896-1897. In that year nine districts yielded a surplus over a ten months' food supply; in 1899-1900 Sambalpur alone shows a small surplus. In the former famine the total food production of the Province was just sufficient as a whole for its bare food; in this famine there has been a deficiency of over half a million tons. The only districts which return a larger yield this time than then are Damoh, Mandla, Narsinghpur and Hoshangabad, but in all of them production was inadequate for food. In Narsinghpur, however, there were considerable stocks and the district continued to export grain throughout the famine.

The trade returns show most strikingly the difference between the two famines. In 1896-97 for the first two quarters the exports abroad were in excess of the imports. In 1899-1900 grain began to be imported from the day that famine became certain. In 1896-97 the various parts of the Province interchanged food-

grains to the amount of 1,389,000 maunds; in 1899-1900, the local traffic in food-grains was exactly a million maunds less. In 1896-97 Chhattisgarh spared over 50,000 tons to neighbouring Divisions; in 1899-1900 it gave less than 8,000 tons, of which a considerable quantity was really re-export of Bengal rice.

47. The actual imports and exports of food-grains of the two years compare as follows:—

1896-97.			1899-1900.		
Quarter ending	Imports.	Exports.	Quarter ending	Imports.	Exports.
	Tons.	Tons.		Tons.	Tons.
December 31st, 1896	3,357	45,873	December 31st, 1899	81,130	16,894
March 31st, 1897	7,651	35,187	March 31st, 1900	152,496	14,001
June 30th, 1897	49,688	11,543	June 30th, 1900	172,280	10,992
September 30th, 1897	30,510	5,806	September 30th, 1900	70,372	6,563
Total	93,206	98,409	Total	476,278	48,450
Net exports	...	5,203	Net imports	427,828	...

It is impossible to over-estimate the benefits which railway extension has conferred upon the Province. If Chhattisgarh for instance had not been opened up by railways it is horrifying to think what might have occurred. The most recent extensions of the Bengal-Nagpur Railway poured in supplies of the cheap scalded rice of Orissa (bhunjia chawal) which penetrated far into the interior of districts like Mandla, Balaghat and Betul. In 1896-97 this source of supply was wanting, and the more expensive rice from Burma was the chief food stuff brought in. In the last famine, when exports were carried away in the early months, people pointed to the railways as an aggravation of their ills; in this famine they have regarded them as their salvation. Within one year the railways have brought into the Province grain enough to feed three million people for a year. The places from which this great supply came are shown below:—

Province from which imported.	Rice.	Wheat.	Other grains.	Total.	Percentage.
	Tons.	Tons.	Tons.	Tons.	
Bengal	273,181	4,594	49,152	326,927	68
North-Western Provinces and Oudh	2,038	21,866	18,553	42,457	9
Bombay Port	14,740	357	1,746	16,843	4
Calcutta Port	68,850	1,977	9,555	80,382	17
All other parts of India	1,661	3,601	4,407	9,669	2
Total	360,470	32,395	83,413	476,278	100
Percentage	76	7	17	100	...

(c) MIGRATION.

48. The ordinary field labourer depends a great deal on harvest earnings, and if one locality does not offer harvest wages he will move to another which does. The two great movements of the labourers of the Province (outside Chhattisgarh, which is self-sufficing in this matter) are those of the people from the south of the Province to Berar in November-December to reap the cotton and juar crops, and the descent of the inhabitants of the upland tracts in March-April to reap the wheat crop of the Nerbudda Valley. These movements are in ordinary times most salutary; but when famine comes and there are short crops to be reaped, the migration of labourers is a source of much embarrassment and trouble. In 1896 the exodus of people from the Wainganga districts to Berar in search of harvesting employment resulted in the districts of Wardha and Nagpur being overrun with crowds of wanderers, some pressing on to their imaginary land

of promise, others struggling back empty-handed and starving, unable to support themselves or to return to their homes. In 1899 the earlier warning of disaster, and the certain knowledge that the Berar crops had totally failed, enabled measures to be taken against a repetition of this evil. It

Greatly restricted in 1899-1900.

was proclaimed far and wide throughout the rice-districts that there was no hope of employment in Berar; and the people, seeing relief measures being everywhere organized within reach of their homes, refrained from moving. The Nerbudda valley wheat crop was a very small one; and by the time that it was ripe for cutting, relief measures were in such a high state of development everywhere that harvesting instead of attracting wandering crowds from afar merely sufficed somewhat to relieve local pressure on relief works in the tracts where rabi crops were important.

49. While however these greater movements of the labouring population were reduced to a minimum, there was a good deal of passing to and fro among persons in search of work relief, and it necessarily happened that when a work was opened near the border of a district it was attended by residents of adjacent villages in the neighbouring district. This was specially the case when the work was for any reason more popular than the nearest work in the district to which the labourers belonged. Thus one or two of the Balaghat works were largely attended by Bhandara people; people from Seoni went into Chhindwara, Nimaris into Hoshangabad; and two works in the rice tract of the Nagpur District were chiefly filled by labourers from adjacent villages in Chanda and Bhandara. There was of course no objection to persons in one district resorting to works in another, provided that it was due merely to the accident of proximity, and not to insufficiency of relief measures in the former district. There were also a certain number of restless people who went about from one relief camp to another in the same district in search of the one which offered the most congenial employment, or the officers of which enjoyed the reputation of exacting lighter tasks. The measures taken to obviate rushes on particular works belongs however to the next chapter.

50. The movements above described, while of little moment when relating to transfers of people from one district to another within the Province, became a source of serious trouble when they were movements into the Province of bands of foreigners from neighbouring Provinces or Native States. In the famine of 1896-97 the districts of Saugor, Damoh and Jubbulpore were literally invaded by people from the adjoining States of Rewa and Bundelkhand. In 1899-1900 these tracts were not so severely distressed; while the discrimination with which it was possible to administer relief in the Jubbulpore Division discouraged any influx of persons not in necessity, and local arrangements in these States sufficed to provide for the needy. But if the vicinity of these particular States caused no inconvenience, the advantage was counterbalanced by the great influx of foreigners from the Rajputana States and Bhopal into Hoshangabad, of Beraris, Indoris and Khandeshis into Nimar, and, as the rains advanced, of large numbers of persons from Gwalior, Bhopal and Lalitpur into the Khurai, or north-western tahsil of Saugor.

51. Almost the earliest feature of the famine in the northern districts, September to November 1899, was the advent of large parties of Marwaris from Rajputana: these came in bodies of 30 to 60, and were often accompanied by considerable numbers of cattle, and sometimes by carts and camels and portable goods and chattels. Most of these were persons of some means, who were driven out of their own country by want of water and fodder for their cattle; and some of them possessed enough to render them independent of direct relief. These passed through the districts of Damoh and Jubbulpore on their way to the pasture lands of Mandla, returning as soon as the rains were established. But the majority were persons with property which was unsaleable, and no credit in a strange land to carry them through the famine period. These mostly directed their steps to Hoshangabad, where men of their caste are settled, and became regular attendants at relief-works throughout the open season. These immigrants from afar were

the most respectable of all the foreigners. The men were dignified in their distress, the women respectably dressed, and the children generally well cared for by their parents. It was impossible to attempt to deport these distant emigrants with their cattle and goods to the waterless country from which they had come so far; and it was found necessary to keep two Public Works Department relief camps open with special reference to their needs.

52. These people gave little trouble, but the immigrants from the nearer States were of a much inferior stamp. The Banjaras in Saugor were particularly troublesome; and in the rains a special kitchen had to be opened at Etawa near Bina exclusively for these people, with a hospital attached for the considerable number who were sick or debilitated. The foreigners numbered on an average quite 10 per cent. on relief works in the Saugor District, and in the rains the kitchens of the Khurai Tahsil were in some cases rushed by them. An Assistant Commissioner had to be deputed to Bina to superintend the arrangements for keeping order among these foreigners and for deporting them to their homes. As soon as their own local authorities could undertake to provide for them, train loads of them were sent away from time to time to stations over the border; but some of them found their way back again, and it was not until quite the end of the rains that the nuisance abated.

53. In Hoshangabad besides the immigrants from Rajputana, who were a special feature at the relief works, there were large numbers of Bhopalis and Indoris who flocked across the Nerbudda in search of relief. In Bhopal the local distress was not very severe, and the number of Bhopalis only grew large in the rains, when the authorities made arrangements for taking over their people. But in the Nimawar tract of Holkar's territories distress was more acute and relief arrangements tardy. The first batches sent away returned in poor condition, and entreated with tears to be allowed to stay. Subsequently after representation had been made to the Agent to the Governor-General at Indore, the Darbar made better arrangements, and it is believed that the later drafts were suitably provided for. The Deputy Commissioner of Hoshangabad returns the following figures arrived at by census of foreigners at relief-works; but as Indoris generally denied their place of origin for fear of being deported, it is certain that they understate the true facts:—

CENSUS TAKEN AT PUBLIC WORKS DEPARTMENT CAMPS.				
	2nd Decem- ber 1899	11th March 1900	21st April 1900.	2nd August 1900.
Marwaris	1,321	3,418	2,982	740
Bhopalis	29	289	408	264
Beraris	1,347	715	154	27
Indoris	..	1,777	2,794	890
Total	2,697	6,199	6,338	1,921

The extreme destitution of the aliens from Bhopal and Indore and their wretched physical condition were a constant source of anxiety to the district administration, and all but necessitated the opening of poor-houses.

54. Of all the districts however Nimar suffered most from foreigners. It was literally overrun by them. Lying on ancient thoroughfares, surrounded on three sides by foreign territory, and affording in normal times extensive employment for labour, the district was particularly liable to these inroads. Three poor-houses had to be opened, principally for the sake of foreigners. Batches of these were from time to time deported, but many concealed their domicile, and their real number will never be known. In November 1899 over 15 per cent. of the people on relief-works were known foreigners; and at two camps the proportion exceeded

33 per cent. By May the number of known foreigners was still 9 per cent. of relief-workers. The number of deaths in the poor-houses of the district was 525 for the whole famine period, and of these 362 were of known foreigners.

The subject will be referred to again when the death-rate of the district comes under discussion.

55. In the south of the Province the relief-camps of Wardha and, to a less extent, Nagpur and South Betul received large additions from Berar, but, except immediately on the border, they gave but little trouble. The Wardha police relieved 3,728 wanderers, of whom about 3,000 were outsiders. The Wainganga districts were practically free of aliens; but in Chhattisgarh there was the usual stream of pilgrim traffic which was mainly instrumental in introducing cholera. In Sambalpur particularly the immigration of foreigners had the greatest influence on the difficulties of relief administration. The circumstances of this district are exceptional. Until the present failure it had enjoyed an unbroken series of good seasons. It is on a pilgrim route, and its borders are open on all sides to bad characters from the adjacent Feudatory States. It was the place of all others which was likely to tempt the lawless or the hungry; and in the last famine, when the district itself was prosperous amid surrounding distress, it was the centre of attraction to neighbouring tracts. As early as October 1899 a similar influx of people from the borders began; and over 200, who were found begging, were sent back to Raipur and Bilaspur where relief arrangements were ample. The district report states that at one time the Public Works Department Barpali work was almost monopolised by people from Sonpur, and the Dabra work was largely attended by residents of Raigarh and Sarangarh. A considerable portion of the district was not distressed, and wanderers in this area were difficult to deal with. They picked up what they could honestly or dishonestly, and there were no relief institutions where they could be collected to be drafted. In the rains these wanderers began to collect at kitchens, and at the Sambalpur Poor-house, which was opened in July, one-third of the admissions represented aliens to the district. In various charges, quite towards the end of the famine, the proportion of foreigners amounted from 8 to 15 per cent. of the kitchen attendance. In the rains there was a specially large influx of wanderers from Patna, and these were in bad condition. They frequently denied their place of origin, and it is probable that their numbers are larger than any figures that were collected could show. Scattered as they were over the face of the country, their presence did not attract the immediate attention of the authorities as it would have done had the whole district been covered with relief institutions. In the rains their shelterless condition caused a heavy mortality among them, and they had no doubt contributed to the spread of cholera in the hot weather. In the Dabra charge, of 58 deaths enquired into in September, 50 were found to have occurred among immigrants from the Feudatories. Although all these States, with the exception of Patna, strove to combat distress within their borders, and some were very successful, their means did not always admit of as liberal a scale of relief as was dispensed in the British districts. But it is only fair to add that a substantial number of the immigrants were persons from Raipur and Bilaspur where the adequacy of relief arrangements was beyond all doubt.

56. Emigration to Assam has been greatly stimulated by the famine in the chief recruiting centres of Balaghat and Chhattisgarh. It is reported from Balaghat that 3,344 coolies were recruited by sirdars and 428 by contractors, or about double the number recorded in 1897. Most of these belong to aboriginal castes. Nothing is said in the Raipur report regarding recruitment for Assam; but in Bilaspur, which is the centre of the recruiting agencies, it developed considerably. Some 3,500 labourers were registered, and a considerable number were despatched by contractors working outside the Act. Of the registered coolies, however, only 2,000 belonged to the district. In Sambalpur also emigration to Assam received an impetus. During the period of the famine 5,507 persons (including dependants) were registered as compared with 542 in the previous year. It throws an interesting light on the

number of foreigners in Sambalpur to learn that only 2,242, or 40 per cent., belonged to the district. The remaining emigrants, numbering 3,265, were persons from Sonpur (770), Raigarh (640), Patna (551), and Sarangarh (135). Gangpur and Sirguga (Bengal States) contributed 347 and 248 respectively, the balance being drawn from other districts of the Province.

(d) CRIME.

57. However complete may be the relief arrangements, famine must always bring an increase of crime. Temptation and opportunity alike increase. There are always members of society who prefer dishonesty to hard work, and in famine times their numbers increase. The conditions of work are harder than usual, and much more property is left unguarded. It is therefore very satisfactory to find that while the famine was greatly more severe than that of 1896-97 the roll of crime was very considerably less than in that year. At the commencement of the famine there were a few grain raids reported, but these ceased as relief operations expanded; and except in Sambalpur, where there was an outbreak of dacoities in the rains (chiefly the work of gangs from the Patna State), organized crime was conspicuous by its absence.

58. Statement V contains figures showing the chief crimes against property in the two famine years and in the two years intervening, district by district. The totals are reproduced below, together with those of the two years preceding the last famine. Of the total of six years comprised in this statement, the first three are calendar years, the last three show the years October 1st to September 30th:—

Nature of offences.	1895.	1896.	1897.	1897-98.	1898-99.	1899-1900.
Dacoities ...	41	121	161	47	29	131
Robberies ...	146	185	267	138	146	213
House-trespass and house-breaking accompanied with heft of grain and food.	1,687	2,890	4,457	980	750	3,615
Others ...	6,542	8,285	9,846	3,912	3,545	7,867
Thefts of grain and food ...	4,282	6,458	9,090	3,301	2,129	6,044
Others ...	7,719	8,737	12,501	5,948	5,686	10,620
Theft of cattle ...	1,364	2,441	6,504	2,043	1,251	4,664
Total offences connected with articles of food.	7,333	11,789	20,051	6,324	4,130	14,323
Total principal offences against property.	21,781	29,117	42,826	16,369	13,536	33,154

Under every single head a considerable reduction has been shown as compared with the last famine. The number of total offences is less by 22 per cent., and offences connected with food have dropped by 28 per cent.

59. The relative extent of crime in the several districts can only be judged by the population. The table below shows the number of principal offences per 10,000 of population in each district:—

District.	PRINCIPAL OFFENCES AGAINST PROPERTY					
	NORMAL YEAR (1898).		FAMINE OF 1896-97.		FAMINE OF 1899-1900.	
	Total number.	Number per 10,000 of population.	Total number.	Number per 10,000 of population.	Total number.	Number per 10,000 of population.
Saugor ...	917	15.5	2,624	45.1	1,828	31.0
Damoh ...	476	14.4	1,388	42.0	1,041	31.5
Jubbulpore ...	1,645	21.9	3,977	53.0	6,245	35.1
Mandla ...	386	11.4	1,799	53.0	833	24.5
Seoni ...	445	12.0	1,731	46.9	1,340	36.2
Narsinghpur ...	699	18.8	2,144	58.0	1,350	36.4
Hoshangabad ...	741	15.1	1,684	34.3	1,541	31.4
Nimar ...	469	16.7	647	17.0	1,375	35.4
Betul ...	786	24.5	1,675	52.3	1,826	57.1
Chhindwara ...	398	9.7	1,613	40.3	1,369	34.2
Wardha ...	549	13.7	1,409	35.2	1,101	27.5
Nagpur ...	1,734	22.8	3,330	43.8	1,982	26.1
Chanda ...	723	10.3	1,261	18.0	1,930	27.6
Bhandara ...	417	5.6	1,591	21.5	1,442	19.4
Balaghat ...	535	14.1	1,878	49.4	1,128	28.7
Raipur ...	1,895	12.0	5,334	33.7	3,499	22.1
Bilaspur ...	1,131	9.7	4,278	36.8	2,775	18.7
Sambalpur ...	2,423	30.0	4,075	50.9	4,749	59.3
Total ...	16,369	15.2	42,826	39.7	33,154	30.7

Generally speaking it may be said that crime was two and a half times the normal in 1896-97 and double the normal in this famine. The only districts which show an increase in crime in 1899-1900 are Chanda, Nimar, Betul and Sambalpur. Of these four districts Betul alone suffered severely in the last famine; all but Sambalpur have suffered very severely in this, and Sambalpur has had to endure no small distress. The special circumstances of this district have been described in paragraph 55. They were such as to render a large increase of crime unavoidable. Large numbers of individuals in the least distressed portion of the district, and a few in the distressed areas, possessed considerable stocks and property to tempt the lawless. Concealment of these stocks through fear of robbery had no doubt a good deal to say to the high prices and the fact that rice was imported to feed the poor. There were in all 29 dacoities committed, and in the rains thefts and house-breakings increased very largely. In August and September a gang of dacoits from the Patna State committed a series of depredations. The gang, which consisted of Binjhwaris, was led by an ex-convict, its members being armed with matchlocks, swords and axes. A special officer with 40 armed police had to be deputed to hunt them down. The gang was dispersed, but some of the ringleaders are still at large. Apart, however, from the special circumstances of the famine, Sambalpur has always been a district in which crime is heavy. In 1897, when there was no famine in the district, it returned a larger number of offences than many of the deeply distressed; and in the normal

year, 1898, which intervened between the two famines, it enjoyed the unenviable distinction of heading the crime list.

The presence in Nimar of the large foreign population would be a sufficient explanation of the large increase in crime in that district, even had the failure of its food-crops been less complete than it actually was. In Chanda and Betul the increase is small, and by no means commensurate with the greater severity of their crop failures. On the other hand, in the Jubbulpore Division and in Narsinghpur the decreases are partly attributable to distress being less severe. But this has not been the case in Balaghat and Bilaspur, where the results are especially satisfactory, crime having been respectively 40 and 50 per cent. less than in the earlier famine. In Bilaspur there has been only one dacoity as compared with 27 in 1896, and 35 in 1897, and the number of cattle thefts has declined by 66 per cent.

The comparative smallness of the crime list is a tribute alike to the temper of the people under severe adversity, the adequacy of the relief arrangements, and last but not least to the vigilance and energy of the police, the services of which often abused force are warmly acknowledged by district officers.

(e) SCARCITY OF FODDER AND WATER, AND CONSEQUENT MORTALITY OF CATTLE.

60. Shortness of fodder and water was one of the features of aggravation in the famine of 1900, which was absent in that of 1897. As already stated, in the first panic fears were rife that there would be a famine of water as well as a famine of food. In the western districts at all events the water-supply at the beginning of the cold weather was already as low as is usual at the end of the hot weather. Wells which had never failed in previous years were running low; streams were failing; tanks which had not filled properly were rapidly drying up. For a time the people seemed paralysed, but it was only for a time. In every district inconvenience is felt in the hot weather in particular villages, and it was really a case of anticipating by a few months the measures usually taken when the water-supply is low. The action of Government belongs to a later section of this report; suffice it to say here that the endeavour was to stimulate both local bodies and private individuals to self-help in the matter, reserving public aid, except in special cases for the provision of water at relief-camps, along roads, and at suitable places in Government villages or forests. The usual devices of bunding streams, deepening existing wells, and sinking temporary wells in the beds of rivers and nallas, were freely resorted to; and it was the universal experience that after the water-supply had sunk to a certain level, the rate of diminution thereafter rapidly decreased.

61. But though the worst fears of water famine were happily never realized, there was very serious scarcity of water in the most drought-stricken districts during the hot-weather months. In some villages people had to go three or four miles for their daily supply, and the supply for cattle was greatly restricted. Everywhere there was great inconvenience, and in places want of water was most acutely felt. As an illustration of the difficulties encountered in getting water in some of the hilly tracts, the Deputy Commissioner of Betul recounts that in the Khamla plateau in the west of that district, having an area of 6 by 12 miles, ten or twelve villages were for some months entirely dependent upon one well at the east end and one pool at the west end of the plateau. Even in March he found that "procuring of water was one of the principal businesses of the day at the largest village of the plateau." So little water remained in the well that it could not be drawn in a bucket. "The women of the village stood about the well for a great part of the day, and took it in turns to descend by a rough ladder to the bottom of the tube. There they filled their water vessels by dipping with a folded leaf in the puddle formed by the tiny spring which had not then dried up." "But in almost every instance," the Deputy Commissioner adds, "there was, as in the case of this plateau, some unfailing source of supply within four or five miles, of which the hardy jungle tribes were able to avail themselves without moving their *bastis*."

Roughly speaking it may be said that the water difficulty was most acute in those districts which received less than 20 inches of rain in the rains of 1899. In this category fall the districts of Nimar, Betul, Chhindwara, Wardha, Nagpur, and Chanda, of which all but the last received less than 15 inches, to which may be added the southern portion of Seoni and the west of Hoshangabad. Mahars and Chamars and other low castes, who are not allowed by the better castes to draw water at the village well, were the people who suffered most.

The reports from these districts show that there was terrible suffering among cattle. In Wardha the Deputy Commissioner reports that large numbers of cattle could with difficulty secure one drink a day, the water having in some cases to be specially drawn for them. Similar reports have been received from the other districts mentioned. In the Government forests there were generally places where water was available if the animals were brought there; but among many thousands of cattle taken to the forests for grazing there must have been hundreds that dropped from heat, fatigue, or disease without being able to reach the water.

62. Nor were sufferings of this kind confined to domestic animals. The Deputy Commissioner of Seoni records the report that hundreds of head of deer died in the Pench forests because some 20,000 head of cattle sent to graze there monopolized the only pools. And the Deputy Commissioner of Chanda reports as "a well-authenticated incident" that when an old well in the Allapilli forests was being deepened, the carcasses of seven monkeys, a nilgai, three sambhar, and five bison were found in it. The drought also had disastrous effects upon vegetable life. In some of the driest areas 10 per cent. of the trees in Government forests have died. Thousands of mango trees have died over the country generally; groves, gardens, and road-side avenues now show many withered trunks.

63. While, however, it is certain that no human life was lost for actual want of water, the quality of the scanty supply has told severely on human life and health. The most serious effects of this kind were experienced in the dry areas mentioned, and in Chhattisgarh where the people are so largely and wilfully dependent on tanks for their drinking water-supply. At relief camps and at most kitchens it was possible to keep the water-supply pure; but it was impossible to disinfect all stagnant pools or tanks. To the polluted water-supply was due not only the spread of the terrible epidemic of cholera which ravaged the Province in the hot weather, but also the heavy mortality from fevers and bowel-complaints, which was so specially noticeable in the districts where the water-supply was most scanty. The sufferings and sickness attendant on this evil were greatly aggravated and protracted by the lateness of the rains of 1900; and July was over before it could be said that the water-supply had been really replenished and purified.

64. As was the case with water, the probable scarcity of the fodder supply was greatly over-estimated at the beginning of the famine. In the first few days of alarm the price of grass rose to a very high rate, but it fell again very soon, when it was realized that the supply of grass would not really fall very short. So far as fodder-yielding bye-products of crops are concerned there was a great deficiency of rice straw in the Wainganga rice districts, notably in the west of Balaghat, and there was little or no *karbi* (juar stalks) in Nimar, Betul and parts of Wardha and Chhindwara, but over the rest of the Province there was a considerable supply of this kind of fodder. Nagpur and Chanda even exported a large amount of juar stalks to Berar at the close of the hot weather.

In the large forest areas which retain moisture much longer than some of the open tracts, the grass crop was much better than had at first been expected. Over the east of the Province the supply was little short of normal; in the west, though the grass never grew to its usual height and dried up earlier than usual, the grass-producing areas are an

extensive that the supply was sufficient, though much of it was inaccessible. Several thousand tons of grass were despatched to Bombay and Rajputana; and much more could have been sent had the railways been able to carry it. Wardha was the only district in which grass had to be imported in any quantity, and its needs were met from Chanda, where grass-cutting operations on a large scale were carried out. Grass depôts were established in almost every district of the Province; and the supplies available at these depôts exercised an immense influence in cheapening the price of fodder generally.

65. The forests were thrown open to free grazing in every district, and many thousands of cattle both from the Province and from outside resorted to them. But all these palliative measures could not prevent suffering and loss from scarcity of fodder and water. The people habitually keep more cattle than they can feed properly; and even in normal years a large percentage of the surplus village cattle are dependent on the dried-up village grazing grounds for their support. All cattle could not be sent to the forests, and of those that remained in the villages the owners could only afford to feed the most valuable. Of those that were fed a great many were overworked owing to the enormous demand for cart transport. Milch cattle were mostly sent away to the forests, and it was often impossible to procure milk for the children at relief works. Of the cattle sent to the jungles many never returned. The areas affording grazing were circumscribed by the scarcity of water. Trees were stripped of their leaves, and young shoots and twigs were used as cattle food. The Deputy Commissioner of Seoni has given a list of no less than 37 kinds of trees of which the leaves, twigs, or branches served for fodder. But it is generally agreed that the beginning of the rains was the period when mortality was highest. At that season the vitality of the cattle is at its lowest, and from the rank vegetation which is devoured by the half-starved beasts, combined with the sudden change of temperature and the damp, result chills and diarrhœa, which carry off the weakly animals. In this year these effects were greatly intensified, and in some districts the mortality of cattle at this period was disastrously high.

66. The district reports contain figures of cattle mortality, for the most part obtained from special returns made by patwaris. Even if carefully compiled these returns can hardly ever be accurate. When so many cattle were sent away into the forests, it is clear that the number of deaths among them can never be correctly computed. For instance, in Wardha the patwaris return a mortality of 34,688 head of cattle, while from the export of hides the Deputy Commissioner computes the loss at over 80,000 head. The Deputy Commissioner of Chanda places the mortality among cattle in his district at 120,000, or about 30 per cent. of the total stock, but this estimate is confessedly based on no actual statistics. When the agricultural returns for the year 1900-1901 are compiled, the extent of losses which the people have suffered will be approximately known. Until this information is available the trade statistics showing exports of hides from the various Divisions are the only means at hand by which to judge of cattle mortality.

67. The following figures show the total export of hides, both external and within the Province :—

Division or Trade Block.				EXPORTS IN MAUNDS.		
				1896-97.	1897-98.	1899-1900
Jubbulpore	...	...	...	30,615	15,675	37,919
Nerbudda	...	...	...	9,271	4,123	9,374
Nimar	...	...	...	2,565	2,069	25,533
Nagpur	...	...	...	32,372	19,320	80,044
Chhattisgarh	...	...	...	45,316	24,685	67,332
Total				120,139	65,942	220,202

Cattle are most largely slaughtered for food in Jubbulpore and Chhattisgarh. In the former Division there are places like Garhakota and Rahatgarh in Saugor, and Chapara in Seoni, where large cattle marts are held. The animals are sold to butchers, and the prejudice against such sales has very much weakened. In Saugor and Damoh the Deputy Commissioners consider that cattle were sold rather for the hard cash they would fetch than because of want of fodder to feed them. A considerable trade in jerked meat for despatch to Burmah has sprung up in recent years. In Chhattisgarh the Chamars are accustomed to eat beef, and make a considerable income from the sale of hides. In the last famine numbers of cattle were stolen for slaughter, both there and in the Satpura Districts, and the reduction of this class of crime in this famine is one of the most satisfactory features of the crime statistics.

68. Enquiries among those engaged in the sale of hides, and from the railway staff show that on an average, taking large and small, about 7 raw hides and 12 dressed hides go to a maund. At these rates the cattle mortality of the three years in question is deduced at the following figures:—

Year	HEAD OF CATTLE DIED, AS JUDGED BY HIDES.					
	Jubbulpore	Nerbudda.	Nimar.	Nagpur	Chhattisgarh.	Total
1896-97	206,500	91,922	22,620	333,374	494,777	1,249,193
1897-98	151,590	33,781	19,403	217,625	277,845	700,244
1899-1900	292,853	71,648	206,986	767,618	610,294	1,949,399

A considerable proportion of the hides of cattle dying in Chhindwara and Betul no doubt are exported *via* Nagpur or Berar, and hence the Nerbudda Division shows a comparatively small total. But looking at the relative returns of the three years for the various Divisions, it is evident that the Nagpur Division and Nimar have suffered most. For the whole Province, if the figures of 1897-98 be taken to represent 100, the mortality of 1896-97 was 178, but that of 1899-1900 was 278. In Nimar the mortality has been more than ten times the normal, and in the Nagpur Division more than three and a half times.

According to the annual returns of the agricultural year 1898-99, the total live-stock (cattle) of the Province was as follows:—

Bulls and bullocks	...	...	...	2,829,917
Cows	...	...	...	2,550,618
Male buffaloes	...	...	...	406,222
Cow buffaloes	...	...	...	501,393
Young stock (cows and buffalo calves)	...	...	...	1,818,392
Total	...	...	...	8,106,542

The mortality as deduced from hides would indicate that about 25 per cent. of the total cattle had perished. But allowance must be made for the fact that in all the four blocks except Chhattisgarh there were a large number of cattle in the forests brought from Berar and Central India, while the export figures of Chhattisgarh include the hides of cattle which died in the Feudatory States. In Nimar for instance the total stock in the district before the famine was returned at 313,000 heads of all kinds, and the mortality deduced from hides would appear to be two-thirds of the whole. The remarks in the district report show that this is much in excess of the real facts. A large proportion of the hides represent foreign cattle.

69. Despite these enormous losses it is generally asserted that mortality has not very much affected the stock of plough-bullocks, and that the greatest losses have taken place in respect of milch cattle and surplus stock. It is undoubtedly the effect of mortality of cattle on cultivation not yet fully known.

case that in May and June people from Khandesh were able to pick up bullocks at markets in Nimar, and Berar people came into the Nagpur country for the same purpose. But though the efforts of the people were concentrated on keeping their plough-cattle alive, yet in respect of these also there must have been abnormally large losses, and in Wardha and Chanda this is known to have been the case. Advances for plough-bullocks were found specially necessary in Wardha, Chanda, Nimar and Nagpur. The areas put under kharif crops do not in themselves disclose any extraordinary deficiency of plough-cattle. In the majority of non-rice districts there has been an increase owing to the greater cheapness of kharif seed, and in the rice districts it is probably want of seed rather than of cattle that has caused a falling-off. But when the areas devoted to rabi crops can be ascertained the effect of want of plough-cattle will be better appreciated.

CHAPTER III.

THE PROGRESS OF THE FAMINE AND HISTORY OF THE RELIEF MEASURES ADOPTED.

70. About the middle of July 1899 a serious failure of the south-west monsoon began to be apprehended ; but, at first, anxiety was confined to the rice districts and Wardha. Towards the end of that month, as that anxiety deepened, detailed weekly notes on the condition of the crops were called for from all districts, the results of which continued to be summarised and circulated for general information until general famine was declared. Conferences of officers were convened by the Chief Commissioner, for the Nagpur Division at Nagpur on the 10th August, and for Chhattisgarh at Raipur on the following day. At these conferences the situation in each district and tract was minutely examined and orders issued to prepare for the probable approach of distress. Just about the time that these conferences were held the situation was improved by a fall of rain, and the period which followed was one of alternating hopes and fears. But Mr. Ibbetson considered it unsafe to abate any precautions. The results of the conferences, showing what immediate action should be taken, were published, together with a set of circulars laying down in the most detailed manner the several forms of relief to be adopted, if the worst fears should unhappily be realized. Never were precautions more justified by events.

71. The Provincial Famine Code had been drawn up in 1896; and the experience of the famine of 1896-97 had shown very clearly many important modifications to be necessary. But the Report of the Famine Commission of 1898 had to be awaited and considered, and there had been no time formally to revise the Code in the light of the local experience gained and of the Commission's recommendations, before this fresh calamity loomed large on the horizon. A committee of experienced officers had indeed just reported upon the main points respecting the amendment of the Code, and their report was submitted to the Government of India early in September, just as the threatened failure was fast becoming a certainty. Before these recommendations could be considered by the Government of India, the famine was upon the Province. But though the officers of the Province had no complete Code to guide them in the conduct of the famine campaign, the functions of such a Code were amply fulfilled by the series of admirable and lucid circulars which were issued by Mr. Ibbetson, embodying in principles the findings of the Famine Commission of 1898, and in details the experience gained in 1896-97.

72. The immediate policy was one of organization and watchfulness,—organization of the staff and machinery of relief ready to be set in motion when required, and watchfulness to seize the precise moment and locality when and where to set it in motion. At the outset it was made clear that the actual initiation of relief would only begin with the sanction of the Chief Commissioner. When once started, its expansion to meet growing distress from tract to tract was left to the discretion of the local officers acting under the constant supervision and directions of the head of the Administration.

73. This chapter will deal with direct relief administered in the shape of wages to relief workers, or of doles and food to those gratuitously relieved. A general sketch of the operations from beginning to end will be followed by a description of each of the several forms of relief employed at different times and various places. Indirect relief, though sometimes incidentally referred to, will be dealt with more particularly in Chapter IV.

Chief periods of the famine. 74. The history of the famine relief administration of 1899-1900 naturally resolves itself into four principal periods:—

- I.—The organization and early development of famine relief during the autumn (September to November) of 1899.
- II.—The rapid expansion of relief during the cold weather of 1899-1900 and the hot weather of 1900, to meet and keep pace with the unprecedented growth of distress.
- III.—The rains programme,—June to August 1900.
- IV.—The contraction of relief measures as distress waned, and the new harvest was in sight,—September 1900 to the end of the famine.

During the first period the Province was administered by Mr. Ibbetson. For the remaining periods the reins of Government were in the hands of Mr. Fraser.

I.—THE ORGANIZATION AND EARLY DEVELOPMENT OF FAMINE RELIEF.

75. On the 17th August the Chief Commissioner wrote informing the Government of India that he was satisfied that if conditions were unfavourable the Province was "within a fortnight or three weeks of the *possibility* of general and severe distress in several districts." The situation was then radically different from that obtaining at the same date in 1896. In 1896 there were no serious apprehensions of failure until the end of September. The labouring classes had received their usual earnings for weeding and transplanting, and their credit hardly had time to be affected before the early crops were beginning to come in. In 1899 the failure declared itself earlier. Employment and wages were curtailed and credit restricted. Stocks were kept tightly closed by their owners, and private charity rapidly dried up. Moreover, maize and the early millets, which assist the poorest classes so greatly in September and October before the main staples are ripe, were expected to be much inferior in 1899 as compared with 1896, even if they did not fail altogether. The alarm felt was earlier and greater, and the people had now learnt by bitter experience all that famine meant. They looked to Government to assist them in a way they had never done in the last famine.

76. By the time that this report was made to the Government of India local officers were in possession of the eight circulars, bearing date the 14th August, which contained all the main instructions to be observed. These circulars dealt with the following subjects:—

- No. F-1.—General instructions for the guidance of officers regarding the threatened distress.
- No. F-2.—Orders regarding the suspension of settlement operations and the return of the Land Record staff to their circles.
- No. F-3.—Instructions regarding the organization of village relief.
- No. F-4.—Utilization of Government forests and protection of cattle.
- No. F-5.—Instructions regarding the relief of distress among the aboriginal hill and jungle tribes.
- No. F-6.—Use and management of Village Works.
- No. F-7.—Use and management of Relief Kitchens.
- No. F-8.—Use and management of Poor-houses.

77. Concurrently with the issue of these orders a programme of works was drawn up by the Superintending Engineer in consultation with local officers for the two southern divisions, showing the works which could be suitably undertaken as famine relief works by the Public Works Department. This list provided for works sufficient for 66 relief camps, whenever the necessity should arise. The Superintending Engineer undertook to open four such camps in every district on the 15th October if a month's notice was given him by the Deputy Commissioner, and Deputy Commissioners were warned to prepare their list of requirements at an early date. A similar procedure was followed a few days later on in respect of the two northern Divisions; and in September (23rd and 25th) the Chief Commissioner repaired to Hoshangabad and Jubbulpore, where conferences were held similar to those convened in August in the south of the Province.

78. The eight principal Circulars referred to above were followed within a few days by orders dealing with the duties of police in famine times, and by instructions on certain subsidiary, but important, matters connected with establishments, forms and returns, estimates of expenditure, and so forth. In the course of September the attention of District Officers was drawn to the utility of grass-cutting works both as employment for famine labourers among hill and forest races, and for the sake of the fodder supply. And about the same time the chapters of the Famine Code on 'famine relief works' and 'poor-houses' were provisionally revised and issued in circular form. Accompanying these general instructions to Civil Officers there issued on September 20th, a General Order in the Public Works containing complete instructions as to the arrangement of large relief works in charge of that Department. The rules contained in this General Order regulated all such matters as discipline, tasks and wages at relief-camps, and stood the test of experience in a very satisfactory way.

79. The general basis of relief administration was defined in the following terms:—"The cardinal principle of famine relief," it was stated in the first circular of the series, "is that, when the existence of distress has been recognized in a district, and measures for its relief sanctioned, relief will be given to all who will perform a certain task; but to others only if they are unable to work, and would starve or suffer serious privation if not relieved." The two broad canons stated above are subject to certain limitations. The second proposition had to be temporarily departed from at the very outset of operations, and subsequently in the rains; and the sequel will show that the first proposition also required and admitted of modification at particular places and times.

80. The particular form of relief which should be dispensed first is a matter of much importance. In the last famine the Code prescription laid stress on test works as the earliest means of both discovering distress and relieving it where it existed; and the initiation of village relief was given a subsidiary position to be undertaken at the discretion of Commissioners as the increase of distress seemed to warrant such a step. The experience gained in the famine of 1896-97 was against this order; and the Famine Commission of 1898 considered that village relief should commence simultaneously with the opening of relief-works. They dwelt very strongly (paragraph 472) on the importance of an early circle organization, both to enable the District Officer to ascertain the moment when relief should become necessary, and to obviate delay in its actual distribution. Immediate circle organization in anticipation of distress, and with a view to the early distribution of village relief, was the key-note of Mr. Ibbetson's orders. When distress was imminent the staff were to be selected and appointed at once; when the distress was yet distant a skeleton organization was prepared and the men to fill the posts selected.

81. In its Land Record establishment the Province already possesses the basis of a circle organization, which it is only necessary to strengthen in times of famine. The patwari's circle was made the unit, the mukaddam or headman of each village in the circle being

called upon to assist as far as was possible. Over a certain number of patwaris was the Revenue Inspector or Circle Officer, the ordinary Revenue Inspector's circles being sub-divided into two or three of convenient size, to which additional Circle Officers, taken from the Settlement staff or selected from among patwaris, were appointed. Over each group of circles was a Charge Officer, two or three in each tahsil, who might be a gazetted or commissioned officer or a picked tahsildar, or officer of similar status. At first some of the charges were doubled up under a single officer pending the growth of distress and extension of relief, but everywhere the ultimate organization was drawn up. The preparation of the preliminary village lists of paupers or persons likely to need village relief was the first duty of this organization, along with constant inspection of villages, mustering of the inhabitants and frequent reports on the situation.

In this way a staff was got ready against the development of distress, capable of being utilised both for the early distribution of village doles to the most needy and infirm, and for the opening of village works and kitchens as soon as they should prove necessary, and above all able to watch the ever-changing situation, and constituting the eyes and ears of the District Officer in the remotest corners of his district.

The organization of this staff was carried out during August and September, well in advance of the approaching distress. It was somewhat extended later on as the work of relief increased; and, in several districts, Additional or Assistant Charge Officers were appointed when the rains impeded rapid inspection. Besides performing these duties and the regular land record work, this staff was of great service in collecting information required for the task of revenue suspension, and in the allotment and distribution of takavi and charitable grants.

82. Details of the instructions issued in respect to the various kinds of relief will be discussed under the appropriate heads in a later part of this chapter, but a brief reference to the relative position which each kind occupied in the scheme of relief laid down by Mr. Ibbetson is necessary for the proper comprehension of the sequence of the operations.

Even had it been desirable, it would not have been possible to open large relief works when distress was first beginning. The circle organization has nothing to do with these works. A special staff has to be collected and organized; tools have to be obtained, and the temporary buildings required for a relief camp erected. Hastily organized camps are calculated to defeat their object as test works. It was for this reason that the opening of large relief works was deferred until the 15th October, by which time they could be fully organized. It was therefore necessary to tide over the interval with village relief.

But it is quite certain that village relief must be the first measure, even if no such difficulty existed regarding works. The labourer himself is not the first person thrown into distress. He can at the outset generally earn enough to feed himself. It is his dependants, and especially the aged and infirm, a severe burden even in normal times, that he is unable to support when times are hard. Relief works do not touch such people. Then there are the persons to be found in every village who are dependent on the charity of their neighbours. These usually subsist not on the alms of particular well-to-do persons, but on the combined petty offerings of the whole village to which the poor themselves contribute their mite. The handfuls of grain on which they subsist become fewer and fewer, and unless promptly relieved they will rapidly weaken or take to wandering. Owing to the great contraction in agricultural operations during July and August, there were also a good many able-bodied unable, for lack of employment, to support even themselves. For this class relief works were of course the most suitable form of relief, but, pending these being opened, doles had to be given for a while to some of this class also. As kitchens were opened, those of them who lived in the neighbourhood were required to submit to the cooked food test. The gratuitous relief of these was, however, a purely

temporary measure, and was only to be given in specially distressed tracts to which the Commissioner might extend it. Mukaddams were to be instructed to take work from those placed on the able-bodied list.

The place assigned to kitchens was as follows. They were to be opened partly as a test of distress, and partly to feed children who are the first to be underfed and for whom village cash relief is not suitable.

Poor-houses were only to be opened in large towns if the congregation of beggars, or wanderers in poor condition necessitated this step. But from the first it was contemplated that efficient village relief organization could prevent wandering and render such institutions unnecessary. This belief was fully justified by after events.

Village works were enjoined as a form of relief under two circumstances: to afford a stop-gap while large works were being organized (and to this extent they fulfilled the functions of test-works); and secondly, to take the place of Public Works Department works in tracts where large works were impossible or were more than 15 miles or 20 miles distant from the distressed areas. The economy of managing village works through reliable malguzars, a step to which the sanction of the Government of India was specially obtained, was also pointed out.

83. The orders relating to the relief of aboriginal tribes also require notice at this stage. It was pointed out that in the case of these people it was necessary to *give* not merely to *offer* relief. Special vigilance was enjoyed in their case; gratuitous relief was to be liberal; the edible products of the forest area to be free; when work was required it was to be of a type congenial to these wild races, forest work and grass-cutting being specially recommended. The lessons which it had required the last famine to teach were to be utilised to the full.

84. Accompanying these various instructions were issued scales of wages and doles adjusted to the varying price rates, as well as a scale of kitchen rations. The scales laid down were those recommended by the Famine Commission of 1898. It was at the same time pointed out to Commissioners, again in accordance with the recommendation of the Commission, that they had discretion to modify the wage scale by a maximum of 25 per cent. in either direction according as the prescribed scale might prove on experience to be too liberal or insufficient. But at the beginning it was laid down that any such modification should receive the Chief Commissioner's previous sanction, or be at once reported to him if the urgency of the change was too great to admit of delay. This question was afterwards to assume a greater importance than was at first expected.

85. The final order, and one of the most important of this period of preparation, was that conveying the decision that on all Public Works Department camps, the system to be followed was the 'intermediate' system, or task work without a minimum, task work with a minimum being reserved for weakly workers and infirm gangs (Famine Circular No. 20 of the 4th October). This decision was based on the universally good condition of the people, as well as upon the consideration that in the event of their deterioration the system could be changed to task work with a minimum at a stroke of the pen and without the smallest dislocation of the arrangements of the relief camp.

86. It is now time to turn from the description of the preparation to the actual administration of relief. A small measure of village relief, the legacy of previous failures, had been in operation since April 1899 in Saugor, Damoh, Hoshangabad and Bilaspur. In Damoh and Hoshangabad the employment offered by kharif cultivation enabled this relief to be stopped in August, but in the other two districts it continued and gradually merged into the larger scheme which the famine necessitated. Apart from these isolated cases, the general dispensation of relief may be said to have

commenced from September. On the 29th of August the distribution of village relief was sanctioned in a remote aboriginal tract of Hoshangabad, and in two populous but deeply depressed circles of Balaghat. On September 1st the extension of relief over the whole of that district was sanctioned, and distribution of village relief was approved in the Harsud tahsil of Nimar and another circle of Hoshangabad; on the 8th it was extended to Betul, to certain other parts of Hoshangabad, and to parts of Narsinghpur, Jubbulpore and Nagpur; on the 14th to the north of Bhandara, and on the 20th to the rice tract of Seoni. Meanwhile forest concessions were extended, and sanction was given first in Betul and afterwards in other districts to the organization of grass-cutting operations on a large scale. By the 16th of September the total numbers on relief were reported as 19,613, of whom 90 per cent. belonged to the districts of Balaghat and Betul, where the failure of crops was earliest a certainty, and Saugor and Bilaspur, where there had been antecedent distress. By the end of September distress had been declared in all districts except Damoh, Mandla, Chhindwara, Wardha, Raipur and Sambalpur, and the numbers had risen to 67,255. Up to this time the rain in mid September had given some hope that the autumn crops might be partly saved, but by the end of the month these hopes had almost vanished, and by the middle of October, the time fixed for the opening of relief works, these crops had actually failed. The growth of distress and extension of relief during this preliminary period will appear from the following figures :—

Period.				Betul.	Balaghat.	All other districts.	Total.
September 15th	...	...	...	4,621	5,693	9,399	19,613
Do. 30th	...	...	...	30,648	11,234	25,375	67,255
October 14th	...	...	...	47,956	18,203	95,018	162,177

Distress spread very rapidly during September in the two districts mentioned, but after that month it extended rapidly to the other districts.

87. Up to this period the relief given was almost wholly gratuitous; and work relief, outside the Betul district, where village and grass-cutting works were being rapidly started, was insignificant. But, early in October, as the time for opening large relief works drew near, instructions issued to district officers to strike off from kitchens and village relief those able-bodied who had only been temporarily admitted pending the organization of relief works. A week later as the progress in this direction appeared to be slow this admonition was renewed. At the same time a Circular issued dealing with the relief of distress in large towns, and the institution, where required, of special relief for weavers. These orders will be further referred to in their proper place.

On the 15th of October a beginning was made in the opening of large relief works, and by the end of that month there were 32 such works open, of which 17 were in the Nagpur Division, 12 in the Nerbudda Division, 2 in Jubbulpore, and 1 in Chhattisgarh. In the last mentioned Division village works had already been started on a large scale and were giving employment to over 70,000 people.

88. With November the harvesting of such kharif crops as survived came on, but except in the cotton country this had little or no effect on the situation, and as the month advanced all chance of sowing a full area of the rabi crops or of a fair outturn on the area sown faded away in all except a few of the northern districts. Work relief was fast developing all over the Province, and numbers rapidly rising, when, in the middle of the month, His Excellency the Viceroy paid a visit to the Province and inspected relief-works in Raipur and Hoshangabad.