

REPORT
ON THE
FAMINE IN THE BOMBAY PRESIDENCY,
1899-1902.

VOLUME I.—REPORT.



Bombay:
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REPORT ON THE FAMINE IN THE BOMBAY PRESIDENCY.

1899-1902.

PART I.

I.—CAUSES AND EXTENT OF THE FAMINE.

First Year, 1899-1900.

In 1896-97 the famine extended to 9 districts and affected within those districts an area of 46,004 square miles out of a total area of 52,782 square miles, and a population of 7½ millions out of a total of 9 millions. In 1899-1900, 15 districts were involved in the distress, the area affected in these districts being 60,665 square miles out of a total of 75,393 square miles and the population affected being 9·8 millions out of a total of 12·2 millions. A detailed comparison of districts is given in Appendix 1 and the areas affected are shown in the accompanying map, Appendix 2. In the Native States of Káthiáwár, Gujarát and the Southern Marátha Country and in Baroda, distress was as severe as in adjoining British territory.

Area and population affected in 1896-97 and 1899-1900 respectively.

2. The immediate causes of the famine in 1899-1900 were the failure of the rains on which the employment and the income of 65 per cent. of the population of the Presidency depend, and a consequent abnormal rise in the price of food-grains, which in September 1899 had become as high as in January 1897. Moreover the disorganization of trade and curtailment of demand for manufactured articles threw on public charity many who are ordinarily employed in industries other than agriculture. The distress thus caused was accentuated alike in the Deccan and in Gujarát by the previous conditions, which however were very different in the two tracts. In the Deccan the resources of the people had been depleted by the severe famine of 1896-97, and the single intervening year of fair harvest in 1898-99 was insufficient for recovery. In Gujarát, on the other hand, no previous famine had occurred in the last century except in the years 1812-13 and 1824-25; and no distress was experienced even in the years 1876-77 and 1896-97, which proved so disastrous in other parts of India. Several previous seasons except 1897-98 had been unfavourable, but not so much so as to cause any privation, although they may have weakened the power of some classes to resist famine. The inhabitants were in consequence totally unused to hardship: and as a large proportion had invested their wealth in the time-honoured agricultural fashion in cattle, they were accustomed to a generous diet consisting largely of milk and its products, which in the less favoured country of the Deccan are regarded as the luxury of the wealthy.

Causes.

3. The following statement compares the rain fall in 1899 with that in 1898 and the recent average:—

District Head-quarters.		ANNUAL RAINFALL ENDING 31ST DECEMBER.				
		Average of eleven years ending 1897.	1898.		1899.	
			Fall.	Rainy days.	Fall.	Rainy days.
		Inches.	Inches.		Inches.	
GUJARÁT.	Ahmedabad	32·29	30·53	29	4·72	8
	Kaira	37·48	34·63	36	6·05	9
	Godhra (Panch Maháls)	40·85	43·49	42	8·67	12
	Broach	42·78	47·51	41	9·61	13
	Surat	46·02	32·52	42	18·49	23
DECCAN.	Dhúla (Khándesh)	26·22	21·03	36	8·54	17
	Násik	30·06	27·59	51	14·57	26
	Almednagar	23·68	14·78	31	12·32	23
	Poona	35·10	22·92	52	12·37	30
	Sholápur	28·53	34·85	40	12·61	21
Sátára	44·63	35·97	78	20·34	53	

ANNUAL RAINFALL ENDING 31ST DECEMBER.

District Head-quarters.				Average of eleven years ending 1897.	1898.		1899.	
					Fall.	Rainy days.	Fall.	Rainy days.
				Inches.	Inches.		Inches.	
KAR- NATAK.	{	Bijapur ...	...	25.63	26.08	47	19.07	26
		Belgaum ...	...	51.46	52.79	101	28.63	69
		Dhárwár ...	...	33.74	41.95	61	23.26	53
KONKAN.	{	Thána ...	...	105.93	108.30	96	41.87	69
		Alibág (Kolába) ...	...	94.49	101.48	86	44.45	57
		Ratnágiri ...	...	101.97	118.97	93	59.21	60
		Karwár (Kánara) ...	...	122.57	133.75	113	72.33	88

The extent to which each Division of the Presidency was affected by deficient rain is described in the following summary by the Director of Land Records and Agriculture:—

Gujarat.—The monsoon current being weak the rain did not reach Gujarat until the middle of June. At first the rain was sufficient and seasonable for kharif sowing, but in July it was very light. In Surat it fell at intervals throughout the month, but in the other four districts it was confined to the second week and agricultural operations were stopped for want of rain. The young crops suffered everywhere. Later on some light and scanty rain fell in Surat and in the talukas of Broach south of the Narbada, but elsewhere the rainy season practically closed in August. The wheat crop was mostly uprooted and where irrigation was possible, jowári and other fodder crops were sown. Grass and trees were stripped of their leaves for fodder. The cattle died in large numbers. Many were removed to the Thána and Khándesh forests for grazing. The limited irrigated crops did not thrive as the wells failed in many places or the water turned brackish. No rain fell in November or December. The season in the districts north of the Narbada was one of unprecedented distress and one of partial failure in Surat.

Deccan.—The monsoon set in timely in the second week of June and the rain was sufficient for sowing. But it grew very light in the second fortnight. This checked transplantation in the portion bordering on the Sahyádris and sowings in the eastern tracts. July rain was far short of the average everywhere, the deficiency in the east being again greater than in the west. This made further sowings impossible and the crops began to wither. August rain was still lighter and more limited. Crops in the east totally withered except where irrigation was possible. Fodder became deficient except in the Dánga, and water ran short in places. Rabi sowing was retarded. The situation was for a time relieved by good north-east rain in September, which was heaviest in the eastern talukas. It helped the surviving crops, induced rabi sowings and improved the water supply. But the rains held off before the close of the usual period over which they last. Very little rain fell in the last week of September or in October and none in the following two months. The rabi seedlings dried up everywhere and the water supply failed in many places, so that even crops under irrigation yielded poorly. Fodder became scarce and a large number of cattle died of starvation.

Karnátak.—Rain commenced on the 5th of June and kharif sowings were completed in good time in the western (Mallád) portion, but in the eastern talukas of Dhárwár and Belgaum and in Bijapur the fall of the second half of the month was too light. As in the Deccan, the July rain was very light in the west and scanty in the east. Further sowings became impossible and the sown crops were fast withering. The rain in August was still more scanty and all agricultural operations came to a standstill. The kharif crops, especially those in the eastern portion, totally withered and fodder became deficient. Things were temporarily improved by very copious rain in September, which revived the surviving crops and started rabi sowings. The October rain was again deficient and no rain fell in November or December. The rabi crops in poor soil withered for want of moisture and those in rich soil suffered in outturn. Fodder became scarce in some parts and cattle became emaciated.

Konkan.—The kharif season commenced as usual in June. The month's rain though below the average was timely and sufficient for completing sowings, but transplantation was impeded as the fall at the end was rather light. The July rain was deficient and the young crops became stunted or began to wither in places. August and September rains were very light, particularly in the two northern talukas of Thána. Some fields remained untransplanted, standing crops began to suffer and rice in salt lands was parched up. There was practically no rain in the month of October in Thána and Kolába. In other districts it was very light and of short duration. The standing crops withered in places or yielded a poor

outturn. Second crops were sown in places but did not thrive for want of moisture. The season on the whole was unfavourable.

“*Sind*.—There was practically no rain in the desert and the failure of unirrigated crops was almost complete.”

•In Appendix 3 is shown a comparison of the rainfall of 1899 with that of 1896 and the average at selected stations.

4. Owing to the excellent system of communications which now brings every portion of the Presidency into close connexion with the great market, the supplies of food were at all times sufficient, and it cannot be too frequently repeated that severe privation was chiefly due to the dearth of employment in agriculture and other industries, but the failure of the harvests caused loss of ordinary income in an enormous area and to an unprecedented extent, as described in the detailed reports in Appendix 6. Loss of crops.

5. Appendices 7, 8 and 9 exhibit a statistical comparison of 1899-1900 with the previous year in respect of areas sown and crops matured in each district and under the various food and other crops; also an estimate of the outturn compared with that of four previous years, including the year of famine, 1896-97. In the area sown there was a contraction in the four northern districts of Gujarát of more than 90 per cent., in three districts of the Deccan of more than 80 per cent., and in three others of more than 70 per cent. The area cropped more than once diminished by 400,000 acres or 56 per cent. Cereals and other food-grains, which in 1898-99 had been sown in 20 millions of acres and had matured in 18·5 millions, were sown in 16 millions and matured in 6 millions only. The proportion of the outturn in 1899-1900 to that of 1898-99 was in Gujarát 4·4 per cent., in the Deccan 14 per cent., and in the Karnátak 17·4 per cent. Comparison with previous years.

6. In the famine of 1896-97 disaster resulted less from the total insufficiency of the rainfall than from its unseasonable distribution. Heavy rain in the early period of the monsoon filled the tanks and the storage reservoirs of the canals, and in the tracts in which irrigation works existed there was considerable alleviation of the effects of drought. In the season of 1899-1900 conditions were far more adverse; the failure of the rain was so complete as to render ineffective most of the sources of irrigation. Almost all tanks dried up at an early date; the area * irrigated from them fell 73·4 per cent. below the area of 1898-99, which was about normal. Except in Sholápur where the storage reservoirs had been filled by a single storm and the Irrigation.

	Acres.
*1896-97 ...	113,000
1898-99 ...	113,000
1899-1900 ...	30,000

area under canal irrigation rose to double the area of 1898-99, all canals held a very scanty supply; in Ahmedabad and Kaira practically no irrigation was possible; in Poona it declined by one-third and in Dhárwár by one-half. The area irrigated from streams exhibited a fall of 53,000 acres or 40·4 per cent., and in large tracts the level of sub-soil water sank to a serious extent. Large sums of takávi were advanced to assist cultivators in constructing new or deepening old wells; and this form of irrigation increased from 561,251 acres to 657,789 acres, strenuous efforts being made to take advantage of all water available, but in many places the supply was intermittent and but scanty crops were produced.

7. The numbers relieved in different ways from month to month are contrasted with those in 1896-97 in Appendix 10. The daily average number rose from 280,000 in 1896-97 to 849,000 in 1899-1900, and the maximum daily number from 459,000 to 1,547,000. The numbers on relief continued to rise steadily till the month of April 1900. In May there was a decline owing to outbreaks of cholera on several relief works. The numbers again rose in June and the maximum was reached in July. In the subsequent months there was a steady decline. The proportion of total numbers relieved to the affected population in each district is shown in Appendix 12. The highest percentages reached in any month in any district during the two previous famines were 20 in Bijápur in 1876-77, and 18 in Sholápur in 1896-97. In 1899-1900 the highest percentage reached in the Panch Maháls district was Extent of relief.

40, in Broach 36, and in five other districts it exceeded 18 per cent. These proportions were greatly in excess of all previous estimates. The Famine Commission of 1880 calculated that the average number of persons likely in a severe famine to require relief continuously for one year might be put at from 7 to 8 per cent. of the severely affected population. According to the Famine Commission of 1898 the famine of 1896-97 proved the general accuracy of this forecast. The Famine Commission of 1880 also took 15 per cent. of the severely affected population as the maximum number likely to be in receipt of relief in the worst months. The percentages as they stood in 1899-1900 are shown below:—

	Affected population.	Daily average number relieved for a period of one year from November 1899 to October 1900.	Percentage of column 3 to column 2.	Maximum number relieved in any one month during the same period.	Percentage of column 5 to column 2.
1	2	3	4	5	6
Entire affected area ...	9,800,000	1,028,468	10.5	1,547,223	15.8
Severely affected areas only.	7,200,000	960,738	13.3	1,440,563	20.0

Classes of people on works.

8. A marked feature of the situation in the Deccan was the readiness of all people whose resources were exhausted and of many whose resources were not entirely exhausted to flock to the public relief works. High class Maráthás with their families and Musalmán *pardánishin* women were observed on the works in Ahmednagar. In Gujarát, however, where the people had no previous experience of famine, great difficulty was found during the earlier months in inducing certain classes of people, such as the Dharála Kolis in Kaira, the Bhils in the Panch Maháls and the Káliparaj in Surat, to take relief on the conditions offered, and it was not until a late stage that the higher classes of cultivators in Gujarát, such as Rájputs, Pátidárs and Girásias, had recourse to relief works in large numbers. From December 1899 to April 1900, a monthly census was taken of the population on relief works in the several districts. The result is exhibited in Appendix 13, which gives the proportion of the different classes of people to the total numbers relieved and to the total population of each class. As might be expected from the circumstances the proportion of cultivators to the total number of persons on works was very much higher than in 1896-97, and it was particularly high in Ahmedabad and Kaira, where the Kolis—a large class of unthrifty people—are generally cultivators. In Surat, where the distress was not very severe, the people on works were mostly of the landless classes. It has been found impossible, owing to the concealment or misstatement of their places of abode practised by the people, to ascertain the exact extent to which immigrants attended British works, but as is shown below in Section V it is certain that in some districts the influx was very large.

Second Year, 1900-1901.

Continuation of distress.

9. The intensity of the famine of 1896-97 was at once relieved by the fall of good rain in September 1897, and the numbers of people in receipt of relief fell from 459,000 in September to 221,000 in October and 37,000 in November, and from December 1897 till the closure of relief in November 1898 remained below 22,000. The season of 1900 on the contrary proved unsatisfactory; and the numbers on relief, which in July 1900 reached the maximum figure of 1,547,000, continued to exceed a million in September. In October and November a reduction took place to 575,000 and 281,000, and a further gradual fall followed to 178,000 in February 1901; from this time the numbers again rose rapidly, till they reached a final maximum of 480,000 in July. In Appendix 4 the rainfall at selected stations in each district is compared with

the normal. In Gujarát in place of the usual rainfall distributed over the five months from June to November, there was heavy and continuous rain for two months only, August and September; there was insufficient rain for early sowing and no rain to bring kharif crops generally to maturity, or to fertilize seed sown for the winter harvest. In the Deccan and Karnátak the rainfall was very variable; the crops were throughout in a precarious condition, but were saved from absolute ruin from time to time by casual showers. In November and December however there was practically no rain and the loss of late-sown kharif crops and of rabi crops except in irrigated areas was very extensive.

10. The cultivated area and the estimated outturn in each district are shown in Appendix 14. Except in the Konkan, Dhárwár, Surat and Khándesh, the produce was nowhere half of the normal and in the districts of Ahmedabad, Panch Maháls, Sholápur, Ahmednagar, Poona and Bijápur it ranged from one-eighth to one-third of the normal. It was observed that the capricious character of the rainfall resulted in extraordinary differences of condition in areas in close proximity, and that in many cases in the same village the crops varied from a full normal outturn to one-sixth thereof. The total produce was however materially greater than in the previous year.

11. In another respect the situation was less acute than in 1899-1900. In that year distress prevailed over a large extent of the whole continent, and the prices of food-grains in consequence reached an abnormal height. In 1900-01, however, in the greater part of India harvests were abundant and plentiful supplies of grain were imported into the affected tracts at comparatively low prices; the prosperity of neighbouring provinces also created a considerable demand for agricultural labour, and large numbers of persons who would otherwise have come on relief are reported to have emigrated, in particular from the districts of Sholapur and Bijápur to the Berars. In Gujarát unexpected assistance was derived from the growth of a grass-seed known as *sámo*, which owing to the dearth of cattle was produced most abundantly in the lands lying fallow, and supported large numbers of the poorer classes for some six months without any apparent deterioration of condition. These facts combined with the heavy mortality of the previous year amongst the weak and sickly population, operated to diminish the demand for relief; but on the other hand the recurrence in the Deccan of a third famine within five years exhausted the resources of cultivators who had previously been able to withstand their misfortunes.

12. Relief works were accordingly found to be necessary over an area of some 41,000 square miles containing 7 millions of persons affected by the distress. The tracts involved were Northern Gujarát and parts of Southern Gujarát, the Deccan and the Karnátak. The statement in Appendix 1 exhibits the area and population affected. The numbers relieved and the proportion to the affected population in each district are shown in Appendices 11 and 12. The daily averages and the maximum numbers were similar to the figures recorded in 1896-97 and about one-third of those recorded in 1899-1900.

Third Year, 1901-1902.

13. The season of 1901-02 was again disappointing. In Gujarát the summer rains began late and ceased early, and the winter rains failed almost entirely; in the Deccan prospects were at first good, but the rainfall was deficient from September onwards and the rabi crops were seriously affected: the Karnátak fared somewhat better, but only in the Konkan was the monsoon at all seasonable and sufficient. Details of the rainfall at selected stations in the affected districts are given in Appendix 5. The damage done by shortage of rain was intensified by a severe plague of rats and locusts, grasshoppers, and other insects, which assailed parts of the Deccan and Karnátak and converted, in the case of some Gujarát districts, what would have been moderate scarcity into intense distress. In the Desert portion of Thar and Párkar there was an absolute failure of rain, and the crops were practically *nil*.

14. The outturn of both kharif and rabi crops of all kinds was estimated to be 55 per cent. of the normal for the Presidency proper, varying from 8 to

45 per cent. in Ahmedabad, Kaira, Panch Maháls, Násik, Ahmednagar and Bijápur districts, and from 50 to 70 per cent. in Broach, Surat, Khándesh and Poona districts. Details for each district are given in Appendix 15. In the Panch Maháls the estimated proportion of outturn to the average was only 8·8 per cent., owing to the want of another fall of rain and to the terrible havoc wrought by rats, to whom every crop, including cotton and oil-seed, seemed to come alike. In Ahmedabad district 445,000 acres or 64 per cent. of the sown area failed, crops covering 158,000 acres having been destroyed by rats, locusts, &c. Again, 1,265,000 acres or 46 per cent. of the sown area yielded no outturn in Bijápur district, where grasshoppers destroyed 40,000 acres of crops in one táluka of Bágalkot. Other districts were scarcely more fortunate, and some details of damage done will be found in Appendix 16.

Extent of distress in the third year.

* As shown in paragraph 17, *infra*.

Government of India's letter No. 280-18-2, dated 7th February 1902.

15. In Gujarát at least, the distress was more intense in 1901-02 than in the preceding year. Owing to better harvests being reaped in other parts of the Presidency and outside it, prices* remained unusually low and steady, so much so that the Government of India remarked that it was found "difficult on the basis of past experience to reconcile the present apprehensions with the moderate pitch of the rates at which grain is now procurable" and that "the existence of famine has never previously been recognised with prices at the level they now hold in Bombay." But it is necessary to bear in mind the two preceding years of famine. Coming by itself one such bad season might have but little effect; but coming as it did, it seriously retarded ultimate recovery and accentuated previous disasters. The resources of the most frugal cultivators must in many cases have been exhausted by this third successive blow: there was, moreover, an almost total failure of grass seeds, such as *sámo*, *khásli* and *manki*, which were abundant in 1900-01 and then formed a staple food for the poorer classes, and this fact no doubt largely accounts for a somewhat extensive renewal of immigration in 1901-02. The affected area declined from 41,000 square miles with a population of 7 millions in 1900-01 to 36,000 square miles with a population of 4 millions in 1901-02. The tracts involved were Northern Gujarát, parts of Southern Gujarát, the Deccan and KarnátaK as well as the Desert portion of Thar and Párkar in Sind. The details are exhibited in Appendix 1, from which it will be seen that distress was most acute in Northern Gujarát, while in the Deccan and KarnátaK it was comparatively light. The numbers relieved from month to month and the proportion of these numbers to the affected population in each district are shown in Appendix 11 and Appendix 12. Although the proportions of the daily averages and the maximum numbers relieved in all the districts taken together did not materially exceed those of 1900-01, the percentages were very high in the Northern Gujarát districts, where the figures even exceeded those of 1899-1900 in one instance, as will be seen from the following table:—

District.	Percentage proportion of daily average number relieved to affected population.			Percentage proportion of maximum numbers relieved to affected population.		
	1899-1900.	1900-1901.	1901-1902.	1899-1900.	1900-1901.	1901-1902.
Ahmedabad	10	2	8	21	4	17
Kaira	9	2	4	26	7	9
Panch Maháls	13	4	16	40	6	27
Entire affected area	9	4	5	16	7	8

There was a counterbalancing diminution in the Deccan and KarnátaK. The daily average number of persons on relief reached a temporary minimum of 60,000 in December 1901, but rose gradually to 318,000 in August and then sank again in October 1902 to 103,000, of whom some 80,000 were being relieved gratuitously. The monsoon of 1902 however proved so favourable that

practically all famine relief in the Presidency was closed by the 31st December 1902.

16. The losses of the landholding classes have been enormous. The deficiency in the outturn of food crops alone in the years 1899-1902 as compared with the outturn of the normal year 1898-99 amounted to some $8\frac{1}{3}$ million tons, valued at 60 crores of rupees. To this estimate must be added the losses from the failure of cotton, oil-seeds, and crops other than food crops of high commercial value, and from the death of two millions of cattle in 1899-1900, the larger proportion of which were of the valuable breeds of Gujarát. The addition of 12 crores for the former and 2 crores for the latter brings the losses at a very moderate computation to 74 crores of rupees or nearly 50 millions of pounds sterling. There was further a very serious loss, the amount of which cannot be even approximately computed, in the expenditure of savings in fruitless attempts to keep cattle alive.

Extent of loss in the three years.

II.—SUPPLIES OF FOOD-GRAINS.

17. Prices began to rise from the end of July 1899 and in some districts were double the normal by the end of August 1899. The course of the rates of the cheapest staple food-grains month by month from September 1899 to October 1902 in distinctive tracts of the Presidency as compared with the normal rate and the rates current during the famine of 1896-97 are exhibited in the following table :—

(In Pounds per Rupee.)

	Normal	1899.					1900.																
		September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December						
Gujarát	34	17	17	8	16	18	19	18	18	18	17	17	17	10	23	26	34						
Deccan	41	21	18	17	18	19	18	17	17	17	17	17	17	18	10	23	24						
Karnátak	44	23	25	23	23	24	23	21	21	20	10	21	21	20	18	21	20						
	Normal	1896.					1897.																
		September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December						
Gujarát	34	27	23	21	21	21	21	20	19	19	18	17	16	18	23	25	29						
Deccan	41	29	26	26	21	21	21	19	19	18	16	15	14	17	22	24	27						
Karnátak	44	45	33	25	25	25	25	21	22	22	21	18	18	26	27	29	35						
	Normal	1901.												1902.									
		January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October
Gujarát	34	35	34	35	36	34	30	32	36	28	29	31	31	27	27	28	27	26	24	26	26	30	31
Deccan	41	26	27	29	28	28	25	28	36	27	29	33	34	35	33	31	31	29	27	28	29	32	33
Karnátak	44	26	28	30	28	27	26	26	26	27	30	33	37	38	37	35	34	38	31	31	31	32	41
	Normal	1898.																					
		January	February	March	April	May	June	July	August	September	October	November	December										
Gujarát	34	30	31	31	32	32	31	33	33														
Deccan	41	29	32	34	36	33	32	33	34														
Karnátak	44	38	38	39	39	39	34	37	35														

In some districts the price of grain was for a time as high as 14 lbs. and in one district it rose to 12 lbs. per rupee, but the railways, which now run through all the affected districts, enabled supplies to be soon replenished

from parts of India where the harvests were good, and exceedingly high prices were not of long duration. For this purpose, as also for the purpose of supplying fodder to Gujarát, the Tápti Valley Railway proved of very great service. In no case was it necessary for Government to consider the question of undertaking import. The steadiness and comparative lowness of prices in 1900-02 and their relation to the prevailing distress in those years have already been commented on above.

Traffic in
food-grains.

18. During the thirteen months ending August 1900 the usual course of trade was reversed; for the Port of Bombay, instead of receiving food-grains for consumption and shipment beyond the sea, exported large quantities to the affected districts. Rice formed three-fifths of the total imports: Rangoon rice found its way into Gujarát at a very early stage of the famine and, being the cheapest, was the food most largely in use until other food-grains were produced in the province after the rains of 1900. During this period the net imports into Gujarát were equivalent to 6½ months' supply and the net imports into the Deccan to 3 months' supply, from which it may be gathered that ordinarily the Deccan is better stocked with food-grains than Gujarát. Movements of grain and the whole course of trade were watched and recorded with the greatest care (*vide* Appendix 17), but since owing to railway facilities there can be no apprehension that in this Presidency the supply of food-grains will be deficient, any general review is unnecessary.

III.—WATER SUPPLY.

Results of
deficiency.

19. The deficiency of water supply, which prevailed during the whole three years until rain fell abundantly in 1902, was throughout one of the most serious features of the situation. It caused great hardship in most tracts and in some even the abandonment of villages. Many schemes on which famine labour might have been usefully employed could not be taken in hand or had to be abruptly closed on this account. Village tanks on which cattle usually depend for drinking water became dry early in 1899 and wells were exceedingly low owing to the additional strain thus put upon them. In Sholápur a normal supply of 25 feet was in one instance reduced to 15 inches, and wells in Broach, Panch Maháls and Sátára were entirely dry. Mountain streams failed early in the season: the Krishna and the Godávari were reduced to a series of shallow pools, while in the Násik district the Girna, never before known to fail, became absolutely dry, and there was much anxiety even about the supply from rivers in Gujarát like the Mahi, Watrak and Shidhi, which have their sources in the mountain ranges of Central India. The water bearing strata of the Deccan, remarkably irregular at all times, were disappointing to enterprise and showers in April and May of 1901 alone averted a great calamity in that part of the Presidency. The sandy beds of rivers and temporary wells constituted an important source of supply in Gujarát, but owing to an alarming decrease of 51·2 per cent. in the average rainfall of 1899-1901, there was a continuous and unprecedented subsidence of the sub-soil water level. The shrinkage in the Deccan, and Karnátak also was so great that in some places, where old sources had run dry, no water could be found, and in the north of the Presidency severe scarcity of sub-soil water was apprehended even before the close of 1901, whilst in 1902 the situation was again most critical. Efforts made to improve the water supply are described in Part II under Section VI B (1) Public Works (including water supply).

General
subsidence
of water
level.

IV.—FODDER.

Comparison
with 1893-97.

20. In the famine of 1896-97 scarcity of fodder prevailed in several districts, and, as shown in Appendix L of the Famine Report of that year, large supplies were collected and distributed by the Forest Department. The experience so gained proved of great value in the crisis of 1899, when the difficulties of the situation were aggravated to an extraordinary extent. In 1896 the copious rainfall produced abundant grass in the Sátputa hills and in parts of Thána and the Sahyádrí range, to which the tracts affected by drought were comparatively near, and the cattle in need of fodder were all of the hardy Deccan breed. In

1899 the loss of fodder in the part of Gujarát north of the Narbada was as complete as the loss of grain : the nearest forests from which grass could be procured were not less than 200 miles distant, and the cattle which efforts were made to preserve were accustomed to succulent *kadbi*. In Appendix 18 is entered an extract from the report of the Collector of Kaira describing the situation in that district, and the description is almost equally applicable to all Northern Gujarát. The vain efforts of the poorer classes of cultivators to keep cattle alive by gathering leaves and digging up and collecting stubble and roots of grasses were pathetic. The Thána district and portions of the Surat district however not only contained sufficient supplies for local consumption but were able to export large quantities, and the Deccan cattle were able to graze for four months of the year on the crops of the grass *kurans*, before they became dependent on importations from the forest reserves. The Karnátak, which ordinarily possesses large surplus stocks, fared better and the superfluous cattle having been swept off in the previous famine, the remainder found a sufficient subsistence throughout the year. In the Desert portion of the Thar and Párkar district of Sind it is reported that "there was not a vestige of fodder from August 1898 to August 1900. The people took off the roofs of their houses and used three or four years old thatch as fodder for their ponies," before they were compelled to emigrate into the valley of the Indus, 100 miles to the west. The statement in Appendix 19 shows the average price of jowári straw fodder per 1,000 lbs. from December 1899 to October 1901 : it will be seen that by January 1900 the prices in Gujarát and Poona had more than doubled as compared with the normal, and that in Ahmednagar and Sholápur also they were much above the normal. There was no real scarcity of fodder after the rains of 1900.

V.—IMMIGRATION.

21. In 1899-1900 acute distress prevailed in almost all the Native States of this Presidency, and also in the bordering tracts of Rájputána and Hyderabad (Deccan). The number of States under supervision of the Bombay Government is 363 with an area of 66,000 square miles and a population of 8 millions. If to them be added Baroda and the portions of Rájputána, Indore and Hyderabad (Deccan), within 50 miles of the Bombay frontier, the sources from which immigration was possible may be taken at 107,000 square miles with a population of 14 millions. Chiefly owing to the deficiency in the organisation of relief in many of these States, there was at all times throughout the period of distress a continual influx of destitute and often emaciated persons to the relief works and towns in British territory. The movement began in September 1899. Appendix 20 contains extracts from the correspondence which took place on the subject, and describes the numerous difficulties which were superadded to the task of relieving the British population. The tracts where the strain was greatest were the four Northern Gujarát districts, and the Khándesh, Ahmednagar and Sholápur districts.

Sources of
Immigration
in 1899-1900.

22. Into Gujarát immigrants flocked from Rájputána, where "absence of water" was reported, and especially from Márwar, from Bikáner and Jesalmír, as also from Káthiáwár, Rewa Kántha and Mahi Kántha, where the congeries of numerous petty States had neither the administrative resources to organise nor the pecuniary resources to maintain relief works on an effective scale, and from Baroda, where in spite of the possession of these resources great delay occurred in the initiation of the necessary measures. On the 15th September 1899, an average day, over 1,200 foreign refugees were registered at a single observation post in the city of Ahmedabad. The Commissioner, Northern Division, reports that in the month of July 1900 while in the táluka of Borsad in the Kaira district there were 55,000 persons on relief, in the adjoining Petlád táluka of the Baroda State, "there were said to be two works employing 778 persons and a third on which the number is not stated." On one work in the same district out of 10,251 persons, 2,300 or 23 per cent. were subjects of the Baroda State; on a tank near Ahmedabad, 5,000 out of 8,000 persons came from Jodhpur. The following facts also are significant. In the Broach district, against a census population of 106,733 of Kolis, Bhils, Dublas and Talávias there were on relief

Immigration
into Gujarát.

works 35,709 members of these castes in December 1899, 73,839 in January 1900, 60,287 in February, 57,062 in March and 48,250 in April, that is, 33, 69, 56, 53 and 45 per cent. of the total number of these castes. In the same district in January, February and March 1900 the number of cultivators was from 65 to 67 per cent. of the resident population of the cultivating classes, or nearly six times the highest proportion reached in any district in 1897; in January the weavers on works outnumbered the whole population of weavers in the district; the number of Musalmáns relieved amounted to one-third of the Musalmán population, and the proportion of Bhangis on works was 93·5 per cent. of the resident Bhangi population, while in other districts it was comparatively small. Such high percentages can be explained only by the hypothesis that the numbers on relief in the Broach district were very largely swollen by immigrants. In Ahmedabad the number on works in January was not half the number in April; yet the proportion of cultivators relieved in the former month was higher than it was in any district at any time in 1896-97. Where the immigrants belonged to tracts the inhabitants of which were capable of identification by their distinctive types, cautious measures were adopted to secure their return when the respective States were prepared to receive them on relief. But in the villages of Baroda and the Rewa Kántha States inhabited by Gujarátis of the same races as the residents of British territory no such differentiation was possible, while the people from an early stage for fear of the refusal of relief or of being compelled to return, concealed the true names of their villages and represented themselves as British subjects. Thus the Commissioner, Northern Division, reports—"The Jodhpur immigrants who came in at the beginning of the year (1899-1900) were cleared off, and this division has no reason to complain of Rájputána, Káthiáwár or the Pálanpur Agency. Baroda, the I'dar State and some of the Rewa Kántha States have throughout the year imposed an undue share of their burden upon us."

Immigration
into the
Deccan.

23. Into the Ahmednagar and Sholápur districts there was a great influx of destitute persons from the territories of His Highness the Nizám. At a work on the frontier of Ahmednagar, in February 1900 one-third of a total of 7,000 were immigrants from the Mogláí. In March in the táluka of Bársi of the Sholápur district, which is an outlying portion of British territory surrounded by the Mogláí, the number of people on relief amounted to 36 per cent. of the whole population, while inquiry in the villages showed that the number of local inhabitants who had gone to relief works was not unusually large. At a tank in the Karmála táluka of the same district it was reported that 4,000 out of 18,000 persons came from the Mogláí. Here also the difficulty of identification was experienced.

Immigration
into Bombay.

24. The City of Bombay attracted many beggars, especially from Káthiáwár, and for a time the indiscriminate distribution of private charity threatened to increase their numbers to an extent that might have been dangerous to the health of the city. The danger was however checked by deportation to relief works in the Thána district, and to the States whence these persons had come.

Immigration
into Sind.

25. Sind received a continuous stream of refugees from Cutch, Káthiáwár and Rájputána. It was estimated that more than 100,000 destitute foreign immigrants, the greater proportion of whom were from Jodhpur and Jesalmir, crossed the Thar and Párkar Desert, while many more used the southern routes into the Karáchi and Hyderabad districts. The foreign immigrants relieved in poor-houses and villages in Thar and Párkar district constituted 40 per cent. of the total numbers so relieved.

Immigration
in 1900-1901
and 1901-1902

26. In the year 1900-01 the distress in Native States was not beyond the power of the administrations to cope with, and very little immigration into British territory took place; but in 1901-02 the less favoured tracts of Gujarát were considerably invaded from the direction of Pálanpur and Rewa Kántha and Mahi Kántha as well as from Káthiáwár, Baroda and Márwár. The deception practised by immigrants made detection exceedingly difficult; but it was estimated that in Ahmedabad district about half the relief workers on two tanks (numbering nearly 2,000) were foreigners, whilst in other places the proportion proved to be 40 or 50 per cent. In the course of his inspection in Ahmedabad district the Commissioner, Northern Division, noticed that out of 6,700 workers on one tank

work on the 15th January 1902, 2,367 were foreigners, of whom 1,977 came from Pálanpur, whilst on the 17th idem 3,000 out of 5,500 workers on Hansalpur tank were found to be immigrants from small neighbouring States. In January 1902 the admissions into poor-houses at central places were almost all of foreigners, but in February considerable relief was afforded through removal of immigrants by the States concerned. When, however, the heavy rain in August 1902 drove British subjects to their homes, it was discovered that in the single taluka of Daskroi in Ahmedabad district about 10,000 relief workers were the residents of one Agency, Pálanpur. Other similar instances of immigration into the districts of Kaira and Panch Maháls are forthcoming, and in the Eastern Maháls a separate camp and kitchen were provided for foreigners. Even in July, immigrants who had been despatched to their homes returned, and there was much of this persistence throughout Northern Gujarát. There was very little immigration in other parts of the province in 1901-02, but this short history of the movement shows how seriously the administration and organization of famine relief in affected districts were hampered and occasionally strained almost to breaking point by these repeated invasions.

PART II.

VI.—RELIEF.

Precautionary
measures-G. R. No. 5071, dated
22nd July 1899.

27. Early in the season of 1899 Government called for special weekly reports from Collectors on the state of crops and condition of people and cattle. All officers of the Revenue and Public Works Departments were at the same time warned to be ready for an emergency, and programmes of relief works were ordered to be completed where they were not ready. By the middle of August it was found necessary to open test works in the districts of Northern Gujarát, where the condition of the poorer classes gave cause for serious anxiety and the situation was aggravated by a gradually increasing influx of destitute people from adjoining Native States. As regards the Deccan, test works were opened in Khándesh, Ahmednagar, Násik and Sátára in the month of September. Relief measures had thus to be commenced much earlier than in 1896, when test works were not started in any district until the middle of October.

A.—ESTABLISHMENTS.

Strengthening
of establish-
ments.

23. Early steps were taken to provide the requisite establishments, both in Civil Departments and the Public Works Department. As soon as the necessity for relief became established, Divisional Commissioners were authorized to appoint additional Circle Inspectors for purposes of relief inspection in the districts of their divisions and to employ Special Civil Officers for relief works, as well as any other establishments required for both clerical and out-door work. Superintending Engineers were at the same time given authority to appoint any qualified men they could obtain for duty on relief works on salaries not exceeding Rs. 250 per mensem. The need for strengthening such subordinate establishments was again impressed on the officers concerned in the following terms:—

G. R. No. 80, dated
8th January 1900.

“The Commissioners and Superintending Engineers should be requested to bear in mind the great importance of having Special Civil Officers, mustering kárkuns and cashiers ready to deal with crowds of applicants for work. It may be anticipated that in every district now the number in need of relief will steadily rise, and in the more southern districts there is sure to be a sudden rush on the works. When the number of people on works is larger than that with which the establishment is competent to deal, a state of disorganization results which it may take months to remedy. It should be ascertained from the Judges and from the officers of the Educational Department whether the work in the Courts and schools is not now so slack that judicial kárkuns and school-masters could be spared either for famine duty or to relieve people in Revenue Department offices for employment on that duty, and if any can be spared, immediate application for their services should be made. The Commissioners and Superintending Engineers should also endeavour to procure, if possible, the services of any pensioners that may be available, and take any other measures which suggest themselves for obtaining a sufficient establishment.”

Special estab-
lishments:
Public Works
Staff.

29. Efforts were at once made to secure an increased establishment of Engineers and subordinates in the famine stricken districts by recalling officers from leave, making requests to the Government of India and Local Governments for assistance, and advertising for temporary men. The largest number of relief workers in 1876-77 was 361,172 and in 1896-97 was 321,203: and it was never supposed that these figures would be materially exceeded, until in 1899-1900 the number rose to 1,011,279. There was equally severe distress in adjoining Native States under the political control of this Government, and in some it was necessary to supply officers for supervision to prevent a complete breakdown. The difficulty of obtaining sufficient establishment to exercise adequate control over such a number of people could not be completely overcome; but considering the limited number of officers at the disposal of Government, no feasible measure to obtain efficient supervision was omitted.

Special Relief
Officers.

30. Endeavours were made throughout the whole period of famine to secure supervision of relief works by European agency. Several Staff Corps officers were made available by the Military Department, who also spared a few European non-

commissioned officers and Native commissioned and non-commissioned officers. The Postal, Customs and Forest Departments also supplied a large number of men, and others were drawn from the Burma Police and the Northern India Salt Department. The services of a few retired European officers and private gentlemen were also secured locally. Later in the season when certain of the Staff Corps officers had to revert to Military duty, the Government of India supplied five junior Civilians and two Royal Engineers. The special supervising officers thus employed (numbering 92 in all during 1899-1900) rendered valuable assistance, especially during the cholera epidemic in Gujarát and throughout the hot season of 1900. They not only exercised a general supervision over relief works, but were for the most part also engaged in the control of the administration of gratuitous relief.

31. Special Civil Officers (numbering 300 in all in 1899-1900) were appointed to all large relief works to superintend the Civil arrangements. The majority were drawn from the clerical establishments of the Revenue Department and received pay varying from Rs. 40 to Rs. 100. It was not found possible however to obtain suitable men in every case, and on many works in Gujarát village accountants had to be appointed as Special Civil Officers. In a report dated 6th February 1900 the Collector of Ahmednagar stated as follows:—

Special Civil Officers.

“Of the famine relief works which I visited, one was by no means well managed; the other two were excellent in arrangement and discipline, reflecting much credit on the Special Civil Officer. That is the main difficulty that I am now experiencing—the providing of competent Special Civil Officers. All my best and even my inferior men are exhausted; and I am being obliged to take on outsiders lacking in experience, and what is worse, in authority. A man who holds a decent position in the Revenue Department carries a good deal of weight as Special Civil Officer and is locally known as the Mámálatdár of the work. But my lower grade men and outsiders do not carry the same authority, and the discipline so necessary in dealing with large numbers, most of whom are perfectly ready to take immediate advantage of slackness or a tendency to over-tenderness, is not enforced adequately and various muddles result. Even some of the higher grade men prove unsuited for the active executive work required from a Special Civil Officer. However with constant supervision (which they get) I do not find any reason to doubt that every work will in time be in good order.”

In a report dated 7th December 1899 the Commissioner, Northern Division, stated that the Special Civil Officers in Broach were almost to a man inefficient, that men of sufficient calibre could not be got for Rs. 40 per mensem, and that he had therefore authorized the Collector to try to get a better class of men by advertising and by offering from Rs. 60 to Rs. 100 according to qualifications. Government confirmed this proceeding, and the Collector of Broach tried the experiment of appointing University graduates as Special Civil Officers. The result of the experiment is thus described by the Collector:—

“The graduates had but little experience of the work they were called upon to do but they did it with great zeal, sympathy and conscientiousness. With these qualifications they found no difficulty in learning their duties without loss of time, and in appreciation of their work the pay of one of them was increased from Rs. 60 to Rs. 100 and of four others to Rs. 80. On the whole, the graduate scheme worked satisfactorily and I am led to think that with proper encouragement their services would prove highly successful in famine times. Being young they have an amount of zeal and energy which count for much in work of supervision, and in addition to this they are generally sympathetic and honest.”

Each Special Civil Officer was given a clerk and a peon.

32. Every poor-house and kitchen was provided with an establishment consisting of a superintendent, store-keeper, kárkuns and menials in accordance with the scale prescribed in the Famine Code.

Poor-house and kitchen establishments.

33. A District Medical Officer was appointed to each of the severely affected districts to perform the duties prescribed in Section 48 of the Famine Code. Khándesh being a large district had two such officers, and during the cholera epidemic Ahmedabad and Broach also had two District Medical Officers each. It was generally found possible to spare some of the English Doctors on plague duty for appointment as District Medical Officers. These officers as well as the rest of the Medical staff employed on famine duty were subordinate to the Sanitary Commissioner, who supervised all the medical and sanitary arrange-

District Medical Officers.

ments connected with relief operations, and submitted to Government periodical reports from the District Medical Officers on the physical condition of the people and sanitary matters generally. Clerks and peons were given to District Medical Officers, and the office of the Sanitary Commissioner was strengthened.

Subordinate
Medical
Establishment.

34. It was not possible to satisfy from local sources a demand made as early as February 1900 for 62 subordinate Medical officers required for duty on relief works and in poor-houses, and applications for assistance were made without success to Local Governments and the Bombay Military authorities. In March 1900 therefore the Surgeon General was authorised to employ on relief works 115 compounders, of whom 50 were intended to work in lieu of Hospital Assistants who were not obtainable. In April the Sanitary Commissioner was authorised to entertain locally temporary Hospital Assistants on a consolidated salary of Rs. 60 per mensem, but he was able to obtain the services of only six men on this increased rate of salary. Towards the close of April the need for additional Hospital Assistants became still more urgent owing to outbreaks of cholera, and the Government of India in response to a request for 40 Military Hospital Assistants were able to spare only 21, who were however recalled in July for Military duty, and replaced by 14 Civil Hospital Assistants and 5 Assistant Surgeons. In September further medical aid was required on account of a virulent epidemic of fever in Gujarát, and the Government of India were again asked to lend 32 Hospital Assistants, and met the demand by supplying 17 Assistant Surgeons and 15 Hospital Assistants. A little later 4 more Assistant Surgeons and 6 Hospital Assistants were deputed to this Presidency from Berár. The services of two pensioned Hospital Assistants were also secured locally in the month of May 1900.

Police.

35. To enable the Police to perform the duties specified in Chapter XIII of the Code, such additional force as was necessary was enlisted in each of the affected districts. In some places village watchmen performed Police duties on relief works, especially in 1901-02.

Strengthening
of existing
establishments.

36. Besides the special establishments employed exclusively in the administration of relief, the ordinary establishments in different Departments of the public service were strengthened. In all severely affected districts the Collector was given a Personal Assistant, who relieved him of ordinary routine work and generally held charge of the head-quarters taluka. Additional Assistant or Deputy Collectors were appointed where necessary, and the ordinary charges of affected districts were re-arranged to ensure more effective supervision. The First Class Magisterial work of Revenue officers was in most districts transferred to Subordinate Judges, who did criminal work in addition to their ordinary duties. Extra Aval Kárkuns were from the beginning appointed to each taluka or mahál, and later on a special takávi Head Kárkun or Relief Mámlatdár was added to the taluka establishment in several districts. The staff of Circle Inspectors was considerably strengthened in every district from the commencement of the famine, and further additions were made later in the season when village relief was expanded. Each Circle Inspector had in his charge a relief circle containing a number of villages, each of which he could visit at least once a week in the beginning and twice a week when the charges were further subdivided. In addition to the duties prescribed in the Famine Code, the Relief Circle Inspectors had to see during their visits to the villages that takávi advances were being properly spent and to bring to notice cases of misapplication. They also superintended the disinfection of wells during the cholera epidemic and distributed medicines in villages during the fever season in Gujarát. The office establishments of Collectors and those of Sub-Divisional and Taluka officers were also strengthened, additional establishments were allowed to the Commissioners of Divisions, and a Personal Assistant was given for a few months to the Commissioner, Northern Division. A Famine Department was created from 6th September 1899 under the control of the Secretary to Government, Revenue and Financial Departments, to deal with work connected with famine relief. Subsequently it was found necessary to create an additional appointment of Secretary to Government, and the Chief Secretary to Government was placed in charge of the Famine Department. In addition to his duties at head-quarters, the Chief Secretary visited the famine districts, and reported the results of his inspections to Government.

37. By the end of November 1900 it was found possible to dispense with or reduce many of the superior and subordinate extra establishments. In the hot season of 1901, however, when owing to expansion of relief it became once more necessary to strengthen the supervising staff, five officers of the Indian Civil Service and two Superintendents of Police were deputed to this Presidency. The services of three Postal Officers also were again obtained, and 13 private gentlemen, some of whom had served in the previous famine, were employed.

Special establishments entertained in 1900-1901.

38. In 1901-02 extra establishments were still necessary in Gujarát, and 24 Supervising officers, of whom 23 were Europeans, from the Bombay Customs Department, Salt Department, Postal Department, and elsewhere, were engaged in the districts of Ahmedabad, Kaira, Panch Maháls and Ahmednagar: three District Medical Officers were retained in Gujarát, and 79 Special Civil Officers in the whole Presidency.

Special establishments entertained in 1901-1902.

39. The following table, which is further supplemented by Appendix 21, is a brief record of the number of additional executive officers employed on special duty during the three years of famine:—

Numbers of officers employed.

Civil Departments.				Public Works Department.			
	1899-1900.	1900-1901.	1901-1902.		1899-1900.	1900-1901.	1901-1902.
Special Relief Officers	92	89	34	(District) Relief Executive Engineers.	7	6	1
Medical Establishment—				Engineers in charge of large works.	19	22	7
District Medical Officers	14	8	8	Sub-Engineers	16	14	8
Assistant Surgeons	25	...	...	Supervisors	22	16	9
Hospital Assistants and Compounders.	189	(No definite information.)	...	Overseers	68	66	20
Mámlatárs	16	8	4	Sub-Overseers	182	102	157
Head Kárkuns	102	76	36				
Special Civil Officers	300	81	79				
Circle Inspectors	410	270	177				
Police—							
Assistant Superintendent	1	...	1				
Inspector	1	...	...		
Head Constables	251	69	96				
Constables	1,675	465	424				
Village Police	61	73	167				

40. As regards the conduct of establishments, cases of fraud in all branches of relief work were brought to notice from time to time. The principal classes of offences that were detected, apart from minor irregularities, were of the nature described below:—

Conduct of establishments.

- (a) Preparing false muster-rolls and pay-sheets.
- (b) Defrauding labourers of a part of their earnings or extorting money from them.
- (c) Abetment of cheating by labourers.
- (d) Taking money for admitting applicants to work.
- (e) Entering false measurements of work done.
- (f) Entering false names in the village dole register or in the kitchen muster-rolls, and preparing false dole bills.
- (g) Misappropriating Government stores or money in the management of kitchens or poor-houses.
- (h) Collusion with traders and contractors supplying grain, &c., in defrauding Government.
- (j) Taking *dasturi* or illegal gratification from the recipients of takávi advances or Charitable Fund grants.
- (k) Conniving at the personation of a takávi grantee.

For offences falling under classes (a) to (e), 1 temporary Sub-Engineer, 13 Cashiers, 11 Mukádams, Maistris or Gang Kárkuns and 1 Store-keeper are reported to have been convicted and sentenced to various terms of imprisonment, and 71 Kárkuns, 20 Mukádams, 10 Maistris, 1 Special Civil Officer and 4 Policemen to have been dismissed or otherwise departmentally punished. Similarly for offences (f) to (h) 1 Superintendent of a poor-house and 2 village

officers were convicted in a Court of law, and 2 Mámlatdárs, 1 Mahálkari, 1 Head Kárkun, 7 Special Civil Officers, 1 Store-keeper, 2 Mukádams, 2 Kárkuns, 33 kitchen servants and 4 village officers were dealt with departmentally. For offences coming under (j) and (k), 2 village officers were prosecuted and convicted and 8 more were dismissed or otherwise punished. Several other cases of fraud were reported where actual proof of responsibility was not forthcoming. With reference to a statement in a prominent newspaper of 5th July 1900 that the practice in the Deccan of deducting *dasturis* from takávi advances had apparently attained the dimensions of a scandal, the Commissioner, Central Division, made the following report on October 26th, 1900 :—

“The communications on the subject received from the Collectors in the division afford no ground for the supposition that such exactions prevail to any considerable extent, much less that they have ‘attained the dimensions of a scandal.’ Cases revealing the payment of perquisites by persons drawing advances to village officers are brought to light now and again. Some occurred recently in the Khándesh, Nagar, Sholápur and Sátára districts (nine cases in all) and it is difficult to see how they can be entirely prevented. The Mám-latdárs are required under the rules to make personal inquiries as to the solvency of applicants, but this cannot always be done, and even when the direction is complied with, the tálaka officer must trust to some extent to the local knowledge of the pátil and kulkarni. Moreover, the takávi allotments are generally very limited and the village officers have often a voice in the selection of persons for loans. These circumstances give the pátil and kulkarni a hold on applicants and the latter are probably not unwilling in the great majority of cases to promise them a percentage of the loan in return for their good offices. The people are thus not always interested in resisting these demands, and some at least of the complaints which are heard may proceed from disappointed parties. So far as the people are compelled to pay, the abuse will only disappear when they have acquired a sufficient degree of courage and self-reliance.”

Among the superior European officers specially deputed on famine duty, there occurred only one case of fraudulent conduct resulting in resignation.

41. The figures given above relate to the first two years of famine. As regards the third year it will suffice to say that there was on the whole a general improvement, though in Ahmedabad, Kaira and Ahmednagar districts a few frauds were detected and punished.

42. This record must not however obscure the unparalleled devotion of officers of all classes throughout the stern trial of a calamity of unprecedented magnitude and duration. Accusations of corruption, easy to make and hard to refute, are admittedly the commonest outlet for enmity and a time-honoured refuge of petty spite. The number of proved cases of fraud guarantees the closeness of supervision and emphasizes the extreme difficulty of obtaining trustworthy and conscientious officers for temporary employment in the middle grades. There was often no opportunity for selection, and the duties involved were so onerous as to be in some cases beyond the physical capacity of applicants of the better class while others who had little expectation of future employment were but too likely to succumb to countless temptations. The provision of an efficient temporary staff was one of the gravest difficulties of the situation, and would have been an actual impossibility but for the generous aid of the Government of India and the loyal co-operation of other Departments and Administrations.

VI.-B (1).—PUBLIC WORKS (INCLUDING WATER SUPPLY).

Programmes.

43. In accordance with the rules in Appendix I of the Bombay Famine Code a programme of relief works is maintained in ordinary times and annually revised. Towards the end of July 1899 when failure of the monsoon seemed probable orders were given by Government to complete such programmes as were not ready.

In the Deccan and Karná'tak.

44. The programmes thus prepared for the Deccan and Karná'tak contained provision for the employment of considerably larger numbers than had to be relieved in 1896-97, but owing to the recurrence of famine before the people had time to recover from the effects of the previous calamity, that provision was found inadequate to meet the demand for relief, especially in the districts of Khándesh, Ahmednagar, Sholápur and Poona. There was no difficulty, however, in providing additional works and keeping the programmes up to requirements throughout the period of the famine.

45. Gujarát being classed as immune from famine, there was no expectation that relief would ever be needed there on such a scale as was found necessary. Before relief works had been in progress for one month, it became apparent that the programme for that province was insufficient and that large additions to it would be necessary. The country north of the Narbada river, which was the tract most severely affected, does not lend itself to large irrigation works, and in most places in Ahmedabad, Kaira and Broach districts there is no suitable material for making roads, while in the Panch Maháls roads are little required and can with difficulty be maintained. Recourse was therefore had chiefly to excavation of village tanks, on which large numbers of people could be employed. Such tanks existed in almost every village and little preparation was needed for starting the excavation of the more extensive and most suitable of them as relief works. Earth-work on eight existing or projected railway lines and a few other useful schemes were also added from time to time to these supplementary district programmes, which apart from difficulties connected with water supply proved generally adequate.

In Gujarát.

46. In March 1900 the services of Mr. J. E. Whiting, M.Inst.C.E. (retired Chief Engineer for Irrigation), were engaged temporarily in the Deccan for the purpose of investigating irrigation dams and other projects which had been suggested as likely to be useful and to afford a large amount of earth-work for the employment of famine labour. Eight important sites were inspected by him and relief work was actually undertaken on three of the five projects which he selected.

Special investigation.

47. Test works to gauge the existence and extent of distress were commenced in different districts on the dates shown below :—

Test works.

District.	Date.	District.	Date
Ahmedabad ...	... 24th August 1899.	Násik ...	... 30th September 1899.
Kaira ...	... 2nd September 1899	Ahmednagar ...	... 9th do.
Panch Maháls ...	... 2nd do.	Poona ...	... 28th October 1899.
Broach ...	... 4th do.	Sholápur ...	... 21st do.
Surat ...	... 27th November 1899.	Sátará ...	... 23rd September 1899.
Thána ...	... 6th January 1900.	Bijápur ...	... 23rd December 1899.
Khándesh ...	... 23rd September 1899.	Belgaum ...	... 9th do.

As a rule before test works were opened, the Assistant or Deputy Collector in charge of the taluka visited the locality concerned and satisfied himself of the need of employment. As far as possible Local Board works were selected for the purpose of test, but where the Local Funds had been exhausted owing to plague measures and the strain of the previous famine, the works were carried out at the expense of Provincial Funds. Test works were carried out as far as possible under the supervision of officers of the Public Works Department.

48. It was first of all suggested that a trial should be made on the test works already opened in Gujarát of any of the various systems of payment by results recommended by the Famine Commission of 1898. It was pointed out that in the previous famine of 1896-97 such systems were found to be advantageous in the earlier and less acute stages of scarcity; that their principal objects were the lessening of expense, the increasing of the efficiency of work, and the support of dependants and families by their able-bodied relatives rather than by separate allowances for which no return or a very imperfect return is given in the way of labour, and that these objects should be pursued to the utmost limit consistent with the efficiency of relief. Similarly, as soon as test works were opened in the Deccan, attention was invited to the recommendation of the Famine Commission that the payment on such works should as a rule be in strict proportion to results without a minimum wage or allowances for dependants or a day of rest. It was, however, subsequently enjoined that these orders were not absolute, and that where people were not used to the prescribed tasks and were therefore unable to earn enough to support such of their children as were unfit for work the usual allowances might be granted in respect of such children at the discretion of the Commissioner. The following is an extract from instructions of the Government of India which were re-circulated to all affected districts in order to ensure the exaction of full tasks on test works or relief works in their opening stages :—

Instructions as to management.

Circular No. 8—
F. 77-1, dated 24th
December 1892.

"It has been found by experience in several provinces that officers in charge of test or relief works, when they are first opened in a district are often inclined to be too lax in the matter. In this early stage firmness in this respect is perhaps, even more important than later on; otherwise the works fail to answer the purpose for which they are intended, of gauging the existence and character of suspected distress. It is probable that some thousands of labourers would, at any time when work is slack, be attracted by a Government work on which remunerative employment is offered; and it is found that when once labour has been attracted to a work, more especially if whole families have settled down upon it, it tends to stay there even after the actual necessity which brought it there has ceased. The District Officer must remember that at this stage his object is not to relieve famine but to test the presence of it, not to appease hunger but to find out whether people are hungry. A man who is out of employment and pinched will accept work for a pittance, and it is by offering work at a pittance that the District Officer may certainly tell whether a pinch exists.

"It is true, and must always be borne in mind, that persons who are not accustomed to the kind of labour required cannot at first perform what will, after a few weeks' practice, be a reasonable task for them. The task to be exacted from them must therefore be adjusted to their capacity. But it must *at all times* be a task which no person would willingly perform in exchange for the famine wage unless impelled thereto by want."

The following further instructions of the local Government were also communicated regarding test works:—

G. R. No. 883-Fam.,
dated 21st December
1899.

"For test works metal breaking is eminently suitable; the tools are easily obtainable; the work is deterrent and therefore well fitted to be a test of the need for employment; it can most conveniently be carried out as piece-work, for in the case of it payment can readily be made to each individual according to the work done by him, which is easily measured, and cannot equitably be made in a lump to a gang. Further, metal breaking work is generally available within easy reach of the homes of the several distressed people, and people in need of employment will take advantage of it although they would not at once go a long distance, but after being subjected to discipline on metal breaking work and having experience of it they will probably go readily considerable distances for more agreeable employment on earth-work and can conveniently be drafted in agnys to large tank or railway works."

Test works were conducted generally in accordance with the principles prescribed, and as most of them attracted large numbers, they had soon to be converted into or replaced by regular relief works.

Selection and
opening of
relief works.

49. District maps are appended (Appendix 22) showing the situation of relief works and the dates of their commencement and termination in the year 1899-1900. For the years 1900-1902 maps are not given, but a statement showing similar dates will be found in Appendix 23; during this period new works consisted chiefly of excavation of tanks, but many large works already commenced were completed. The following statement shows the number of talukas and maháls and the number of works in progress at different periods in 1899-1900 in each of the affected districts:—

District.	NUMBER OF		NUMBER OF LARGE WORKS IN PROGRESS AT THE END OF			
	Talukas.	Maháls.	December 1899.	April 1900.	July 1900.	October 1900.
Ahmedabad	7	1	12	19	32	5
Kaira	7	...	7	14	16	1
Panch Maháls	3	2	5	9	8	3
Broach	5	1	14	12	16	7
*Surat	8	1	2	8	3	...
*Thána	9	2	...	5	3	...
Khándesh	17	4	19	34	24	4
*Násik	12	...	2	9	16	10
Ahmednagar	11	...	10	44	43	25
*Poona	8	4	...	10	11	12
Sholápur	7	...	14	19	21	15
*Sátára	11	3	...	12	6	3
*Bijápur	8	1	...	3	2	3
*Belgaum	7	3	...	1	2	...

* Partially affected.

In view of the experience gained during the famine of 1896-97, and in accordance with the recommendation of the Famine Commission of 1898, it was decided to concentrate the workers as far as possible on large central works in charge of the Public Works Department. The following orders were issued on the subject :—

“ As soon as it is established that there is acute distress, such large works as are available in the locality should be opened simultaneously with the organization of gratuitous relief in the villages, and they should be carried out on the code system of task work, kitchens being established on them for dependants. The suggestion of the Famine Commission that no small works should be maintained within a reasonable distance should be carefully carried out. In any district or part of a district in which earth-work on a large scale is not available or within reasonable distance of the homes of people in need of employment, there is no alternative to carrying on road work. Preference should be given to such of it as consists of earth-work, but if earth-work is not available metal breaking must be continued. But even metal breaking must be carried out on the code system of task work once it is established that there is acute distress.”

G. R. No. 883-Fam.,
dated 21st December
1899.

In accordance with these orders large irrigation tank works were opened wherever possible, and as far as practicable earth-work was adopted in preference to metal collection. The proximity of each work to the areas most in need of relief was a principal factor in determining its selection, due consideration being given to its utility; but many otherwise suitable schemes could not be undertaken owing to deficiency of water supply. It will be seen from the maps that employment was available for all distressed people within reasonable distance from their homes, and that in Gujara't during the period of severe famine no person had to travel for employment more than a few miles. When a work had to be opened the Executive Engineer deputed a subordinate to arrange for construction of a kitchen, hospital and other sheds, for sinking temporary wells and marking out the camp, constructing latrines, etc., and the Collector appointed a Special Civil Officer and arranged for a camp bazar. When workers presented themselves they were classified by the Special Civil Officer in accordance with the Code classification, and tools were given out to the workers by the Public Works Department officer in charge. The water supply of the camp was carefully conserved according to rules drawn up by the Sanitary Department and was generally under the immediate supervision of the Special Civil Officer assisted by the Medical Officer in charge of the camp, special precautions being taken during the prevalence of the cholera epidemic. The general sanitation of the camp likewise was carefully attended to by the Special Civil Officer, who had under his control the necessary scavengers, whilst the District Medical Officer arranged for adequate medical supervision as long as the work remained open. A police party was also provided to guard the relief camp and to escort treasure.

50. The relations of officers of the Revenue Department with those of the Public Works Department in regard to the control of relief works were regulated in accordance with the views expressed in the following extract of a letter addressed to the Government of India in June 1898, which was circulated at the commencement of the famine for the information and guidance of the officers concerned :—

Control of
works.

“ The view of the Government of India that a case does not exist for departing from the principle laid down in paragraph 130 of the Famine Commission's Report (of 1880) has the cordial concurrence of this Government. The idea that the Public Works Department is ordinarily perfectly independent of the Executive or Civil Department is a misapprehension. The Collector is the head of the administration of the district, as the Commissioner is of that of the division, and exercises a general supervision over the work of all departments. He does not of course interfere in technical matters; but if he finds any evidence of mismanagement either in a hospital or in a public work in progress, he takes steps to have it rectified. In accordance with the Land Revenue Code as regards revenue matters and in accordance with the general Bombay system as regards other matters Assistant and Deputy Collectors exercise under the control of the Collector the same powers within their talukas as he can exercise except such as are reserved.

G. E. No. 7812,
dated 14th October
1899.

“ There is no reason why there should be any really different system in the time of famine. But whereas the Collector or Assistant or Deputy Collector would not in ordinary seasons issue orders direct to subordinates not immediately under him, he should on a visit to a famine work have the power to call on the officer in charge of the work to remedy any patent defect. He will not of course issue any formal written order and in all cases, if the matter is of sufficient importance, will write to the Executive Engineer, but if, for

instance, the Collector found that on a metal breaking work the breakers were not supplied with stone to break or that the workers had not been paid for more than a week, it would be obviously absurd to make it impossible for him to apply a remedy until he had communicated with the Executive Engineer, thus delaying action in an exceedingly urgent matter possibly for many days."

In the general system of management the Collector thus exercised effective control as was the case in the famine of 1896-97. Works were opened at his request or with his consent and their closure was directed by him. The methods of tasking were generally left to the officers of the Public Works Department, but the Collector exercised the power of directing the discontinuance of methods which seemed unsuitable and of authorizing other methods. In different circumstances of lift, lead, consistency of earth, or (in the case of metal breaking) of the nature of stone, kind of tools available, etc., officers of the Public Works Department are alone in a position to say what are proper tasks; but if the Collector and his Assistants observed that the tasks were generally too heavy or too light, they required a reduction or increase to be made, generally after consultation with the Executive Engineer. Similarly in the matter of wages if the Collector or his Assistant found on any work that the labourers had not full opportunity of performing a task proportionate to the maximum amount earnable and that they were earning very low wages for no fault of theirs, he at once took steps to remedy the defect. The position of the Special Civil Officer and an exact definition of his duties as distinct from those of the officer of the Public Works Department in charge of a relief work form a controversial topic outside the purview of this report. It will suffice to say that functions and duties were delegated to the Special Civil Officer according to his status, which varied considerably in many cases. The local authorities passed from time to time all the orders necessary to minimize friction and misunderstandings, which were of extremely rare occurrence.

Admission to works.

51. The principle that all applicants for employment should be received on relief works, which was not only recommended by the Famine Commissions of 1880 and 1898 but also accepted by Government and embodied in the Famine Relief Code, was generally adhered to throughout the famine. It was recognised that a departure from this principle would entail serious hardship to applicants for relief. In the earlier stages of the famine the Collectors of Sholapur and Khândesh proposed that some sort of restriction might be placed on admission to works. The intention was in the one case to check the influx of destitute foreigners, in the other to exclude those who being in possession of resources were not in immediate need of relief. One suggestion was that only those should be admitted who produced permits from village or taluka officers; another that a distance test should be applied; and a third that Special Civil Officers might be authorised to refuse at their discretion admission to such as were obviously not fit objects for relief. None of these proposals however were approved and it was found that wherever attempts had been made to give effect to any of them considerable hardship to deserving people had resulted. It was pointed out that the object in view could be secured by concentration of labourers on large works with proper supervision and strict discipline, by fixation and exaction of proper tasks, by selection of the cheapest grain in common use as the wage basis subject to the provision in Section 113 (b) of the Famine Code, by payment strictly according to results and by infliction of fines down to such a minimum as without entirely relieving their hunger would prevent their falling into a state of emaciation. Collectors however adopted various methods of excluding those not in real need of relief. Thus in Ahmedabad until the cholera epidemic broke out, new-comers were received on certain works only in a group, the other works being filled by drafts from the former. In Ahmednagar earth-works were for a considerable period generally fed only by drafts from metal breaking works, to which all applicants were admitted. Readmission to the work from which drafts were made was for a time refused to those who had been drafted but returned. After some time, however, the increasing number of applicants for relief on works made any identification and consequent exclusion virtually impossible and, in the case of obstinate refusal to go elsewhere, dangerous to life. But in many cases the system of drafting labourers to a work distant from their homes was effective in getting rid of people not in real need of relief.

52. Owing to the heavy rush on works when they were first started and to insufficiency of establishments it was found difficult to comply with the provision of Section 82 of the Famine Code that "relief workers shall in the beginning be paid daily." It was also noticed that on several works in the Deccan there were no arrangements for the immediate relief of people coming without resources and that where a work was full new-comers were simply refused work instead of being directed to other works. Attention was promptly called to Sections 82, 84 (revised) and 69 of the Famine Relief Code, and it was directed that daily payments must invariably be made to new-comers wherever the establishment was sufficient for the purpose, that in any case adequate arrangements should be made to assist at once all new applicants who were without resources or could not get credit from grain-sellers, and that those who could not work on arrival owing to reduced condition should be fed in kitchens (where they existed) or otherwise get from the Special Civil Officer notes authorizing grain-sellers to allow them *gratis* rations as long as necessary. Similar notes were also ordered to be given to those fit to work but without means of livelihood till day of payment, the cost of such advances being deducted in easy instalments from subsequent earnings. After the first rush of workers subsided, daily payments to new-comers were generally possible and were much preferred to any system of advances which were often difficult to recover. In cases where a relief work was full or establishment insufficient to carry out these remedies, officers in charge were directed to draft applicants to another work allowing them the *batta* concessions laid down in revised Section 84 (b) of the Famine Code. At the same time, new-comers were allowed the maximum wage for a week in consideration of their inexperience, provided they were not wilfully idle, and it was ordered that fines should be imposed with discrimination for two weeks more, especially in the case of metal breaking.

Payments and relief of new arrivals.

53. There were also some instances of delay in providing work for new-comers owing to insufficiency of tools. Thus in Khândosh tools were available for about 20,000 workers only at first, but more were provided as speedily as possible, and by the middle of December when the number of workers had risen to 140,000 a slight deficiency was met by local manufacture.

54. Except in the case of new-comers who were dealt with in accordance with the orders quoted above, payments on relief works were as a general rule made weekly during the first of the three years of famine. Muster rolls were scrutinized and passed for payment by the Public Works Department officer in charge; they were usually closed on Wednesday evening and payments were made to individual workers by cashiers on Friday and Saturday in the presence, whenever practicable, of competent witnesses. In the Panch Maháls the Bhils were so utterly improvident that daily payments were found to be a necessity, and the deficiency of establishment was met by employing village school masters as cashiers. Similarly in Khândesh district, in order to induce the Bhils to stay on the works, it was arranged to give daily cash advances which were adjusted against the weekly wages earned.

55. The piece-work system with a maximum limit but without minimum or allowances to dependants was generally adopted in the case of test works, and was continued for a time with allowances to dependants on the conversion of these into regular works, where the circumstances seemed to make it suitable. This latter system is generally known as the "modified intermediate" and is named by the Famine Commission of 1901 "the New Code system." It was found, however, that in some cases it was worked without sufficient discrimination. In Násik, Ahmednagar and Poona districts it was noticed in December 1899 that large numbers of people were earning less than 4 annas in a week, and there were cases of a man, woman and working child earning altogether only that sum. The registers showed that when gangs began with fair earnings they continued to do well, but if they began badly, their weekly wages became gradually less until some left the works, while others remained in a very reduced condition. There was little doubt that a considerable proportion went to the work when they were hardly in a fit state to earn a living wage: many others were deterred from going at all, and the state of people in the villages at this period showed that the number of persons on works was often no adequate indication of the number in need of relief. For the sake

Systems of work: Piece-work system.

application of the system it is essential that there should be an adequate establishment possessed of sufficient discretion to make allowance for the inexperience of persons unaccustomed to the kind of work on which they are employed and to eliminate and form into weakly gangs people who have not the physical strength necessary to earn enough for their livelihood by piece-work. It was impossible to procure enough of such establishments in 1899-1900 when the famine was spread over the greater part of the Presidency.

Task work system.

56. The main features of the task work system generally adopted on relief works were—

- (1) Rates of wages based on prices of the cheapest staple food-grain in common use and on the classification of workers.
- (2) Payments subject to a maximum and to fining down to an ordinary minimum of 12 chataks, which might, however, be reduced to a penal minimum of 9 chataks in cases of proved contumacy only.
- (3) Payments made weekly to individuals at end of week, special care being taken that the hard working should not be made to suffer on account of idlers in the gang.
- (4) Payments to individuals calculated on individual's own work in the case of metal breaking and otherwise on the work done by the gang or sub-gang.
- (5) Fines inflicted in proportion to work done, the standard tasks being fixed by Government and modified locally where necessary.
- (6) A rest day wage consisting of the Code minimum according to class.
- (7) Provision of cooked food for adult dependants, for all children under 8 and any children over 8 not fit for work who chose to come to the kitchen for it; no provision for those who did not come to kitchen except for infants without teeth in both jaws, for whom 1 pice a day was paid.
- (8) Weakly persons separated from the able-bodied and paid the minimum wage irrespective of work done.
- (9) Able-bodied classed according to their age and condition. Women in Class I (diggers) were rare: men in Class II (carriers) were not uncommon; youths of either sex from 12 to 16 were in Class II, and children from 8 to 12 in good condition in Class III.

Continuance of piece-work system in two districts:

In the Panch Mahals.

57. (a) The piece-work system was continued on relief works in the Panch Mahals for some time longer than elsewhere on the recommendation of the district officers. They were of opinion that the Bhils who formed the bulk of the population were used to a hard life and little food especially in the hot weather, and that "a minimum wage system once understood by the Bhil would result in his sitting happy and idle the whole day." At this time there was a large supply of food available for the lower classes in the flesh of animals which died or were killed by them, and the sale of skins and bones and collection of leaves for fodder gave a livelihood to many. It seemed that the earnings on relief works were often only a supplement. For these reasons Government accepted the view of the Commissioner and Collector, but pointed out that care must be taken to deal leniently with such as were in reduced condition, that great vigilance was needed in village inspection, and that if necessary for that purpose more Circle Inspectors should be appointed. In March 1900, however, the Commissioner reported that the piece-work system had resulted in deterioration of the condition of the workers in the Panch Mahals, many of whom failed to earn a living wage and did not stay long on the works. The Commissioner therefore suggested the introduction of task work and made the following proposals as regards wages:—

"At the same time I think it will be waste of money to give the full wages in this district which are necessary for the labourers of richer districts. I think the course lately directed for Broach might be adopted here very appropriately. For (1) the district is detached and would not clash with other districts where other scales are in vogue. (2) The Bhil is inured to a lower standard of living. He himself often says openly that he would go to the work and would live contentedly if he could be assured of an anna per day in cash

(3) The mhowra crop at present promises to be six annas, which, though not enough, will materially help the people to struggle through the year. I would advocate the scale as ordered for Broach with the exception of the minimum ration which should be fixed experimentally at Re. 0-1-0."

Government passed the following orders on these proposals :—

"In the circumstances stated His Excellency the Governor in Council accepts generally the views of the Commissioner, N. D. But if the Bhils truthfully state that they would live contentedly if assured of an anna a day in cash, it would manifestly be useless to prescribe that rate as a penal wage. Moreover, if there were a difference of one pie only between the maximum wage of the majority of workers who constitute Class II and the minimum, there would be little incentive to work and virtually no opportunity of dealing equitably with those who work fairly without completing the full task. For these reasons the minimum or penal wage should not be more than 9 pies per day and may be fixed at that rate experimentally, but a report as to the result should be submitted after a month's experience. It must of course be clearly understood that the penal wage is applicable only to the able-bodied after they have become accustomed to the work.

G. R. No. 1656,
dated 20th
March 1900.

"It is important in the Panch Mahals district that the tasks prescribed should be proportionate to the physical capacity of the several classes of people, as it varies greatly."

Subsequently, however, it was found necessary to raise the wages to the Code scale, the introduction of which was accompanied by a rise in the numbers on relief, but the exhaustion of the supply of meat on which the Bhils subsisted for some time and a partial failure of the mhowra crop also contributed to this rise.

(b) In the Sātara district all relief works were conducted throughout the first year of famine except in the first three weeks of April 1900 on the system of payment by results subject only to a maximum and with separate relief for dependants. From progress reports, however, it appeared that the condition of the people on several works was not good and that the proportion of persons in Class IV (nominally worked) who got the Code minimum irrespective of the task performed was unusually high. Government accordingly called for a report as to the proportion of persons fined below the Code minimum and penal minimum respectively, observing that cheapness was a small matter as compared with the reduction of a large number of people to a bad physical condition which might not be merely temporary, whilst the fact that metal breakers earned better wages than those employed on earth-work might not improbably be due to defective ganging of earth-workers who are not paid as metal breakers are for individual outturn. The Collector accordingly submitted a report showing for the entire district the following percentages of persons earning different classes of wages :—

In Sa'ta'ra.

Week ending	More than Code minimum.	Code minimum.	Penal minimum.	Less than penal minimum.
12th May 1900	13	30	21	36
19th "	12	15	23	50
30th "	8	7	24	61
6th June 1900	10	16	31	43

He urged that the time had not yet come for introducing the Code minimum, that the bulk of the people (who were generally in good condition) could easily earn a living wage if they wished to, and that the figures pointed to unwillingness rather than to inability. The Collector was however reminded that the penal minimum was intended to be a punishment for contumacy, that it could not be regarded as a living wage or, in other words, as sufficient for continuous maintenance, and that it was difficult to believe that the large proportion of the workers earning the penal wage and less were all able to earn more if they wished. As however there was no physical deterioration apparent

and the fall of favourable rain was certain to effect a decrease in the number of workers, it was not considered expedient to alter the system, which thus remained in force in that district till the close of the famine.

Wages.

58. The wages paid on works were those laid down in the Bombay Famine Code and were calculated on the current price of the cheapest staple food-grain. The "Special" Class were paid 25 per cent. more than Class I, and nursing mothers when required to work were paid one pice per day for their infants in addition to their own wage. As however it was found that in some famine districts the cheapest staple food-grain was often not selected as the wage basis, the following orders were issued :—

G. R. No. 1639,
dated 16th March
1900.

"The attention of Collectors and Executive Engineers should be invited to Section 113 of the Famine Relief Code and they should be requested to see that the provision is strictly applied. Neglect of the instructions has in several cases led to considerable unnecessary expenditure and made relief works unduly attractive. It should be observed that both jowári and bájri are assumed to be staple food-grains and the price of the cheaper of them must be taken as the wage basis if there is not another food-grain still cheaper. When there are several qualities of grain in the market that which is actually used by the bulk of the people employed should be held to be that in common use. Care should at the same time be taken by the institution of prosecutions if necessary that grain which is unwholesome is not offered for sale."

As regards the supply of fuel for relief workers special orders were issued under which in consideration of local emergencies it might where necessary be supplied *gratis* under supervision, unless it could be provided by the Forest Department at reasonable rates such as labourers could afford to pay out of their wages.

Penal wage.

Circular No. 2-
Fam., dated 27th
December 1899.

59. In December 1899, the Government of India in view of the alarming proportions to which the numbers on relief had by that time attained, addressed the Local Governments, inviting them to seriously consider whether the principles or practice of famine relief had in any particular been imperceptibly relaxed, and whether the extreme readiness which the people had evinced to throw themselves on the charity of the State and to avail themselves of every form of relief, did not require a corresponding strictness on the part of those charged with the duty of administering it. Among other expedients they suggested the adoption of some form of payment by results especially at the outset of relief operations and the introduction of a penal wage. Before the receipt of this Circular, it was found that a large proportion of sturdy labourers in Khándesh preferred to do no real work and accept the Code minimum rather than attempt to earn more. There was thus no proper test of the necessity for relief, and owing to the easy conditions prevailing people were attracted to the Khándesh works from Hyderabad (Deccan), Berar and Central India. The conclusion that the minimum wage was so high as to destroy inducement to real effort seemed inevitable, and on the authority of paragraph 459 of the Report of the Famine Commission of 1898 and Section 118 of the Famine Relief Code, it was reduced in Khándesh by 25 per cent. These circumstances were brought to the notice of the Government of India in reply to their Circular and an opinion was expressed that further experience had convinced the Government of Bombay that the minimum wage might be very materially reduced without any risk of serious evil results. The Government of India were also informed of the circumstances described in paragraph 55 above which led to the discontinuance of the piece-work system. Copies of the correspondence with the Government of India were at the same time forwarded to the officers concerned with the following instructions :—

G. R. No. 250, dated
17th January 1900.

"A reply from the Government of India on the question of a general reduction of the minimum wage will be awaited, but in the meantime cases in which large proportions of those on works are satisfied with the existing rate should be reported for special orders.

"The special attention of all officers in charge of works should be drawn to the latter part of paragraph 9 of the letter from the Government of India, No. 2-Fam., dated 27th December 1899. The greatest care should be taken in allotting proper tasks and if they are not performed in full in reducing the payments in the proportion in which the work is short until the minimum wage is reached.

"In cases in which test works are still in progress or are hereafter begun, Collectors should arrange that the results are constantly and carefully watched. The piece-work system with a maximum limit but without a minimum and without allowances for depen-

dants should be adopted, but allowance should be made, where necessary, at first for want of experience in the kind of work to be performed. If it is found that large numbers of people accept the conditions and work honestly, the demand for relief may be held to be established. But the work should be continued under that system so long as the great bulk of those employed earn a living wage, allowances to dependants and special arrangements for the feeble being, however, introduced on its conversion into a regular relief work. But as soon as a considerable proportion—about 25 per cent.—are found to come on the works in too feeble a state to earn a living wage, the Code system should be introduced. The state of the people in the villages should at the same time be carefully watched. A test work from which large numbers go because they cannot earn enough to live on ceases to give any indication of the need of relief."

On reports from Sholapur and Nasik districts, with reference to these orders, that a large proportion of relief workers were earning only the minimum wage, it was directed that such wage should be reduced by 25 per cent., subject to the oft-repeated condition that this minimum should be regarded as a penal minimum applicable solely to the case of able-bodied adults who were contumaciously idle. The views of the Government of India and the intentions of the Bombay Government are made perfectly clear in the following extracts:—

"The Government of the North-Western Provinces have proscribed 13 chataks and 10 chataks respectively as the minimum wage for male and female relief workers: and in cases of 'contumacy' (that is, contumacious refusal to do the proscribed task) fining may be further carried down to the penal wage of 8 and 7 chataks, respectively. The wish of the Bombay Government is, it is understood, to fix a fair task, the performance of which will entitle the workers to the proscribed wage of 19 chataks for the digger and 15 chataks for the carrier respectively, and to reduce the wage proportionally as the work done falls below the proscribed task down to a penal wage of 9 chataks.

Government of India's letter No. 287-28-9-F., dated 8th February 1900.

"This proposal the Government of India consider reasonable, provided the tasks are fair, regard being had to the condition of the people; and provided that it is recognized that 9 chataks is a penal wage and is not a safe subsistence standard in ordinary circumstances for the masses."

In communicating this letter to the officers concerned Government passed the following orders:—

"The Government of India have in the latter part of paragraph 3 of their letter correctly apprehended the intention of this Government. The minimum was reduced in Khandesh only for those capable of work, and it has been explained in paragraph 2 of Government Resolution No. 807, dated 10th February 1900, that the order for reduction in Sholapur applies only to able-bodied adults, that people who arrive at the works in a reduced condition should get the wage of their class until their strength is restored and that the Code minimum should be paid to those who are constitutionally weak. It is believed that some minimum is needed to prevent individuals from falling into a state of emaciation, although this result might generally be prevented by vigilance on the part of superior officers when the establishment is sufficient, but it should be so low that people cannot live on it without some suffering and the able-bodied will thus be constrained to work or, if they have other resources, induced to go away. Subject to this explanation the value of 9 chataks should now be adopted generally as the limit to which the wage of able-bodied adult workers may be reduced."

G. R. No. 1104, dated 23rd February 1900.

It must be noted that the hill people were specially exempted from the application of the penal minimum with a view to induce them to resort to ordinary relief works.

60. During the progress of this correspondence with the Government of India, special measures were found necessary in Broach and Ahmedabad districts where relief works had become unduly attractive. In the famine of 1896-97 it was insisted that able-bodied persons in need of relief must go to places where useful employment could be provided for them under adequate supervision. Great reluctance was then evinced at first to proceed to works at a considerable distance from their homes, but it was believed that as a rule those who were in real want did not scruple to go to distant works. In Broach and Ahmedabad districts in 1900 a similar policy had to be adopted. The large proportion of relief workers in Broach as compared with other districts attracted attention at an early date, and careful inspection in February 1900, when 30 per cent. of the total population was employed, showed that works north of the Narbada river were too numerous, for the most part infructuous, and so close together that a large proportion of workers could find relief almost at their doors. To check this abuse there was introduced experimentally a scale of wages corresponding generally

Attractiveness of works in Broach and Ahmedabad districts.

(including the penal minimum) with that in force in similar circumstances in several districts in Bengal in 1896-97. There were at the same time opened in the taluka of Anklesvar south of the Narbada, large irrigation works to which people in need of the full Code wages were directed to be drafted. The distance of these works from the homes of the great bulk of the inhabitants of the district was not very great and it was considered that in a compact district like Broach the risk of applying the tests would be small in comparison with the benefits likely to result from a policy justified by previous experience elsewhere. At the same time it was directed that village inspection should be carried out more vigilantly than ever so that the experiment would be promptly stopped if it was found to result in keeping away from the works people in real need of relief. The measures for drafting relief workers, however, proved unsuccessful, as the few people who went to the larger works returned and spread false alarms which prevented others from going. As regards the reduction of the wage scale, the proportion of workers in the district who were paid not less than the Code minimum during the period when this reduced scale was in force was at no time less than 89 per cent., and generally varied from 92 to 94 per cent. A very small proportion thus got only the reduced minimum. In deference however to reports of the local authorities who noticed some signs of deterioration in the physical condition of the people, the Code scale was restored after an interval of six or seven weeks. Though it was not considered desirable to maintain the reduced scale of wages whilst public health was reported to be unsatisfactory, there was, as the following table shows, an actual decrease in mortality during the period in question, partly due no doubt to the departure of immigrants who had flocked to the works and amongst whom the mortality was excessive:—

No.	Name of work.	Wages were first paid according to the reduced scale for week ending	Death-rate per thousand for week ending													
			10th February 1900.	17th February.	24th February.	3rd March.	10th March.	17th March.	24th March.	31st March.	7th April.	14th April.	21st April.	28th April.	* 5th May.	12th May.
Group A.																
1	Chánohval Tank ...	10th March 1900.	1.1	0	0.2	0.5	0.6	0.4	0.3	0	0	0	0	0	0	0
2	Surbhan Tank ...	17th March 1900	1.3	1.9	0.8	0.9	0.8	0.9	0	0	...	...	...	...	...	...
3	Dora Tank ...	Do. ...	4.3	4.07	3.2	1.3	3.1	4.2	3.1	2.5	4.2	...	...	...	...	...
4	Matar Tank ...	Do. ...	1.2	4.0	2.8	1.3	1.3	3.06	0.3	0.9	0.3	0.7	0.9	3.01	0.6	0.5
5	Asava Reclamation...	10th March 1900.	0.5	1.0	0.4	3.2	1.5	1.8	3.7	5.0	0	...	...	...	...	...
6	Jambhar Tank ...	Do. ...	2.8	2.3	4.3	0.01	5.8	6.4	4.0	3.3	2.9	2.9	3.8	2.2	4.2	3.4
7	Tankaria Tank ...	Do. ...	2.08	1.8	2.2	2.9	3.4	2.7	2.5	1.4	1.9	1.7	2.3	1.18	1.3	1.1
8	Broach Reservoir ...	Do. ...	0.4	1.7	0.5	2.6	1.9	2.3	6.4	3.9	4.1	3.2	2.3	1.5	0.3	10.6
9	Nadida Tank ...	Do. ...	5.9	6.7	6.8	0	4.4	5.4	0.5	0.4	0	0.4	0.7	0.4	0	0.2
10	Mota Tank ...	Do. ...	0	1.1	3.3	5.4	2.8	3.9	2.2	1.7	0	...	...	...	...	...
11	Wairam Tank ...	17th March 1900.	...	...	0	0	0	0.9	0	0.1	0	0.3	0.4	0.5	1.06	1.3
12	Shigam Tank ...	10th March 1900.	...	...	...	...	0.8	0.8	2.08	1.2	0.03	0.7	1.6	1.5	1.02	1.3
Total of Group A ...			1.8	2.5	2.0	2.3	3.5	3.2	2.6	1.9	1.9	1.6	1.7	1.3	2.6	3.8
Group B.																
13	Parvat Tank ...	(Reduced wages were not applied to these works).	...	...	...	...	1.8	1.1	1.3	1.5	1.9	0.9	1.4	2.06	10.7	37.7
14	Sisodra Tank ...		...	...	...	...	0	0	0.6	1.1	1.8	3.1	4.3	5.9	2.7	13.6
15	Anklesvar Tank ...		...	...	...	...	...	...	...	0.6	1.6	2.8	3.07	4.3	4.9	15.2
16	Ghamud Channel ...		...	...	...	0	3.6	8.6	7.1	...	0	0	0	0	0.8	4
Total of Group B ...			...	...	...	0	1.9	1.5	1.1	1.1	1.8	2.4	3.0	4.1	5.3	15.3

* Week in which cholera began.

NOTE.—Wages on the reduced scale were last paid for the week ending 21st April 1900 at all works in Group A except those which were closed before that date.

Similarly in Ahmedabad district, relief works were in March 1900 so numerous that a large proportion of the population must have been able to find employ-

ment quite near their homes, whilst many not in immediate need of relief must have been induced to do a little not uncongenial work so as to supplement their ready cash whilst they had nothing else to do. Amongst other suitable expedients, arrangements were made for a differentiation of tank works and a new grouping whereby the need for relief could be adequately tested.

61. Great variations were noticed in the systems of tasking and fining followed on relief works in different districts. The task for earth-work as then prescribed in the Famine Code was very light, and it was found that labourers in Káthiáwár were doing with ease 60 per cent. more than that task. The lightness of the task was no doubt a contributing cause to the undue attractiveness of relief works in Broach noticed above. Moreover in Broach as in Ahmedabad there was a rule that the full wage should be paid if 90 per cent. of the task was performed, and it was in fact paid if the outturn fell a few degrees below that limit. The matter was considered by Government and a Resolution was issued prescribing standard tables of task work and piece-work rates. This Resolution is quoted in Appendix 24. It must be noted that its object was to secure uniformity. Rigid adherence to the figures was not demanded, and modifications and deviations were expressly provided for. The following circular was issued at the same time laying down a scale of fines for short work :—

Tasking and
Fining.

G. R., P. W. D.,
No. F.—588, dated
5th March 1900.

“The Superintending Engineers of Divisions are requested to direct all the Executive Engineers in charge of relief operations to enforce fines for short work as a general rule on the following scale :—

P. W. D. Circular
No. F.—581, dated
9th March 1900.

Work done as compared with full task.	Fine in piec.
Between 100 and 75 per cent. ...	Half the difference between maximum and minimum wages.
Between 75 and 50 per cent. ...	Full difference between maximum and minimum wages.
Below 50 per cent. ...	Full difference between maximum and penal wages.

(Note.—1) piec shall equal one piec for the purpose of fines.)

“2. Officers and subordinates in charge of relief works should so exercise their discretion as to fining, when labourers are working in gangs, as to prevent, so far as possible, honest workers suffering for the fault of others.”

As regards working children it was ruled that the older children of 12 or thereabouts who persistently evaded work should be fined down to the minimum wage prescribed for them. Every opportunity was taken to impress on the officers concerned that persons who did the work of which they were capable should not be fined, and that fines were to be imposed for deficiency due to wilfulness only, not to weakness. This principle was specially inculcated in the case of the Panch Maháls and it was further explained that the orders regarding exemption of new arrivals from fines did not apply to persons who had been temporarily absent from the works, the intention being that allowance should be made for inexperience. But when the cholera panic in the hot season of 1900 led to desertion of the relief works by large numbers of people, Government directed that since in the then existing circumstances it was very desirable to attract to works all the able-bodied who were in need of relief, fining should be carried out with much discrimination and allowance should be made for the heat both by reducing the standard task and in determining the wages earned. Again, when in Khándesh it was reported that fines were not always properly imposed the following general order was passed in June 1900 :—

G. E. No. 2881,
dated 29th May
1900.

“If the Collector is satisfied that the officer in charge of any work and the establishment cannot be trusted to make deductions only on account of deficiency in the outturn of able-bodied workers and roughly in proportion to the deficiency, he may direct that the wages on that work shall not be below the Code minimum. The defect which is indicated in no way affects the principle of the penal wage, but where fining cannot be carried out in an equitable manner, it will be safer to make the Code minimum the limit.”

G. R. No. 2604,
dated 21st June
1900.

It was further directed in a later Resolution that the main reason for the penal wage, viz., the exclusion of people who were not in real need of relief, did not then exist to the same extent as in the earlier stages of the famine, and that unless the establishment could be relied on to restrict it to those who were contumaciously idle, it should not be applied at all. Similarly when deterioration was noticed among the infant population on certain works in Khándesh, it

G. R. No. 2011,
dated 25th July
1900.

No very definite information was obtained as to the effect of the reduction of the minimum wage in excluding from the works persons not really in need of relief. But the reporting officers were generally of opinion that no deterioration of physical condition was caused by a proper application of the penal wage, which in checking idleness prevented extensive demoralization, and at least resulted in some desirable economy. It may once more be observed, at the risk of repetition, that controlling officers were constantly reminded of the prime importance of applying the penal wage to the case of those labourers only who were proved to be deliberately and contumaciously idle after competent inspection and careful discrimination, in the absence of which it was directed that the test should not be put into operation. If establishments of sufficient strength and intelligence to discriminate between short outturn due to inexperience and physical weakness and that due to idleness could have been made available, able-bodied workers would have been paid in strict proportion to work done without any minimum at all. In the absence of such establishments some minimum was needed to prevent such results as are mentioned in paragraph 25. But the Code minimum was found to be sufficient to maintain in fair comfort people who did no work, and thousands of able-bodied persons preferred to receive it in idleness rather than to work for more. Other thousands who were in no real need of relief were induced to come to the works to receive the minimum and the work test was nullified. A lower minimum which would not altogether remove the pangs of hunger but would prevent serious deterioration pending discrimination by superior officers was therefore necessitated by the circumstances.

64. The Famine Commission of 1898 did not approve of the condition of compulsory residence on relief works. The absence of this condition was, however, assigned as one of the reasons for the undue attractiveness of works in Broach district, and the several Commissioners were asked to report the result of their experience in the matter. On receipt of these reports Government passed the following orders :—

Compulsory residence on works :
Hutting.

"As the Government of India have in their letter No. 287-28-2-F, dated 8th February 1900, virtually accepted the view of this Government that it is desirable to enforce residence on works as a condition of relief, effect should now be given to it so far as is practicable. While the weather is dry and warm there is no hardship in requiring people employed to stay on the works even if huts are not provided for them, but in the rainy season there must be shelter for so many as are compelled to spend the night on the works, and arrangements with this view have already been directed."

G. B. No. 1540,
dated 16th March
1900.

The arrangements referred to are succinctly described in the extracts from orders quoted below :—

"Under the orders contained in Bombay Famine Code, Section 88, the Collector is to determine the amount of hutting accommodation to be provided, but immediate arrangements should always be made on works for the proper hutting of weakly people and those with small children.

"Hutting is not required for the majority of the labourers for the present, *i.e.*, on works which will not last beyond April.

"In certain exceptional cases, where the camps are in very much exposed bleak spots and a long way from villages, hutting for all may be required and would then be provided at the discretion of the local officers.

"In every case, however, of works which will last till May and longer, hutting materials should be collected without delay, and huts provided of suitable quality and design for the full number of people."

The degree of success in enforcing residence on works depended to a large extent on the energy, influence and ability of camp officers and to some extent on the location of the camps. Where there was near the camp a large village or town with fair or good water supply, it was difficult to keep the people in camp; but they resided there readily enough when there was no village near and the camp arrangements for water supply, &c., made it more convenient to live in camp than in the village. In the case of the backward classes like the Káli-paraj of Surat and the Bhils of Panch Maháls it was found virtually impossible to enforce the order in many cases. On the outbreak of cholera in Gujarát, when large numbers of people left the works in a panic and it was necessary to induce them to return, compulsory residence was not strictly enforced. During the rains also the condition of compulsory residence was suspended.

Policy during rains: Closing of works.
G. R. No. 2128, dated 30th April 1900.

65. Instructions regarding selection of the most suitable works for employment of famine labourers after the commencement of the rainy season of 1900 and the general policy to be followed were prescribed in a Resolution (quoted in Appendix 26) which especially directed that from the beginning of June cultivators should be employed as far as possible on the works nearest their homes, and that when the people left on any works were of the class of professional labourers and there was no considerable proportion of them in a weak state, a system of pure payment by results should be introduced with a limit of earnings sufficient only for the subsistence of the workers and their dependants, the weak only being dealt with under the Code rules. It was subsequently explained that it was not desirable to draft people from one work to another until cultivators had left on account of rain, and that concentration should commence after that event, not before it, as it was most important that cultivators should be as near their homes as possible when the rains began. A proposal to reduce the wages on relief works by 25 per cent. during the rains which was made with a view to induce people to go to field work, was not accepted. In case, however, of any widespread abuse of the provision of the Code regarding payment of full wages on rainy days, the rule was temporarily suspended and minimum wages paid for such days. On a report from the Collector of Ahmedabad that relief works were affecting the supply of private labour in August 1900, the following observations were made:—

“The system which Government desire to be adopted when there is reason to believe that labourers are staying on works when they could get employment elsewhere is that of strict payment according to results, which is attained by discontinuing a minimum payment. It is often desirable at the same time to abolish allowances to dependants and the rest-day wage, but in that case the rate for the work done has to be somewhat raised. As it seems that children have fallen into bad condition from parents eating the raw grain substituted for cooked food, the course which has been adopted in Ahmedabad of continuing allowances to dependants (kitchens being reverted to) and merely abolishing the minimum wage is the most suitable and is approved.”

The effects of the system of payment by results adopted in the Ahmednagar district during the same rainy season were summarized as follows:—

“The abolition of the penal wage has had beneficial results in two ways—(1) driving off the works loafers and those not in real need of relief, (2) lowering the rates paid for work done—while it has had no harmful result in a third respect—(3) the physical condition of the people on relief. The system is clearly a sound one in that stage of famine at which (1) there is a new crop in the ground and coming on favourably, (2) there is a demand for agricultural labour, (3) the people are accustomed to the labour on famine relief works (earth-work and metal breaking).

It was realized that provided the relief of dependants formed no inducement to remain on the works to people who could in private employment maintain their dependants as well as themselves, the retention of kitchens in combination with payment by results was not open to objection. In Poona district piece-work was adopted in the case of professional labourers, gangs of able-bodied workers, and those who had been some time on the works without loss of condition, and in the case of others the Code system of task work was retained. Under both systems individual muster rolls were maintained and individual payments made. The results of the two systems thus carried on side by side on the Shetphal tank work during November 1900 are brought out in the following table:—

Week ending		System of work.	Payment per 1,000 workers or units.	Proportion of full task performed.
			Rs.	Per cent.
7th	November 1900	{ Task work	88	54
		{ Piece work	76	65
14th	do.	{ Task work	90	62
		{ Piece work	76	69
21st	do.	{ Task work	77	59
		{ Piece work	65	71
28th	do.	{ Task work	82	60
		{ Piece work	70	78

G. R. No. 8850, dated 21st September 1900.

In Sholapur district the system of payment by results was not introduced; but as on 14th November 1900 it was reported that while in the southern sub-division 18 per cent. of the relief workers were fined down to the reduced minimum, in the northern sub-division only 1 per cent. on one work were fined, and that the health of the workers continued to be good, attention was called to the expediency of abolishing the Code minimum where a considerable proportion of workers earned no more than the amount of the penal minimum without suffering in health, and, in case this proportion became so large as to indicate clearly the possession of other resources, of closing the work altogether.

66. While large works under the Public Works Department formed the backbone of the relief system in the wide-spread famine of 1899-1900 small works under Civil agency were carried out in some districts for the relief of hill tribes or such special classes as the talukdars of the Chival in Ahmedabad. In May 1900 it became necessary to open small works in Gujarat for the employment near their homes of people who had left the large works on account of cholera. Government passed the following orders regarding the system to be followed and wages to be given on such works:—

Small works
in 1899-1900.

“For the purpose of economizing supervision a system of piece-work without individual registers and without individual payments may be adopted; if local men of influence witness payments there will be little risk of individuals failing to get their proper share. But to prevent the works being swamped by people attracted from the larger works there must be a rigid limit to the amounts which may be earned. With the system of piece-work Sunday wages are inappropriate, and as kitchens will be impracticable and cash allowances to dependants would probably attract almost all in the vicinity, the amounts earnable should be somewhat larger than the wages proposed in other cases. Subject to reconsideration after some experience of the working of the system, they are fixed at the rate per diem of—

G. R. No. 2200,
dated 15th May
1900.

a.	p.	
1	9	for people of Class I.
1	6	“ “ II.
1	0	“ “ III.

The children and other dependants should however be carefully watched, and if any are falling into a reduced condition, they should be sent to poor-houses, if practicable, otherwise should get the dole.”

As small works had to be provided soon afterwards for people who wished to be near their homes to commence cultivation, it was directed that the course authorized for Gujarat in the orders quoted above should also be followed in the Deccan districts wherever it was found to be feasible. After these orders had been in force for about two months, it was represented that the workers on small works would in places suffer by the low rate of wages earned, since without intelligent local supervision it would not be practicable to arrange for such deviations from the fixed scale of payment as might be necessary in special cases to ensure a living wage to the workers. Government accordingly determined that if it was found that people on the small works were not earning a living wage, a minimum payment of one anna for an adult and nine pies for a working child might be introduced subject to the approval of the Commissioner. In October 1900 the Collector of Kaira reported that some of the small works in his district were competing successfully with field labour and proposed that the maximum earnable on such works should be reduced. This proposal was accepted, but at the same time it was directed that in cases in which there was no doubt that the demand for field labour was large, the works should be closed altogether. In the Broach district village improvement works, on which the minimum Code wage was paid, were also started for such of the persons on the dole lists as were capable of some work but could not without hardship be required to go to the relief works, large or small.

G. R. No. 2011,
dated 25th July
1900.

67. The small works opened in the several districts in 1900, consisting chiefly of tank excavation, road repairs and drain deepening works, though they did not attract large numbers, generally served a useful purpose in providing employment to those who would not leave their villages and to cultivators who while not actually engaged in field work would otherwise have had to be relieved by dole. The effects of the system were throughout carefully watched, and there were few complaints of competition with field labour. An officer of the

Public Works Department generally assisted in supervision, and management rested with the village officers, who were not very efficient in many districts, especially in Sholapur where most of the small works had to be closed at the end of September. Village Panches proved generally incompetent, but in a few cases they witnessed payments with good effect. The Collector of Kaira has made the following convincing observations regarding the limits within which use can advantageously be made of small works:—

“The system of large works has come in for a good deal of criticism in the public press during this famine, but I have very little hesitation in saying after my experiences of the year that no other system is reasonably practicable when the number of persons to be relieved is so large as it was in Kaira. The small works system as an addition to and not in substitution for that of large works was introduced in June and no doubt the employment provided proved very useful. The small works gave occupation in some of the villages to people who wanted to be near their fields and also to other persons who declined absolutely through laziness or pride to go to work elsewhere, but I think there is very little doubt that had small works stood alone and had we been compelled to withstand the pressure of any enormous numbers without the assistance of large works there would have been more or less complete disorganisation of the famine administration. At the time when the numbers on the small works reached their maximum, which was 16,096, it must be remembered that there were 163,471 on the large works, and these figures show very clearly how completely the small works were ancillary to the large ones and to how very slight an extent they took their place. As time went on and the people disappeared in August and September from the large works the part played by the small works became proportionately much more important and unquestionably the latter must be regarded as an essential of successful famine relief measures. By themselves, however, the small works would never be adequate to give employment to large numbers and the system has some further very serious defects which have been brought prominently to notice during the closing months of the famine. In a general way it has always been understood that one of the great difficulties in carrying out the small works system was that of supervision. What these difficulties really are and the enormous extent to which they counteract the benefits which the system might be capable of conferring have to be experienced before they can be fully appreciated. In the first place it had to be recognised, from what had been learnt in connexion with other branches of famine relief, that the village officers could not, save in exceptional cases, be trusted either as to paying money or to seeing that work was properly done. Paid men to perform the duties of *karkuns* and overseers had to be appointed, and the work done by them was on the whole very unsatisfactory. Payments were most unnecessarily delayed, work was not carefully measured and dishonesty was popularly rumoured to be very common. With even a small number of works open in each *taluca* it was found very difficult to arrange for anything like effective supervision by the superior officers and as stated above the men actually on the works were not to be trusted. How the system would have progressed had the number of workers to be provided for been three or four times as large and the number of works three or four times more numerous can I think be imagined. As it is, a bad effect has been produced by the small works which have been allowed to compete successfully for labour as against agricultural operations. Carelessness of measurements and laxness of discipline have proved attractive to the workers at a time when they were wanted and should have been in the fields. For any superior Revenue staff with its hands full of other work to keep up an effective check on numbers of small relief works is almost impossible; yet without this there is no doubt the small works are a potent factor in the demoralization of the people. Any attempt to meet the stress of an acute famine with small works only would I feel sure be foredoomed to failure.”

These observations apply to all districts in the Presidency proper affected by famine in 1899-1900. Owing mainly to the difficulty of supervision it would not have been possible to employ the majority of people on village works in any district. The Commissioner, Northern Division, moreover expressed his belief that such works in 1900 were in cases where a minimum was allowed mere dole camps, and it was not till the second year of famine that it was possible to develop on proper lines the system of small works.

68. The relief works undertaken in the Desert portion of Thar and Parkar, where the number to be relieved was comparatively small, were all “Small Relief Works,” and were carried out by Civil agency. No special establishment was employed in connexion with them, but the fullest use was made of the services of the *taluca* and village establishments. Except on the very few special relief works which were provided for high caste Rajputs and their *pardanishin* women, the system was one of petty piece-work, and the family gang was the unit dealt with. The rate per 100 cubic feet varied partly according to the length of lead, but principally according to the hardness of the

Small works
in Thar and
Parkar.

soil. In Párkar, the soil is often gravelly or rocky, and high rates had to be given for excavation. Nine annas per 100 cubic feet was at first the lowest rate paid, but in May, when the Desert people began to return to their homes to be in time for the first rain, many came on relief as a means of passing the time until the rains, and it was necessary slightly to increase the task on some tanks; but eight annas per 100 cubic feet was the lowest rate ever paid. Relief works were opened in all four Desert talukas in the last week of September 1899, and were finally closed on 31st August 1900. 20 per cent. of the workers were high caste Hindus, 7 per cent. high class Mahomadans, 13 per cent. low caste Hindus, and 21 per cent. low class Mahomadans, while the remaining 39 per cent. consisted of low caste people such as Bhils, Kolis and Menghwars. Generally one and never more than two Government subordinates managed the whole work, including allotment of tasks, measurements and payments. The Mukhtyarkars in person opened each relief work and the Deputy Collector constantly measured up work. It is satisfactory to note that not a single case of fraud was discovered.

69. The account given above has reference to the first year of the famine under report—1899-1900. During the following year relief measures, although on a much smaller scale, had to be continued in most of the areas originally affected. In the Deccan and Karnatak there was no change in the character of works, the bulk of relief being given on large central works whilst small works were provided for hill tribes and others where necessary. As the organization was complete and establishment sufficient and the pressure of famine on the people was not nearly so severe as in the preceding year, it was not necessary in any case to revert to the Code system of task work: the intermediate system, which had been widely introduced during the rains of 1900, was generally adopted with good results.

Relief works
in 1900-1901.

System in the
Deccan and
Karnatak.

70. In Gujarát however there was a change of system in so far that relief was mainly provided on small works, and large works occupied a subsidiary position. A scheme was first proposed by the Commissioner, Northern Division, in a report dated 16th December 1900, on the condition of the *Bára* or sea-coast villages of the Broach district and was approved by Government. Regulations prescribed for these small village works are quoted in Appendix 27. The system thus sanctioned was extended to other parts of Gujarát where relief works had to be continued. It was also arranged to have a large central work for every scarcity area open simultaneously with the small works if necessary, or at least ready to be opened as soon as it was found that the small works were being overcrowded. It was directed that the rate of payment should be kept well down on small works, especially after it was found necessary to open large works, but that it should be such as would admit of the support of dependants from the earnings, that payment should be by results and that no minimum should be allowed. The general features of the system were that a local Panch should be held responsible for general management and should control mustering and measuring karkuns; that Public Works sub-overseers should select and mark out work, calculate tasks and check the record of work done, and that cashiers should make payments once a week on fixed days in the presence of the Panch. The scheme was intended to meet the case of those who owing to physical weakness or for other sufficient reason could not leave their homes: persons in good condition and able to leave their villages who were prepared to do a normal task for full payment were expected to go to large works, though no one was refused relief on small works except on the order of a superior officer. But in fact except in Kaira the great bulk of the Gujarát relief workers were in this year employed on the small works; the restriction which was intended could not be effectually enforced, and the total number of persons requiring employment was never so large that reasonably adequate supervision, even when they were scattered over numerous small works, was impossible. The Government of India suggested that admission to such works should in the case of persons living in their vicinity be limited to those who had been selected by a responsible Government officer as seeming *prima facie* to be at the end of their resources. But the Commissioner, Northern Division, pointed out difficulties in the way of adopting this suggestion and explained the system of checks in force, urging that the adequate super-

Small works
in 1900-1901.

G. R. No. 4095,
dated 31st Decem-
ber 1900.

vising staff at his disposal would ensure speedy elimination of professional workers and of those outside the purview of the scheme. In the Panch Maháls, where frequent payments were absolutely essential, it was arranged that family gangs should be set to work upon "chokdis" of 100 cubic feet and that each "chokdi" should be paid for upon completion, and with these modifications the prescribed regulations were found generally suitable to the peculiar needs of the district.

Merits of
small works.

71. The small works carried out in Gujarát under the scheme described above were considered to have been on the whole successfully administered and to have attained the object in view. The system was economical, and the supervising staff generally adequate: moreover the retention of people near their homes enabled them to take immediate advantage of any temporary means of livelihood, and the relief given was to a large extent self-adjusting. The village Panches however generally proved useless, even when Pátidárs of education and position were available, and the success of the scheme as a whole was chiefly due to the fact that the numbers to be provided for were never so large that the setting out of the tasks and check of the record of work done were beyond the capacity of the Public Works Overseers available.

Raising of
wages in
Gujarát.

72. In Gujarát in the famine of 1900-01 a difficulty arose owing to the prices of "other items" not falling in the same proportion as the price of the staple food-grain on which the Code wages are based. The cash equivalent of the wage declined in proportion to the fall in the price of grain, and left very little for the purchase of the grain part of the ration after the cost of "other items" had been deducted. A comparison of the Ready Reckoner and the standard rations for adults, for instance, shows that the maximum wage of 19 chataks of grain is taken as the equivalent of 12 chataks of grain + "other items." It follows that these other items are taken as being equal in value to 7 chataks of grain. This may be true in an ordinary famine year: But in 1900-01 with grain selling at nearly 40 lbs. a rupee, "other items" swallowed up 3 pice or nearly 15 chataks of the grain equivalent, and a balance of only 4 or 5 chataks of grain was thus left to the labourer. To meet this difficulty tables showing the enhanced rates calculated on different prices of grain were prescribed for the guidance of Collectors, who were authorised to increase the rates of wages by a percentage varying from 10 to 25 per cent. wherever necessary.

System in
1901-1902.

73. Relief works were closed over a large area when rain fell in 1901 but the failure of the late rains soon resulted in a renewal of the demand for relief. Test works were accordingly reopened in Surat, Khándesh, Ahmednagar, Sholápur, Belgaum, Násik and Poona, and in all but the last two districts they were converted into regular relief works. In Northern Gujarát there was practically no intermission of relief. Except in Khándesh and the Panch Maháls where small works also were continued, relief to the able-bodied was given almost entirely on large works in 1901-02 and in accordance with the intermediate system: a rest-day wage, however, was not generally allowed, and payments were made very strictly by results with suitable provision for weakly persons. Tank works as being more capable of close supervision were preferred to road repairs and if small works appeared at any time to be unduly attractive, special measures were taken to exact full tasks: in the Panch Maháls, for instance, one pice less was paid on small works than on large works, and in spite of this reduction and the existence of kitchens on large works, small works continued to be more popular. It was found most convenient in Gujarát to have one large central work on which all applicants were received, and when numbers became unwieldy, to make drafts to small sub-works not more than five miles distant.

Tour of Mr.
B. Robertson,
C.I.E., I.C.S.

74. In February 1902 the Government of India with the consent of the Bombay Government deputed Mr. B. Robertson, C.I.E., I.C.S., to visit the relief works in this Presidency. Mr. Robertson's tour lasted from 2nd March till 30th April 1902 and extended to Gujarát as well as the districts of Ahmednagar, Khándesh and Bijápur. His inspection showed that relief was not being given to an extent materially in excess of the necessities of the people, and that all reasonable tests were being effectively applied, though there were certain minor defects of management in the Ahmednagar district. Some changes of minor importance which need not be mentioned in detail were made after con-

sideration of Mr. Robertson's inspection notes. The question of daily payments was the principal point which it was found necessary to deal with in connexion with his tour.

75. Government throughout the famine insisted that payments should be as frequent as possible, but from all parts of the Presidency it was represented that with the establishments available daily payments were impracticable. It was clear that when the numbers were large, it was not possible to make separate payment each day to each individual. In 1899-1900 several attempts were made to introduce a system of lump payments to gangs, but they resulted in numerous complaints that the money was not properly distributed and were abandoned. The belief that gangmen could not be trusted to pay to the several members of the gang what was due to them was universal and in view of the complaints of exactions made by members of establishments higher in the social scale seemed to be well founded. But on the advice of Mr. Robertson and Mr. Younghusband, now Commissioner, Central Division, who had large experience in the Central Provinces of the system of payments to a gangman chosen by the gang, it was tried in Ahmednagar with more persistence than before, and after some difficulties were overcome it was reported to work satisfactorily. The Collector considered that it conduced to better work and to prevention of fraud, and the advantage of daily payments, which under it become possible even when large numbers have to be dealt with, is sufficient to outweigh many drawbacks. It was accordingly directed in spite of many objections that the system of daily payments to gangmen should be made general. In Gujarat, however, daily payments to individuals had with the aid of an enormous establishment in proportion to the numbers relieved been carried out for a considerable time, and in deference to the view of the Commissioner, Northern Division, who maintained his distrust of gangmen, and in view of the expectation that relief would not be needed for many more months the system was not altered in that province. But all experience tends to show that in case of severe famine over a wide area daily payments are possible only if they are made in lump to gangs.

System of daily payments.

76. Appendix 28 shows the daily average numbers of men, women and children among relief workers in the last week of each month in the famine years of 1897-1902 and the percentages of each class to the total numbers. The proportions as they stood at different periods in 1899-1900 are compared below with those of 1896-97 :—

Number of relief workers.

	AT THE END OF DECEMBER						AT THE END OF APRIL					
	1896.			1900.			1897.			1900.		
	Men.	Women.	Children.	Men.	Women.	Children.	Men.	Women.	Children.	Men.	Women.	Children.
Gujarāt ... ..	...	...	...	42	41	17	...	...	...	41	44	16
Deccan and Karnātak	36	44	20	35	45	20	32	44	24	33	46	22
Sind ... ..	...	...	...	43	31	23	...	...	...	41	38	23
Total	36	44	20	37	44	19	33	44	24	33	44	20

	AT THE END OF JULY						AT THE END OF OCTOBER					
	1897.			1900.			1897.			1900.		
	Men.	Women.	Children.	Men.	Women.	Children.	Men.	Women.	Children.	Men.	Women.	Children.
Gujarāt ... ..	...	...	...	30	46	15	...	...	...	37	50	13
Deccan and Karnātak	32	43	25	32	47	21	35	43	22	33	47	20
Sind ... ..	...	...	...	38	32	30	...	...	...	...	...	...
Total	32	43	25	35	47	18	35	43	22	34	47	19

The total numbers of relief workers during each month of the three years of famine and their proportion to the affected population are exhibited in the following table :—

Month.	1899-1900.		1900-1901.		1901-1902.	
	Daily average.	Percentage to affected population.	Daily average.	Percentage to affected population.	Daily average.	Percentage to affected population.
September ...	23,186	0.23	.....	...	...	...
October ...	71,689	0.73	.....	...	...	...
November ...	163,438	1.67	.....	...	32,027	0.76
December ...	368,713	3.77	123,035	1.26	40,746	0.97
January ...	594,011	6.07	126,782	1.30	94,784	2.26
February ...	771,643	7.89	115,813	1.18	151,121	3.60
March ...	917,381	9.38	123,658	1.73	180,794	4.31
April ...	983,573	10.06	185,145	2.59	158,710	3.80
May ...	898,688	9.19	240,193	3.36	175,905	4.20
June ...	906,091	9.27	278,584	3.90	163,214	3.90
July ...	953,163	9.74	282,810	3.96	164,468	3.92
August ...	731,389	7.48	231,342	3.23	189,550	4.52
September ...	434,141	4.44	199,712	2.79	80,020	1.91
October ...	198,825	2.03	105,682	1.48	18,927	0.45
November ...	118,156	1.02	.....	...	...	...
Average for the entire period ...	542,273	5.55	182,978	2.56	120,856	2.88

The numbers continued to rise till April 1900, when the maximum (1,011,200) was reached. In May there was a decline mainly owing to severe outbreaks of cholera on the works. The numbers again rose in June and July owing to retardation of the monsoon, but declined rapidly from August onward. In 1896-97 the maximum 305,200 was reached in the month of April 1897, and the highest proportion of workers to the affected population was 3.15 as compared with 10.06 in 1899-1900. During the second period of famine the maximum (282,800) was reached in July 1901, giving a proportion of 3.96 to the affected population. In the third year the numbers rose from 32,000 in November 1901 to 180,700 in March 1902, and a slight fall in April was due to the mhowra and mango harvest: owing, however, to the retardation of the monsoon the highest figure of 189,500, giving a percentage of 4.52, was recorded in August, in the last week of which month heavy and most opportune rain speedily reduced the numbers.

77. The percentage proportions employed on different classes of works during the entire period of the famine are shown below :—

	1899-1900.	1900-1901.	1901-1902.
Tank and Canal works ...	44.0	73.0	81.4
Metal collection ...	34.0	0.3	4.7
Road construction and repairs .	17.0	25.4	12.7
Railway earth work and other works ...	5.0	1.3	1.2

Expenditure on large works.

78. The following statement shows the recorded expenditure under the more important heads incurred on famine relief in the Public Works Department during each of the three years of famine :—

District.	1899-1900.				1900-1901.				1901-1902.			
	Wages of labour.	Gratuitous relief in cash to dependants.	Other expenditure.	Total.	Wages of labour.	Gratuitous relief in cash to dependants.	Other expenditure.	Total.	Wages of labour.	Gratuitous relief in cash to dependants.	Other expenditure.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Ahmedabad	24,04,373 80	72,456 35	5,06,475 175	29,83,304	10,948	—154	—79,187	—68,368	11,44,614 78	37,400 19	2,94,537 20 1	14,06,561
Kaira and Panch Mahals.	26,33,350 85	1,33,580 43	3,20,637 107	30,90,475	2,13,741 78	3,752 1	54,066 21	2,70,539	10,31,357 81	6,435 0	2,40,730 18 5	13,78,463
Broach and Sorat	23,99,135 84	35,208 12	5,23,597 145	29,48,240	5,004 32	165 1	10,508 67	16,373	29,810 37	.....	4,310 13	34,096
Thana	74,965 71	.....	30,073 29	1,06,038	.....	.....	.....	.....	.....	.....	.....	.....
Khandesh	37,65,544 76	3,15,926 65	8,30,036 175	49,14,506	50,804 39	905 19	31,476 59 1	53,273	10,474	437	—389	10,033
Nasik	17,72,597 76	.....	5,89,947 24	23,62,544	74,038	159	—77,393	—3,070	4,103 86	5 0 0	689 14	4,664
Ahmednagar	43,21,733 80	50,534 09	10,18,020 19 1	53,90,287	14,43,507 66	40,726 24	6,08,975 39 6	31,03,308	2,01,331 63	10,603 3 4	1,00,174 34 6	3,31,303
Poona	12,04,615 74	22,933 1 4	3,92,538 24 5	16,20,106	4,37,617 37	10,432 33	2,445 07	4,44,074	11,147	30	—60,431	—40,304
Soldapur	27,00,433 81	1,77,006 52	4,33,934 13 8	33,11,433	11,11,100 37	28,814 23	1,34,321 10 7	13,08,466	1,08,034 69	8,693 2	71,008 39	1,84,149
Satara	6,35,618 83	4,233 05	1,21,461 16 5	7,61,300	60,182 67	1,853 1 4	42,070 31 6	1,31,703	.....	.....	.....	.....
Bijapur	2,77,064 75	5,888 2 6	7,70,31 22 4	3,40,053	3,54,958 81	14,083 32	60,779 16 8	4,39,740	2,19,028 82	.....	47,350 16 9	2,69,187
Belgaum	29,772 65	16 0 0	15,055 35	46,743	1,16,183 66 3	810 0 5	50,423 33 7	1,70,418	60,780 74	43	23,001 26	80,913
Thar and Parkar	33,123 76	.....	1,003 17 4	43,744	.....	.....	.....	.....	.....	.....	.....	.....
Total	1,11,27,072 80	8,27,887 5	48,03,075 17	1,78,10,590	34,76,902 80	1,00,006 22	8,61,074 17 8	48,30,071	28,27,351 78 7	61,763 1 4	7,30,043 19 0	86,66,076

Notes:—(1) The figures in brackets represent the percentage proportion of the expenditure under each head to total expenditure.
(2) The minus figures are due to adjustments in the accounts under the respective sub-heads.

79. Appendix 29 contains a detailed list of the relief works carried out during the three years of famine in each district and classed according to their utility, and contrasts the famine expenditure on each work with the normal cost. In Appendix 30 are shown the famine expenditure and normal expenditure on different classes of work in each district. In the first year of famine the value of the work done calculated at ordinary rates excluding Establishment and Tools and Plant charges is 40 per cent. of the famine expenditure excluding Establishment, Tools and Plant, and gratuitous relief, which proportion is almost exactly the same as in the case of the 1896-97 famine. The Northern Division shows a percentage of 61 against 29 for the Central Division. The following are believed to be the principal causes which contributed to this marked difference:—

Character of relief works and extent of their utility.

- (i) The rates of wages in ordinary times are much higher in the Northern than in the Central Division.
- (ii) The rush on works and the total number of workers were much greater in the Central Division, as will be seen from the following figures:—

Week.	Central Division.	Northern Division.
4th November 1899	69,511	44,859
2nd December 1899	194,043	92,627
6th January 1900	354,614	163,810

- (iii) In the Central Division more than half the work consisted of metal collection, whereas in the Northern Division that work was only about 5 per cent. It is much easier to secure a good outturn on earth-work than on metal collection, as on the former the workers have to keep moving

and lazy workers are urged on by diligent workers, whereas metal breaking is a knack to be acquired by long practice only, and affords great facilities for idling. It will be observed that in the Northern Division the outturn under metal collection was only 33 per cent.

- (iv) In the Northern Division about 76 per cent. of the work was connected with tanks, whereas in the Central Division the percentage was about 27 only. This class of employment generally gives a good outturn, as the long leads enable sufficient work to be found for carriers and it is easy to detect idleness, besides which time is not lost, as on metal breaking and constructing roads, by the unavoidable constant changing of camp sites.
- (v) The results as regards outturn correspond, in a great measure, to the efficiency of subordinate supervision, and this efficiency depends principally upon the number of permanent subordinates of the Public Works Department available, as temporary subordinates specially engaged for famine works are as a rule less competent. In the Central Division there were about 100 permanent subordinates as against 75 in the Northern Division, though the number of workers in the former division was more than twice that in the latter.
- (vi) Again it is much easier for unskilled labourers to work in the soft earth of Gujarát than in the harder soil of the Deccan, where especially on road embankments the number of diggers did not, as a rule, suffice for the number of carriers.
- (vii) In the Central Division large expenditure was incurred on carrying metal from the quarries to roadside by head-loads; the cost of this work compares very unfavourably with the normal, the rates used for calculating which are those usually paid for carting.

Taking the works as a whole according to their utility the following percentages of infructuous expenditure result :—

	1899-1900.				1900-1902.			
	Works of permanent utility.	Works of temporary utility.	Works of doubtful utility.	Total.	Works of permanent utility.	Works of temporary utility.	Works of doubtful utility.	Total.
Ahmedabad	38	42	...	40	32	37	23	35
Kaira and Panch Mahals	51	44	77	47	21	...	...	...
Surat and Broach	11	31	32	30	25	...	...	...
Thána	26	3	...	26	...	...	...	...
Northern Division	38	39	38	39	28	9	...	14
Khándesh	66	83	85	79	25	...	...	15
Násik	78	81	...	79	35	...	...	32
Ahmednagar	74	74	...	71	56	72	...	58
Poona	57	71	...	65	55	84	...	56
Sholápur	61	70	...	65	42	59	...	43
Sátára	47	60	...	48	47	73	...	47
Central Division	65	77	85	71	50	69	...	52

	1899-1900.				1900-1902.			
	Works of permanent utility.	Works of temporary utility.	Works of doubtful utility.	Total.	Works of permanent utility.	Works of temporary utility.	Works of doubtful utility.	Total.
Bijápur	42	...	...	43	50	80	...	54
Belgaum ... ..	...	35	...	13	35	49	...	38
Southern Division ...	39	35	...	39	46	72	...	50
Total	59	61	74	60	46	21	...	39

For the whole Presidency the percentage of infructuous expenditure during the first period was 60, during the second 39 and for both combined 54. The principles on which the classification has been made are explained in two Notes by the Chief Engineer and Secretary to Government in the Public Works Department, which are quoted in Appendix 31. In the second and third years of famine more favourable results were obtained in the Northern and Central Divisions especially in the former, whilst in the Southern Division the percentage remained virtually the same throughout. The improvement in the two first named divisions is probably to be attributed to experience gained both by the relief workers and the relieving administration as well as to a reduction in the amount of metal breaking projects undertaken. The following kinds of works have been classified as being of permanent utility :—

- (1) new irrigation tanks;
 - (2) improvements to existing irrigation tanks;
 - (3) railway embankments;
 - (4) drainage channels;
 - (5) making of new roads,
 - (6) improvements to existing roads,
- } where more than mere metal
} collection was done.

During the entire three years of famine 118 irrigation tanks in Gujarát were put in order by famine labour, of which 78 were in Ahmedabad, 19 in Kaira, 5 in the Panch Maháls, 7 in Broach and 9 in Surat.

80. In accordance with the recommendations of the Famine Commission of 1898, special measures were taken for the relief of hill and forest tribes in several areas. The proportion of the population of such tribes to the total population according to the census of 1891 is shown below :—

Relief of hill and forest tribes.

District.	Percentage.	District.	Percentage.
Ahmedabad	0.65	Násik	11.33
Kaira	0.06	Ahmednagar	2.68
Panch Maháls	35.19	Poona	0.83
Broach	15.89	Sholápur	0.05
Surat	32.44	Sátára	0.08
Thána	27.12	Bijápur	0.04
Khándesh	17.15	Belgaum	0.06

At the end of August 1899 a Circular was issued calling the attention of district officers to the recommendations of the Famine Commission of 1898 regarding the treatment of the classes referred to, and requesting them to keep a strict watch on their condition and to take prompt measures for their relief. The Divisional Commissioners were also authorized to permit wild tribes in the

Government Circular No. 6102, dated 21st August 1899.

affected tracts to make free use of forest produce, such as honey, edible fruits and leaves.

81. In the Panch Maháls there were certain circumstances peculiar to the district which added to the difficulties usually experienced in giving relief to these classes. The aboriginal tribes in this district do not inhabit a limited tract which can be readily managed under a special organization: they are scattered throughout the district; they do not live in compact villages; their houses or huts are more or less isolated and dotted over wide areas, open country and jungle being intermingled. Grain sellers had moved to head-quarters, and shops were few and far between. Many or perhaps most of the headmen of the villages are themselves members of the aboriginal tribes and of no greater intelligence than the rest of the community. The village accountants are not of the best class and there is one only for several villages. Tálukdári and meh-wási villages, which comprise about one-seventh of the whole district, have no village officers at all and the holders, with one or two exceptions, gave no assistance in famine relief. The district is also shunned by the usual applicants for employment in the subordinate grades. Some of these difficulties had to be faced also in the hill tracts of Khándesh.

Forest works and other special works for hill tribes in 1899-1900.

82. In October 1899 the Commissioner, Northern Division, reported that the Bhils in the Panch Maháls and the hill-tribes in Thána were for the time provided for, that in the Panch Maháls the relief works were freely resorted to, whilst in Thána there was a very large demand for labour, especially in grass cutting. The Commissioner at the same time submitted detailed programmes of relief works under Forest Department agency for the employment of the hill population of those districts. The works consisted of demarcation and repairs of forest boundaries, cutting and extracting dead teak trees, fire tracing, purchase of head-loads of firewood, construction of new roads and repairs to existing forest roads. Government in sanctioning the grants required for the works proposed left it to the discretion of the Commissioner to decide when any or all of the works should be started and observed as follows:—

G. R. No. 7880, dated 4th November 1899.

“In deference to the Commissioner’s objection to a grain wage Government will not for the present insist on grain payments. But the principles laid down in paragraph 489 of the (1898) Famine Commission’s Report referred to in paragraph 7 of the Commissioner’s memorandum should be carefully borne in mind, and grain payments introduced if the necessity for them is made apparent by any falling off in condition on the part of the labourers which is traceable to defect in their dietary.”

The execution of similar forest works was also authorized in the Poona, Khándesh and Sátára districts for the benefit of the hill tribes. It was at the same time directed that arrangements for the control and supervision of the work should, as far as possible, be made in accordance with the recommendations of the Famine Commission, that in view of the kind of supervision which could be exercised and the difficulty of prescribing tasks great caution should be exercised in fixing, and that if forest fruits were available the scale of wages should be reduced.

83. The extent of relief given on forest works in 1899-1900 will be seen from the subjoined table:—

District.		Total units relieved.	Total expenditure.	Cost per unit.
			Rs.	A. p.
Panch Maháls	...	22,900	3,960	2 4
Thána	...	63,470	9,314	2 4½
Sátára	...	9,627	1,000	1 8
Khándesh	...	34,225	6,906	3 3
Poona	...	103,347	16,239	2 6
	Total	233,569	37,419	2 7

The collection of cassia bark in the Bádámi táluka of the Bijápur district was also carried out as a relief work by the Forest Department. Besides forest works which were available to a very limited extent, other small works under

Civil agency as previously described were opened in the several districts for the employment of wild tribes near their homes.

84. In 1900-01 also forest works and village tank works for wild tribes were continued wherever possible. During the monsoon of 1901 many of the Bhils in the Panch Maháls found occupation in the killing of rats, which devastated the fields and destroyed the crops. They were paid at first Re. 1 for 100 rats killed, and subsequently when they worked in gangs under supervision Re. 1 for 64 rats. In Khándesh, moreover, it was found necessary for a time to raise the Code scale of wages for the Bhil workers, under circumstances thus explained by the Collector :—

"The Bhil is at all times a lazy person and bitter experience has shown that he will rather starve than work for a low wage. The result is that when works are opened and the Bhil can hold out no longer, he comes on to them in reduced condition. It is this we want to avoid. My Assistant tells me that the Sháháda Bhils have nothing to eat and are living on the proceeds of dacoity, and that in East Taloda, where there is little mhowra, the Bhils are hard up. They would not, however, come on works for one anna, which is the wage they would get according to the famine table. As you know their intelligence is limited and they cling obstinately to the idea that because two annas is their normal wage, one anna will buy them only half a meal. It is easy to say 'reduce the tasks by 25 per cent.,' but this does not get over the difficulty. What I want is power to raise the Code wages by 25 or even 50 per cent., if I think it necessary to save the people from semi-starvation. It will be the cheapest in the end and there will be only two months for work if the rains are timely and sufficient.

"The present time and up to the end of June is the critical period for these hill tribes. The grass seed is over, the mhowra almost done and the forest roots and vegetables will not be available till a fortnight after the first good showers. Yet so averse are these people to work that they will rather starve than earn a pittance. As it is, it is difficult to get them to come for increased wages. They deteriorate rapidly under such conditions, and should the rains hold off, are sure to die in numbers. Everything possible should therefore be done to get them to work."

In the circumstances stated above the Collector was authorized as a special case to exceed the limit (25 per cent.) of increase permissible under the Famine Code so far and so long as he might find it absolutely necessary to prevent the Bhils falling into reduced condition. The favourable rates of wages thus granted were, however, discontinued in August 1901 after sufficient rain had fallen.

85. During the third year of famine, small works were maintained for hill and forest tribes. In the Panch Maháls the Bhils had learnt to work steadily; but the Náikdas were still somewhat intractable and for them special ganging and a 50 per cent. reduction in tasks were provided as well as kitchens for their children even on village works. In Ahmednagar district a few small works were specially opened for the hill people in the hot weather and during the monsoon. In parts of Khándesh also the condition of the Bhils made it necessary to arrange some small forest works on a special scale of wages with payments partly in kind. The hill people on large relief works were throughout the three years exempted from being fined down to the penal wage. The tasks for such people were also reduced wherever necessary, generally by 25 per cent. for earth-work and 50 per cent. for metal breaking: it was further directed that in the case of these people drafting to works far from their homes should be avoided.

86. In January 1900 Messrs. N. Futehally and Company, a firm of Bombay merchants, were permitted to employ famine labour on the work of extracting fibre from the aloe plants growing on the banks of canals in the Deccan. The work was considered by the district officers to be distinctly useful as a means of employing labour. The firm had in all 2,800 machines at work in parts of Poona, Ahmednagar and Násik districts, each machine requiring from 3 to 4 hands. More than 10,000 people were thus employed for several months, and after the hands had become practised, the wages earned varied from eight annas to one rupee per machine per day.

Other forms of employment.

87. With a view to meet the deficiency of water supply, the usual expedients of making water holes in suitable localities, damming up rivers, sinking new temporary wells, clearing and deepening existing wells and removing silt from tanks with natural springs were resorted to in all districts. Special grants were made by Government for these purposes, and expenditure was also incurred on the same objects from Local Funds. The general practice was for the Táluka Local Board Overseer to decide in what way water could

Works for improvement of water supply.

best and most cheaply be reached: he then drew up estimates which when sanctioned were given to the village officers who carried out the work by local labour and were held responsible for its due completion. In some places the works were carried out by petty contract and were jealously watched by the villagers. Employment was thus provided for some time for large numbers of people in their own villages.

Expenditure.

88. The amounts expended on such works are shown below:—

District.	1899-1900.		1900-1901.		1901-1902.	
	Government.	Local Funds.	Government.	Local Funds.	Government.	Local Funds.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Ahmedabad	3,324	...	2,816	450	8,984	307
Kaira	2,092	...	507	2,128	8,422	1,723
Panch Maháls	1,413	...	1,034	...	16,699	582
Broach	2,319	...	4,434	2,609	6,291	3,868
Surat	1,124	2,249	8,615	7,478	4,277	10,411
Thána ... ..	...	37,000	...	...	...	...
Khándesh	18,000	...	1,400	...	3,162	2,531
Násik	5,000	...	20,740	...	8,121	1,784
Ahmednagar	9,500	9,500	30,720	...	40,118	1,090
Poona	9,795	10,695	3,831	1,769	3,952	4,933
Sholápur	4,000	...	9,565	...	22,643	...
Sátára	6,500	...	1,689	721	...	...
Bijápur	1,280	13,335	18,000	...	13,322	...
Bolgaum ... ..	...	2,348	5,000	20	7,198	4,064
Total	64,347	75,125	1,08,351	15,175	1,43,189	31,293

The attention of district officers was called in January 1900 to a letter from Mr. J. E. Whiting published in the newspapers in which he recommended the erection of a series of bands with puddled trenches in náls still holding water as a means of preserving the supply and preventing leakage. Orders were also issued granting certain concessions to owners of private wells who allowed the public to draw water for domestic consumption, and wherever people of low caste were to be supplied from these wells, Government undertook the expense of providing special water carriers.

Employment
of famine
labour on
well sinking.

89. The great importance of assisting land-holders to discover and utilize water was recognised throughout, and a scheme for the employment of famine labour on well sinking was favourably considered in January 1900. In all villages throughout each district, it was made widely known that Government were prepared to have diggings or trial shafts for irrigation wells in occupied unalienated lands made by famine labour out of public funds on condition that in the event of water being found the land-holders concerned should complete the wells either out of their own resources or with the aid of takávi. Grants to the amount of Rs. 45,500 were allotted for this purpose to all the districts in the Deccan: but the scheme did not as a rule find favour with land-owners, though the few experiments made gave for the most part encouraging results.

90. Although the officers of the Public Works Department were of opinion that there was no hope of finding artesian supplies of water except possibly in Northern Gujarát and that a large expenditure on borings would not be justified, the subject was regarded of such importance that it was determined to consult the well known expert Mr. W. Santo Crimp, M.Inst.C.E. He reported in January 1900 that nowhere in the Presidency had he been able to discover any formations that afforded a remote hope that artesian wells would be successful. Mr. Santo Crimp's report is quoted at length in Appendix 32. A month or so later, the Director of Geological Survey, Mr. Griesbach, suggested that a bore-hole one thousand feet deep might be sunk in Káthiawár near Wadhwan, where a deep seated supply of water might possibly be found. Government however considered that the chance of success was remote apart from the further considerations that an artesian well would be unable to compete with ordinary wells for irrigation purposes and that the cost of thus supplying villages with drinking water would be prohibitive.

Artesian wells

91. Boring operations by means of jumping bars and apparatus specially purchased were carried out inexpensively and generally with success at various places in Ahmednagar, Sholápur and Bijápur districts, whilst at Khárághoda water was cheaply and expeditiously obtained by means of an "Abyssinian Tube" well. In 1901-02 special facilities were afforded to the people in Gujarát in the way of expert advice where possible, and country made boring apparatus was distributed in rural tracts.

Boring operations.

VI-B (2a).—GOVERNMENT GRATUITOUS RELIEF.

92. The gratuitous relief given at the cost of the State consisted of—

Kinds of gratuitous relief given.

- (a) Grant of doles which were given generally in the shape of dry rations or cooked food and sometimes in cash in villages to persons eligible for such relief under the provisions of the Famine Code or under special orders of Government.
- (b) Relief to non-working children and other dependants on relief workers.
- (c) Relief in poor-houses.

93. The principle that all necessitous cases must be relieved promptly was inculcated from the very commencement of the famine. The following orders issued by the Commissioner, Central Division, to the Collectors in his division were circulated on August 31st, 1899, to the other Commissioners and Collectors:—

General instructions.

"In the present letter I wish to draw your special attention to the necessity of a careful organization for the administration of gratuitous relief. I request you will be good enough to submit the outlines of a scheme for your district based on the rules of the Famine Code, after your Assistants have made a rapid tour in their charges and have communicated to you the results of their observation as to the time when and the localities in which such relief is likely to be required. Your report should be submitted with as little delay as possible, and in the meantime the taluka and village officers should receive stringent orders to watch for and promptly relieve individual cases of distress. They should be warned that they will be held responsible for any death from starvation or suffering dangerous to life which could have been avoided by reasonable exertions on their part. Arrangements should also be made for a careful scrutiny of the death-rate by Mámlatdárs and Divisional officers."

In addition a Circular by the Collector of Ahmednagar containing instructions to village officers in regard to village inspection, &c., was communicated to other Collectors on January 20th, 1900, with an intimation that instructions of similar purport should be issued in each affected district. The Circular clearly explained that the chief duties of the village officers were to reside continuously in their villages, to visit every house daily and inquire into cases of sickness and destitution, to send distressed villagers to relief works, to enter on the register persons entitled to the dole, and to search out wanderers and send them to their village or a work, after temporarily relieving them when necessary.

94. With the opening of relief works gratuitous village relief on a small scale was commenced in most of the affected districts. In the earlier stages it was directed that such relief should be on a scale strictly commensurate with

Commencement of village relief

actual requirements and that great caution should be observed in the distribution of it until the resort of the labouring classes in considerable numbers to relief works demonstrated the necessity for such a measure. In accordance with these orders gratuitous relief was at first strictly confined to the classes of people eligible for it under Section 57 of the Famine Code, *viz.*, children, the infirm and old, cripples and house-ridden people and those necessarily required to attend on them. Such relief was given by Government in alienated villages also as *inámdárs* with a few honourable exceptions entirely neglected their responsibilities in this respect.

95. In all villages where gratuitous relief was given, dole committees were formed under Section 56 of the Famine Code to regulate its distribution. The dole registers were prepared by village officers in accordance with the instructions issued and were checked by Circle Inspectors in the course of their weekly visits as also by Relief Aval Karkuns and other superior officers. The District Medical Officer in the course of his inspection tours took particular care to see that every person eligible for relief was entered on the dole register. In several districts, however, it was found that village officers were either afraid of responsibility and shirked it or else evinced a lack of discrimination which resulted in the admission to relief of many ineligible persons: village committees also exercised nothing more than a nominal control. The dole consisting of the cheapest staple food-grain was given daily in all villages in which the village accountant and grain-dealer were both resident, and once a week in places where this convenience did not exist. In hilly tracts and other places where grain shops were few, grave difficulties were experienced, but it was generally found convenient to form groups of villages and to make a weekly distribution from one central village: where this was not possible the dole was given in cash. In the case of destitute respectable persons the dole was delivered at their homes.

96. Concurrently with measures under Section 57 of the Code, steps were taken to enter inferior village servants on the dole register under Section 60. The following general orders were issued on the subject on a reference from the Collector of Ahmedabad:—

“It is in accordance with Section 60 of the Famine Relief Code to enter on the dole register such of the inferior village servants as are required to stay in the villages for the performance of their duties, but of course it is intended that the full dole should be given only to those whose ordinary remuneration, being from land or perquisites, is stopped in a year of famine. Government have no objection to the substitution of a cash payment, and as the rate of Rs. 3 would represent at the present range of prices nearly the money value of the gratuitous ration, it may be adopted, although a smaller cash allowance has been held to suffice in other parts of the Presidency. The number of village watchmen to be regarded as enough for the performance of the duties may be determined in the manner suggested by the Collector of Ahmedabad, and the cash remuneration of such as do not ordinarily draw Rs. 3 per mensem may be made up to that amount. This remuneration is for the subsistence of the inferior village servants personally. Their wives and children who are fit for work should in accordance with Government Resolution No. 10302, dated 16th December 1896, work for their living on the nearest relief work or in other ways, and other dependants will receive relief according to other provisions of the Code.”

The number of village servants retained in each village was determined on a consideration of its population, area and importance. The following table shows the daily average number of inferior village servants given the dole in the affected districts for the period from September 1899 to November 1900:—

District.	Period for which dole was given.	Daily average number.	District.	Period for which dole was given.	Daily average number.	District.	Period for which dole was given.	Daily average number.
	Months.			Months.			Months.	
Ahmedabad	11	325	Surat	10	683	Poona	12	2,668
Kaira	14	295	Khándesh	12	2,950	Sholápur	10	2,455
Panch Maháls	14	165	Násik	9	331	Sátára	9	188
Erwach	14	1,912	Ahmednagar	14	3,296	Bijápur	10	1,251
						Belgaum	5	317

Relief of inferior village servants.

G. R. No. 282, dated 16th January 1900.

Similar relief was continued where necessary during the two succeeding years, but the figures have not been separately recorded.

97. In December 1899 it was reported that several Local Board schools in Kaira district might have to be closed unless relief was given to the children of the very poor among the lower classes to enable them to continue their attendance. It was accordingly directed that cooked food should be supplied to children unfit for work whose parents were employed on famine relief works or were themselves gratuitously relieved and therefore unable to maintain them. The daily average number of children relieved as compared with the daily average attendance at such schools in the Kaira district from March to September 1900 is shown below :—

Relief of school children.

G. R. No. 836-Fam., dated 19th December 1899.

Months.	Attendance.	Relieved.
March 1900	252	15
April "	942	83
May "	698	92
June "	630	98
July "	530	125
August "	458	112
September "	356	54

Such relief was given in Broach and Bijapur districts also.

98. As soon as famine operations commenced it was directed that children unfit for work and adult dependants of relief workers should be relieved by cooked food at kitchens established on the works unless there were difficulties in starting kitchens, in which case cash allowances on the Code scale should be given. Kitchens were accordingly opened on most of the relief works. The inmates were as far as possible kept in the kitchen enclosure and all recipients were regularly mustered and ganged: food was distributed at fixed hours, the water supply and sanitary arrangements were carefully watched, and special treatment was given to the emaciated and the sick. The kitchen ration was on the scale laid down for the gratuitously relieved, and the cheapest staple food-grain was regularly used, with the exception that Rangoon rice, which was for some time the cheapest, was introduced only under the guidance of the District Medical Officer and was generally alternated with other grain. Diet was as far as possible varied and the food given was readily eaten.

Kitchens on works.

99. From a very early stage in the famine Government expressed a desire that gratuitous village relief should be given as far as possible in the shape of cooked food in kitchens on works and in poor-houses. It was explained that some recipients would not be able to leave their homes and that no absolute rule could be laid down, but that as far as local circumstances permitted cooked food should be preferred when it could be given with convenience and economy. The special object of these orders was not to create an additional test, but to secure all the checks of constant supervision against capricious admission and improper expenditure: it was at the same time recognized that distribution of well cooked food was less liable to abuse in other respects since it ensured that parents did not consume their children's dole and that a whole family did not subsist to the common injury on a dole meant for a single member of it. In villages, therefore, within reasonable distance of a poor-house or kitchen the distribution of dry dole was generally restricted to such infirm persons in need of relief as could not leave their homes and to inferior village servants entitled to it on account of their retention for village service, while others eligible for the dole whether dependants or not had to go for their food to the nearest poor-house or kitchen, provided it was not at a greater distance than three miles from their homes: such of these as had fixed homes were not compelled to reside in the poor-house or kitchen. It was further directed that though relief by cooked food should be given so far as it was convenient and practicable and people could not be allowed to select the form of assistance they preferred, genuine scruples must be respected, and also that if persons entitled to the dole who could walk to a kitchen pertinaciously refused to leave their homes, they must be admitted to the dole in their villages. On a report from Khândesh that

Preference of cooked food.

admission to kitchens on works was refused except to persons specially drafted to them, it was pointed out that orders for the immediate relief of those requiring it were applicable in the case of kitchens on works to people incapable of work as well as to others, and that no rules or orders should be so interpreted that food should be refused to those who were suffering from the want of it, though infirm and homeless people should subsequently be sent to a poor-house.

Relief of nursing mothers and infants.

100. Arrangements were made for the supply of milk for emaciated infants in kitchens on relief works: where fresh milk could not be procured condensed milk was supplied. All nursing mothers who were required to work received in addition to the wage they earned a cash allowance of one pice daily for every infant in arms. Children who though weaned were too young to leave their mothers were taken by the latter to the kitchens in the morning and evening for food unless there was any insuperable difficulty, in which case arrangement was made for distributing food to them on the works. Nursing mothers not required to work were ordinarily relieved by cooked food, receiving the maximum ration if the infant was not relieved separately, and if it was, the minimum ration.

Relief in poor-houses.

101. The establishment of kitchens on works made poor-houses unnecessary in some districts in the earliest stages of the famine, but the increase of destitution, wandering and immigration demanded the speedy institution at large centres like Ahmedabad and Broach of asylums for homeless wanderers, moribund immigrants, abandoned cripples, deserted children and orphans, inveterate beggars and the like. The dates on which the first poor-house was started in each district and the maximum number open in 1899-1900 as compared with that in 1896-97 are given below:—

District.	Date of opening.	Number open.		District.	Date of opening.	Number open.	
		1899-1900.	1896-97.			1899-1900.	1896-97.
Ahmedabad ...	25th November 1899.	13	...	Násik ...	21st April 1900 ...	6	2
Kaira ...	28th October 1899 ..	10	...	Ahmednagar ...	20th January 1900 ...	3	6
Panch Maháls ...	3rd February 1900 ...	9	...	Poona ...	3rd March 1900 ...	4	...
Broach ...	9th December 1899...	6	...	Sholápur ...	10th February 1900...	3	2
Surát ...	5th May 1900 ...	1	...	Sátára ...	30th June 1900 ...	3	1
Thána ...	30th June 1900 ...	2	...	Bijápur ...	31st March 1900 ...	21	29
Khándesh	14th April 1900 ...	16	...	Thar and Pákar	17th February 1900...	3	...

The poor-houses in Bijápur were used to a great extent as village kitchens and this fact explains the large number of such institutions in that as compared with other districts. There was unfortunately considerable delay in this respect in western Khándesh, where the Assistant Collector in charge of Taloda and Sháháda talukas was under the impression that poor-house operations could not be commenced until a grant for the purpose was actually sanctioned, and further loss of time was caused by a misunderstanding resulting in correspondence as regards substituting poor-house relief for gratuitous relief in villages. Poor-houses were generally established at head-quarter stations and also at several other prominent centres in each of the affected districts except Belgaum: they were throughout a prominent and necessary feature of the relief system as fully developed. Each poor-house was managed by a Superintendent, who had under his control an establishment consisting of a storekeeper, muster-ing kárkuns and the necessary staff of cooks, water-carriers and menials. Light work about the camp and when possible duties as cooks or water-carriers were assigned to inmates who were recovering condition, and those who became fit for regular work were from time to time drafted to the nearest relief works. Cooks of high caste were always employed where necessary. To each poor-house a hospital was attached with separate wards or quarters for diarrhoea and dysentery cases, cholera cases and lying-in cases: blankets, fresh or condensed

milk, Mellin's food, stimulants and small luxuries were provided at the cost of the State or from charitable funds. Every endeavour was made to keep the poor-house and its surroundings clean and to enforce the use of latrines. Wherever possible Dharamshalas and the like were utilized as poor-house quarters; in other cases temporary structures of bamboo matting were erected on a carefully chosen site and measures were taken to secure that they should be water-tight and free from damp in the rains. The very greatest difficulties were found in the management of these institutions, especially in Gujarát, owing chiefly to three somewhat incongruous characteristics of the average inmate, who was in the first stage unwilling to come in, in the second stage unwilling to stay in, and in the third stage, when accustomed to free meals and comparative idleness, unwilling to go out. A love of liberty combined with a dislike of regular work and a passion for begging induced hundreds of emaciated and half starved wanderers to cling to the streets: it was only by the most strenuous efforts that they could be collected and removed to the poor-house, and the majority exhausted every device to escape on the way. When safely admitted, even hospital patients who appeared to be in a helpless condition were often detected in attempts to creep out or crawl out at night, and efforts were frequently made to cut or dig a passage of escape. On the other hand, when inmates were sufficiently recovered for despatch to a relief work, the majority would disappear on the way or desert the work after the period of daily wages or favoured treatment had expired, and return to their old haunts to be once more rescued and confined when discovered in a worse condition than before. The strain upon these institutions in Gujarát may partly be gauged from the fact that there were 3,670 persons being relieved daily in Ahmedabad poor-house alone by the end of December 1899, and successive months saw this number rise steadily to 10,691 in the following April, by which time the proportion of poor-house inmates to relief workers was 8 per cent. in both Ahmedabad and Panch Maháls districts.

102. The task of collecting and confining in poor-houses emaciated wanderers, the greater proportion of whom were immigrants, was throughout the period of acute distress a severe tax on the energies of local officers: during the cholera epidemic of 1900, however, it became absolutely necessary to adopt more stringent measures for dealing with such persons. On May 1st, 1900, the Commissioner, Northern Division, reported that the number of starving destitute people round the city of Ahmedabad was appalling, that they would neither work nor go to the poor-houses if they had to stay in them, and that cholera had broken out in neighbouring districts and in the Ahmedabad poor-house. The following general orders regarding the treatment of destitute wanderers were accordingly issued:—

Treatment
of destitute
wanderers.

"The Commissioner, Northern Division, has already been authorized by telegram to direct that all destitute wanderers be taken by force if necessary to a poor-house and compelled to stay there unless or until they are able and willing to work. In the Gujarát districts, where cholera is prevailing in an epidemic form, a notification under the Epidemic Diseases Act would place the legality of this course beyond question. But His Excellency the Governor in Council considers that similar action should be taken wherever there is acute famine and that it is justified by the fact that it constitutes the only effective means of saving the lives of these people. In the Report of the Indian Famine Commission of 1880, Volume III, page 181, it is stated with reference to suggestions to give power of compulsion by legislation:—'It does not appear, however, that the absence of this legal authority hampered officers to any material extent in doing what they felt to be the wisest and most humane thing for these paupers.' It has generally been assumed that a poor-house as distinct from a kitchen is a place where ordinary inmates are compelled to reside, and effect should be given everywhere to this principle."

G. L. No. 2269, dated
15th May 1900.

Steps were taken to provide additional officers from the Military, Police, Salt and other Departments for the purpose of searching villages for reduced wanderers and despatching them to poor-houses, and the Commissioner was also requested to enlist the services of any non-official gentlemen for the purpose. It was at the same time directed that able-bodied people who showed no distinct signs of physical deterioration need not be interfered with, but that the assistance of the police should be obtained in gathering destitute wanderers into poor-houses, whilst such as were able to work but not likely to go to the ordinary relief works should so far as was practicable in accordance with Section 123 (a) of the Famine Code be required to work near poor-houses. Again, in July 1900, the

detention of destitute wanderers and the employment of sufficient establishment for the purpose were emphasized as measures necessary to secure that such people should be rescued before they were past recovery: village kitchens also were treated as poor-houses for the time being, and arrangements were made where practicable to keep in their vicinity all indigent persons found wandering near them, until other means of subsistence might be available. In addition a regular system of ambulance search parties was organized with excellent results in Ahmedabad and other Gujarát districts. A few institutions were conducted as poor-houses by private persons with partial success; but it has been clearly proved that indiscriminate charity and the absence of constant supervision tend only to aggravate the evils which poor-houses are designed to remedy. In several districts valuable assistance was rendered by Missionaries and Native gentlemen in the capacity of Honorary Superintendents, whilst at many large centres European ladies did their utmost to alleviate suffering and sickness in Government poor-houses. A record of numbers in poor-houses for the whole period of famine will be found in paragraph 120 *infra*.

Expansion of gratuitous relief.

103. Throughout the first year of famine extraordinary efforts were made to induce able-bodied people in the backward classes of Gujarát to accept relief on the terms offered: but at a very early stage it was reported that many people such as the Dharála Kolis in Kaira and the Bhils in the Panch Maháls were showing a decided reluctance to work and that the choice lay between facing an enormous mortality and facing a dole list which meant practically the pauperisation of whole districts. Some of the Káliparaj classes in Surat actually wounded themselves in order to become entitled to the dole whilst others fled from the Inspectors who visited villages for the purpose of putting eligible people on the dole list. Similar difficulties had to be faced to a less extent in other parts of the Presidency besides Gujarát. In forwarding a report of the District Medical Officer of Kaira in which he suggested the allowance of half dole in certain cases, the Collector observed on January 13th, 1900, that in many parts of the district there were to be found able-bodied men who stated openly that they preferred starvation in their village to work outside it, that the treatment of this class was one of the most difficult problems of famine administration, that to leave them alone would in all probability be fatal, while to relieve them gratuitously or to provide small works in their villages would involve demoralization of the whole of the distressed population. The Commissioner, Northern Division, further pointed out that the ratio of the numbers on village dole to numbers on relief works was already nearly 10 per cent. and expressed an opinion that it was impossible to give way to people who obstinately refused to go to work, though as long as they persisted there must of course be distress and deterioration. In the Resolution recorded on this correspondence it was stated that the view expressed by the Commissioner was in accordance with the policy of Government that a labour test must be insisted upon in the case of the able-bodied requiring relief. The obstinacy of the lower classes especially in Gujarát continued however to increase the difficulties of the situation, which are sufficiently illustrated by the following extracts from reports of the Collectors of Surat, Panch Maháls and Ahmednagar:—

G. R. No. 827, dated 12th February 1900.

“While recently touring I found the condition of the Káliparaj in many villages miserable. Many had been to the relief works at Karanj two or three times but had returned. They alleged that (i) they could not earn sufficient, (ii) the climate did not agree with them, (iii) the weekly payments did not suit them, (iv) the distance of the work from their villages was too great, (v) they could not leave their cattle and houses, as the cattle and houses would be looted by the Bhils. With a view to remove the difficulties (ii) and (iv) the Areth tank was opened. The difficulty (iii) has been removed by ordering bi-weekly payments and by ordering that reduced persons who had left the work once and were not, therefore, really eligible for treatment as new-comers should be treated as new-comers. In spite of these measures the numbers have not increased. The táluca officers and myself drafted altogether some 500 people and sent them in charge of peons to the work but the majority left the work after staying only for a fortnight. The truth is I think that Káliparaj find the conditions of life on a relief work almost intolerable; they have to work steadily under discipline; they find it difficult to obtain fuel as readily as they do at home; they are obliged to live together in large herds; they are incapable of

sustained exertion for a long time. So they prefer to eke out an existence at their homes by travelling long distances into the forests to sweep up grass chaff and sell their day's gatherings for one anna. They have no fear of death or starvation and seem to be quite callous to the sufferings of their children. I repeatedly asked people with emaciated children to go to Karanj but they absolutely declined and when I sent for a cart to take them they wept and eventually disappeared. The taluka officers have been instructed to carry out the instructions contained in paragraph (f) of Section 49 of the Famine Code. But the numbers on the dole have considerably increased." (Surat Collector's No. F. 1243, dated May 10th, 1900.)

"I am convinced that in every village in the district people know where work is to be got and every possible effort is made to induce them to go to work. Until now thousands have been living on flesh and on the sale-proceeds of cattle and small bundles of grass, leaves and wood but they cannot continue at it as nearly all the available cattle are killed off or have died and grass and leaves become scarce day by day. These people are not eligible for gratuitous relief according to Section 57 of the Code and under Section 61 they should be told that if they persist in not going to work they will not receive relief. The people know that they cannot save their cattle yet they will not leave them in some cases and people with nothing to keep them at home persist in stopping and trying to feed a family of 4 or 5 on as many pice a day. I therefore suggested that people who have cattle and are really in want should be allowed a dole for one member to look after the cattle. I hope the others may be induced to go to the relief works but I am bound to say I do not believe they will. The Bhil in particular is wonderfully generous in sharing his food with his relations and it is more likely than not that a whole family will try to live on an allowance calculated for one caretaker, the result being in that case a retarded but certain deterioration of the entire household. A minor difficulty in the way is that in very few villages are there shops so that it is impracticable to give a daily allowance of grain. I therefore propose to give the dole in cash and in order to prevent the whole amount being spent at once as would be the case if the allowance were paid monthly in advance, I propose that Circle Inspectors should distribute it at central villages once a week or once a fortnight. I do not think it is any use trying to establish central kitchens, as the people will not come to them and I could not get reliable men to put in charge of them if people would come. I must confess that I can adduce scarcely any argument in favour of the proposal. The works in the district are all on the task work system with a minimum wage and there is a kitchen or a poor-house within easy reach of every village. My proposal is merely an attempt to combat the obstinacy of the people and to prevent the enormous mortality which must result from carrying out the perfectly fair Code principle that an able-bodied man must work for the relief he requires." (Panch Mahals Collector's No. 2029, dated 6th April 1900.)

"One of the difficulties of dole administration is the able-bodied loafer. He is fit for work, but he will not go to it, and hangs about the village, idle. Sometimes he or she is mean enough to subsist on his or her children's dole. For when such male and female shirkers are so fortunate as to have children, these naturally lose condition as their parents have themselves not enough to eat and so of course nothing at all for their children. To save the lives of the little ones they are put on Government dole. This the parents promptly annex, in whole or in part; so that we have the whole family loafing and losing condition through living on the dole of a few children. I have authorized the children in such cases being sent right away to a kitchen, even if their parents do not go. This will at least ensure the children being properly fed, and may drive the loafer to the relief work." (Ahmedragar Collector's No. D-806, dated 7th May 1900.)

Every practicable measure was taken to administer relief satisfactorily to such people as preferred to starve rather than to conform to conditions which were necessary to prevent general demoralization. The Code principles were so far relaxed as to allow the grant of dole to persons without other means of subsistence employed in keeping alive agricultural cattle, and special efforts were made to get on the lists people who had become incapacitated for work by insufficient food. Special attention was given also to the not uncommon tendency of persons falling ill on relief works to return to their villages on account of their disbelief in European medicine and distrust of hospital treatment, and local orders were issued ensuring that they should receive the dole on reaching their homes. These orders were approved; it was however pointed out that great care was required to prevent others being thereby induced to leave the works, and that every effort should be made to persuade the sick to remain for treatment where practicable in their huts in the camp.

104. Timely orders had been issued as regards expansion of gratuitous relief to cultivators and their dependants in the rains, when virulent and widespread outbreaks of cholera were reported from Gujarát. Relief works in Kaira and the Panch Mahals were for a time completely disorganized: labourers were scattered over the adjoining country and a constant influx into villages of

thousands of distressed fugitives constituted a very grave danger. To meet this crisis gratuitous relief was given to all who had abandoned relief works on account of cholera if they were in any danger of starvation. At the same time the assistance of additional European officers was obtained, the vigilance of village inspection was increased and strenuous efforts were made to seek out wanderers.

105. In the middle of May 1900, the Government of India expressed concern at the terrible mortality in Gujarát and suggested that expansion of village gratuitous relief and of kitchen relief might possibly be required. The measures already taken in the direction indicated were communicated to the Government of India, and the Commissioner, Northern Division, was authorized to direct such an expansion of gratuitous relief as was desired by that Government in all places where the circumstances appeared to require it. In June 1900 a conference was held at Ahmedabad to consider the best method of giving effect to the wishes of the Government of India. The local officers were unanimously of opinion that gratuitous relief was then being granted to all to whom it could properly be given. Instructions had been issued that all persons found in a village without any present means of livelihood were to be temporarily admitted to the dole list, but that the able-bodied were to be informed that such relief would not be continued to them. The only further suitable instruction which could be devised was an intimation to village officers and Circle Inspectors that the error against which they should guard was an undue restriction of gratuitous relief and that they were not likely to be blamed for excessive liberality unless there was a clear abuse. The necessity, however, of preventing general demoralization by a lax distribution of the dole was steadily kept in view, and in order to ensure efficient village inspection during the rains the following scale of establishment was prescribed by the Commissioner, Northern Division, and communicated to the Collectors in Northern Gujarát :—

“Of Circle Inspectors there should be one to every seven or eight villages in black soil tracts and to every 15 or so villages in light soil tracts, so that every village may be visited at the very least once a week.

“Over every 20 to 30 villages there should be an Aval Kárkun, Agricultural District Inspector, Mámátdár (Regular or Takávi) or officer of similar grade.

“Over every one táluka or portion of táluka there should be a European or at any rate a Gazetted Officer.”

Village relief was also expanded in other districts besides those of Gujarát, and it was specially directed that care should be taken to extend such relief, wherever it was being given on a moderate scale, to such as needed it to preserve their lives or regain their strength.

Gratuitous
relief to
cultivators.

106. Detailed orders as to the grant of gratuitous relief to cultivators including agricultural labourers in combination with instructions with regard to advances made from charitable relief funds and takávi allotments were issued from time to time and are quoted in Appendix 33. The special object of these orders was to encourage people to return to the fields where their labour would provide for their own maintenance and contribute to the food supply of another year. Land-holders requiring help for the purchase of bullocks and seed and for subsistence whilst crops were growing were given grants from charitable funds and takávi, the better class more especially from the latter source. Gratuitous relief was given to persons cultivating their own land provided they had no other means of subsistence, but no sort of relief was continued to agriculturists who could not show that they were doing some *boná fide* work in the fields on their own account: the employment of people receiving State relief on the cultivation of the lands of headmen or other land-holders was considered improper, since it was obvious that a man who was working for another had “means of subsistence” in the shape of a claim on his employer, to whom he must be referred. In cases, however, where large land-holders were unable to pay wages to employes out of takávi grants or from their private resources, such land-holders were urged to give out spare land to others who could cultivate it by manual labour or on a share system whilst in enjoyment of gratuitous relief. The dole was also allowed to dependants of every person engaged in agriculture who was unable to support them. To sum up the orders quoted above, the following

classes of people besides those held to be eligible under the Famine Code, received gratuitous village relief :—

- (a) Persons employed in keeping alive agricultural cattle and having no other means of subsistence.
- (b) Persons who had abandoned works on account of cholera, if they were in danger of starvation.
- (c) Persons returning ill from works.
- (d) Temporarily—able-bodied persons who were weak from want of food and showed signs of emaciation, or persons physically capable of doing only very light nominal work.
- (e) Cultivators and agricultural labourers who could not get takávi advances for subsistence or relief from charitable funds, who had no other means of subsistence while engaged in agricultural operations and could not otherwise be prevented from falling into bad physical condition.
- (f) Dependants of such and dependants of cultivators and agricultural labourers who found employment in the fields but were unable to support their dependants.

The result of these orders, in Gujarát, where cholera was extremely widespread and the tendency to shirk work very prevalent, will be readily appreciated from the following summary, which shows the total daily average numbers of persons relieved gratuitously in the most severely affected districts of that province in the last week of each month from April to August 1900 :—

District.	April.	May.	June.	July.	August.
Ahmedabad	3,170	11,915	45,057	65,542	105,508
Kaira... ..	11,543	16,909	28,259	87,507	108,581
Panch Maháls	893	7,129	23,843	47,005	82,761
Broach	6,135	6,265	21,977	60,081	63,219

107. Village kitchens for the relief by cooked food of persons eligible for gratuitous village relief were in operation in virtually all the affected districts from July 1900 onwards, and were found most useful, especially in parts of Gujarát. The proportion of dole recipients relieved gratuitously in village kitchens from July to November 1900, for which period only approximate figures are available, is shown in the following table :—

Establishment
of village
kitchens.

District.	Per cent.	District.	Per cent.	District.	Per cent.
Ahmedabad	18	Surat	9	Poona	8
Kaira	24	Khándesh	16	Sholápur	22
Panch Maháls	3	Násik	28	Bijápur	36
Broach	10	Ahmednagar	5	Thar and Párkar	6

Reasons have already been stated for the preference of cooked food, and the merits of the system as developed during the whole period of famine are considered below in paragraph 117. Immediate management was in the hands of the local officials with the assistance of a village Panch : each kitchen served as

a rule a radius of three miles, and as circumstances and conditions varied considerably in each district, the general principles were that no one living inconveniently far off should be included in a kitchen list, that kitchens should be established only when the number to be fed did not make initial expenditure prohibitive and that this kind of relief should be supplemented by the dole to meet special cases of illness and infirmity. Cultivators of the better class were generally excluded from the scheme, and care was taken to avoid rigidity and to prevent temporary hardships caused by the blocking of roads owing to rain or floods. Cooking vessels were usually borrowed from the local Panch or Mahájan, cooks of good caste were employed, and fuel was as a rule procured by the inmates, who performed menial duties also such as cleaning and grinding grain, water carrying, thatching sheds, making or repairing hedges, clearing the kitchen compound, &c. Accommodation was generally to be found in Dharamshálas or village chowrás which were especially suitable in the rainy season.

Sufficiency of
gratuitous
relief.

108. The principles on which gratuitous relief was given have been explained in detail, but it is necessary to supplement bare statistics of numbers relieved by a few brief remarks on the extent of this kind of relief, indicating how far it proved sufficient and in what degree the expansion, described above resulted in abuse of the system. Gratuitous relief statistics in relation to mortality returns and any possible connexion between the two will be considered under a subsequent section dealing with public health; but certain facts must be noted in order to prevent misunderstanding or misappreciation as regards the adequacy or inadequacy of gratuitous relief, especially in Gujarát, in the early months of the famine. The wealthier classes in that province had the reputation of being exceptionally charitable, and the absence of famine conditions in it for nearly three-quarters of a century justified the inference that both on account of private charity and the accumulation of resources in prosperous years, the burden which the State could reasonably be expected to bear would be considerably lightened in the northern districts of the Presidency as compared with the Deccan and Karnátak. It was at least no unreasonable presumption that distress could be safely dealt with on principles analogous to those which had proved sufficient in 1897 in far poorer districts of the Deccan. Timely instructions were however issued, and the organization necessary to meet severe distress was perfected as far as demands for intelligent and competent supervision could be met. The policy kept in view from the first was to adhere to the principles laid down in the Bombay Famine Code, provided always that the most obstinate and unreasonable individual should, as far as his proclivities permitted, be protected from death by starvation. There can be no doubt that the rules which had been prescribed are essential not only to prevent unreasonable cost to tax-payers in general but to avoid extensive demoralization amongst the people affected and that the spirit in which they were carried out exactly conformed to the wishes of the Government of India communicated at the end of December 1899 in the following terms:—

Government of
India's Circular
letter No. 2—
Fam., dated 27th
December 1899.

“First of all it appears desirable to re-affirm the underlying principle of famine relief that the State does not undertake to secure the people from all suffering in the event of failure of the crops, but only to protect them from starvation. Secondly, the conditions of relief should be such as to fully test the necessity of the recipient, and to impair as little as possible the traditional and family obligations of the social system of the country. In the administration of gratuitous relief in the homes of the people, which in one province has attained extraordinarily high proportions, these principles should be insisted on with especial rigour. * * * * * Natural and social obligations exist, which, if duly discharged, should prevent many persons from needing such relief. It is desirable that these obligations should not be impaired, that the land-holder should be encouraged to support his farm labourer, the agricultural village its poor, and the town its beggars and its decayed classes.”

In loyal acceptance of these instructions, the principles laid down in Section 57 of the Bombay Famine Code were followed without relaxation or modification in the early stages of the famine. The relief given accordingly in the Deccan was in this as in the previous famine generally sufficient to meet all necessitous cases, and the subjoined statement shows that it was granted in

Gujarát up till June 1900 with little less liberality than in the equally distressed and twice afflicted districts of Sholápur and Ahmednagar, and on the whole more extensively during the period referred to than in the Deccan in the corresponding months of 1876-77 and 1896-97.

District.	Percentage of persons relieved gratuitously in villages to the population of the affected area.																				
	October.			November.			December.			January.			February.			March.			April.		
	1876.	1896.	1899.	1876.	1896.	1899.	1876.	1896.	1899.	1877.	1897.	1900.	1877.	1897.	1900.	1877.	1897.	1900.	1877.	1897.	1900.
Ahmedabad	0.01	..	..	0.03	..	..	0.29	..	..	0.53	..	..	0.53	..	..	0.44	..	..	0.32
Kaira	0.03	..	..	0.33	..	..	0.17	..	..	0.15	..	..	0.33	..	..	0.73	..	..	1.20
Panch Maháls	0.01	..	..	0.03	..	..	0.06	..	..	0.13	..	..	0.32
Broach	0.12	..	..	0.49	..	..	0.57	..	..	0.90	..	..	0.87	..	..	1.01	..	..	1.40
Surat	0.03	..	..	0.14	..	..	0.34
Thána	0.05	..	..	0.45
Khándesh	0.23	..	..	0.61	0.03	..	0.03	0.03	..	0.70
Náik	0.01	..	..	0.03	0.01	0.00	0.04	0.01	0.01	0.03	0.00	0.17	0.16	0.00	0.03	0.21
Ahmednagar	0.01	..	..	0.05	0.14	0.00	0.20	0.19	0.11	1.34	0.16	0.23	3.35	0.25	0.40	1.84
Poona	0.10	0.09	0.53	0.32	0.36	0.55	0.36	0.71	0.73	0.46	1.19	1.35	0.53	1.33
Sholápur	0.03	..	..	0.11	..	0.16	0.47	0.14	0.37	1.07	0.19	0.80	1.51	0.11	0.83	1.40	0.31	0.09	1.20
Sátara	0.00	..	..	0.00	..	0.00	0.00	..	0.04	0.00	0.03	0.14	0.00	0.7
Bijápur	0.03	..	0.02	0.40	..	0.03	0.32	0.00	0.05	1.00	0.33	0.13	1.16	0.55
Belgaum	0.00	..	0.07	0.05	..	0.00	0.12	..	0.10	0.10	0.01	0.30	0.10	0.04
Thar and Párkár	0.32	..	..	0.64	..	..	1.00	..	..	1.28	..	..	0.75	..	..	0.08	..	..	0.07

District.	Percentage of persons relieved gratuitously in villages to the population of the affected area.																				
	May.			June.			July.			August.			September.			October.			November.		
	1877.	1897.	1900.	1877.	1897.	1900.	1877.	1897.	1900.	1877.	1897.	1900.	1877.	1897.	1900.	1877.	1897.	1900.	1877.	1897.	1900.
Ahmedabad .. ..	..	..	0.78	..	..	3.80	..	..	0.28	..	..	3.83	..	..	10.14	..	..	3.00	..	..	1.44
Kaira .. ..	..	..	1.70	..	..	2.67	..	..	7.56	..	..	12.76	..	..	9.81	..	..	7.13	..	..	1.02
Panch Maháls .. ..	..	..	1.16	..	..	7.13	..	..	11.27	..	..	22.75	..	..	32.63	..	..	9.16	..	..	4.43
Broach .. ..	..	..	1.34	..	..	3.82	..	..	14.87	..	..	20.99	..	..	17.44	..	..	16.40	..	..	2.74
Surat .. ..	..	..	0.55	..	..	2.96	..	..	5.72	..	..	6.51	..	..	2.80	..	..	1.47	..	..	0.09
Thána .. ..	..	..	0.80	..	..	1.15	..	..	2.06	..	..	2.26	..	..	3.75	..	..	1.40	..	..	0.68
Khándesh	0.01	..	0.66	0.00	..	0.72	..	..	1.14	0.03	0.00	1.99	0.08	0.04	3.75	0.06	0.01	3.23	..	..	0.78
Náik	0.01	0.04	0.22	0.04	0.10	0.37	0.02	0.18	0.34	0.08	0.16	1.04	0.07	0.10	1.19	0.06	0.04	0.81	..	..	0.27
Ahmednagar	0.52	0.61	2.57	0.82	0.78	2.94	0.47	1.32	3.08	0.44	1.83	2.36	0.51	2.44	2.81	0.37	1.68	2.09	..	..	1.93
Poona	2.36	0.80	1.47	4.00	0.35	1.75	3.91	1.05	2.47	5.81	1.28	3.04	7.09	2.25	3.32	2.68	2.23	2.55	..	0.43	1.21
Sholápur	0.30	1.12	1.79	2.34	1.09	1.99	1.45	1.22	2.55	1.20	1.63	2.60	3.15	2.00	2.33	1.98	1.55	1.80	..	0.44	1.77
Sátara	0.39	0.01	0.23	0.82	0.03	0.38	0.66	0.11	0.91	1.16	0.75	1.35	2.24	0.41	1.48	1.54	0.27	0.90	..	0.01	0.43
Bijápur	0.36	1.26	0.96	1.31	1.42	1.13	1.57	1.64	1.23	1.82	1.69	0.72	2.30	1.37	0.45	1.88	1.44	0.41	..	0.00	0.37
Belgaum	1.51	0.16	0.06	1.59	0.19	0.11	1.09	0.22	0.21	1.77	0.24	0.23	2.75	0.20	0.26	1.39	0.19	0.31	..	0.04	0.08
Thar and Párkár .. ..	..	..	0.03	..	..	0.25	..	..	0.46	..	..	0.42	..	..	0.31	..	..	0.01	..	..	0.01

NOTE.—The figures of 1876-77 are inclusive of the numbers relieved gratuitously in poor-houses as it is not possible to show the figures for village gratuitous relief separately.

It must further be remembered that persons adjudged to be fit recipients of gratuitous relief in villages were to a very considerable extent drafted to kitchens on works and to poor-houses, and that the figures above given do not take into account the large numbers relieved gratuitously by this supplementary system, which was adopted in all cases where no real inconvenience nor hardship resulted. Unfortunately, definite figures are not available to show the exact numbers thus relieved in addition; but the following summary shows that in the Panch Maháls and Ahmedabad districts the number of those relieved in their villages from November 1899 to April 1900 is only 5 and 12 per cent. respectively of the total numbers relieved gratuitously during that period both

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by dole in villages and by cooked food in works-kitchens and poor-houses, whilst in Khándesh district also the ratio is 10 per cent. :—

District.	Percentage of gratuitously relieved to affected population during six months from November 1899 to April 1900		Of total numbers on gratuitous relief of all kinds	
			Percentage relieved	
	In works-kitchens and poor-houses.	In villages.	In works-kitchens and poor-houses.	In villages.
Ahmedabad	0.46	0.06	88	12
Kaira	0.12	0.09	57	43
Panch Maháls	0.18	0.01	95	5
Bronch	0.53	0.14	79	21
Khándesh	0.60	0.07	90	10
Ahmednagar	0.50	0.19	73	27
Sholápur... ..	0.70	0.17	81	19

The very small percentages in Panch Maháls and Khándesh must be ascribed to the fact that in these districts there was an enormous difficulty in distributing the dry dole over areas where grain shops were rare, huts scattered and adequate establishment almost impossible to procure: these peculiar features led district officers to relieve as many recipients as possible in kitchens on works and poor-houses, where they were regularly fed and not compelled to remain. There is no doubt moreover that in the Panch Maháls and to a smaller extent in the neighbouring districts also, the flesh of cattle and jungle products were freely consumed, and though these mitigations perhaps ultimately produced a pernicious effect both physical and moral, yet so long as the people preferred such food, wholesome or unwholesome, to the wages of regular work, it would have been demoralizing in the extreme to offer them gratuitous relief in their villages. There were thousands in Gujarát who deliberately remained in their villages until they were emaciated although there were works open within a few miles, and in such cases it was no doubt most difficult to determine the stage of deterioration at which gratuitous relief could be permitted. But the people were responsible for much distress that might have been averted: they forced upon village officers and Circle Inspectors a discretion and discrimination which the latter were no doubt often unfit or reluctant to exercise. So much must be admitted: but the fault lay in the people themselves and not in the system, and it was a change in the spirit of the former not of the latter which prevented similar difficulties recurring in the two subsequent years of famine. People would not have worked at all if they could have procured relief without labour, and subsequent expansion of the principles of the Famine Code resulted in a degree of abuse which clearly indicates that wholesale demoralization would have speedily followed on the abandonment of strict and perfectly fair tests in the earlier stages of distress. It must at the same time not be forgotten that every effort was made to induce able-bodied malingerers to accept free meals at either works-kitchens or poor-houses and that they knowingly refused to receive assistance on any conditions except those dictated by their own inclinations—conditions which in subsequent years they learnt to consider as appropriate to their needs and consistent with their self-respect.

Abuse of
gratuitous
relief.

G. R. No. 2387,
dated 21st July
1900.

109. Two dominant principles in regulating the expansion of gratuitous relief under recent orders were inculcated in the following terms:—

“On the one hand State relief must not be withdrawn from such as cannot obtain other means of subsistence, and on the other hand care must be taken not to interfere with the supply of labour by the gratuitous relief of people fit for work for whom employment is available and not to induce employers to reduce wages by giving State relief to persons dependant on labourers in employment. For the present the former consideration should be regarded as predominant, but when the condition of the people becomes normal greater importance should be attached to the latter.”

The very large expansion of gratuitous relief, however, necessarily tended to some abuse. Much malingering and obstinacy were reported from the Panch Maháls, where a large increase in the dole on account of the recent cholera epidemic involved grave risks of general pauperization. With the advance of the monsoon, complaints came from Ahmedabad, Surat and Kaira districts that the supply of labour for work in the fields and even on ordinary Local Fund projects was deficient. Owing to great loss of bullocks, there was no doubt a large shrinkage in the area cultivated, and families of cultivators strained every nerve to save the wages of hired labourers who had been regularly employed in more prosperous times. But there were distinct indications in Kaira that able-bodied people of the lower classes were gradually losing their self-respect, a tendency which the lack of discrimination in subordinate officers was only too apt to foster. In Ahmedabad district in response to a call for 160 labourers required for rice cultivation, only 60 were forthcoming. In Surat also able-bodied Káliparaj labourers insisted on being given the dole, refusing to work or even to gather 'sámo' in the neighbouring fields, and threats of deportation to poor-houses were found necessary in Mándvi táluka. In Poona district in one fortnight of October 1900 careful scrutiny of the dole lists resulted in the removal of 6,441 persons who had taken advantage of the inactivity and inefficient supervision of local officials. Similarly in Khándesh a lax interpretation of orders on the subject increased the numbers on gratuitous relief to 13,000 out of a population of some 80,000. The monsoon season made thorough inspection most difficult except where village kitchens had been established, and these central institutions far from tending to pauperization alone afforded convenient opportunities for careful discrimination by superior agency. No effort was spared, however, to maintain rigorous and vigilant supervision, and instructions were repeatedly issued by local authorities to effect systematic reductions in gratuitous relief lists on the advent of harvest and the establishment of lower prices. It will be seen from Appendix 34 that the total of the daily average number of persons gratuitously relieved throughout the Presidency rose from 118,400 in May to 230,900 in June and 423,200 in July and culminated in 518,300 in August, when the ratio of those gratuitously relieved to relief workers was 88 per cent. This number, however, declined to 437,000 in September, to 224,800 in October and to the temporarily lowest figure of 32,400 at the end of December 1900. The speedy fall during December was due to the following orders of Government issued in the latter part of November 1900 :—

"Now that there is no obstacle to the employment on works of all able-bodied persons who are in need of assistance from the State, gratuitous relief should be kept strictly within legitimate limits as defined in the Code."

G. R. No. 3763,
dated 20th November
1900.

110. Owing to the continuance of famine conditions, gratuitous relief was given till the end of 1902 on Code principles with limited expansion in the rains and some concessions in each year to the hill tribes in Khándesh. There were but few variations in the methods previously adopted, but the system of village kitchens was extended and developed with marked success. In the last week of December 1900 the prices of jowári and bájri were about normal or even below normal in the affected districts of Gujarát, and though the numbers on relief works were very small, especially in Ahmedabad and the Panch Maháls, there were still several thousands on gratuitous relief in the province. A similar disproportion was noticed in Ahmednagar and Bijápur districts. The reasons were ascertained to be that lower prices of grain had but little effect where people had no money to buy food, that owing to the deaths of a large number of adult members of families during 1899-1900 the legacy of orphans and other dependants saved by continuous dole during that year was a heavy encumbrance, that the sources of private charity had been almost exhausted, and that only in the largest and most prosperous villages could non-official assistance take the place of gratuitous relief by Government. In July 1901 the Government of India also drew attention to the large numbers receiving dole, but it was found that every precaution had been taken to restrict gratuitous relief to necessitous cases and that no immediate reduction was possible. In the third year of distress a decrease in the supply of 'sámo' was more than counterbalanced by habituation to famine conditions and a proper appreciation of the terms and

Gratuitous
relief in
1900-1902 :
Village relief.

tests of relief. In illustration of this it may be noted that in December 1901 only 72 persons in the Panch Maháls were receiving the village dole, whereas the number of persons then on relief works in that district was 27,000: careful inquiry however proved that this small proportion was chiefly due to the fact that the distressed population had resorted to relief works before any physical deterioration had taken place, and that no immediate expansion was desirable.

111. The process of final contraction was gradual, but the necessity of regular village dole disappeared in December 1902, and by the end of January 1903 operations had ceased with the closure of a few remaining village kitchens and poor-houses where sick persons and emaciated paupers had been temporarily retained.

112. The following table showing the daily average number of persons relieved gratuitously in villages at the end of each month of 1901 and 1902 sufficiently illustrates the course of relief and its extension from the hot weather onwards until the harvest in each year:—

	1901.	1902.		1901.	1902.
January	34,100	27,800	July	149,300	83,500
February	34,500	35,700	August	113,700	103,400
March	44,700	45,000	September	70,600	125,000
April	59,800	49,900	October	45,200	52,300
May	76,100	60,600	November	15,900	12,500
June	112,500	69,700	December	17,200	3,600

Relief to dependants.

113. When the period during which a work was likely to last was short or the number of dependants on a work was small, dependants were given cash allowances, as the establishment of a kitchen would in such cases have entailed needless expense. Extreme care was, however, necessary to prevent payments to children of others than those on the work. Subject to these exceptions the policy of relieving dependants by cooked food was maintained: but in order to counteract the general attractiveness of kitchen relief on works in Gujarát in 1901-02, it was confined to children whose parents came from a distance of not less than four miles and resided on the work, and to cases of extreme destitution.

Poor-houses.

114. Poor-houses were maintained in the last two years of the famine or newly established where necessary: the maximum number open in the affected districts during the two years was as shown below:—

	1901.	1902.		1901.	1902.
Ahmedabad	9	8	Násik	2	...
Kaira ... ..	...	...	Sholápur	3	1
Panch Maháls	2	2	Sátára	1	...
Brosch ... ..	...	1	Bijápur	27	6
Khándesh	6	5	Thar and Párkar ... ..	...	6

As in 1899-1900 the institutions established in Bijápur in 1900-01 and 1901-02 were really of the nature of village kitchens, as they were in fact styled after May 1902. In Northern Gujarát, the necessity of poor-houses was chiefly due to renewed immigration, and detailed instructions as to the rescue and treatment of destitute wanderers were reiterated by the Commissioner, Northern Division.

Relief to inferior village servants.

115. Relief to inferior village servants was continued wherever necessary as in the first year of famine, but separate figures are not available, having been merged in those of village relief.

Variations in system.

116. Variations in the system of gratuitous relief during the last two years of famine were few and for the most part experimental: two or three points only deserve especial notice. In 1901-02 village dole was generally

given in cash and not in grain: it was found that this system was preferable because the people could buy what grain they wished and were less dependent than formerly upon the shopkeepers in respect of quality and quantity, whilst accounts were much simplified: village kitchens were, however, established in preference whenever the number of recipients was sufficient to justify such a course. In the Panch Maháls, the distance of many villages from grain shops caused difficulties under either system; but central shops were provided, and since it would have been fatal to give to the Bhils in this district a cash allowance for one day, much more for three days or a week, the dole was throughout given in grain. At the suggestion of Mr. Robertson the Central Provinces system of monthly cash dole was introduced as an experimental measure in the Viramgám taluka of the Ahmedabad district. The system remained in force for some four months from May 1902 onwards, but, as remarked by the Commissioner, Northern Division, its shortcomings soon became patent. Experience revealed serious disadvantages which far out-balanced advantages. The chief defects noted were that there was no provision for the occurrence of an epidemic and for starving wanderers, that the system was unsuited to the numerous cases of orphans, small children and temporarily distressed persons, and that the monthly allowance was spent too quickly and often misapplied to the payment of previous debts. The reversion to the former system of daily grain doles combined with an extension of village kitchens was accordingly approved as being more appropriate and effective. On a report from Kaira that able-bodied Bárt women were not allowed the dole until physical deterioration had become apparent and that the same rule was being applied with greater care to children, it was suggested for the consideration of the Collector whether such women might not be treated as *purdánishin*, and as regards children generally it was ruled that there was no need to wait for any sign of physical deterioration since such a course was both dangerous and in view of other tests which could be applied inappropriate and unnecessary. In Ahmednagar district a novel system was introduced in 1902 of sending out cooked food from a central kitchen, wherever it could serve at least 80 recipients in villages not more than four miles distant: the same principle was also applied to kitchens on works. Owing to the cost of establishment, fuel, dead-stock and carriage being greater than the saving made by giving cooked rations instead of grain equivalent, expenditure slightly exceeded that incurred on the dry dole; but there were counterbalancing advantages in the avoidance of multiplicity of dealings with village shopkeepers, of dole bills and of consequent opportunities for fraud. In Sangamner taluka it was calculated that for 2,091 dole recipients the cost of the grain equivalent would have amounted to Rs. 105-4-4 a day, whilst actual cost of cooked rations came to Rs. 95-5-7; but the addition of the cost of other items including establishment resulted in a balance against the new system of 1-8-4 pie per head per day. It was, however, considered that dole recipients were benefited.

117. It has already been stated that the system of village kitchens was always supplemented by the distribution of dry dole or of cash in the case of those who were physically unable to leave their homes or of those who were for good reasons unwilling to accept cooked rations, and that every care was taken to avoid rigidity and to prevent temporary hardships. Subject to these conditions the village kitchen system was adopted from July 1900 onwards with excellent results throughout the whole period of famine: in the words of an official eminently qualified to judge, "it is perhaps one of the features of our famine administration which can be looked back upon with especial satisfaction." The advantages of the system are so obvious that it would seem unnecessary to record them at length but for the fact that they have not perhaps been universally appreciated. When village relief was given in the shape of dry dole which was taken home by the recipient and eaten when and how he chose, there was no guarantee that the person eligible for such relief was not sharing his or her ration with the idle and undeserving members of the family. The difference in the condition of children after they had been fed in a kitchen for even a few days instead of receiving the dry dole as formerly was so frequently the subject of comment that only one inference is possible. It may be an exaggeration to

Advantages
of village
kitchens.

say that parents made a fine art of keeping their children thin or that they wholly robbed them of the dole, but emaciated children were beyond a doubt often deprived of all but the small proportionate share to which they were entitled as members of the family. It was obviously, most prejudicial both physically and morally to a whole family if the dole meant for one became the insufficient maintenance of all and at the same time an inducement to stay away from relief works. Again, the importance of food being well cooked must be recognised: there can be no question that many deaths amongst dole recipients as amongst others were due to bowel complaints brought on by eating uncooked or improperly cooked food. For destitute wanderers also possessing neither local knowledge nor cooking vessels village kitchens provided temporarily the most effective form of relief: to such persons cooked food had to be given with discretion, and the grant of cash or raw grain would often have been fatal. The system, however, was advantageous not for the relieved only but also for the relieving administration, since fraud and collusive malpractices became easier to detect and inspection was much facilitated, especially in the rains and in the case of scattered huts and straggling villages. These institutions appealed even to the local Panch who often provided cooking utensils and co-operated with more than a merely nominal interest in general management. In addition, village kitchens provided a test of the need of relief: there can be no doubt that many persons were willing to take the dry dole or a cash allowance when not in real need of it. Such a test was at times indispensable, and it was made more searching by the assignment of light work in and around the kitchen itself to all those who were capable of doing it. There is a remarkable consensus of opinion amongst the most capable famine officers in this Presidency after long experience that the village kitchen system allows of help being given on a much larger scale than would otherwise be safe, that it successfully combats the ineffectiveness and demoralization which inevitably attend the widespread distribution of uncooked food or cash, and that if properly utilized it is alike conducive to the convenience of the relieving administration and to the best interests of the distressed population.

Numbers
on village
relief.

118. Appendix 34 shows the daily average numbers of men, women and children receiving village gratuitous relief in the last week of each month of the famine and their proportions to the numbers of relief workers. On the whole during the recent famine village relief was given on a considerably larger scale than during previous famines. The extent to which such relief had to be expanded during the later months of the famine can be judged from the following figures:—

Division.	PERCENTAGE OF PERSONS RELIEVED GRATUITOUSLY TO TOTAL AFFECTED POPULATION.							
	December to May.				June to October.			
	1896-1897.	1899-1900.	1900-1901.	1901-1902.	1897.	1900.	1901.	1902.
Northern ... ..	...	0.56	0.43	1.03	...	8.09	0.86	2.50
Central and Southern ...	0.30	0.63	0.52	0.79	1.21	1.80	1.73	1.80
Total ...	0.30	0.61	0.49	0.83	1.21	3.73	1.48 ^c	2.07

The highest numbers in any month on village relief in each district and their proportion to the affected population were as follows :—

District.	FROM SEPTEMBER 1899 TO NOVEMBER 1900.			FROM DECEMBER 1900 TO OCTOBER 1901.			FROM NOVEMBER 1901 TO OCTOBER 1902.		
	Maximum number (000 omitted.)	Percentage to affected population.	Month in which maximum occurred.	Maximum number (000 omitted.)	Percentage to affected population.	Month in which maximum occurred.	Maximum number (000 omitted.)	Percentage to affected population.	Month in which maximum occurred.
			1900.			1901.			1902.
Ahmedabad ...	93	10.1	September ...	18	2.3	August ...	40	5.0	September.
Kaira ...	111	12.7	August ...	3	0.4	June ...	5	0.6	May.
Panch Mahals ...	72	22.3	September...	7	2.6	August ...	30	11.5	September.
Broach ...	71	20.7	August ...	0.8	1.9	June ...	0.4	0.5	June.
Surat ...	32	6.5	Do. ...	2	0.8	Do. ...	0.2	0.3	July.
Thána ...	4	3.8	September...	...	...	.....	...	...	.....
Khandesh...	55	3.7	Do. ...	41	13.2	July ..	13	4.8	August.
Nasik ...	9	1.2	Do. ...	6	1.4	August ...	...	...	.....
Ahmednagar ...	27	3.1	July ...	3	8.9	July ...	15	2.1	September.
Poona ...	23	3.3	September...	5	0.6	September...	4	2.2	October.
Sholapur ...	20	2.6	August ...	18	2.2	August ...	5	1.4	Do.
Sátara ...	16	1.3	September...	12	1.1	Do. ...	...	...	.....
Bijapur ...	5	1.2	July ...	5	1.0	October ...	10	2.2	October.
Belgaum ...	1	0.3	October ...	6	1.6	September...	4	2.2	June
Dharwar ...	...	...	.....	0.2	0.4	April ...	...	...	.....
Thar and Parkar ...	2	1.8	January ...	...	...	.....	0.07	0.07	June.
Total ...	496	5.1	August ...	139	1.9	July ...	114	2.7	September.

The total units on gratuitous village relief in each district and expenditure on such relief are shown below :—

District.	1899-1900.			1900-1901.			1901-1902.		
	Units (000 omitted.)	Expenditure (000 omitted.)	Cost per unit.	Units (000 omitted.)	Expenditure (000 omitted.)	Cost per unit.	Units (000 omitted.)	Expenditure (000 omitted.)	Cost per unit.
Ahmedabad ...	10,377	8.08	1 3	2,588	1.39	0 10	6,981	2.86	0 8
Kaira ...	11,918	11.58	0 11	331	1.10	1 0	1,469	2.37	0 11
Panch Mahals ...	7,622			321			3,188		
Broach ...	9,150	7.46	1 3	321	23	1 4	79	8	1 6
Surat ...	3,025	1.76	0 11	200	16	1 3	80	2	0 10
Thána ...	43	20	0 9	...	...	...	...	...	...
Khandesh...	6,522	5.68	1 5	3,098	1.65	0 10	1,153	64	0 11
Nasik ...	1,237	1.23	1 6	708	35	0 9	55	4	1 1
Ahmednagar ...	6,813	6.17	1 5	6,546	3.20	0 9	3,779	2.07	0 10
Poona ...	4,936	3.79	1 2	1,038	71	1 1	442	22	0 10
Sholapur ...	4,808	3.83	1 3	4,203	2.50	0 11	1,130	59	0 10
Sátara ...	1,910	1.72	1 5	1,539	1.24	1 3	...	...	...
Bijapur ...	803	62	1 3	1,069	91	1 4	2,252	1.17	0 10
Belgaum ...	113	13	1 6	769	40	0 10	699	39	0 10
Thar and Parkar...	389	25	1 0	...	...	...	10	0.4	0 8
Total ...	70,131	52.50	1 2	23,906	13.89	0 11	20,761	10.44	0 9

119. Appendix 35 shows the numbers of men, women and children among the dependants on workers relieved in the last week of each month in each district, the percentages of the total dependants to relief workers, and the proportion of dependants relieved in kitchens as distinct from those who received cash. Taking the entire periods of the three famines the following proportions result for each district :—

Numbers of dependants relieved.

District.	From September 1899 to November 1900.				From December 1900 to October 1901.				From November 1901 to October 1902.			
	Total Worker units (000 omitted.)	Dependant units (000 omitted.)	Percentage of column 3 to column 2.	Percentage of dependants relieved in kitchens to total dependants relieved.	Total Worker units (000 omitted.)	Dependant units (000 omitted.)	Percentage of column 7 to column 6.	Percentage of dependants relieved in kitchens to total dependants relieved.	Total Worker units (000 omitted.)	Dependant units (000 omitted.)	Percentage of column 11 to column 10.	Percentage of dependants relieved in kitchens to total dependants relieved.
1	2	3	4	5	6	7	8	9	10	11	12	13
Ahmedabad ...	22,574	6,719	29 28.5	62.9	2,071	8	7 0.3	55.6	13,829	2,368	18 17.1	74.6
Kaira ...	19,321	1,970	11 10.2	94.9	4,823	269	7 3.5	98.7	9,327	355	4 3.8	71.5
Panch Mahals ...	9,471	1,108	12 11.6	93.8	1,977	31	5 1.6	82.7	12,110	313	5 2.6	86.5
Broach ...	10,927	2,823	14 14.1	87.2	314	13	18 4.2	99.8	423	...	...	...
Surat ...	2,661	245	18 11.9	87.6	...	...	...	...	254	...	...	...
Thana ...	868	71	8 8.3	79.2	...	...	...	...	...	...	...	...
Khandesh ...	47,860	14,590	30 30.5	76.5	245	3	2 1.1	82.7	471	42	16 8.8	59.9
Nasik ...	18,804	6,081	32 32.3	68.7	1,416	60	6 4.2	90.6	...	...	...	...
Ahmednagar ...	45,912	11,244	25 24.5	81.0	18,653	3,176	18 17.0	78.2	2,436	553	24 22.9	78.0
Poona ...	14,220	3,523	25 34.7	77.6	5,195	1,718	33 53.0	62.9	...	...	...	...
Sholapur ...	31,264	10,631	34 34.0	72.1	16,082	3,662	24 24.0	94.7	2,301	347	16 16.1	60.9
Satara ...	9,514	1,408	17 16.5	78.5	2,944	471	17 16.6	61.8	...	...	...	...
Bijapur ...	3,048	608	21 19.9	88.3	5,123	967	19 16.9	81.5	3,029	737	25 24.3	91.7
Dolgaum ...	58	50	9 9.9	100.0	1,802	502	29 27.9	95.7	373	85	23 22.8	97.9
Thar and Parkar ...	690	61	16 0.8	None	...	...	...	...	...	...	...	...
Total ...	246,373	61,116	25 24.9	78.0	61,444	10,980	31 17.9	82.0	44,562	4,804	13 10.8	79.5

Note.—The figures in block type in columns 4, 8 and 12 represent the percentage proportions of dependants on the number of labourers on large works only. No separate relief to dependants was given on small works.

The proportion of dependants to workers did not on the whole exceed the limit (25 per cent.) specified in Section 136 of the Famine Code. Where excess occurred it was probably due to the fact that recipients of village dole who were fed in the kitchens on works, though not dependants of workers, were included among the latter. The total units relieved in kitchens on works and expenditure on their account are shown below :—

District.	1899-1900.			1900-1901.			1901-1902.		
	Units (000 omitted.)	Expenditure (000 omitted.)	Cost per unit.	Units (000 omitted.)	Expenditure (000 omitted.)	Cost per unit.	Units (000 omitted.)	Expenditure (000 omitted.)	Cost per unit.
		Rs.	A. p.		Rs.	A. p.		Rs.	A. p.
Ahmedabad ...	5,568	3.08	0 11	4	3	*9 11	1,766	1.37	1 3
Kaira ...	1,870	2.26	1 3	167	13	1 1	254	25	0 9
Panch Mahals ...	1,083								
Broach ...	2,461								
Surat ...	215	1.50	1 0	13	2	2 8	...	...	...
Thana ...	56	12	0 11	...	...	...	...	...	...
Khandesh ...	11,163	4	1 3	...	...	...	...	...	...
Nasik ...	4,180	6.81	1 0	2	0.8	*5 9	25	3	1 9
Ahmednagar ...	9,111	2.21	0 10	54	20	*5 10	...	...	...
Poona ...	2,734	5.36	0 11	2,484	1.84	1 2	435	23	0 10
Sholapur ...	7,664	1.63	0 11	1,082	67	1 0	...	...	...
Satara ...	1,106	3.21	0 8	3,658	1.85	0 10	311	19	0 11
Bijapur ...	506	21	1 2	292	19	1 0	...	...	...
Dolgaum ...	50	23	0 9	807	41	0 9	676	53	1 3
	50	2	0 9	481	19	0 8	84	3	0 7
Total ...	47,717	37.28	0 11	9,670	5.54	1 0	3,821	2.63	1 1

* Excessive incidence is due to small number of units, on account of initial expenditure.

On the whole only 22 per cent. of dependants during the first year, 17·4 per cent. during the second year and 20·5 per cent. during the third year were relieved by cash allowances. The children to whom such allowances were given were mustered and paid by the Public Works officers together with their parents, the cost being debited to "gratuitous relief." The following amounts were disbursed as cash allowances to dependants in each district :—

District.	1899-1900.	1900-1901.	1901-1902.	Total.
	Rs.	Rs.	Rs.	Rs.
Ahmedabad	72,456	72	27,460	99,988
Kaira	1,33,590	2,752	6,455	1,42,797
Panch Maháls				
Broach				
Surat	35,208	165	.....	35,373
Khándesh	3,18,926	995	487	3,20,858
Násik	67,992	159	3	68,154
Ahmednagar	50,834	49,726	10,808	1,11,368
Poona	22,853	10,452	20	33,325
Sholápur	1,78,005	28,844	3,592	2,05,441
Sátára	4,223	1,853	.....	6,076
Bijápur	8,833	14,003	2,970	25,806
Belgaum ... ..	.....	810	42	852
Thar and Párkar	2,908	.....	.....	2,908
Total ...	8,90,828	1,09,831	51,782	10,52,441

120. Appendix 36 shows the numbers of men, women and children relieved in poor-houses during the last week of each month and the percentages of the total numbers to relief workers. The numbers in poor-houses showed a steady increase during the worst period of the famine, December 1899 to July 1900. The decline commenced in August 1900 and continued till February 1901. From March the numbers again assumed an upward tendency, which continued till July 1901. A temporary minimum was reached in May 1902, after which the numbers steadily rose till September, when they began finally to decline. The highest numbers relieved at any time during the first year of the famine are compared below with those of 1896-97 :—

Numbers in poor-houses.

District.	1896-97.	Month in which maximum occurred.	1899-1900.	Month in which maximum occurred.
		1897.		1900.
Ahmedabad ... ..	.....	.....	9,569	April.
Kaira ... ..	.....	.....	4,873	March
Panch Maháls ... ..	.....	.....	4,970	July.
Broach ... ..	.....	.....	2,319	April.
Surat ... ..	.....	.....	814	July.
Thána ... ..	.....	.....	368	September.
Khándesh ... ..	.....	.....	15,020	July.
Násik	332	August.	2,759	August.
Ahmednagar	1,345	September.	2,679	May.
Poona ... ..	.....	.....	1,720	July.
Sholápur	187	August.	5,797	Do.
Sátára	309	September.	940	August.
Bijápur	1,836	September.	944	October.
Thar and Párkar ... ..	.....	.....	1,693	March.
Total ...	3,981	September.	44,849	July.

The total units relieved in poor-houses and the expenditure incurred were as follows :—

District.	1899-1900.			1900-1901.			1901-1902.		
	Units (000 omitted).	Expen- diture (000 omitted).	Cost per unit.	Units (000 omitted).	Expen- diture (000 omitted).	Cost per unit.	Units (000 omitted).	Expen- diture (000 omitted).	Cost per unit.
		Rs.	As. p.		Rs.	As. p.		Rs.	As. p.
Ahmedabad ...	2,016	1,64	1 8	267	23	1 5	596	47	1 3
Kaira ...	795	1,36	1 4	0·7	5	*2 9	...	...	...
Panch Mahals ...	778			28			40	4	1 5
Broach ...	489	37	1 8	0·9	0·2	*3 8	1	0·1	1 8
Surat ...	90	6	1 1	0·4	0·1	*6 6	...	...	...
Khandesh ...	1,886	1,33	1 1	59	13	*3 5	19	1	1 0
Nasik ...	367	42	1 10	81	9	1 8	...	...	...
Ahmednagar ...	138	49	1 5	...	...	...	...	...	...
Poona ...	229	19	1 4	...	...	...	...	...	...
Sholsapur ...	987	51	0 10	491	48	1 7	81	4	0 10
Satara ...	78	6	1 3	44	4	1 4	...	...	...
Bijapur ...	105	6	0 10	809	45	0 10	150	6	0 8
Thar and Parkar ...	...	...	...	...	...	...	77	4	0 10
Total ...	8,283	6,49	1 8	1,781	1,47	1 4	964	66	1 1

* Excessive incidence is due to small number of units, on account of initial expenditure.

Total numbers on work relief and gratuitous relief compared.

121. In Appendix 37 are compared the proportions of relief workers and recipients of gratuitous relief of all kinds to the affected population for each district during the several months of the famine. Appendix 38 shows the incidence of cost per unit of work relief and gratuitous relief during the three years 1899-1902.

Semi-gratuitous relief to Parda'nishin women.

122. Semi-gratuitous relief to respectable women unable by custom to appear in public was given in a few districts in accordance with Section 150 of the Bombay Famine Code. The following are the figures for the first period of the famine :—

District.	Period for which relief was given.	Daily average.
	Months.	
Ahmedabad ...	10	1,670
Broach ...	9	100
Ahmednagar...	12	17
Satara ...	3	4

In Ahmedabad alone was this relief given to a large extent, and the Collector of that district reports as follows :—

"At first *parda* women really in want refused to accept help from Government in the form of dole nor was it feasible to supply them with work, firstly because they generally cannot spin and secondly because of the high price of the raw material and the useless expense giving them work would have involved. Accordingly they were told the dole would be considered as a loan and the ice once broken the help proffered was soon accepted eagerly. I am doubtful how far the 'loan' will ever be repaid."

Relief to weavers.

123. Section 151 of the Bombay Famine Code authorises the grant of semi-gratuitous relief by employment in their own craft to such weavers as are deemed incapable of gaining a livelihood on ordinary relief works. The Famine Commission of 1898 was in favour of an extension of the system of relieving artisans such as weavers through their own trade and expressed the view that a carefully managed scheme might be devised, which would not be open to the objections usually urged against this form of relief. After consideration of all circumstances the following orders were issued :—

G. R. No. 844-Fam., dated 19th December 1899.

"The course which was followed in the last famine should be continued. The Municipal Corporations of towns in which there are distressed weavers should be induced to apply for loans for employment in their own craft of such as are on a reasonable view

unfitted for ordinary relief work. Experience shows that when the operations are on a small scale there need be little or no loss, but as was done in Sholapur in the last famine the Collectors may undertake to defray out of the grants made to them half of any loss which may be incurred. They should apply for grants for that purpose and for the special relief of such weavers in other places as are under a fair construction of Section 151 of the Famine Relief Code entitled to it."

The Collector of Ahmednagar was the first to submit a scheme for the relief of distressed weavers in the towns of Ahmednagar and Bhingar. It was proposed to entrust the management to a committee consisting of the Personal Assistant to the Collector, two Municipal Commissioners (one from Ahmednagar and one from Bhingar) and two local cloth merchants. The scheme was to be financed by Government in the first instance, half of the net deficit, if any, being made good by the City Charitable Relief Fund or the Municipalities or by both. The following orders were passed on these proposals:—

"In the first place the management must be conducted through the Municipal Corporations. The object is not to obtain from them a share of the cost, although in accordance with paragraph 3 of Government Resolution No. 844-FAM., dated 19th December 1899, they should bear half of any loss which may be incurred, but to secure the responsibility of organized local bodies for the proper performance of the work. The Municipalities may of course appoint a committee such as that suggested by Mr. Lamb for detailed supervision, but they are ultimately responsible for the economical administration of the funds. Government will not object in the first instance to advance the amount required, but the advance must be regarded as a loan to the Municipalities, and the amounts which it is eventually decided to recover from them will be dealt with as loans in accordance with the rules. In the second place employment of this kind is to be given only to individuals who are incapable of earning a livelihood on the ordinary works for reasons such as are stated in paragraph 508 of the Famine Commission's report. Mr. Lamb apparently adopts the suggestion of the Vice-President of the Municipality of Ahmednagar that the weavers should be employed by families. But it is not intended that a whole family should be employed in this manner because one member is through some ailment or constitutional infirmity unable to do ordinary manual labour; unfitness for such labour, however, owing to risk of impairing delicacy of touch in the case of weavers of fine cloths will generally apply to whole families. If the selection of persons for whom special relief is needed is made on that principle, it is unlikely that the number will be very large or that the outturn will materially affect the market. The Collector should now consult the Municipalities and unless they object commence without further delay such weaving work as is needed in accordance with this and previous orders on the subject. The weekly reports should show what is being done in the matter."

G. R. No. 1426,
dated 18th March
1900.

In accordance with the foregoing orders several Municipalities in Khândesh, Násik, Ahmednagar, Poona, Sholapur, Bijapur and Belgaum districts organised schemes for the relief of weavers and either applied for loans from Government or utilized allotments from the Charitable Relief Fund. Government advanced Rs. 52,700, the Charitable Relief Fund provided Rs. 1,06,865 and Municipalities allotted Rs. 2,559 for this form of relief. As far as calculations can now be made it is estimated that except in Bijapur and Násik districts, operations resulted in only slight net losses, whilst in Sholapur there was a net profit of Rs. 1,848: in Ahmednagar also there was a profit of a few rupees. Total net estimated losses amount to some Rs. 32,500. The cloth prepared was in many districts, where the Charitable Relief Fund provided capital, distributed free to distressed workers in relief camps, to the value of over Rs. 22,500.

124. In Ahmednagar city relief to weavers by employment in their own craft was given for some time by the local American Mission as well as by the Municipality and overlapping of the two schemes was avoided by cordial co-operation. In Poona city there was at first some reluctance to take advantage of the assistance offered since the local weavers were afraid that if they received aid from Government they would lose the patronage of resident cloth merchants, but this misunderstanding was soon dispelled and the wages fixed by a committee of official and non-official gentlemen were readily accepted. In Sholapur district measures for the relief of weavers were taken on a large scale in the city of Sholapur and to a smaller extent in the towns of Búrsi, Karmála and Sàngola and in some villages also of the Mádha táluka. The schemes were financed entirely from charitable funds. In Sholapur city relief was at one time being given to between 7,000 and 8,000 weavers, and a sum of about Rs. 30,000 was utilized for this purpose: in addition Rs. 5,000 were contributed by the Americo-Indian Relief Fund, and yarn of the value of

Rs. 25,000 was advanced by a philanthropic gentleman, Mr. Virchand Dipchand, C.I.E. These weaving sheds provided employment for the most destitute who had no appliances of their own, and work was given to the better class in their own houses by means of advances of yarn or cash, the latter being given on good security only. The scheme was managed by the Collector with the assistance of the Municipal Secretary and two non-official members of the Sholapur Municipality. The advances made were nearly all repaid in the shape of finished articles, and the results as a whole were so gratifying that with the balance in hand it has been possible to start two institutions on the lines of an Industrial Bank, one for the benefit of weavers in Sholapur city and the other for the village weavers of the Sholapur taluka and Akalkot State. It is reported that the capital of Rs. 50,000 is in active and constant circulation, and there seems reason to hope that these institutions may contribute to the deliverance of a considerable number of weavers from the clutches of money lenders. A statement showing the numbers relieved, the period of relief and details of advances and recoveries, &c., in each district will be found in Appendix 39.

VI-B (2b).—PRIVATE CHARITY.

Expenditure
from Charitable
Relief Funds.

125. In this famine as in that of 1896-97 private charity has to a large extent contributed to the alleviation of such distress as was outside the sphere of Government measures and has given to thousands of the miserable victims of the worst famine known in the history of India the means of starting their lives again in a spirit of hope. The grants from the Indian Charitable Relief Fund to each district supplied the sinews of charity for this purpose and were supplemented by local subscriptions generally of small amounts. The money expended was distributed to some extent by local committees formed for the purpose, but chiefly by Government officers, who are generally in a better position than private persons to ascertain the wants of the cultivating classes, to whom the greater part of the money was given for the purchase of seed and cattle and for maintenance during the cultivating season. Local committees arranged for the distribution of clothing and also for the payment of monthly subsistence allowances to high caste women and children whose pride forbade them to accept relief from Government. The figures in the following table have been extracted from an abstract statement of receipts and disbursements from the commencement of the famine up to the end of March 1902 appended to the supplementary report of the Bombay Presidency Famine Relief Fund:—

District.	Object I.	Object II.	Object III.	Object IV.	Miscellaneous.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Ahmedabad ...	17,884	...	43,103	8,11,540	17,469	8,89,996
Kaira ...	81,825	28	20,300	6,88,920	7,427	7,48,500
Panch Mahals ...	18,400	1,528	6	3,17,028	1,834	3,38,796
Broach ...	26,891	205	9,998	3,53,548	509	3,91,151
Surat... ..	3,117	6,000	276	1,07,693	680	1,17,766
Gujarát ...	1,48,117	7,761	73,683	22,28,729	27,919	24,86,209
Khándesh ...	57,736	34,881	26,996	6,33,357	5,032	7,58,002
Násik ...	34,467	17,750	18,815	2,32,689	87	3,03,808
Ahmednagar ...	90,790	40,013	8,012	4,85,277	1,370	6,25,462
Poona... ..	44,985	8,599	58,498	1,91,181	5,370	3,08,633
Sholapur ...	1,47,401	32,762	33,398	2,61,523	3,739	4,78,823
Sátára ...	12,047	4,535	8,271	1,56,862	1,263	1,82,978
Deccan ...	3,87,426	1,38,540	1,53,990	19,60,859	16,861	26,57,706

District.	Object I.	Object II.	Object III.	Object IV.	Miscellaneous.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Bijápur	21,828	58	12,116	29,903	983	64,888
Belgaum	7,187	3	8,475	8,673	222	24,560
Dhárwár	1,007	...	...	7,184	330	8,521
Karnátak	30,022	61	20,591	45,760	1,535	97,969
Thána... ..	8,164	119	...	...	1,081	9,364
Sind	36,148	8,485	4,041	47,743	14,361	1,10,778
Total	6,09,877	1,45,966	2,52,305	42,88,121	61,757	53,62,026

In April 1902 district officers had still in their hands Rs. 2,53,000, and further grants were made from the Bombay Presidency Famine Relief Fund to the extent of Rs. 1,35,000, the whole of which amount will have been by this time disbursed. The total expenditure from charitable funds during the entire period of famine was thus 57½ lakhs of rupees. This magnificent contribution from the Indian Charitable Relief Fund drawn from every corner of the Empire and many other parts of the world has evoked spontaneous outbursts of heartfelt recognition from all classes of the distressed population. There are in district reports numerous indications that whilst this token of sympathetic benevolence has been greeted by feelings of deep and lasting gratitude, the administration and distribution of funds have been so controlled by the watchfulness of local officers as to render virtually impossible the growth of evils often attendant on charitable endeavours of this character.

126. The selected objects to which funds were devoted are as follows:—

- (1) To supplement the subsistence ration, which alone is provided from public funds, by the addition of small comforts, whether of food or of clothing, for the aged or infirm, for patients in hospital, for children, and the like.
- (2) To provide for the maintenance of orphans.
- (3) To relieve the numerous poor but respectable persons who will endure almost any privation rather than apply for Government relief, accompanied, as it must be, by official inquiry into, and by some kind of test of, the reality of the destitution which is to be relieved.
- (4) To restore to their original position, when acute distress has subsided, those who have lost their all in the struggle and to give them a fresh start in life.

Manner of
utilising
allotments.

(1) The greater part of the expenditure under the first head was on account of supplies of clothing and small luxuries and comforts to the sick. Wherever possible the clothing distributed was purchased from local weavers, who were in several districts assisted by advances from charitable funds. Another significant feature was the large and beneficial use of Mellin's food, which saved the lives of many emaciated infants and young children.

(2) As regards the second head it will be readily understood that a very large number of orphans and deserted children came into the hands of Government officers during the famine. These were generally collected into poor-houses and kitchens and fed there till the end of the famine, when those remaining unclaimed were made over to orphanages. Besides those established by Missionaries there were the Mahipatram Rupram Orphanage at Ahmedabad, the Mahajan's Orphanage at Surat, the Pandharpur Orphanage in Sholapur district and similar institutions temporarily established by philanthropic private gentlemen or from public subscriptions. In some places large numbers of orphans were handed over from the first to Mission or other orphanages on condition that the children should be restored to their parents or guardians if claimed at any

future date. As the reports submitted to Government, however, indicated some want of discrimination in the matter, the following orders were passed in July 1900:—

G. R. No. 2897,
dated 28th July
1900.

“Great care should be taken not to send children to orphanages, especially if loss of caste is involved, so long as there is room for doubt whether they are orphans. Some who are for the time being deserted may be claimed when the famine is over, and in the meantime their maintenance is a legitimate State charge.”

The following further instructions were issued in August:—

G. R. No. 8071,
dated 10th August
1900.

“In all cases in which children are sent to orphanages by Government servants it should be stipulated that in the event of their being hereafter claimed by parents or near relatives they will be restored to them, and they should not be sent to orphanages located at a greater distance than 50 miles from the place where they are found and should by preference be sent to orphanages within the district.”

District officers were authorised to incur such expenditure as might be necessary for the purpose of sending the children back to their homes from orphanages when claimed by parents or guardians. Grants-in-aid were given from charitable funds to the several orphanages which had large numbers of famine orphans left on their hands at the end of the famine.

(3) Under the third head many poor but respectable persons and *Pardánishin* women who were precluded by their social position from accepting State relief were helped by free gifts or supply of work, and large numbers of weavers were provided with employment in their own trade. During the rains of 1900 cheap grain shops were started for the benefit of the hill-tribes in some districts and maintained at the expense of charitable relief funds.

(4) More than three-fourths of the expenditure incurred up to the end of March 1902 was devoted to the fourth object. Thousands of acres of land were thus saved from lying waste and about seven lákhs of the poorest landholders from permanent penury. Assistance under this head generally took the shape of grants of seed, fodder, cattle or agricultural implements free or at cheap rates and allowances for maintenance. Large supplies of fodder were imported into Gujarát and other districts by Government agency and offered to cultivators at the reduced price of Rs. 10 per 1,000 lbs. Upon a representation that even this price was quite beyond the means of poorer cultivators it was arranged to sell the grass to such persons at Rs. 2 per 1,000 lbs., the balance of Rs. 8 necessary to make up the Government price (Rs. 10 per 1,000 lbs.) being paid from the fund. Large numbers of bullocks were imported, especially into Gujarát, at the expense of charitable funds and either lent or sold at reduced prices to those cultivators whose cattle had died. In the district of Broach alone 2,635 bullocks were purchased in the season of 1900 at a cost of Rs. 77,525, and it is stated that 35,579 persons received the benefit of this measure. In the Panch Maháls over 17,000 bullocks were obtained during the season of 1900-01 and given out to needy cultivators at the moderate price of Rs. 22 each, half of which was defrayed by the charitable fund in the case of the poorer people. Where cattle could not be supplied, hand-ploughs specially made under the directions of the Agricultural Department were purchased from charitable funds and distributed among cultivators in various areas.

Local Charity.

127. In most of the large towns subscription lists were opened and committees were appointed for local relief, and in several places cheap grain shops were started with their aid and maintained throughout the first period of famine. In many places private gentlemen also undertook to bear the expenses of such shops, and in some cases grain dealers were induced to co-operate by contributing part of their stocks at reduced or cost price. In the city of Surat a tax of one rupee levied by the Mahájan on every cart-load taken out of grain pits was paid into the relief fund. A very large portion of the proceeds of private charity was disbursed by various Mission agencies. Large quantities of grain and clothing received from America and Europe were distributed by these bodies in all the affected districts, and all articles imported for such distribution were exempted from Customs duty. The Christian and Alliance Mission at Kaira established a home for famine widows. The Collector of Poona states that probably not less than two lákhs of rupees were spent on relief measures by the different Missions in his district. In the Ahmednagar district the American Maráthi

Mission undertook the charitable distribution of seed and cattle for the kharif season in four and a half out of the eleven talukas of the district and expended Rs. 65,000 on that measure alone. A similar arrangement was made in the Ahmedabad district also. In some places poor-houses were started with the aid of local subscriptions and managed by committees of private gentlemen. One of these was established at Broach, where a total of 49,400 persons were relieved at an expenditure of Rs. 5,200 or one anna eight pies per unit. Another was located at Bhiwandi in the Thána district, where the cost of relief amounted to Rs. 2,276. Both of these institutions are reported to have been well managed and useful. Private poor-houses were also started at Shirála and Tásgaon in the Sátára district and at several places in the Ahmedabad district. The Sárvajánik Famine Fund in Ahmedabad city was partly utilised in sending out stretcher parties to collect destitute wanderers, who were then fed and sent to poor-houses or works. In a few exceptional cases landlords and large land-holders relieved the destitute among their tenants at their own expense. In some of the larger towns in most districts private gentlemen arranged for the free distribution of grain or cooked food: this kind of charity, however, was in most cases indiscriminate and efforts had to be made by district officers to bring it under control since, in the words of the Collector of Poona, "the rumours of such distribution attracted crowds of robust vagabonds, emaciated wanderers and diseased beggars from long distances, who instead of seeking the relief offered near their homes, exhausted in many cases their strength and died on the way to Poona or soon after arrival."

VI B (3).—LOANS TO AGRICULTURISTS.

128. Since the year 1891 the appreciation of loans from Government to cultivators has grown rapidly in this Presidency. The liberal grant of takávi advances during the scarcity of that year in the Southern Marátha Country went far to render relief works unnecessary. During the famine of 1896-97 in the Deccan and Karnátak the system was followed with marked success, and the importance of these advances as a means of relief to agriculturists in times of famine is now generally admitted. In the recent famine the system has been still further popularised and even the backward classes of agriculturists such as the Bhils of the Panch Maháls and the Káliparaj of Surat have availed themselves of it to a very large extent. In Gujarát before 1899-1900 the sums advanced did not exceed Rs. 43,000 in any year; in 1899-1900 however over five lákhs of rupees were given out in that province during the period from September to March for the construction of wells alone. A few years ago the difficulty was to get cultivators to understand the advantages of the system; the difficulty now is to meet the demand.

Increasing popularity of the system of takávi loans.

129. The total allotments sanctioned by the Government of India during the entire period of famine amounted to Rs. 2,51,81,000 of which Rs. 2,03,63,876 or more than four-fifths were actually disbursed in the affected districts. The details are shown below :—

Advances made during the famine.

Year.	Allotments.	Disbursements in affected districts.
	Rs.	Rs.
1899-1900	41,75,000	31,74,094
1900-01	96,06,000	90,25,162
1901-02	64,00,000	52,87,828
1902-03 (April to October 1902).	50,00,000	28,76,792
Total ...	2,51,81,000	2,03,63,876

Appendix 40 shows the details of advances in each district and the purposes for which the money was advanced. The figures for normal and famine years are set out below in illustration of the extraordinary extension of the loan system during the recent famine :—

Year.	Amount advanced in the entire Presidency (in thousands of rupees).	Year.	Amount advanced in the entire Presidency (in thousands of rupees).	
1891-92	7,85	1899-1900	40,31 94,45 61,63 28,77	
1892-93	8,82	1900-01		
1893-94	5,94	1901-02		
1894-95	8,79	1902-03 (April to		
1895-96	9,85	October 1902 only		
1896-97	35,73	Famine { in affected dis- tricts).		
1897-98				23,03
1898-99				9,07

Advances
under the Land
Improvement
Loans Act.

130. Altogether Rs. 47,72,464 were advanced under the Land Improvement Loans Act. Out of this Rs. 35,69,066 or 75 per cent. were granted for the construction and repair of wells, and the remainder for other land improvements. The value of well irrigation as a reliable method of protection against famine is illustrated by the fact that in Gujara't the area irrigated in 1899-1900 was almost double that of the previous year. Appendix 41 shows the number of wells constructed or repaired in each district with the aid of takavi from the commencement of the famine up to the end of September 1900, the area of land irrigated by these wells and the average cost of each : the cost per well recorded in this appendix shows that many wells were merely temporary expedients whilst in some cases water was not reached at all. In the Deccan advances were not utilised for the construction of new wells to the same extent as in the famine of 1896-97. The Collector of Ahmednagar attributes this fact to the greater severity of the drought of 1899-1900 and the consequent lower level of subsoil water. It is stated that in that district 61 per cent. of the wells sunk in the previous famine were failures, and prevailing conditions combined with previous experience were such as greatly to discourage the sinking of new wells in the present famine. On the other hand great scarcity of water in this famine induced many cultivators to deepen existing wells whereby they have permanently improved their holdings and have provided a means of defence against future water famines. About 25 per cent. of the advances under the Land Improvement Loans Act were devoted to other objects, of which the principal were construction of embankments and eradication of weeds and grass by deep digging. Advances both for wells and for other objects were most useful also in affording congenial employment to people who would otherwise have been compelled to resort to relief works. Approximate figures of people thus employed between September 1899 and November 1900 have been furnished for some districts and are given below :—

District.	Daily average number of people and the period for which they were employed on takavi works.
Kaira	8,000 for 2 months.
Surat	11,600 " 3 "
Thána	2,000 " 3 "
Ahmednagar	19,000 " 4 "
Poona	20,000 " 3 "
Sátára	29,000 " 2 "
Bijápur	6,400 " 6 "
Belgaum (two affected talukas only)	5,700 " 7 "

130 a. The total advances under the Agriculturists' Loans Act during the period covered by this report amounted to Rs. 1,55,91,412. Of this sum Rs. 66,52,316 or nearly 43 per cent. were granted for seed, Rs. 65,16,323 or 42 per cent. for cattle and Rs. 10,68,981 or 7 per cent. for fodder. The disbursements of these grants in distinctive tracts for each of these three objects were as follows :—

Advances for seed, cattle and fodder.

	For seed.	For cattle.	For fodder.
	Rs.	Rs.	Rs.
Gujarát	29,69,379	33,50,951	3,43,939
Deccan	27,34,661	27,49,116	6,73,232
Karnátak	8,84,367	3,89,079	51,310
Rest	63,909	26,677	.....
Total	66,52,316	65,16,323	10,68,981

In the previous famine the grants for these purposes in the Deccan and Karnátak amounted to 13½ lakhs of rupees. The amounts shown above are exclusive of large sums given to the poorest class of cultivators from the Indian Famine Charitable Relief Fund for similar purposes. Without the assistance afforded by these advances a considerable proportion of the poorer cultivators would have been unable to make a fresh start in life and would have been permanently reduced to the condition of landless labourers. Credit was at a low ebb at the beginning of the rains of 1900 and none but substantial cultivators could obtain loans from their family bankers. Money-lenders moreover were generally unwilling to advance money until at least good rain was assured, and if advances by Government especially for seed and cattle had not been granted on a liberal scale, much of the land which was cultivated in the kharif season of 1900 would have been left untilled. The loans given by Government for seed and cattle were as a general rule disbursed in cash in the belief that many or most of the borrowers could purchase more economically than others acting on their behalf. It was however directed that if any cultivators preferred to have bullocks supplied to them in lieu of the cost advanced in cash, their wishes should be considered, but purchases by Government officers should be restricted to cases in which assistance in this form was really needed and in which disputes as to quality and price were not likely to arise at the time of recovering the cost. Advances for fodder were generally made in kind out of the grass imported by Government agency, the cost of the grass being held as a book debit against the recipient.

131. Advances for subsistence are well adapted to meet the cases of occupants of land in hilly tracts, who generally live from hand to mouth and are therefore unable in a famine year to provide for their own subsistence during the period required for the cultivation of their land. In the famine of 1896-97 such advances were restricted to this class of people. In the present famine, however, it was found necessary to extend the system to the poorer cultivators in the plains. In May 1900 the Commissioner, Northern Division, proposed that the poorer cultivators who could not be helped from the Charitable Relief Fund should be given free grants by Government while they were employed in cultivating land. The following orders were passed on this proposal :—

Advances for subsistence.

“Government entirely concur in the view of the Commissioner, Northern Division, that everything possible should be done to get cultivators and agricultural labourers employed on the land when the cultivating season begins. For this purpose a liberal distribution of advances for subsistence as well as for seed and cattle is most expedient, and this policy is understood to be approved by both the Secretary of State and the Government of India. His Excellency the Governor in Council does not desire that cultivators should be refused advances for subsistence if they are in need of relief while they are tending their crops or otherwise engaged in agriculture. It is also legitimate to grant them advances for the support of agricultural labourers while so engaged. But of course this like all other forms of State relief must not go beyond the necessities of the case, and it must be remembered that as soon as crops promise well the price of grain falls and shop keepers sell it

G. R. No. 2440,
dated 1st June
1900.

more freely on credit, while many if not most occupants of land have by the growth of vegetables a supply of an important article of food. It has never been found that there is much need for State relief after the sufficiency of rain is established.

"As at present advised His Excellency in Council does not think that in any circumstances unconditional gratuitous relief should be given by the State to able-bodied persons. Doubtless if advances are given to a wide extent for subsistence, it will not be possible or perhaps desirable to recover all, and so far as the public exchequer is concerned there is not much difference between unrecovered advances and gratuitous relief, but in the effect on the recipients there is a material distinction between the grant of alms and the remission of a debt which cannot be paid without difficulty. All who wish to maintain their self-respect should have the opportunity of doing so."

At first subsistence advances were restricted to petty cultivating occupants: but subsequently it was decided to grant them to occupants without means who held more land than they could personally cultivate, in order to enable them to employ the usual quantity of labour and extend operations over the whole of their lands. It was also ruled that in the case of these advances it was not desirable, unless the circumstances were very exceptional, to give out at one time more than the several recipients needed for one month, and that the necessity for such advances should be held to have ceased as soon as crops promised well and prices fell. As works suitable for the rains were difficult to find in Gujarát, this concession proved most useful in encouraging employment of agricultural labourers on cultivation in that province. In the Thar and Párkar district of Sind, subsistence advances were granted in connexion with the system called "katar," which has been described as follows:—

"A man with one or more camels goes to Umarkot, Nabisar or Jhudo and with his takávi advance purchases grain at a cheap rate. He then returns to his home, sets aside a part of the grain for the consumption of his family, and sells the remainder to Banias or others at the high rate prevailing in the Desert. After resting himself and his camel he sets out again, and the limit to the number of his journeys would practically be the limit to the endurance of his camels."

Although it was considered that the use of takávi advances for this purpose was scarcely in accordance with the rules under the Agriculturists' Loans Act, the arrangement was permitted on the understanding that the grantees were people who could not be induced to resort to relief works. Grants for subsistence amounted altogether to Rs. 7,57,748 and were distributed as follows:—

	Rs.		Rs.
Gujarát ...	3,84,769	Karnátak ...	41,733
Deccan ...	2,05,515	Rest ...	1,22,731

In the previous famine subsistence advances were given in Poona, Sátára and Ahmednagar districts only, and the total amounted to Rs. 1,63,863.

Loans to
Inámda'rs,
&c.

132. Advances to the amount of Rs. 71,000 were granted to inámdárs and zamindárs for the purpose of carrying out large works of improvement—generally for purposes of irrigation—which were at the same time calculated to give employment to unskilled labourers in the locality. Besides the sum above mentioned sums aggregating Rs. 1,80,000 were advanced as loans to tálukdárs in Gujarát who were reduced to the utmost poverty. These advances were principally intended for the subsistence of the recipients and their families when employment on relief works would have been derogatory to their social position, and the amount in each case was proportionate to the needs of the recipient and the value of the security which could be offered.

Grant of takávi
to rayats in
alienated vil-
lages.

133. The question of granting takávi advances to inámdárs' tenants was considered and the following orders were issued in July 1900:—

G. R. No. 2833,
dated 14th July
1900.

"In the event of its being possible to spare any part of the allotments made for takávi advances without prejudice to the prior claims of occupants of Government land the Commissioners are authorised to grant loans to inámdárs who can be trusted to distribute the money to persons holding under them for any of the purposes contemplated in Acts XIX of 1883 and XII of 1884, and who are willing to conform to the conditions prescribed in the Acts and rules. It must be distinctly understood that the inámdárs will be held personally responsible for the repayment and must enter into substantial legal guarantees to repay to Government the sums, if any, advanced."

The extent of assistance thus afforded to tenants in alienated villages has not been ascertained, but a special grant of 3 lakhs was sanctioned in May 1901 for talukdars' and inamdars' tenants of the Panch Mahals district, and it was then reported that similar tenants in other districts, especially in Ahmedabad, were being assisted out of grants already allotted. In talukdari villages of the Ahmedabad district held by the Thakor Sahab of Limbdi and other Chiefs liberal grants of seed, &c., were made by them to their cultivators. It is also reported that in the Athni taluka of the Belgaum district about Rs. 40,000 were expended by large land-holders from their private resources on improvement of cultivable land.

134. One reason for the large demand for advances under the Agriculturists' Loans Act was the timely announcement of certain valuable concessions in respect of such loans. In December 1899 the Collectors of all affected districts were authorised to grant loans not exceeding Rs. 50 in each case free of interest when it seemed desirable to do so in accordance with Section 143 (2) of the Famine Code. At the close of the hot season of 1900 the Government of India announced the following liberal concessions with the object of facilitating the rapid recovery of agriculturists from the losses sustained through famine:—

Remission of interest on taka'vi advances and other concessions.

- (1) that all advances made in famine tracts under the Agriculturists' Loans Act for seed, cattle and subsistence of cultivators in connexion with agricultural operations undertaken during the approaching rains may be made free of interest;
- (2) that the first instalment in repayment of the principal of such advances may be postponed for 12 months from date of the advances; the dates for the remaining instalments to be determined by the Local Government with reference to the existing rules applicable to advances under the Act;
- (3) that the Local Government may hereafter grant remissions in respect of the principal of such advances, according to the circumstances of the debtors, up to one-half of the aggregate sum advanced.

Government of India's letter No. 1043-F, dated 22nd May 1900.

It was further directed, with the previous sanction of the Government of India, that the date of the first kharif land revenue instalment of 1902 be fixed as the date on which the first instalment of advances for kharif cultivation of 1900 should become due. To these instructions the following communication regarding dates of repayment was added:—

"The Government of India have now sanctioned the postponement of the first instalment in repayment of advances made in the current year of kharif cultivation to the date of the first kharif land revenue instalment of 1902, and the rules framed by this Government under the Agriculturists' Loans Act give the Collectors sufficient latitude to prescribe liberal conditions for the recovery of other instalments. The arrangements to be made in each district for the repayment of such advances should be left to the discretion of the Collector subject to the control of the Commissioner of the Division. It will be desirable, as suggested by the Commissioner, Central Division, to make the number of instalments generally dependent on the amount of the loan, but the circumstances of the persons receiving the advances may also be taken into consideration. Doubtless the agreements have already in most cases been executed, but the Collectors can, if necessary, extend the time specified in the agreements for repayment."

G. R. No. 3066, dated 6th November 1900.

The period of the concessions above specified was subsequently extended to cover all loans advanced from September 1899 to January 18th, 1901. The continuance of famine conditions during 1901 necessitated the further extension of these concessions, and in June 1901 it was announced that with the limitation that remission of principal should be restricted to a maximum of 25 per cent. of advances, the concessions previously allowed should be granted in respect of the kharif advances of 1901 in all tracts where distress prevailed: these concessions were also extended to the loans granted for the rabi of 1901-02 in Gujarát, and in the case of tracts in which the autumn harvest of 1901 fell short of the average by more than a third, the Collectors were authorised to postpone the recovery of the first instalment in respect of such advances to the date of the first land revenue instalment of 1903. The concessions thus autho-

rised have been widely appreciated. The total amounts advanced free of interest in the various districts during the agricultural season of 1900-01 alone are given below :—

District.	(In thousands of Rs.)	District.	(In thousands of Rs.)
Ahmedabad ...	10,35	Sholapur ...	1,70
Kaira ...	12,67	Sátára ...	1,76
Broach ...	10,17	Bijápur ...	1,29
Surat ...	2,14	Ratnágiri ...	14
Thána ...	30	Sind ...	1,56
Khándesh ...	9,47		
Násik ...	4,63	Total ...	67,62*
Ahmednagar ...	8,19		
Poona ...	3,25		

Remissions of loans.

135. The remissions of takávi advances already sanctioned by Government amount to Rs. 36,40,187. The district details are given below :—

District.	Rs.	District.	Rs.	District.	Rs.
Ahmedabad ...	8,49,778	Násik ...	73,732	Bijápur ...	1,44,892
Kaira ...	5,20,160	Ahmednagar ...	5,44,148	Belgaum ...	29,652
Broach ...	8,00,377	Poona ...	32,227	Faríchi ...	38,314
Surat ...	96,871	Sholapur ...	98,346	Thar and Párkár ...	1,67,921
Khándesh ...	2,31,395	Sátára ...	18,774		
				Total ...	36,40,187

Proposals for remissions of takávi from the Panch Maháls district and for further remissions from several other districts are still awaited. The amount which it will be necessary hereafter to remit is estimated at between 7 and 8 lákhs of rupees.

Measures for prompt disbursement of advances.

136. In order to ensure prompt and careful disbursement of takávi advances the Divisional Commissioners by virtue of the authority delegated to them sanctioned the entertainment from time to time of such additional establishments as were deemed necessary by Collectors. It was also considered advisable to sanction some modifications in the usual procedure and to enlarge the powers of officers engaged in the work of distribution. Thus the powers of a subdivisional officer for the purpose of granting takávi were conferred on Mámlatdárs, Maháلكarís and Head Kárkuns and also on officers of other than the Revenue Department specially employed on the work of making inquiries and disbursements, such as Subordinate Judges, officers of the Forest and Salt Departments, Special Relief officers, &c. All disbursing officers were allowed to draw personal advances from takávi grants on abstract bills and were thus enabled to make prompt payments on the spot as soon as their investigations were completed. In order to prevent fraud or loss by theft or negligence, the following precautions were at the same time enjoined :—

G. R. No. 2650, dated 29th June 1900.

"No officer disbursing takávi should be allowed to draw a second abstract bill without producing a detailed bill in the prescribed form to account for the amounts already disbursed from the last advance taken, any balance left being at the same time refunded into the Government Treasury. The disbursing officers should be directed to take the receipts of the payees on the spot as soon as the advances have been made and to certify at the foot of the form above referred to that the advances were duly sanctioned by them and paid in their presence.

"The Collectors concerned should be requested to prescribe a money limit for the amount which can be drawn on abstract bill by each officer with due regard to the circumstances of each case.

"The Commissioners of Divisions and in Sind should be directed to take all necessary measures to ensure the safeguarding of the money entrusted to the disbursing officers for the grant of takávi advances whilst the money is in their keeping."

To further facilitate the prompt distribution of takávi, subdivisional officers were allowed permanent advances of Rs. 5,000.

Measures for securing proper application of advances.

137. In view of the large sums advanced during the famine it was very difficult to ensure that advances were being devoted to the purposes for which they were granted. Prior to the disbursement of an advance under the Land Improvement Loans Act it was usually stipulated that the recipient must employ a certain number of labourers for a definite period in proportion to the amount advanced. It was expressly directed that Relief Circle Inspectors,

* Figures for other districts are not available.

Aval Kárkuns and Special Relief Officers as well as Mámlatdárs and Assistant and Deputy Collectors should make it their business in the course of their inspection of villages to visit works for which advances had been granted and to see that they were being properly utilised. It is satisfactory to note that the evidence of officers is almost unanimous that grants were not generally speaking misapplied. Some cases of misapplication however occurred in almost every district where money advanced for other objects was occasionally diverted to the subsistence of the recipient and his family, or the works for which it was given were not carried to completion. In cases of clear misappropriation steps were taken to recover the amounts advanced as soon as it was discovered that the money was being misused. The numbers of proved cases of misapplication as furnished for some of the affected districts are given below :—

Kaira	20	Ahmednagar	62
Panch Maháls	2	Poona	22
Broach	538	Sholápur	2
Surat	38	Sátára	4
Thána	2	Bijápur	13

All Collectors were directed to give express instructions to officers subordinate to them to take every precaution possible to prevent the payment of land revenue by the people out of takávi advances made to them. In the case of advances made under the Land Improvement Loans Act it is difficult to prevent land revenue being paid out of them if the recipients choose to adopt that course. It was pointed out however that recipients of advances under the Agriculturists' Loans Act generally belonged to the class of cultivators who could not pay land revenue without borrowing, and it appears that the orders forbidding recovery of land revenue from recipients of such advances were on the whole carefully carried out.

G. R., R. D.,
No. 5000, dated
15th August 1900.

VI-B (4).—FAMINE ALLOWANCES TO PUBLIC SERVANTS.

138. The principal item under this head was grain compensation allowance granted to peons and servants of Government on low pay in accordance with the provisions of Article 72 of the Civil Account Code. The grant of this allowance began in September 1899 and was continued up to March 1902. It was also necessary to increase the travelling allowances of various classes of officers, and deputation allowances were granted to officers of several Departments employed on famine duty in accordance with scales prescribed in the Civil Service Regulations or by special orders. Additional remuneration was given under Section 52 (f) of the Famine Code to patels and village accountants so as to raise their total emoluments to a minimum of Rs. 4 per mensem. As already explained such of the inferior village servants as were required for duty in their villages received the grain dole under Section 60 or its equivalent in cash.

139. The following table shows the expenditure incurred in each district on account of grain compensation allowances to low paid Government servants and the travelling allowances of officers engaged on famine duty from the commencement of the famine up to the 31st October 1902 :—

District.	Grain Compensation.	Travelling and other extra allowances.	District.	Grain Compensation.	Travelling and other extra allowances.
	Rs.	Rs.		Rs.	Rs.
Ahmedabad	59,609	77,146	Poona	55,762	47,664
Kaira	36,730	1,01,939	Sholápur	19,935	42,462
Panch Maháls			Sátára	40,780	25,132
Broach	18,554	32,356	Bijápur	14,215	41,208
Surat	26,870	18,361	Belgaum	21,003	10,061
Thána	66,258	21,275	Dhárwár	20,543	1,098
Khándesh	49,554	52,216	Thar and Párkar	21,778	10,040
Násik	28,477	32,387	Elsewhere	4,49,941	1,66,908
Ahmednagar	40,895	67,721			
			Total	9,70,904	7,47,974

VI-B (5).—LAND REVENUE SUSPENSIONS AND REMISSIONS.

Principles followed in the levy of land revenue.

G. R. No. 1965, dated 7th April 1900, and No. 2671, dated 30th June 1900.

140. The general policy prescribed and the procedure followed during the famine of 1896-97 in the matter of collection of land revenue are described in the circulars quoted in paragraph 38 of the report of that famine and reproduced in Appendix 42. It was announced in November 1899 that during the recent famine Government desired to pursue the same policy and procedure. Certain representations from the Commissioner, Northern Division, however necessitated some elucidation of this general policy, which was provided in the further orders quoted in Appendix 43. The following is a summary of the principal instructions conveyed in these orders:—

- (a) No occupant should be required to pay the assessment who has not the means of doing so without encumbering or further encumbering his land or cattle or implements necessary for earning his livelihood.
- (b) Notices of demand should not issue to agriculturist occupants or agriculturists interested in land who are not well-to-do and have had less than a four anna crop, such people being presumed not to be able to pay without borrowing.
- (c) Notices should issue to all non-agriculturist occupants and mortgagees, and to occupants who have reaped a crop of four annas or over or who are by common repute well-to-do. (The question of issuing notices, *i.e.* of determining who should be called on to pay, was thus to be decided on general considerations without inquiry into the circumstances of individuals.) If persons of such classes refuse to comply with these notices, the burden of proving their inability to pay should be laid upon them.
- (d) No coercion should be used to recover from an occupant assessment which he cannot pay out of resources other than those needed for the efficient resumption of agricultural operations, the benefit of any reasonable doubt being given to the occupant.
- (e) The question of distraint should be decided according to the circumstances of each individual case and by an officer of not lower rank than an Assistant or Deputy Collector.
- (f) In any case in which for special reasons the levy of assessment due from a land-owner who does not cultivate himself is postponed, it should only be on the condition that the levy of rent due to him from tenants is also postponed.

G. R. No. 3265, dated 5th September 1900.

After the close of the revenue year 1899-1900 further instructions quoted in Appendix 44 were issued directing that the revenue of the year 1900-01 should be levied as a first charge on the crop where it was good and provided there was left after discharge of Government dues a balance sufficient for the maintenance until another harvest of the cultivator and those dependent on him; that in the recovery of arrears of past years the orders already issued should be carried out, but the utmost care should be taken to avoid any action likely to lead to mortgage of crops on account of such arrears; and that in cases in which land had not been cultivated owing to the occupant's want of means or in which owing to the small size of the holding or the poverty of the crop the outturn was not such as would leave any balance after discharging the year's assessment and supplying the means of subsistence until another harvest, the arrears might be at once remitted. These orders were based on the assumption that the harvests of 1900-01 would be good. This hope was not however realised, and in January 1901 the following supplementary instructions were issued:—

"It may be assumed (unless there is some special reason apparent) that arrears for years prior to 1899-1900 should be remitted at once, and in many cases it will be clear that arrears of that year should not be recovered according to the principles which have been prescribed. As regards the current year's revenue the grant of suspensions will be regulated on the same principles. Those cultivators, however, whose case is covered by the orders in paragraph 5 of Government Resolution No. 3265, dated 5th September 1900, and whose crops for this year are insufficient to justify the levy of the revenue from them

should be granted a remission at once instead of merely a suspension. In the case of other cultivators not so badly circumstanced the question of converting suspensions into remissions must await decision until the prospects of the season 1901-02 are known. Government desire that in dealing with cases of remissions of arrears for past years the principles already laid down should be followed in a liberal spirit and the benefit of every reasonable doubt should be given to the cultivator."

141. Early in August 1901 the following instructions were issued :—

"In continuation of previous orders the Governor in Council is now pleased to direct that until the expiry of a year no measures shall be taken for the recovery of arrears from any *bond fide* agriculturist who in the opinion of the Collector has paid during the last two years such proportion of the revenue due from him as might reasonably have been expected, having regard to the character of the seasons. Any *bond fide* agriculturist whose land may have been forfeited and who on appeal to the Commissioner can show that he has satisfied the condition above stated will be entitled to an order re-admitting him to the use and occupation of the land on the ordinary survey tenure. In all such cases the balance of revenue due shall not be levied till the expiry of a year and then in two equal annual instalments."

G. R., R. D., No. 5621, dated 8th August, 1901.

In November 1901 the Commissioner, Northern Division, issued circular instructions to the Collectors of Gujarat to the effect that—

- (1) no arrears should be collected for previous years ;
- (2) no assessment should be collected on fields that had lain fallow ;
- (3) the remaining tracts should be divided into areas, according to the proportion of the estimated kharif crop outturn in annas ;
- (4) suspension should be given on the scale suggested in paragraph 271 of the Famine Commission Report, 1901, i.e., suspension of $\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{2}$ and $\frac{2}{3}$ of the assessment for an outturn of 10, 8, 6 and 4 annas respectively, and entire suspension when the outturn was below 4 annas.

These instructions were eventually confirmed by Government but only on the understanding that effect had been given to the previous orders regarding the collection of arrears of previous years. About the same time the Commissioner, Central Division, requested orders—

- (1) whether the revenue for 1900-01 suspended without promise of remission was to be remitted like that of 1899-1900 under paragraph 5 of Government Resolution No. 3265, dated 5th September 1900, or
- (2) whether action should be suspended till the date of the first instalment pending consideration whether orders as to remissions contemplated in (1) above should be superseded by a system of regrants without liability for arrears on the new tenure, according to which rights or interest in unalienated land could not be transferred without the Collector's sanction.

The following orders were passed on this reference :—

"Government Resolution No. 5621, dated 8th August 1901, of course supersedes any previous orders which are not consistent with it. In view of it there is no need for the present to issue any further instructions regarding remission of arrears of revenue due in 1899-1900 and 1900-01. No steps are to be taken in the current year for the recovery of such arrears from any *bond fide* agriculturist who in the opinion of the Collector has paid such proportion of the revenue of those years as might reasonably be expected. If any such person could not reasonably be expected to pay any of the revenue, he will of course have satisfied the condition. In cases in which the condition has not been satisfied, steps can be taken for the recovery of arrears, which should ordinarily consist of forfeiture with the view of regrant on the restricted tenure to persons to whom such tenure is best suited. The Collector is empowered to relieve at once of all liability for arrears any such persons who consent to forfeiture after due notice and to regrant the land to them on the restricted tenure.

G. R., R. D., No. 8494, dated 6th December 1901.

* * * * *

"3. As regards the revenue of the current year the usual practice should be followed except in the Northern Division, regarding which separate instructions have been issued, but in view of the losses which have been incurred in past years collection from *bond fide* agriculturists should be liberally suspended in cases in which not more than an eight-anna crop has been reaped."

When in April 1902 the Government of India sanctioned the remission of suspended arrears to the extent of 130 lakhs of rupees, the following final orders were issued in supersession of all previous instructions inconsistent with them :—

G. R. No. 940,
dated 21st April
1902.

“The Government of India have sanctioned the remission of arrears of land revenue due to famine to the extent of Rs. 130,00,000 in this Presidency. This sum of Rs. 130,00,000 is based on figures of actual or probable suspensions at the end of the revenue year 1900-01 and of estimated suspensions for the current revenue year as reported by the Collectors from time to time. The intention is that revenue the collection of which it was considered desirable to suspend owing to the inability of those from whom it is due to pay it at once without hardship should now be remitted. In cases in which the suspensions were granted after detailed inquiry regarding crops reaped and ability to pay from resources at disposal they can now be converted into remissions without further investigation. In cases in which there was merely an estimate of the amount of which it would be necessary to suspend the collection for the reason above stated it will now be necessary to determine to which individual occupants relief is due and whether the whole or only a proportion of the arrears due from them should be struck off the accounts in accordance with the intention above described. Of course occupants who reaped sufficient crops or have other means than borrowing of discharging their dues are not entitled to relief.”

It was however subsequently explained that the intention was not that arrears which could at once be paid without hardship should be remitted and exemption from their public dues granted to those who were not entitled to it, but that the exceptional liberality accorded was the immediate remission of arrears which according to previous practice would have been held over for collection or possible collection in future years. The large amount of suspensions thus ordered to be converted into remissions was exclusive of large remissions which had been previously sanctioned.

Postponement
of enhanced
rates of assess-
ment.
G. R., R. D., No. 488,
dated 22nd January
1900.
G. R., R. D.,
No. 2328, dated
7th April 1900.

142. In January 1900, the Divisional Commissioners were authorized to postpone the levy of enhanced rates of assessment in talukas where such enhancements would ordinarily have been imposed during the year 1899-1900, if there was reason to believe that such levy would cause hardship. By a subsequent order passed in April 1900 it was explained that Government desired that the enhanced revenue should be remitted and not merely suspended, and it was further directed that no revised settlement entailing enhancements of assessment should be introduced during the revenue year 1899-1900. In December 1900 it was directed that no proposals for the revision of existing land revenue settlements in districts severely affected by the famine should be submitted for a period of three years except those the preparation of which was complete or which, if accepted, would result in reduction of the existing assessment.

Collections and
Remissions.

143. Appendix 45 shows the demand, recoveries and remissions of land revenue for the revenue years 1899-1900, 1900-01 and 1901-02. Altogether nearly 188½ lakhs or 24 per cent. of the demand for the three years were remitted. The proportions of recoveries and remissions are shown below for distinctive areas affected. It will be noted that the ratio of remissions is materially lowered by proportionately large recoveries in the slightly affected districts of Surat, Thána, Belgaum and Dhárwár.

	Gujarát.	Deccan.	Karnátak.	Thána.	Thar and Párkar.	Total.
Percentage of the demand for the three years of famine. { Recovered .	68	79	87	99.6	46	76
{ Remitted ...	37	21	13	0.4	54	24

The proportions of recoveries to the total demand for the three years in each affected district are compared below with those of 1896-97 in regard to the Deccan and Karnátak districts :—

Districts	1899-1900 and 1901-1902.	1896-97.	District.	1899-1900 and 1901-1902.	1896-97.
	Per cent.	Per cent.		Per cent.	Per cent.
Ahmedabad ...	47	...	Ahmednagar ...	52	93
Kaira ...	52	...	Poona ...	69	90
Panch Maháls ...	43	...	Sholápur ...	86	82
Broach ...	56	...	Sátára ...	86	96
Surat ...	94	...	Bijápur ...	65	77
Thána ...	99.6	...	Belgaum (affected tálukas only).	91	99.9
Khándesh ...	88	96	Dhárwár ...	99.2	99.7
Násik ...	76	95			

The comparative figures quoted above show that Gujarát was treated with exceptional leniency for which there were found special reasons, whilst in the Deccan and Karnátak there has been signal proof of capability to resist an unprecedented series of bad seasons owing no doubt to a large extent to the spirit of thrift engendered by previous disasters. In the sorely stricken district of Ahmednagar, however, it was found necessary to remit revenue almost to the same extent as in the distressed districts of Gujarát.

144. Appendix 46 shows the extent to which it was found necessary to resort to coercive measures for the realisation of revenue during the period of famine and the normal year preceding it. The following is an abstract of this appendix :—

Coercion.

	Northern Division.	Central Division.	Bijápur and Belgaum.	Total.
Notices served—				
1898-99 ...	55,177	106,009	14,175	177,361
1899-1900 ...	154,148	214,975	14,664	383,787
1900-01 ...	61,565	155,510	12,285	229,360
1901-02 ...	65,747	49,441	6,747	121,935
Cases of penalty under Section 148 of the Land Revenue Code—				
1898-99 ...	669	235	18	922
1899-1900 ...	758	360	2	1,120
1900-01 ...	379	155	...	534
1901-02 ...	216	87	...	253
Cases of distraint and sale of moveable pro- perty under Section 154, Land Revenue Code—				
1898-99 ...	378	954	310	1,642
1899-1900 ...	361	135	88	584
1900-01 ...	381	246	22	649
1901-02 ...	80	76	9	165
Cases of sale of immoveable property under Section 155, Land Revenue Code—				
1898-99 ...	12	4	2	18
1899-1900 ...	...	3	2	5
1900-01 ...	23	5	...	28
1901-02 ...	...	...	...	...

	Northern Division.	Central Division.	Bijápur and Belgaum.	Total.
Forfeiture and sale of the occupancy under Section 153, Land Revenue Code—				
(a) Number of cases :				
1898-99	1,201	652	298	2,146
1899-1900	608	505	174	1,287
1900-01	3,502	159	7	3,668
1901-02	13,973	97	8	14,073
(b) Area in acres sold to the public or remaining with Government—				
1898-99	16,329	6,586	5,722	28,637
1899-1900	3,234	15,129	2,246	20,609
1900-01	41,239	4,218	75	45,532
1901-02	65,648	2,302	316	68,266

Note.—In Thar and Párkar, except the issue of a few notices, no coercive measures were taken. The numbers of notices issued were 12 in 1899-1900 and 63 in 1901-02 against 129 in 1898-99.

In this as in the previous famine there were combinations amongst money lenders and other well-to-do people to withhold revenue, and there was a not uncommon tendency to postpone payment until the latest date in the belief that general remission of revenue would be granted. It was accordingly found necessary in almost all districts to issue notices on a large scale, but the severer forms of coercion had to be adopted in a comparatively small number of cases. During the year 1900 complaints were received regarding unauthorized measures for the collection of land revenue on the part of subordinate officers in certain districts. In the course of a public inquiry held by a specially appointed officer certain minor irregularities of procedure were disclosed, but the bulk of the specific charges brought forward were found to be not established by the evidence, whilst certain other accusations made against the Revenue officers as a body were proved to be gross exaggerations. It was, however, considered advisable to issue for future guidance general orders on the subject of coercive process, which are quoted in Appendix 47.

G. R., R. D.,
No. 8032, dated
23rd December
1901.

:VI-B (6).—RELIEF OF CATTLE.

Nature and
extent of relief
measures.

145. The principal measures taken for the relief of cattle were importation of fodder into affected areas, establishment of cattle relief camps and deportation of cattle to distant grazing grounds. Besides these measures advances under the Takávi Acts were made on an extensive scale for the construction or repair of wells to enable cultivators to grow fodder crops and for the purchase of fodder. Public assurance was given that no special water rate would be levied for irrigation from rivers or any other Government source of water supply. Government forests were opened to free grazing; permission was also given to cut grass from closed forests and to remove *Anjan* leaves for fodder free of charge. In Gujarát waste land in river beds and elsewhere was let at a nominal rent for production of fodder crops. No special measures for the relief of cattle were necessary in the second and third years of famine, but liberal advances of takávi and arrangements for the purchase of bullocks were made in all three years.

Operations
for supply of
fodder.

146. The operations for the supply of fodder to the famine affected districts were much more extensive than those of 1896-97. The gross expenditure incurred in 1899-1900 on the collection of grass and its despatch to affected areas amounted to Rs. 11,14,000, while the *entire* expenditure on grass operations in the famine of 1896-97 amounted to only Rs. 2,16,000. The net loss to Government in 1896-97 amounted to Rs. 72,000, while in 1899-1900 it

was Rs. 4,72,000, exclusive of cost of establishment and contingent charges incurred at grass sale depôts. In the former year the total amount of grass supplied was 11 millions of lbs.: in the latter year it was 93 millions. In 1896-97 the operations did not extend beyond the limits of the Bombay Presidency, since all the grass required was obtainable from local forests: in 1899-1900 the resources of the Presidency were found inadequate and recourse was had to importation of fodder from other provinces. Inquiries were made as to the possibility of importing compressed fodder even from beyond the seas, but any such scheme was found to be impracticable owing to the prohibitively high cost of such an enterprise. The main sources from which grass was obtained in 1899-1900 were—(1) Central Provinces, (2) Khândesh, (3) Thána, (4) Jhânsi and (5) Belgaum district.

147. The entire operations of collection, baling and transmission to affected districts were conducted under the general control and supervision of the Senior Conservator of Forests, whilst distribution of grass was effected by the Collectors of districts concerned under general control of the Divisional Commissioner. In this Presidency the sphere of work was divided into five sections, *viz.*, G. I. P. Railway, South Section; G. I. P. Railway, North Section; B. B. & C. I. Railway Section; Navápur (Khândesh) Section; and Southern Circle Section. Each of these sections was placed under the immediate charge of a Divisional Forest Officer assisted by one or more extra Assistant Conservators and Range Forest Officers besides the necessary subordinate staff. In the Central Provinces the operations of cutting, collecting and pressing inclusive of loading into railway wagons were carried out, with the sanction of the Administration of those Provinces, by the local Forest Department. The Jhânsi grass was supplied by a contractor, Mr. J. H. Abbott of the Bundelkhand Grass and Cattle Farm, who was responsible for all operations until delivery of grass was acknowledged. Two steam presses were purchased from Messrs. Jessop of Calcutta at a cost of Rs. 25,000: these were located at Jabalpur and Sohágpur to bale part of the Central Provinces grass. Eighty-seven hand-presses also were purchased or obtained on loan from various sources and distributed among the different sections.

148. Appendix 48 contains a summary of a report by Mr. Wroughton on the operations of collection, baling and transmission of grass to the affected districts. The total quantity of grass received was more than 87½ millions of lbs., and the following statement shows its distribution:—

District.	Received at grass depôts.	Received and used in Cattle Camps.	Total grass received.	Sources of supply.
	Lbs.	Lbs.	Lbs.	
Ahmedabad...	15,500,000	5,500,000	21,000,000	Central Provinces, United Provinces, Thána and Navápur.
Kaira ...	8,200,000	1,300,000	9,500,000	Central Provinces, United Provinces and Thána.
Panch Maháls ...	4,200,000	200,000	4,400,000	Do.
Broach ...	8,300,000	1,800,000	10,100,000	Central Provinces, United Provinces, Thána and Navápur.
Surat ...	3,200,000	.....	3,200,000	Local and Navápur.
Gujarát ...	39,400,000	8,800,000	48,200,000	

Supervision and control.

Quantity of grass received and its distribution.

District.	Received at grass depôts.	Received and used in Cattle Camps.	Total grass received.	Sources of supply.
	Lbs.	Lbs.	Lbs.	
Khândesh ...	(a) 6,500,000	.....	6,600,000	Central Provinces, Thána and Navápur.
Násik ...	(b) 100,000	.....	100,000	Thána.
	4,800,000	.....	4,800,000	Central Provinces and Thána.
Ahmednagar ...	9,400,000	.....	9,400,000	Do.
Poona ...	(c) 3,600,000	.....	3,600,000	Belgaum.
	10,100,000	.....	10,100,000	Central Provinces, Thána and Belgaum.
Sholápur ...	2,800,000	.....	2,800,000	Thána.
Sátára ...	100,000	.....	100,000	Thána and Local.
Deccan ...	37,500,000	.....	37,500,000	
Thána ...	1,500,000	.....	1,500,000	Local. (For the use of the Gujarát cattle on their return journey from Thána forests.)
Belgaum, Ratnágiri and Mahi Kántha. }	400,000	.....	400,000	Belgaum and Thána.
Total ...	78,800,000	8,800,000	87,600,000	

(a) Inclusive of the grass used at the cattle camp at Dhulia.

(b) Given to the Commissariat Department at Deoláil.

(c) Given to the 1st Bombay Lancers and the Commissariat Department at Poona.

According to this statement nearly 79 millions of lbs. were distributed in the districts and over 8½ millions were used in cattle camps. The quantity actually received fell short by more than 5½ million lbs. of the amount despatched. The deficit is reported to be due to dryage, wastage and loss in transit. The major portion of the Central Provinces grass was sent to Gujarát, a small quantity only being diverted to the Deccan. About half of the grass from Khândesh was utilised in that district, and the other half was made available for distribution in Gujarát. The Thána grass was divided between Gujarát and the Deccan, while most of that from Belgaum district was sold to the 1st Bombay Lancers and to the Commissariat Department at Poona. All the Jhânsi fodder was taken by Gujarát. For the reception and sale of grass, depôts were established at convenient spots near railway stations. There were 5 such depôts in Ahmedabad, 4 in Kaira, 2 in the Panch Maháls, 1 in Broach, 7 in Poona, 12 in Ahmednagar, and 3 in each of the districts of Násik, Sholápur and Sátára. Khândesh had depôts at almost all the G. I. P. Railway Stations within the district. An establishment consisting of 2 depôt keeper (with or without a clerk) and several watchmen was sanctioned for each depôt. The rules for the management of depôts in Gujarát framed by the Commissioner, Northern Division, and the Resolution of Government thereon are quoted in Appendix 49.

Disposal
of grass.

149. The cost of the grass thus delivered by Government agency averaged Rs. 13½ per 1,000 lbs. The price fixed for sale to genuine cultivators in need of grass for feeding their agricultural cattle ranged from Rs. 10 to Rs. 6. At the commencement all stocks in hand at the grass depôts in Gujarát were

distributed in small quantities to needy cattle owners at a rate of Rs. 10 per 1,000 lbs., the greater part of the grass being advanced as takivi. There was a demand for much more but it could not be satisfied owing to delay in transport of grass arising from insufficiency of rolling stock on certain railways. From March 1900 the delivery of grass became more regular and rapid, but by that time either many cattle had already died or the owners of surviving cattle had grown fodder crops for their animals, and consequently the number of cultivators able and willing to pay Rs. 10 per 1,000 lbs showed a decrease. In April, therefore, an arrangement was made by which all the fodder available was sold to the poorer cultivators who were *bonâ-fide* in need of help at Rs. 2 per 1,000 lbs, the difference between this and the Government price being paid out of the Indian Famine Charitable Fund. Not more than 1,000 lbs. were allowed at a time to any one person. The actual quantity sold at Rs. 2 per 1,000 lbs. in the four Northern Gujarât districts alone and the amount paid from the Charitable Fund are shown below :—

District.	Quantity sold.		Amount paid from Charitable Funds.
		Lbs.	Rs.
Ahmedabad	10,670,000	89,000
Kaira	5,286,000	42,000
Panch Mahals...	...	3,439,000	27,000
Broach	2,725,000	18,000
Total ...		22,100,000 (=9,868 tons.)	1,76,000

In the Deccan also Government grass was disposed of on the same principles as in Gujarât. Wherever possible Police Sowars and Government servants of similar standing were supplied with grass from Government stocks at cost price or other favourable rate.

150. Appendix 50 contains a description by Mr. J. Mollison, M.R.A.C., of the nutritive value of the fodder obtained from various sources. Fodder supplied from the Bombay forests and by Mr. Abbott did not as a rule suit the Gujarât cattle well, but the Central Provinces grass was generally of good quality as compared with ordinary dried Indian grass. An addition of oil-cake or the like was, however, found necessary in almost all cases in cattle camps to afford extra nutriment or to aid digestion. Grass from Thâna and Navâpur was somewhat coarse and analysis proved that the Central Provinces grass was distinctly superior.

151. Reference has been made above to the difficulty of transporting Government grass to Gujarât owing to the insufficiency of rolling stock on the B. B. & C. I., Tâpti Valley and Indian Midland Railways, which also hampered the activities of private trade in fodder. The wide extent of the famine throughout India caused such abnormal movements in grain and food stuffs that every line was being worked to its fullest capacity, and the railways mentioned could not therefore receive much assistance from others. The requirements of the Military authorities also placed some additional strain on certain railway lines. For three and a half months up to 13th December 1899 the whole rail-borne traffic in grass on the B. B. & C. I. Railway north to and through Gujarât and south to Bombay amounted to only 35,000 tons, of which probably not more than 20,000 tons reached the famine-stricken cattle of Gujarât. Between the 15th December 1899 and the end of February 1900 about 33,000 tons of fodder from all sources were delivered in the four Northern Gujarât districts. During the next three months the traffic increased. By that time many cattle had died, but if fodder had been imported in time to save them

through the earlier period of the famine, it is probable that there would not have been enough to keep them alive until rain fell. The imports and exports by rail of fodder in the affected districts during the months of October 1899 to May 1900 are shown in Appendix 51.

Cattle relief camps.

152. On the 1st August 1899 the Commissioner, Northern Division, issued a circular to the Collectors in his Division, containing a suggestion that the people should be induced to open "Relief Camps" for cattle, where young and sound animals could be temporarily maintained and be returned to the owners when the stress of famine was over. Two such camps were accordingly started in Ahmedabad from private funds. In October 1899 certain proposals submitted by the Commissioner to establish "Animal Relief Camps" at convenient centres were approved by Government. Appendix 52 contains the general rules which with modifications subsequently introduced were framed for the management of cattle camps. These institutions were intended mainly for plough bullocks, but useful breeding cows also were admitted in the proportion of one cow to two bullocks. Subsequently with the sanction of Government a separate camp was started in Ahmedabad for the preservation of a small stock of the best young cows of the Gujarát breed.

Results of cattle camps.

153. Altogether nine cattle camps were established, *viz.*, five in Ahmedabad, two in Kaira, one in the Panch Maháls and one in Broach. The sanitary arrangements of the camps were made as perfect as possible and the inmates were daily inspected by qualified Veterinary Graduates. Extracts from the Annual Administration Report of the Civil Veterinary Department for the official year 1899-1900 together with a review by the Commissioner, Northern Division, of the cattle camp scheme and of the different methods adopted for preserving cattle are given in Appendix 53. The numbers of animals saved by means of these camps were 3,306 in Ahmedabad, 746 in Kaira, 196 in the Panch Maháls and 913 in Broach, or a total of 5,161 out of 6,719 received, equivalent to 77 per cent. Gross expenditure amounted to Rs. 1,54,120 and gross receipts to Rs. 1,13,593. The receipts were made up of private donations (Rs. 20,613), recoveries (Rs. 50,568) from owners for the up-keep of their cattle, realisations (Rs. 35,875) from sale of cattle and other miscellaneous items. The net cost to Government on account of these camps was Rs. 40,527, equivalent to an average of Rs. 7-13-8 per animal saved.

Transport of cattle to distant grazing grounds.

154. Early in September 1899 the Divisional Commissioners were requested to consider in consultation with the Forest Department the question of inducing owners to take their cattle to areas where grazing was available. At the same time Government expressed their willingness to bear a share of the cost in those cases in which the full cost of railway passes for the cattle to be transported was likely to be a prohibitive charge to the owners, and to arrange to issue railway passes from takávi in other cases. The scheme was given a trial in Gujarát only: liberal reductions of rates were granted by the B. B. & C. I. Railway for transport of these cattle; every animal was branded at the station of despatch, and owners were required to send and maintain a herdsman for every 50 head. The idea of transporting cattle by rail to an unknown country was new to the people, and at first the Ahmedabad Pátidárs alone expressed their willingness to send to Thána such of their cattle as were not wanted for work on irrigation wells, but gradually others also were induced to take advantage of the scheme. A conference of Revenue and Forest Officers was accordingly held at Pálghar on the 28th September 1899 to concert measures for the despatch of cattle to the Government forests in Thána district and for their subsequent care and maintenance. As a result of the conference certain areas aggregating considerably over 50,000 acres were selected for the purpose as affording both grazing and water. The Forest Rangers were given immediate control over the operations in their respective charges under the Extra Assistant Conservator, and Mr. G. Monteath, I. C. S., was placed in general charge of the operations. At the conference at Pálghar it was held by a majority of officers present after discussion, that the cattle would last out till the end of the year on what they could pick up and on leaves of trees, &c. Subsequently however it was recognised that if they were to be kept in fair condition some cut grass must be provided for the hot season, and at the least a limited quantity for use on their return journey to Gujarát, and arrangements were made accordingly. A description of

the operations in Thána will be found in Appendix 54. It is estimated that of 15,749 head of cattle despatched from Gujarát, 14,955 reached the grazing grounds: deducting 1,065 as the number strayed and 8,731 as the number of deaths, the number which returned amounts to nearly 5,160. It is, however, believed that a considerable number was brought back at various times by owners without the intervention or knowledge of controlling officers, and the total saved may perhaps more correctly be recorded as about 7,000.

155. Subsidiary operations were carried on to a considerable extent in Gujarát partly by the aid of private persons. In Broach the Collector by means of funds supplied by the Local Board imported nearly 6 millions of lbs. of grass, which was sold at cost price or cheap rates. In Surat the Collector procured from local sources 3 millions of lbs. and over 12 lakhs of bundles of grass which was similarly distributed, besides issuing passes to cut and remove free of charge 8 million bundles from Mándvi taluka. The Mahájan of Ahmedabad city imported for use in their Pinjárpól over 18½ millions of lbs. of grass and *kadbi*. Well-to-do cultivators also imported fodder on their own account in small quantities, and private traders did something to meet the needs of the wealthier townspeople. A few small cattle camps were established by private persons. The Mahájan of Ahmedabad city received into the local Pinjárpól 21,543 cattle and 202 horses, of which 16,712 failed to survive: the fodder supply mentioned above was supplemented by concentrated food including 717½ tons of grain, at a total cost of 3½ lakhs of rupees. In addition to the cattle sent to Thána, 3,200 were admitted to Dharampur State, of which about 2,800 are reported to have returned, whilst the Mahájans of Ahmedabad and Viramgám despatched 4,629 head to the Tápti valley, of whom 1,393 are stated to have survived.

Subsidiary operations and private aid.

156. Any comparison of the results of the various schemes undertaken would serve no good purpose. In an extensive fodder famine there is urgent need for the adoption of every measure which is calculated to preserve a proportion of the cattle dealt with and it is scarcely possible that any can be so extended as to render others superfluous. The experience gained however has shown in what conditions each of the schemes adopted is suitable. As regards deportation of cattle it has been demonstrated that stall-fed animals from Gujarát starve on the coarse fodder of Thána district and that only the hardiest beasts can withstand the change of climate, surroundings and food involved in removal to a strange country. In spite of the natural prejudice against hiring herdsmen they would probably have worked better than those who accompanied the cattle from Gujarát, for the latter in many cases abandoned their charges at the first opportunity. There was also a certain amount of disease which all precautions and efforts could not entirely eradicate probably on account of novel conditions of climate and country. On the other hand the least costly and often the most effectual method of saving the hardier cattle of the Deccan is to send them to graze in forests.

Merits of the various measures considered.

157. Extraordinary care was devoted to the management of cattle camps. It was soon manifest that expert supervision and strict sanitation were essential to the health of the animals, and that this method of preserving cattle can therefore have a very limited operation. The results were, except in the case of the Nadiád Camp, signally creditable. Rinderpest appeared in the Ahmedabad camps, but it was successfully stamped out by careful segregation and other precautions. The tendency in the first place especially of non-official management was to admit animals which had lost strength to such a degree as to render recovery improbable, but when selection became more strict the average of success was high. The chief virtues of the system are that a cultivator is free to reclaim his cattle at any time and that he is meanwhile secure from the temptation to stay away from relief works to the fatal injury both of his animals and himself. Though the herding of cattle perhaps creates a risk of disease and contagion, treatment is much more skilful in cattle camps than in the homes of the owners. These institutions are especially valuable also for the preservation of cows, which are apt to be much neglected by the shortsighted cultivator in favour of bullocks. The special cow camp in Ahmedabad met with gratifying success.

158. It is impossible to estimate how many cattle were saved by the importation and distribution of fodder, but there is no doubt that many cultivators were thus enabled to maintain both themselves and their cattle during the severest period of famine. There was no organized trade in grass in touch with the great body of consumers, chiefly no doubt on account of difficulties of transport and inability to obtain remunerative prices, and Government measures therefore involved no risk of interference with private trade. It has been urged that cultivators if given fodder would look after their own cattle with more efficiency and economy in familiar surroundings than would hired servants in a cattle camp; but on the other hand it is to be feared that in some cases fodder was wasted at the homes of owners on inferior beasts or even on animals gone past recovery. Thus whilst each measure has its own merits all united to preserve throughout the Presidency the chief mainstay of agricultural interests. But for these remedies, many of the wealthiest cultivators would have been permanently crippled, and there is ample evidence that expressions of gratitude correspond to the magnitude of the operations undertaken.

Measures to
replace lost
cattle.

159. In March 1900 all other Local Governments and Administrations were requested to favour this Government with information, for communication to land-holders in Northern Gujarát and Khándesh where the loss of cattle was most extensive, whether it was likely that plough cattle would be available for purchase before the commencement of the ensuing cultivating season, and if so whether any estimate could be made of the probable surplus after local requirements had been met. The replies received were published for the information of those concerned. Liberal advances for purchase of cattle were at the same time made from takávi and charitable funds, and a special officer was deputed to the principal cattle markets to select suitable animals. Thousands of bullocks were thus imported and supplied to those in want, and a similar policy was followed in the subsequent two years of distress. The breeding herds of the Rahabáris (professional graziers) of Gujarát, which constituted all their wealth, were mostly swept away during the famine, and the pure Gujarát breed of cattle was threatened with extinction. Gifts of a few cows whenever procurable were made at the cost of charitable funds to selected graziers to form a nucleus for future herds, and a cattle camp for cows was as stated above established in Ahmedabad. Efforts on a larger scale were, however, required to fulfil the object in view: in December 1900 a movement was accordingly started by His Excellency Lord Northcote, and as a result of it a Gowshála (cattle-breeding farm) has been established near the Chharodi Station on the B. B. & C. I. Railway for the purpose of preserving the best breed of Gujarát cattle. The subscriptions received up to the 11th May 1901 towards the Gowshála Fund amounted to over Rs. 34,000, and this institution promises to be the means of restoring to the province one of its most valuable agricultural assets. Encouragement is also being given to private enterprise in the same direction, and at least one such farm has, it is reported, been started in Ahmedabad district by a leading Pársi gentleman.

Prickly pear
as food for
cattle.

160. At a very early stage of the famine attention was called to the advisability of making experiments to test the utility of prickly pear leaves as fodder for cattle. Wide publicity was given to certain instructions framed by Ráo Bahádur A. Sabhápati Moodeliár of Belláry for the preparation of this kind of fodder and to the results of some successful experiments made by Ráo Bahádur N. C. Soman, District Deputy Collector, Belgaum. Appendix 55 contains the instructions referred to as well as some account of Mr. Soman's experiments and a memorandum by Mr. Mollison giving the results of his experience. In Gujarát as well as in the Deccan several attempts were made to demonstrate to cultivators the utility of prickly pear for this purpose. From Poona district it was reported that some 125 cattle in the village of Katápur Budruk were rescued from emaciation and in less than three months restored to good condition on a diet of prickly pear leaves. In some other cases it was found that this kind of fodder was capable of maintaining cattle for some time at least in normal condition provided it was used as an adjunct to other ordinary food. But in Gujarát animals accustomed to the best of fodder and other luxuries could rarely be induced to accept it and experiments were as a rule disappointing.

161. In consequence of the heavy mortality among plough cattle the feasibility of using hand implements for tilling was suggested to and considered by Government. Notes containing instructions on the subject are quoted in Appendix 56. Wide publicity was given to these instructions and endeavours were made in several districts to popularize hand ploughs prepared after models furnished by Mr. Mollison. It was directed that if any cultivator made an honest attempt to raise a crop by using such implements and failed, the assessment on the land thus utilised should be remitted. In Gujarát steps were also taken to distribute free of charge among cultivators the ordinary hand implements of the country (*kudáli* and *pávrá*) used on relief works and no longer required: an assurance was also given that on fields cultivated by manual labour crops would not be attached during the year 1900-01 unless removed by the owner for sale. These efforts to popularize manual implements of agriculture did not, however, meet with much success.

Manual
agricultural
implements.

VI-B (7)—RELIEF BY LOCAL BOARDS AND MUNICIPALITIES.

162. It is a recognised principle that Local Funds should bear a proper share of expenditure on famine relief according to their means. But as the resources of most of the Local Boards and Municipalities in the Presidency had already been depleted by plague expenditure, not much could be done by these bodies in the way of supplementing Government famine relief. The assistance rendered by Local Boards was given mainly by employment on test works and on works for the improvement of water supply. The total expenditure incurred in 1899-1900 as reported by the Collectors amounted to Rs. 8,10,762.* The district details are as follows:—

Expenditure on
famine relief by
Local Boards
and Municipalities,
1899-1900.

	Rs.		Rs.
Ahmedabad	19,001	Ahmednagar	9,964
Kaira	29,284	Poona	10,695
Panch Maháls	2,425	Sholápur	8,000
Broach	19,260	Sátára	44,917
Surat	41,488	Bijápur	19,764
Thána	39,502	Belgaum	13,471
Násik	48,696	Thar and Párkar	4,288

In addition to the amounts shown above the Local Board of Broach spent Rs. 74,397 on importation of grass for distribution to poor cultivators and realised Rs. 82,057 from sales.

163. The Municipalities spent in all Rs. 1,07,571 on famine relief. An account of the relief afforded by certain Municipalities to distressed weavers has already been given in Section VI—B (2 a). The bulk of the expenditure was incurred on relief works, including works for the improvement of water supply, and on poor-houses. A few Municipalities in Ahmedabad and the Panch Maháls districts maintained ambulance parties for the conveyance of disabled wanderers to poor-houses.

164. During the year 1900-01 expenditure on test works in Khándesh 1900-1901 was met from grants sanctioned by the District Local Board. The District Local Board of Ahmednagar had 8 new wells constructed and 14 old wells deepened. The Pandharpur Municipality in the Sholápur district contributed Rs. 4,948 towards the maintenance of the poor-house at Pandharpur. In Belgaum district the Gokák Municipality raised subscriptions amounting to Rs. 1,000 and afforded relief by improving the roads and drains in Gokák town: the Saundatti-Yellámma Municipality also gave gratuitous relief to the poor for about six months. The Thána Municipality has agreed to contribute in three equal yearly instalments Rs. 1,279, being one-third of the normal cost

* Out of this amount only Rs. 84,114 are shown in the Local Fund accounts under direct famine relief. The remainder was spent on normal improvements of water supply and other ordinary works of general utility.

incurred on the Pokhran tank supplying water to Thána, the improvement of which was undertaken to provide relief for famine stricken immigrants deported from Bombay City.

1901-1902.

165. In 1901-02 over Rs. 40,000 were spent by Local Boards on works for the improvement of water supply, which must have given employment to a considerable number of unskilled labourers. The Boards of Broach and Surat afforded some relief also on small works. The details of expenditure thus incurred are given below :—

	Rs.		Rs.
Ahmedabad	307	Násik	1,784
Kaira	1,728	Ahmednagar	1,090
Panch Maháls	582	Poona	4,938
Broach	5,945	Belgaum	4,064
Surat	17,570		
Khándesh	2,531	Total	40,529

During 1901-02 the Municipalities of Bijápur and Kaira spent Rs. 4,698 and Rs. 819 respectively on gratuitous relief. The Municipality of Surat also spent Rs. 400 on small works.

Relief afforded to local bodies.

166. A few local bodies were granted remissions of part of the expenditure incurred by them, or were excused the payment of sums due to Government. Thus in consequence of the large expenditure incurred by the District Local Board of Sátára on test works in 1899-1900 the recovery of a contribution of Rs. 11,095 granted from Provincial Revenues to the Board was foregone. Similarly in the case of the District Local Board of Násik an amount of Rs. 15,868, representing the expenditure on test works which was necessitated by unavoidable delay in the conversion of certain test works into relief works, was remitted. Owing to the exhausted financial condition of the District Local Boards of Ahmednagar and Sholápur Government claims of Rs. 6,000 and Rs. 19,000 respectively on account of contributions towards expenditure on test works were waived. Out of a total expenditure of Rs. 10,891 incurred on improvement of the water supply of Ahmednagar city and the adjoining town of Bhingár Rs. 8,436 disbursed as wages of relief workers (including dependants) and as pay of muster kárkuns and mukádams were provided by Government, and the remaining amount (Rs. 2,455) expended on skilled labour and technical supervision was defrayed from funds provided by the Ahmednagar Municipality.

PART III.

VII.—EFFECTS.

(1) General.

167. The past famine of three years' duration has necessarily told heavily on the country and the people. The agriculturists in the affected districts have suffered most; the total or partial failure of crops in three successive years represents a loss to them of not less than 72 crores of rupees and more than two millions of their cattle perished prematurely. The agricultural labourer has perhaps been the least affected, since if he had retained health and strength on relief works he is little worse off than before: but competition for employment tended to lower wages, of which the purchasing power was at the same time minimized by high prices, and this fact doubtless caused distress amongst any labourers who continued in private employment. Even the skilled artizan felt the pinch of high prices. Other classes too have suffered severely. The mill industry was much hampered by short stocks and consequent high price of cotton, and several factories were obliged to work short hours: the result has been depression, which is, however, being gradually relieved. And lastly, two moral results of the vast system of Government relief have been generally noticed by district officers—on the one hand a perhaps inevitable loss of self-respect and self-reliance among those who accepted relief and, on the other, a great increase of confidence in Government throughout the country.

168. The people of the Deccan and Karnátak had had no time to recover from the famine of 1896-97, but the fact that they were inured to the strain enabled them to bear it with extraordinary fortitude. But in Gujarát the people knew nothing of famine and were both more thriftless and physically weaker. The result was that though distress was equally severe in both parts of the Presidency, resisting power both physical and economic was much stronger in the Deccan than in Gujarát. The inhabitants of the latter province seemed unable to realize their position: some cultivators actually delayed to irrigate their crops and allowed them to wither lest rain falling after artificial irrigation should rot them. The most painstaking and self-sacrificing efforts were made by Gujarátis to maintain their families at home and to keep their cattle alive: but in the first year of the famine many deliberately preferred starvation to uncongenial work in unfamiliar surroundings, whereas the Deccanis went as a rule promptly and cheerfully to a relief work and threw there on the wages of steady labour. In the second and third years of the famine the distinction in this respect was less marked and indeed to a large extent disappeared. The distressed population of Gujarát who were capable of work began to realize that the only chance of saving themselves was to undertake the employment provided by Government and even the Bhils of the Panch Maháls worked steadily and for the most part earned the maximum wages. In the third year of the famine it even became necessary to consider the need of adopting expedients in addition to the labour test for excluding from the works persons who were not really in need of relief. But many of the cultivators of the poorer classes thrifty and improvident alike in the greater part of both areas have lost all assets—cattle, ornaments, houses, household utensils and in some cases their land also—in spite of the liberal assistance rendered by Government and private charity,—and several years must elapse before they regain their normal position. Though the distressed classes have not yet recovered sufficiently to be able to accumulate resources, there are already some symptoms of thrift apparent. In a few cases fodder is being stored, and there is a tendency to watch the market and obtain the best price for produce without excessive reliance on middlemen.

169. Appendices 57, 58 and 59 contain statements showing:—

- (1) the total number and value of sales and mortgages of land registered under the Indian Registration Act, III of 1877, during the years

Sales and mortgages of landed property.

1899—1902 compared with the annual average of the preceding nine years ;

- (2) ditto between agriculturists and non-agriculturists ;
 (3) the numbers of sales and mortgages of land registered in the four Deccan districts of Ahmednagar, Poona, Sholapur and Sátara under the Deccan Agriculturists' Relief Act, XVII of 1879, during the years 1899—1902 compared with the annual average of the preceding nine years.

Abstracts of these statements are given below : it should be noted that the year referred to in each case is the official year running from April 1st to March 31st:—

Table 1.

	Gujarát.	Deccan.	Karnátak.	Konkan.	Total.	Gujarát.	Deccan.	Karnátak.	Konkan.	Total.
1	2	3	4	5	6	7	8	9	10	11
	Number.	Number.	Number.	Number.	Number.	Value.	Value.	Value.	Value.	Value.
						Rs.	Rs.	Rs.	Rs.	Rs.
Sales—										
Average	11,125	25,598	9,417	8,964	55,104	50,37,378	86,79,640	39,98,578	30,24,705	1,01,90,121
1899-1900	10,517	28,094	10,241	9,744	58,596	46,57,744	75,57,409	28,70,139	34,40,940	1,85,26,092
1900-01	10,311	31,163	13,783	11,205	66,482	44,40,066	89,38,073	37,65,592	39,13,933	2,10,63,064
1901-02	11,039	29,824	12,730	11,648	65,236	50,04,313	1,08,75,732	34,84,068	42,41,908	2,36,06,021
Mortgages—										
Average	11,426	32,466	12,953	9,563	66,428	50,97,061	1,01,12,794	40,25,000	34,68,461	2,27,03,316
1899-1900	11,129	28,185	14,529	9,649	63,462	52,62,915	80,06,056	41,20,407	31,16,968	2,06,18,361
1900-01	10,880	32,478	22,315	11,023	76,496	42,23,868	78,94,549	53,12,857	33,70,244	2,14,01,563
1901-02	10,670	29,184	18,206	10,348	62,358	55,73,153	76,76,641	46,39,840	38,33,432	2,12,24,076

Table 2.

	Gujarát.	Deccan.	Karnátak.	Konkan.	Total.	Gujarát.	Deccan.	Karnátak.	Konkan.	Total.
1	2	3	4	5	6	7	8	9	10	11
	Number.	Number.	Number.	Number.	Number.	Value.	Value.	Value.	Value.	Value.
						Rs.	Rs.	Rs.	Rs.	Rs.
Sales—										
Average	1,979	9,771	1,530	2,961	16,141	7,04,167	37,37,748	5,17,774	8,10,094	58,49,773
1899-1900	2,270	10,698	2,187	3,160	18,232	8,23,507	38,30,194	8,13,403	8,31,861	62,98,565
1900-01	2,427	11,368	2,652	3,089	20,536	8,67,778	41,07,770	10,44,292	10,48,583	70,68,418
1901-02	2,830	11,338	3,923	4,003	20,595	9,09,893	45,53,954	10,50,030	11,83,880	76,97,757
Mortgages—										
Average	3,843	13,619	9,620	4,357	24,680	16,44,374	38,29,324	12,68,594	12,10,828	79,48,120
1899-1900	4,344	12,552	4,671	4,360	25,733	16,18,484	40,12,931	16,59,391	12,27,791	84,17,597
1900-01	4,347	15,070	6,647	4,736	28,539	14,12,759	42,48,062	18,04,003	13,09,257	84,34,081
1901-02	3,578	11,596	5,691	4,931	25,093	13,00,421	43,49,085	18,52,904	13,43,728	93,51,176

Table 3.

		Between agriculturists and agriculturists.	Between agriculturists and non-agriculturists.	Total.
1		2	3	4
Sales—				
Average		7,680	4,575	12,255
1899-1900		10,209	5,759	15,968
1900-01		12,727	6,764	19,491
1901-02		10,217	4,330	14,547
Mortgages—				
Average		20,335	21,322	41,657
1899-1900		21,720	19,801	41,521
1900-01		24,172	22,349	46,521
1901-02		17,661	12,710	30,371

Transactions by sale and mortgage of land registered under the Indian Registration Act (III of 1877) show a slight increase in the whole Presidency

during the second and third years of famine, but in the first and severest year of distress there was a small decrease. The number of sales increased in the second and third years, whilst mortgages were less numerous except in 1900-01. The figures for the Deccan, the Karnátak and the Konkan show a general increase, which is almost counterbalanced by the decrease in Gujarát. There have been slight fluctuations in the money value of these transactions, but there is little indication that land has generally depreciated owing to famine conditions. Separate figures are recorded in addition (*vide* Table 3 above) of transactions under the Deccan Agriculturists' Relief Act (XVII of 1879), which is in force in the four districts of Ahmednagar, Poona, Sholápur and Sátára : here again though there is a considerable increase during the famine period in the number of sales, the number of mortgages in 1901-02 was less than the average by nearly 25 per cent. From the figures under both Acts taken together it would seem that sales were preferred to mortgages.

170. The remarks made above refer to transactions between all classes ; but special attention must be directed to the number of sales and mortgages which represent transfer of land from agriculturists to non-agriculturists. The following table exhibits the increase or decrease in such dealings during the famine for each affected district and one district not materially affected (Dhárwár) as compared with the average figures. Since the acreage affected has not been reported, figures of value cannot be accepted as giving more than a very general indication of the extent and sufficiency of the consideration in each case.

Transfer of land from cultivating to moneyed classes.

District.	Increase (+) or decrease (—) in the total number of registered sales and mortgages between agriculturists and non-agriculturists compared with the average number.			
	Average.	1899-1900.	1900-1901.	1901-1902.
Ahmedabad	1,183	+ 483	+ 203	— 88
Kaira	2,189	+ 380	+ 608	+ 440
Panch Maháls	127	+ 111	+ 57	— 37
Broach	1,037	— 392	— 658	— 489
Surat	1,316	+ 110	+ 552	+ 148
Khándesh	7,529	+ 477	+ 1,573	+ 3,288
Násik	4,080	+ 75	+ 664	— 820
Ahmednagar	9,063	+ 802	— 483	— 3,714
Poona	11,308	— 1,110	+ 602	— 2,715
Sholápur	3,333	— 209	— 86	— 1,379
Sátára	12,974	+ 375	+ 2,994	— 2,973
Bijápur	930	+ 631	+ 1,098	+ 759
Belgaum	2,170	+ 475	+ 1,446	+ 1,414
Dhárwár	2,250	+ 302	+ 1,505	+ 1,060

There is a remarkable decrease in Broach, Poona, Ahmednagar and Sholápur : a steady increase is most marked in lightly affected districts such as Surat and Belgaum, and in Dhárwár, whilst the decrease in the third year of famine in the Deccan (except Khándesh) and the rise and fall in the second and third years in Sátára are extraordinary. The only conclusion possible is that the famine of 1899-1900 had little effect in increasing the transfer of land to the moneyed classes ; but it must be remembered that there were many other disturbing elements at work such as plague, disinclination of money-lenders to make advances and the wide extension of the takávi system, which operated very diversely in different areas. The depreciation of the value of land in the eyes of the money-lender was apparently slight, but on the other hand there was no such increase in the total number of transactions as might have been expected amongst an agricultural population in a time of famine of unprecedented severity and duration.

171. The following statement shows the net increase or decrease of land in occupation during the twelve months ending July 31st, in the years 1895-96 to 1901-02, in distinctive tracts of the Presidency :—

Relinquishment of land.

(In acres.)

	1896-96.	1896-97 (Famine).	1897-98.	1898-99.	1899-1900 (Famine).	1900-01 (Famine).	1901-02 (Famine).
Gujarát	- 22,378	- 16,898	- 6,786	+ 11,907	- 15,575	- 39,472	- 592
Deccan	+ 23,827	+ 38,262	+ 3,830	- 11,100	+ 19,193	- 1,035	+ 740
Karnátak	+ 10,614	+ 15,798	+ 7,798	+ 3,085	+ 2,011	+ 1,503	+ 2,312
Total	+ 12,068	+ 37,162	+ 4,837	+ 3,892	+ 5,629	- 39,004	+ 2,460

Relinquishments in Gujarát, especially in Ahmedabad, Kaira and Broach districts were comparatively large during the famine period and were probably mainly induced by the loss of cattle, but they also include lands left unoccupied through the deaths of agriculturists. The statement however shows that in years in which there was no famine in Gujarát there were considerable areas relinquished, and it is undoubtedly the case that there are lands in this province which have deteriorated of late years and which, at any rate until recent reductions of assessment were made, can be cultivated with substantial profit only in favourable seasons. In the Deccan in 1899-1900 the area taken up exceeded that relinquished by 19,000 acres, and in 1900-01 the latter was more than the former by only 1,000 acres. In 1898-99, a normal year, the relinquished area exceeded that taken up by 11,000 acres in the Deccan, while in the famine years of 1896-97, 1897-98 and 1899-1900 substantially more land was taken up than was relinquished. It must not be overlooked however that the effect in this respect of any failure of crops is shown mainly not in the statistics of the year in which it occurs, but in those of succeeding years. In the Karnátak there has been a continuous increase of the area in occupation in spite of adverse seasons, and the contraction of cultivation throughout the Presidency has been astonishingly small. There could be no more convincing proof of the general moderation of assessment and leniency in collection, although contributory causes are found in the liberal takávi advances and aid from the Charitable Fund.

Sale of ornaments and household utensils.

172. It is impossible to conjecture what amount of gold and silver ornaments were disposed of, but an item of export trade registered in the railway returns as "unwrought copper and brass," which is understood to represent the household utensils of the destitute, sprang up in 1899-1900 for the first time from Gujarát and the Deccan: 74,000 maunds of these metals were thus exported from Gujarát and 40,000 maunds from the Deccan during 1899-1900, the value of the whole being not less than 40 lakhs of rupees. On this subject the following remarks of the Collector of Kaira concerning his district apply with equal force to the whole of Gujarát:—

"It is to be feared that large quantities of silver ornaments and household utensils have been sold during the famine. Indeed from inquiries made in June 1900 it would appear that even as early as that the poorer classes had already disposed of all their ornaments. The Mámlatdárs were asked to report the bullion value of the articles likely to be sold after that time, and with one exception they all said that no more silver ornaments were likely to be sold as all had already been parted with. Amongst the middle and even the upper classes there is no doubt that sales of ornaments were common, and many of the people who did not resort to relief works and who had no means of earning their livelihood supported themselves through the period of distress almost entirely on the sale-proceeds of the silver and copper ornaments and utensils which they possessed. Not only, indeed, were ornaments and utensils sold but also grinding stones and portions of the household fixtures."

The extent of the disposal of ornaments in Gujarát may be gauged from another extract from a report of the Collector of Surat, a district which was only slightly affected:—

"Sales and mortgages of gold and silver ornaments by the better classes were common throughout the district, especially in the Olpád Morkantha. In the Olpád táluka two money-lenders are known to have advanced Rs. 15,000 on the security of ornaments. Many of the Káliparaj also pledged and sold silver ornaments to a considerable extent. In the Mándvi táluka silver ornaments to the extent of Rs. 12,000 are estimated to have been sold or pledged. The Káliparaj sold their brass and pewter armlets and leglets to a large extent. One merchant is known to have exported several tons of these ornaments from the Mándvi táluka."

In the Deccan and Karnatak the sale of silver ornaments or of household utensils was not so large, chiefly no doubt because such articles had been mostly disposed of in 1896-97. But a large portion of the remainder must have found its way into the market for sale. In Ahmednagar several instances occurred in which even the sacred marriage ornament *Mangalsutra* was brought to the bazar for disposal. Owing to the glut of such articles in the market they fetched on the whole very low prices, and money-lenders in Gujarát favoured a system of taking ornaments and valuable clothing in pawn in the belief (which was in most cases justified) that they would not be redeemed within the specified period.

VII (2)—PUBLIC HEALTH.

173. In spite of all efforts to alleviate distress in times of famine, a general failure of crops over an extensive area and an abnormal rise in prices have a marked influence on the vitality of the masses, and the inevitable and most natural results are a decline in the birth-rate and an increase in the mortality irrespective of deaths from actual starvation. The year 1900 was a very unhealthy year, and even ordinary seasonal complaints assumed aggravated forms before the usual period. The most common diseases were dysentery, diarrhoea and fever. Cholera broke out in epidemic form about the middle of April and, attaining its height in May or June, swept like a destructive wave over the whole country. By the time this scourge had disappeared, malarial fever commenced its depredations a month or two before the time of its usual appearance. Owing no doubt to the effects of increased vaccination, small-pox was not very prevalent throughout the whole famine period.

General effects
on Public
Health.

174. The subjoined table shows the total decrease in the number of births in the several affected districts during the periods of twelve months ending August 31st in the years 1900, 1901 and 1902:—

Births and
Birth-rate.

District.	Annual average of ten years ending 1899.	BIRTHS.			DECREASE (-) OR INCREASE (+).			
		1899-1900.	1900-01.	1901-02.	1899-1900.	1900-01.	1901-02.	Total.
Ahmedabad ...	29,697	25,933	9,314	25,727	-3,764	-20,378	-3,060	-28,097
Kaira ...	30,493	23,400	11,004	27,338	-7,093	-19,480	-8,155	-29,077
Panch Mahals...	11,661	9,867	2,310	12,600	-2,294	-9,351	+1,020	-10,616
Broach ...	13,372	11,266	5,108	13,722	-2,106	-8,264	+860	-10,070
Surat ...	24,938	23,110	13,751	25,030	-1,798	-11,157	+123	-12,833
Gujarát ...	110,121	93,126	41,487	104,507	-16,995	-68,034	-5,014	-91,243
Khandesh ...	62,602	59,029	29,700	77,477	-3,573	-32,902	+14,875	-21,600
Nasik ...	35,598	33,311	18,533	34,858	-2,287	-17,066	-740	-20,092
Ahmednagar ...	37,996	33,652	18,952	35,852	-4,344	-19,044	-2,144	-25,532
Poona ...	37,325	33,195	22,195	34,607	-3,830	-14,830	-2,418	-21,078
Sholapur ...	23,936	26,671	16,937	23,863	-2,265	-11,399	-5,078	-19,337
Sátara ...	46,053	40,349	24,425	34,716	-5,704	-21,627	-11,807	-38,638
Deccan ...	248,210	226,207	130,743	241,408	-22,003	-117,467	-6,807	-146,277
Bijapur ...	30,705	27,987	19,173	24,391	-2,713	-11,532	-6,314	-20,564
Belgaum ...	38,929	35,241	23,641	26,010	-3,689	-15,238	-12,019	-31,895
Karnatak (affected)...	69,634	63,223	42,814	50,401	-6,406	-26,820	-19,238	-52,459
Thana ...	26,166	22,164	16,120	23,651	-4,002	-10,046	+2,485	-11,563
Thar and Parkar ...	7,409	4,342	2,282	5,337	-3,067	-5,127	-1,572	-9,766
Total ...	461,540	409,067	233,416	430,799	-52,473	-228,094	-30,741	-311,308

The decrease in the number of births was naturally more marked in the year 1900-01 owing to the effects of severe distress in the previous year. In the year 1901-02, however, the rate of births recovered materially. During the entire period of three years from September 1899 to August 1902 the number of births in the affected districts was less by 311,308 than the average of previous ten years. The decrease in the years 1877 and 1878 was estimated

at about 200,000, while in 1897 and 1898 it was 100,7¹/₂. The total decrease *per mille* in the numbers of births in each famine period proportionately to the population of districts affected was as follows:—

1876-1878...	...	...	...	25
1896-1898...	...	...	...	11
1899-1900...	...	...	...	4
1900-1901...	...	...	...	20
1901-1902...	...	...	...	3

It must, however, be remembered that in recent years the records of vital statistics are more accurate and trustworthy.

175. The birth-rate declined steadily from April 1900 till the end of the year throughout the affected districts and was lowest in Kaira, Panch Maháls and Ahmednagar. The decline during the cold weather in the lightly affected district of Thána appears to be not unusual and is generally counterbalanced in the rains. Gujarát shows a considerably lower birth-rate than the Deccan throughout, but the record of the ten-year mean supports the opinion of the Commissioner, Northern Division, that marriages and large families have become less frequent in Gujarát during recent years owing to the expense involved in wedding ceremonies and dowries. It is, however, natural that the change from a generous diet to famine rations and the extensive loss of milch-cattle in Gujarát should affect the fecundity more in that province than in the Deccan, where the people are habituated to a hard life. The exhaustion owing to famine and to a certain extent the excessive death-rate reacting on the birth-rate are the two chief causes of the decrease in the number of births. There are, however, several contributory causes which are clearly reflected in the statistics of Surat district: this district was not severely affected by famine and the Collector has found it difficult to explain the decline since the famine could hardly have begun to affect the birth-rate until July 1900 at the earliest, whereas it had been low from October 1899. As the Káliparaj who were affected by famine formed a minority and as there was a corresponding decline amongst the Ujliparaj who were not thus affected, his conclusion is that the decrease in the number of births cannot be wholly due to famine, but that it is largely attributable to the unusually heavy mortality from cholera, fever and cold. In Thar and Párkar the low birth-rate recorded is attributed mainly to the exodus caused by famine, and partly to the effects of scarcity and to cholera.

General mortality.

176. In Appendix 60 is given a statement showing month by month the total number of deaths and death-rates in the several affected districts from September 1899 to August 1902 as compared with the average of ten years ending 1899, together with the number of deaths among children under five years of age and among persons over sixty years of age, as well as the number of deaths from cholera and plague. Appendix 61 shows for each affected district the increase or decrease as compared with the normal in the number of deaths and in the annual death-rates for each of the three years 1899 to 1902. The mortality and death-rate in distinctive tracts are summarised in the following abstract:—

District.	DEATHS.				DEATH-RATE (PER MILLE).			
	Annual average of ten years ending 1899.	1899-1900.	1900-1901.	1901-1902.	Annual average of ten years ending 1899.	1899-1900.	1900-1901.	1901-1902.
Gujarát ...	104,975	395,871	197,154	131,330	34	128	73	49
Deccan ...	211,737	401,784	203,093	210,822	34	64	34	35
Karnátak (affected) ...	55,184	70,848	72,351	81,635	30	39	42	47
Thána ...	22,691	55,568	29,798	19,904	23	68	36	24
Thar and Párkar ...	5,557	17,260	11,773	6,977	17	53	32	19
Total ...	400,094	941,331	514,169	450,718	33	77	43	42

The actual number of deaths in 1899-1900 very largely exceeded the normal, the excess being no less than 541,237. Of this total, Gujarát contributed 290,896 or 54 per cent., the Deccan 189,997 or 35 per cent., and Bijápur, Belgaum, Thána and Thar and Párkar together 60,344 or 11 per cent. In 1900-01 the excess mortality amounted to 92,179 in Gujarát and 39,861 in Khándesh, Násik, Poona, Belgaum, Thána, and Thar and Párkar. The decrease in Ahmednagar, Sholápur, Sátára and Bijápur amounted to 18,065, giving a net excess in the year of 114,075 deaths. In 1901-02 the general mortality exceeded the normal in all Gujarát districts except the Panch Maháls, and in Sátára, Belgaum and Thar and Párkar: in other affected districts it was below the normal. The net excess amounted to 50,624. The net increase over the normal for the entire area affected during the three years 1899—1902 was thus 705,936, to which plague contributed 173,163. In previous famines the excess mortality was 315,000 (estimate) in 1877-78 and 91,397 in 1896-97. Converted into a common measure the excess death-rate in the past famine compares as follows with those of 1876-77 and 1896-97:—

1876-77	...	...	...	...	70 per mille of population of affected districts.
1896-97	...	...	...	10	" "
1899-1900	...	...	...	44	" "
1900-01	...	...	...	10	" "
1901-02	...	...	...	6	" "

177. The general mortality was either below the normal or not materially in excess of it up to the end of November 1899 throughout the affected area except in the districts of Násik, Poona, Sholápur, Sátára, Bijápur and Belgaum, where bubonic plague was prevalent. The rise began in December 1899, and continued through the hot weather months of 1900, reaching the highest point in April and May, when cholera was at its height. From June there was a decline, but the phenomenally high mortality continued up to the end of the year in Northern Gujarát districts and up to September in others. From April to September cholera was the chief contributory cause, and thereafter up to March or April 1901 the severe epidemic of fever, which assailed the rich and the poor alike, wrought havoc among the debilitated population of Gujarát. In this province the highest mortality was recorded in May 1900, the death-rate in that month being as high as 28 times the normal in the Panch Maháls and from 8 to 12 times the normal in Ahmedabad, Kaira and Broach, and the average level was not reached until the rains of 1901. After the rains ceased mortality began to rise again. Even in ordinary times October and November are fever months in Gujarát, but in 1901 the prevailing type of fever, in virulency second only to that of 1900, commenced earlier and continued much longer than usual, and was mainly responsible for the increased mortality from September 1901 to February or March 1902, after which the death-rates were nowhere much, if at all, in excess of the normal. In the Deccan and Karnátak the increase in mortality in 1900 was not so marked as in Gujarát, rising to four times the normal in one district (Khándesh) only and in others never exceeding two or three times the normal. Neither did it vary materially from the normal after the end of 1900, and often in many districts was even much below it, notably in the severely affected districts of Ahmednagar, Sholápur and Bijápur. Only in the districts of Poona, Sátára and Belgaum was the balance disturbed by the prevalence of bubonic plague, which for varying periods between January 1901 and March 1902 considerably affected the death-rate particularly in the last two districts.

Rise and decline of mortality.

178. As already stated, the period of excessive mortality was generally embraced within the twelve months of the year 1900. The subsequent figures call for no additional comment, and this review of the chief causes of mortality deals especially with the features of that year. In Appendix 62 will be found separate statements exhibiting for each month the recorded death-rates *per mille* (1) from all causes exclusive of plague, (2) from cholera, (3) from small-pox, (4) from fever, (5) from dysentery and diarrhoea, (6) from plague, as compared in each case with the average of ten years ending 1896. The subjoined table gives a summary of the same information for the whole year 1900.

Causes of high mortality.

District.	CHOLERA.		SMALL-POX.		FEVERS.		DYSENTERY AND DIARRHOEA.		OTHER CAUSES EXCEPT PLAGUE.		ALL CAUSES EXCEPT PLAGUE.		PLAGUE.	
	1900.	Average.	1900.	Average.	1900.	Average.	1900.	Average.	1900.	Average.	1900.	Average.	1900.	Average.
Ahmedabad ...	13.53	0.93	0.10	0.06	111.27	29.88	14.69	0.78	33.92	4.04	173.30	35.69	0.04	...
Kaira ...	14.23	0.89	0.08	0.05	47.92	27.74	29.53	0.52	62.53	5.31	143.40	24.21	0.03	...
Panoh Mahals ...	18.41	0.61	0.47	0.13	167.77	21.32	64.13	0.13	30.21	0.01	281.02	23.63	...	...
Broach ...	15.91	1.78	0.00	0.14	89.30	32.94	15.86	0.48	40.89	4.27	161.96	39.56	...	...
Surat ...	10.59	2.03	0.09	0.17	39.90	25.22	4.47	1.29	24.46	3.79	73.43	32.50	0.45	...
Tháns ...	22.64	1.46	1.27	0.27	26.86	18.99	4.73	1.26	13.85	3.93	69.25	25.91	2.37	...
Khandesh ...	13.84	1.42	0.95	0.50	40.46	24.50	26.06	3.76	14.92	1.74	95.23	31.92	...	...
Násik ...	11.43	1.50	0.21	0.35	25.88	24.63	15.19	3.89	22.05	4.45	74.76	34.72	1.86	...
Ahmednagar ...	6.93	2.07	0.13	0.09	16.90	22.39	27.28	3.73	14.83	5.97	66.04	33.24	0.17	...
Poona ...	7.27	2.19	0.51	0.20	16.93	19.47	12.13	1.84	9.08	4.90	45.95	28.50	4.30	...
Sholápur ...	7.42	2.12	0.09	0.10	17.23	21.86	22.13	2.31	6.58	4.77	53.43	30.96	1.17	...
Bátáns ...	9.69	2.11	0.10	0.08	7.51	21.97	8.56	2.16	15.29	3.95	41.15	29.95	0.34	...
Bijápur ...	2.40	2.48	0.19	0.16	7.66	15.85	5.87	3.03	15.55	4.73	31.97	26.20	0.23	...
Belgaum ...	4.51	1.61	0.16	0.13	4.66	14.02	6.99	5.23	22.71	6.63	29.03	27.61	4.39	...
Thar and Párkar ...	11.17	0.83	0.01	0.03	43.31	14.10	0.36	0.07	1.06	0.16	55.91	14.76	...	...
Total ...	10.80	1.63	0.34	0.16	35.33	22.20	15.72	2.32	21.15	3.39	83.55	29.73	1.20	...

NOTE.—The average is of the ten years ending 1899.

In considering the marked effect of these diseases upon general mortality it is necessary to bear in mind how far the characteristics of the affected population and other indirect causes contributed to their prevalence and assisted to swell the death-rate. Deadly forms of fever have generally appeared as concomitants to severe and widespread famine. The Ahmedabad Gazetteer mentions that in 1718 and 1770, both years of famine, great numbers died of sickness, whilst in the latter year "on account of the unwholesomeness of the atmosphere, thousands of people died of fevers in two or three days so that no one could be found to bury them." Fearful disease is said to have accompanied the 1790 famine, and again in 1811 and 1812 the effects of severe scarcity in Gujarát were aggravated by the appearance of a bubonic type of plague. There is no doubt that the year 1900 also was exceptionally unhealthy, especially in Gujarát, probably owing partly to widespread pollution of the atmosphere and partly to the variation in climatic conditions and impurity of the diminished water supply. The very high mortality in that province was by no means confined to the agricultural population or to the poorer classes, but was noticeable alike in large towns and amongst the well-to-do. In the Mahipatrám Ruprám Orphanage at Ahmedabad there were eight hundred children all well fed and in apparently good health; but during the first twenty days of May 1900 one hundred and fifty died of influenza or some similar complaint. After making every allowance for immigration and for the privation caused by high prices, it seems extraordinary that the town population should have been affected to the same extent as the agricultural classes, since the former were not deprived of the sources of their livelihood. In Ahmedabad city and in other large towns all classes seemed unusually liable to ill-health and a very malignant type of fever was remarkably prevalent and amongst the well fed and well housed employés of the Salt Department there was a quite exceptional amount of sickness and mortality.

179. The chief cause, however, of the extraordinary excess of mortality in Gujarát as compared with the slight increase in the Deccan is to be found in the fact that there was in the former province a complete and sudden disruption of the methods and customs of every day life. The peasant of the Deccan had learnt to expect famine and knew how to meet it. But famine was outside the sphere of the Gujaráti's calculations and when it came suddenly upon him,

his resistance was almost entirely passive; and many of the lower classes rapidly drifted into a spirit of helplessness which could not face the tests of State relief. The descent from the easy well fed life of the Gujaráti in normal times to the discipline of relief works and famine diet involved a moral and physical shock which he could ill withstand. The Broach district furnishes a striking illustration of the correctness of this view; for in spite of the fact that over 20 per cent. of the population of the district—a proportion believed to be unprecedented in the early stages of any famine—were on relief works before the end of December 1899, the mortality in this district was the highest in the Presidency till the end of January. That the works in Broach district were at this time unusually attractive there can for the reasons given in paragraph 60 above be no doubt: the people came on relief in good time and earned good wages, and the inference is no doubt correct that “just as the standard of living in the Broach district was higher than anywhere else owing to the value of its cotton crop and contingent industries, so was the shock of descending to famine life and diet greater, and hence the greater mortality in spite of, partly perhaps because of, the fact that a large number of the people were sturdy Borahs and the like.*” The Hon’ble Mr. Lely, Commissioner, Northern Division, who has had an unequalled experience of the people and the conditions of life in Gujarát, has thus summed up the causes of the sudden collapse in that province:—

“Much of the mortality could not have been prevented by any measures within the range of practical possibility. To begin with, this generation of Gujarátis had never seen or heard of famine except through vague traditions of 1818. They did not realize that it was possible, and when it came they did not know what to do. It dazed them. When the Deccanis would have girded up their loins and gone to settle upon the relief works, many of them went on for a few days and off again, or they tried to live on roots or by gathering leaves and sticks, looking with doubt and suspicion on the offers of Government.

“Secondly, for many years past the labouring classes have been getting good wages, which they spent on good food—on nutritious home-grown grain and dál, vegetables and above all daily milk or whey, not without sweetmeats, liquor, tobacco or whatever little luxury they favoured. Compared with the Deccani and his bread and onion even the Bhil of the Panch Maháls lived in luxury. It is well known that the native of India is upset by strange food even when it is plentiful and wholesome. When it is limited and inferior the sudden change to it is a shock under which the weaker constitutions cannot bear up. The Gujarátis were now put on a diet of Burma rice, which they were too listless to cleanse of the lime with which it was mixed and to thoroughly cook, less sustaining than their home-grown jowár, bájri and wheat, less in quantity and with little or no dál, no vegetables and no milk. Besides this the Gujaráti is a soft man, unused to privation, accustomed to earn his good food easily. In the hot weather he seldom worked at all and at no time did he form the habit of continuous labour. Large classes are believed by close observers to be constitutionally incapable of it. Very many even among the poorest had never taken a tool in hand in their lives. They lived by watching cattle and crops, by sitting in the fields to weed, by picking cotton, grain and fruit, and, as Mr. Gibb says, by pilfering. These were the men who were suddenly confronted by famine, who were called on to go to the works and for the first time in their lives to do regular though not hard work day after day upon poor and unaccustomed food. Many—the strongest—went and stayed. Some went and returned, some refused to go at all. In every case they died. One intelligent Mámlatdár in the Ahmedabad district wrote that they seemed to die of ‘nervous strain’ under the novel experience of steady work in strange surroundings. Mr. Quin in Kaira speaks of ‘the constitutional inability of the Dharála to bear the strain of prolonged work.’ In Broach district where the works were closer together and the numbers on relief more numerous than in the other districts, the mortality was equally great. However it may be, diarrhoea and dysentery were rife both on and off the works from the beginning. There is conclusive evidence that besides the mortality that actually occurred on the works a large part of that which occurred in the villages was among those who had returned ill from the works. The instinct of the average Gujaráti when he got too ill to work was to avoid the hospital and flee back to his home. Special inquiries made in 93 villages selected haphazard showed that out of 3,825 deaths 1,900 were of those who had returned sick from the works.

“In addition to cholera, the fatal results of which may be attributed to famine aggravated as above described, a terrible mortality from fever and kindred diseases set in towards the end of the monsoon of 1900. The Political Superintendent of Pálanpur, where no remedial measures were undertaken, refers to it in the following terms: ‘A most virulent form of fever raged all over the district. The epidemic was unprecedented. In my

whole experience of a quarter of a century in Gujarát I have never seen or heard of the like of it. It attacked all classes and was by no means confined to people who had been on the relief works, on the contrary the mortality from it was very great among people who certainly could never have been in any want. These words also apply to British territory and go far to account for the mortality of the year. A noteworthy point is that it was not the direct result of famine but rather of general climatic or other influences. This seems to be proved by the fact that the classes suffered most who were never touched by want—the well-to-do townspeople, servants of European officers, and even Europeans themselves.”

Amongst the poorer classes and especially amongst the backward tribes there was an almost incredible tendency to clamour for work at their doors and remain hungry rather than walk a few miles to a relief work. Such people had learnt to rely on jungle products, on mhowra, toddy and the like as a means of passing not altogether comfortably but lazily and unrestrainedly through the hot weather months. They clung to familiar haunts and habits, content to half-starve themselves upon a disease-breeding diet of fruit, leaves, roots, bark and offal rather than seek relief from the State. For a time the flesh of cattle which were slaughtered or died kept many in good condition; but the majority had ruined their digestions and increased their natural incapacity for steady labour before they reached the relief works. It was not more food or better wages that were generally required at this stage, but different and more suitable diet which was not procurable. In these circumstances many fell easy victims to the diseases to which weakened and disordered constitutions are invariably prone. The extreme cold of the winter months tended to aggravate distress and ill health, and subsequent exposure to the heat on relief works could not but have an equally fatal effect when superadded to privation. Another cause affecting public health injuriously throughout the Presidency was the lack of good drinking water: owing to general scarcity of water and in spite of efforts to protect and improve the existing supply, recourse was had to filthy and polluted sources. In Gujarát and Khándesh the Kolis, Dharálas and Bhils had to be saved in spite of themselves and did all in their power not to defeat but to nullify the measures attempted for their relief. When safely lodged in poor-houses they would break out or dig a passage out: when given clothing on relief works, they would desert the work to sell it and reappear naked in the streets to beg. The wandering instinct was a very marked feature of the distress, especially in Ahmedabad, Kaira and Panch Maháls: people drifted from place to place refusing to go to works or to poor-houses, and unless sooner discovered or rescued they eventually died in the vicinity of some town or village where their arrival was not known until their corpses were discovered. Another peculiarity of the backward classes throughout the Presidency was the tendency of such as fell ill on the works to return to their villages with the inevitable result of an addition to the death roll, though every effort was made either to retain them for medical treatment even in their huts on the relief work, or by close inspection of houses to grant them the dole upon return to their homes.

180. The very extensive immigration into Gujarát and the Deccan from surrounding Native States has been dealt with in a previous section and it was stated that the condition of immigrants was almost invariably extremely bad. In the Panch Maháls, Kaira, Ahmedabad, Khándesh, Ahmednagar and Sholápur immigration was a constant menace to public health in the larger towns, and had a very marked influence upon the statistics of local mortality. In Thána district though it was not severely affected by famine the high mortality was largely due to an invasion of immigrant destitute wanderers from Gujarát and Káthiawár moving to and from Bombay city. The Deputy Sanitary Commissioner attributes one-third of the total mortality in Gujarát in 1900 to immigration from Native States, and the Collector of Broach gives the same estimate for his district. Especially in large towns were the death-rates swelled by mortality amongst immigrant paupers: a fairly accurate calculation showed that in Ahmedabad city alone deaths of immigrant paupers during the six months ending November 1900 amounted to 3,757, and since they were registered as occurring among strangers only after careful inquiries failed to elicit any connexion of the deceased with the city, there is good ground for believing this estimate to be not above the mark.

As regards the Deccan, the Commissioner, Central Division, reported concerning the district of Khándesh that "immigration was an important factor in the mortality of the district, which is adjacent to Native States where the Bhils were suffering terribly," a statement borne out by the sub-joined table which summarizes the results of an inquiry made by the Deputy Sanitary Commissioner, Western Registration District, into the causes of excessive mortality in the Taloda táluka of Khándesh, in the year 1900 :—

Month.	Total number of deaths in Town exclusive of those in the poor-house.	Rate per mille of Town population.	NUMBER OF DEATHS AMONG		Death rate per mille among local people.	PERCENTAGE OF		Daily average numbers on gratuitous relief by dry dola.	Daily average numbers in poor-house (opened on 27th March 1900).	Number of deaths in poor-house.	Death rate per mille on poor-house population.
			Unknown wanderers.	Local people.		Column 4 on column 2.	Column 5 on column 3.				
1	2	3	4	5	6	7	8	9	10	11	12
1900.											
January ...	131	16·4	102	29	3·6	73	23	370	...	...	...
February ...	486	23·3	160	26	3·2	86	14	186	...	...	...
March ...	468	58·5	343	130	15·0	74	25	665	...	...	...
April ...	112	14·0	51	61	7·5	45	54	...	818	287	338.
May ...	74	9·3	37	37	4·6	50	50	...	1,076	242	225
June ...	75	9·5	42	33	4·1	56	44	...	1,186	371	222
First half-year ...	1,046	131·0	740	306	38·0	71	20	...	...	...	...
July ...	88	4·8	1	37	4·8	8	97	...	1,255	419	334
August ...	81	3·9	...	31	3·9	...	100	...	1,309	487	310
September ...	21	2·7	...	21	2·7	...	100	...	918	228	250
October ...	35	3·1	...	25	3·1	...	100	...	569	148	260
November ...	20	2·5	...	20	2·5	...	100	...	866	56	167
December ...	16	2·0	...	16	2·0	...	100	...	126	...	...
Second half-year ...	151	19·0	1	150	19·0	0·7	90	...	...	...	...
Whole year.	1,197	150	741	456	57·0	62	88	...	...	...	...

Note.—Cholera prevailed in March and April. From the date of the opening of the poor-house, all dola recipients except a few *pardanishin* women and respectable poor people were sent to the poor house.

In Ahmednagar and Sholápur districts also a large proportion of deaths is attributed to an influx of terribly emaciated immigrants from Hyderabad (Deccan) territory as described in the reports appended to Section V. The Sanitary Commissioner also notes that in the Thar and Párkar, Kaira and Panch Maháls districts which are stated to be most affected by immigration, the excess in the mortality amongst males was most marked, and suggests that this disproportion between the two sexes may perhaps be due to the influx of male immigrants.

181. The causes of excessive mortality have been dealt with by the Sanitary Commissioner, and his review together with the opinion of the Surgeon General and a *précis* of a report by the Deputy Sanitary Commissioner, Gujarát Registration District, on the high death-rate in Ahmedabad city will be found in Appendix 63.

182. The high mortality in Thar and Párkar is thus explained by the Deputy Commissioner of the district :—

The high mortality in Sind.

"The autumn and winter of 1899-1900 were abnormally unhealthy all over Sind, and especially so in the Desert. Fever, dysentery and diarrhoea were prevalent, and in January and February, when the cold was exceptionally severe, pneumonia proved very fatal. The prevalence of fever was no doubt chiefly due to the changed climatic conditions. There had been no rain for over two years, and the water in the deep Desert wells had become inconceivably brackish and unwholesome. No doubt, bad water also partially accounted for the amount of dysentery and diarrhoea, but the chief cause of these was the unsuitability of the people's diet. The Desert people in ordinary times live largely on milk, butter and curds, which is a cooling diet. But during the famine the only food available was *bájrí* bread and red chillies, and this proved a most heating and irritating diet. As dysentery and diarrhoea caused the majority of the excess deaths, the cause of the high mortality during the famine was clearly the unsuitability, not the insufficiency, of the people's diet. I made the high death-rate the subject of constant inquiry, and found that the urban

population, the well-to-do Hindu castes, the Kirars, Bráhmans and Banias, suffered far more than the rural population, that is, the Rájputs and Muhamadans. In the light of the foregoing remarks on the change of diet, this was just what was to be expected. Indeed, the death-rate among the rural population was not strikingly above the normal. The following examples of the high mortality among the well-to-do traders will bear out what I say. In the town of Chachro, the population of which according to the census of 1891 was 1,700, during the months of December 1899 to March 1900 there were 159 deaths among Bráhmans and Kirars alone. And it was the same in all the Desert towns."

Rural travelling dispensaries.

183. Reference has been made above to the terrible mortality from malarial fever that set in towards the end of the monsoon of 1900 in Gujarát. This was anticipated by a scheme conceived by the Commissioner, Northern Division, and orders were given in August 1900 for the prompt supply of simple medicines to be distributed in villages by a widespread agency, both of professional men and laymen, according to a clear set of instructions drawn up by the Sanitary Commissioner. The staff of distributors in the four northern Gujarát districts numbered about 500 altogether. They comprised medical subordinates, Revenue officials, famine officers, vaccinators, village officers, mission agents and other private volunteers. The total amount of medicines supplied at the cost of Government comprised 3,317,600 pills. Of these 2,249,000 were of quinine and were all dispensed. The remainder were for cough, cholera, diarrhoea and dysentery, and some remained unused. These doses were in addition to large quantities of quinine given out from famine hospital stores. The prevailing diseases were dysentery and diarrhoea during August, September and part of October, when they were quite suddenly succeeded by fever. There is good reason to believe that the distribution of quinine in particular had excellent effects, for it is at least certain that the maladies prevailing declined rapidly in November and December. These special measures were greatly appreciated by the people and operations were carried on until December 31st, 1900.

Inquiries concerning famine or relapsing fever.

184. When early in March 1900 the high death-rate in the Gujarát districts attracted the attention of Government, both the Divisional Commissioner and the Sanitary Commissioner were requested to inquire minutely into the causes of it. The Sanitary Commissioner was also asked to report any indication of famine fever and on his recommendation that bacteriological investigation should be made, Captain G. Lamb, I. M. S., was deputed for the purpose, and conducted in Broach, Kaira and the Panch Maháls districts investigations consisting of the examination of patients, and collection of microscopic specimens for transmission to the Plague Research Laboratory in Bombay. On Captain Lamb's return the work was continued in Ahmedabad district by the Deputy Sanitary Commissioner, Gujarát. Inquiries were conducted between the 31st May and the 5th June 1900 in Broach, between the 7th and 13th June in Kaira, and between the 15th and 19th June in the Panch Maháls. Of poor-houses, those at Broach (one Government and the other private), Anklesvar, Jambusar and A'mod in the Broach district, at Mehmedabad, Mátar, A'nand and Nadiád in the Kaira district, and at Godhra and Dohad in the Panch Maháls district, and of relief camps, Matária (Broach Reservoir) and Sisodra tanks in Broach district and Wansar and Dákor tanks in Kaira district were visited. The total population under observation in the three districts together was 47,102: among these 249 cases of fever were detected and their blood was microscopically examined. The patients comprised an almost equal number of males and females, the majority of them being under 40 years of age. In none of these cases were the spirilla characteristic of famine or relapsing fever detected. No such spirilla were found also in the eighty-seven cases sent by Major Dyson, I. M. S., from Ahmedabad and Viramgám, or in the six cases submitted by Dr. Winter from the Dákor relief camp in Kaira.

Examination of water-supply and food-stuffs.

185. Captain Lamb was further directed in consultation with Professor Haffkine to collect in the course of his investigations concerning relapsing fever samples of water from the places visited by him and to forward them to the Laboratory in Bombay for inquiry as to the presence of cholera microbes. Thirty-three samples of water were accordingly collected between the 31st May and 19th June 1900 from fourteen localities of the Gujarát famine districts and sent to Bombay for examination, which showed that there was a marked correspondence between the prevalence of cholera and the presence of curved bacilli

in the water supply. With the object of ascertaining the extent to which impure water and imported food-grains contributed to the excess mortality in Gujarát districts and in Sholápur the Sanitary Commissioner in July 1900 arranged to send to the Chemical Analyser to Government for examination some samples of both from relief camps and poor-houses in those districts. The result of the analysis was to show that out of 23 samples analysed, the water was found in 18 cases to be unfit for drinking purposes. In the case of food-stuffs, however, nothing was detected which could render the articles unfit for human consumption from a chemical point of view. The Sanitary Commissioner has remarked that water taken from rivers and surface wells might in the best of times be found unfit for potable purposes from a chemical point of view, and that he could not find any positive evidence to connect the high mortality with water supply. The Surgeon General, however, is disposed to attach somewhat more importance to the bad quality and deficient quantity of the water supply, and it may safely be inferred—as remarked by the Sanitary Commissioner—that the results of analysis indicated “vegetable and sewage contamination in the specimens of water sent and that these waters were all sufficient to account for excess mortality in a population in which resistance was much reduced on account of defective nourishment dependent on conditions of scarcity.”

186. It has been already shown under the section dealing with Public Works that there was no paucity of relief works in the affected districts, that wages on works and the rations in kitchens and poor-houses and the village dole were quite sufficient for the purposes for which they were intended. In Gujarát, where the mortality was highest, the bulk of the workers in Ahmedabad and Broach earned the maximum wage and practically no one earned less than the Code minimum. The average payments in these districts were the highest in the Presidency. The conditions in Kaira were slightly stricter, but there the mortality was on the whole less. The systems of work followed in the Panch Maháls have been described in Section VI-B (1) above. After the Code scale was introduced in that district the Bhils who were exempted from the penal wage were almost all content with the Code minimum, and those who remained on the works thrive on it. The statement in Appendix 64 shows the percentage proportion to affected population of the numbers on relief of all kinds and on village gratuitous relief and the death-rates *per mille* (exclusive of plague) in the affected districts during the several months of 1900. In Gujarát even when gratuitous village relief was given on a lavish scale the mortality was not materially checked. The month of May may be excluded as the deaths from cholera in that month were excessive. A material increase in gratuitous relief was begun in June, when the mortality was in all districts except one (Kaira) greater or not less than in April. Most liberal gratuitous relief was given in July, when the mortality in all districts except Surat was still higher than in June. Unprecedented gratuitous relief was given in the Panch Maháls and Broach in August with some decline in the mortality, which, however, was still exceedingly high. In Ahmedabad and Kaira districts a material increase in relief was accompanied by no decline in the death-rate. In subsequent months also no connexion can be traced between the extent of gratuitous relief and of mortality. In Kaira district, where gratuitous relief was kept within comparatively moderate bounds, the mortality was on the whole less than in Broach district, where this form of relief attained enormous dimensions. It was ascertained that in Kaira district in July 1900 the two *tálukas* which had the largest proportion of their population on gratuitous relief came fourth and third among the several *tálukas* in the mortality list, while in August they came last but one among the number. Surat, which was only lightly and partially affected with famine, returned a death-rate of nearly 80 *per mille* for the entire year, while notwithstanding much immigration from Hyderabad (Deccan) territory, Ahmednagar and Sholápur which were the worst affected districts in the Deccan showed only about 66 and 53 *per mille* respectively. It may be conceded that a certain amount of mortality would have been avoided by widespread gratuitous relief from the beginning so as to keep in good health able-bodied people without resources who refused to go to works. But the adoption of that course would have involved the abolition of all test, for there is no other test except work for a subsistence wage by which the able-bodied who are in need of relief can be distinguished from those who are not. The result would have been to pauperize the whole community except the notoriously well-to-do, for there are virtually no others who would have declined free gifts of money or

Effects of relief system on mortality.

grain, and the cost would have been such as no country would bear or should be called on to bear. There was no practical alternative between that course and the application of the conditions of the Famine Relief Code, which was carried out. For reasons which have been explained the village dole was at first given on a very small scale in the Panch Maháls, but it is not the case that the application of the conditions was on the whole stricter in Gujarát than in the Deccan even in the earliest stages of the famine. The proportion of the total population who are entitled to gratuitous relief under these conditions is nowhere large, and the proportion actually in receipt of gratuitous relief was from the beginning on the whole as high in Gujarát as in the Deccan. If therefore it is admitted that gratuitous relief should be granted only to people of the classes specified in the Code, there is no ground for the view that part of the excessive mortality in Gujarát can be fairly attributed to undue restrictions of gratuitous relief in the early stages of the famine.

Mortality on relief works and in poor-houses.

187. In Appendix 65 is shown the mortality on relief works and in poor-houses (including the hospitals attached to them) (1) month by month in the affected districts for the year 1900; (2) for the period from January to October 1901; (3) for the 12 months ending October 1902. The mortality in 1901 and 1902 was slight and calls for no comment. The foregoing remarks concerning general mortality apply with greater force to mortality on relief works. The people attending these works are generally of the poorer and lower classes, which if taken by themselves are subject to a comparatively higher death-rate anywhere and at any time, and it might be expected that in spite of all sanitary measures the mortality on relief works would be higher than in the districts. Excepting, however, the months when cholera was present in an epidemic form the death-rates on relief works were generally below the district death-rates. In other months where they appear to be largely in excess, the result is in most cases due to the fact that on individual works the number relieved was small. In almost all such cases the actual number of deaths was not high. As already observed the evidence is unanimous that the wages earned were generally sufficient to maintain the health and strength of workers. The following table shows the average wage earned on relief works in 1899-1900 and the average wage of a male adult unit:—

District	Percentage proportion among relief workers of			Average wage per worker unit.	Number of male adult units equivalent to 100 worker units.	Wage per male adult unit.	Average wage basis.	Grain wage per male adult unit.	Death-rate per mille in 1900.						
	Men.	Women.	Children.												
				As.	p.	As.	p.	Lbs. to the rupee	Chataks.						
Ahmedabad...	40	43	17	1	8	80	2	0	19	173					
Kaira ...	38	46	16	}	1	80	}	1	9	18	16	}	148		
Paoh Maháls ...	41	44	15											81	162
Broach ...	40	45	15											81	79
Surat ...	47	43	10	1	8	85	2	0	18	69					
Thána ...	37	46	17	1	5	79	1	9	16	14	69				
Khándesh ...	31	43	26	1	3	76	1	9	18	16	96				
Násik ...	35	50	15	1	7	79	2	0	19	19	75				
Ahmednagar ...	33	49	18	1	6	79	2	0	17	17	66				
Poona ...	33	47	20	1	5	78	1	9	18	16	46				
Sholápur ...	38	45	22	1	4	78	1	9	19	17	53				
Sátára ...	36	45	19	1	2	79	1	6	18	14	41				
Bijápur ...	32	46	22	1	5	77	1	9	20	18	32				
Belgaum ...	34	44	22	1	3	78	1	6	20	18	39				
Thar and Párkar ...	43	38	24	1	7	80	2	0	17	17	56				
Total ...	35	45	20	1	6	79	2	0	18	18	83				

Note.—As the maximum wages for men, women and children are approximately in the proportion of 4:3:2, in converting female and children units into adult male units 4 women have been taken to be equal to 3 men, and 3 children to be equal to 1 man.

It will be seen that except in Thána and Sátára districts the grain equivalent of the average wage earned by a male adult was nowhere below 16 chataks. In Thána for some months a large proportion of the workers were famine immigrants from Gujarát and Káthiawár who were averse to work of any kind, and chiefly

on this account the average male did not earn more than 14 chataks. In Sítára, which was not one of the most severely affected districts, the piece-work system was in force for almost the entire period and it is noteworthy that in spite of the comparatively low wage earned, the mortality both on works and in the district was lower than in any other Deccan district. In poor-houses in Gujarát and Khándaish the mortality was high, as was to be expected, owing to the bulk of the inmates being destitute wanderers arriving almost in a moribund condition. In and around large towns these wanderers had to be picked up and conveyed to poor-houses in carts or stretchers owing to their inability to walk. The Collectors in Gujarát did their utmost to obtain sufficient establishment to ensure that people should be picked up before they reached the last stage of exhaustion, but the number of wanderers was too large for any available establishment to cope with successfully. The need of employing an adequate number of intelligent men—preferentially Europeans—for this purpose was strongly represented to the Collector of Ahmedabad in particular, and in that district special stretcher or ekka* parties were established on a systematic footing at the larger towns and at some villages and works. For the neighbourhood of Ahmedabad city in addition to special Police arrangements two private Committees maintained 18 stretcher parties from the commencement of the year up to the end of August 1900, after which date they were merged in the Municipal system. The Municipality maintained 16 ekkas and stretcher parties were also sent from the central poor-house. All the roads contiguous to the city were systematically searched by this means, a specified area being allotted to separate parties. Similar arrangements on a small scale were in force at Viramgám, Dholka and Dholera in the Ahmedabad district, and in some places in the Panch Maháls and Broach districts. Special diet and treatment were provided for all people thus rescued, but owing to the advanced stage of emaciation or exhaustion in which they were generally found all efforts to save them proved in most cases fruitless. On this subject the Civil Surgeon in charge of Dhuliákot poor-house remarks:—

“The most skilful medical aid, nursing and food are of little avail in extreme cases of famine; the digestive organs are in these cases so deranged by starvation and irritated by the use of unsuitable food that they have lost the power of assimilating any food and they die from sheer inanition or from uncontrollable diarrhœa.”

The following table shows the number of deaths from different causes on relief works and in poor-houses (including the hospitals attached to them) in each affected district during the year 1900, and the total numbers in 1901 and 1902 up to the end of October:—

District.	1900.					Deaths on relief works and in poor-houses from all causes.	
	Deaths on relief works and in poor-houses from					January to October 1901.	November 1901 to October 1902.
	Cholera.	Dysentery and Diarrhœa.	Fever.	Other causes.	All causes.		
Ahmedabad	3,200	10,123	2,732	5,513	21,568	897	2,570
Kaira	2,998	8,609	1,949	1,878	15,434	4	110
Panch Maháls	946	10,801	4,161	4,780	20,688	115	243
Broach	1,802	3,924	1,265	1,190	8,181	1	...
Surat	331	717	133	182	1,363	...	...
Thána	134	95	37	56	322	...	...
Khándaish	1,331	5,177	1,968	4,279	12,755	63	...
Násik	1,078	1,374	424	1,795	4,668	82	...
Ahmednagar	1,031	3,792	429	2,598	7,850	1,025	84
Poona	401	729	182	560	1,872	514	...
Sholápur	1,413	4,069	956	2,562	9,000	2,082	133
Sátára	260	369	40	234	903	101	...
Bijápur	89	40	8	328	465	745	260
Belgaum	12	10	...	3	25	109	4
Total	15,021	49,829	14,284	25,958	105,032	5,739	3,404

* Carts for single bullock.

Owing probably to the existence on the spot of medical officers, the largest number of deaths on relief-works and in poor-houses is recorded as being due to dysentery and diarrhoea and not as in the case of district figures to fever.

Deaths from starvation.

188. In the statement in Appendix 66 is shown the number of deaths from starvation reported from September 1899 to October 1901. Deaths reported in the first instance as due to starvation but subsequently found to have been due to other causes have been excluded. In all 5,732 deaths from starvation were reported between September 1899 and October 1902. Of these, 5,151 or 90 per cent. were returned from the Ahmedabad district alone, 279 cases were reported from the Panch Mahals, 96 from Broach, 84 from Surat, 50 from Poona, 27 from Khándesh, 23 from Kaira and 22 from other affected districts. Of the 5,151 cases in the Ahmedabad district 4,955 were from Ahmedabad city and 47 from Viramgám town. Other towns from which such cases were reported were Kaira 2, Nadiád and Kapadvanj 3 each, Borsad and Anand 1 each, Godhra 122, Jhálod 3, Hálol and Dohad 1 each, Broach 38 and Poona 43. In almost all these cases and in 49 of the cases reported from other places or in 92 per cent. out of a total of 5,732 cases, the deceased were stated to be destitute wanderers or immigrants. Even in ordinary times Ahmedabad is a focus for the destitute from a wide extent of country and vagrants are attracted thither in large numbers by indiscriminate charity. In the famine year this nuisance was much increased, and the bulk of such persons reached the city or its suburbs in the last stage of exhaustion, and no effort could prevent many from dying by the wayside or soon after they were picked up. Those that arrived in a less debilitated condition and were able to walk could not, even with pressure, be made to reside in poor-houses where special diet and treatment were always available, and finally forcible measures were authorized out of absolute necessity. It was amongst such people that starvation deaths were reported to have occurred in Ahmedabad city. But the chief reason for the very large number of such deaths returned from Ahmedabad is that the Health Officer of the Municipality included in this category all "deaths from exposure and from disease supervening on exposure and privation." The Health Officer's opinion that such deaths were due to starvation is stated to have been given from external inspection, and as in most cases these persons were found dead and deserted the antecedent circumstances of the deceased were almost invariably unknown. It is very difficult to discriminate between deaths to which privation is a contributing cause and deaths due to actual starvation, and although this question was discussed at an early stage of the famine no instructions regarding it were issued. Some medical officers give to the term "starvation" a much wider meaning than has been usual. It was impossible to prevent deaths from want of food amongst people who wandered from their homes and not only did not seek Government assistance but persistently refused to avail themselves of it until emaciation had set in, and the meals which village officers were under orders to give to those unable to go to a poor-house probably in many cases accelerated the end. Government throughout insisted on the view that since starvation is not a rapid process people remaining at their homes in British villages could not die from want of food without negligence on the part of village officers and of some at least of the inspecting officers. Wherever there was any allegation of such deaths among residents special inquiry was ordered, but except in a few cases the allegations were not substantiated. All reported cases of starvation were not, and could not, be medically examined. In the majority of cases reported from rural circles inquests were held by a Panch often composed of illiterate or ignorant persons, who on mere external inspection pronounced a verdict of death "caused by starvation" or "which might have been caused by starvation." In some cases "starvation" was reported for the reason that the surviving relations of the deceased on being questioned chose to give it as the cause of death. There were cases similarly reported of very young infants physically incapable of assimilating any food other than milk and also of persons who on account of some ailment of the throat or other organ could not take any food. While it is not to be concluded that there have been no deaths from actual starvation of inhabitants of British villages there is reason to suppose that such cases were of rare occurrence.

Decrease in population since 1891.

189. The population of this Presidency according to the recent census of 1901 shows a decrease of $1\frac{1}{2}$ millions in the past decade. The Superintendent of Census Operations attributes this decrease to four chief causes, *viz.*, emigration, plague, decrease in birth-rate and famine.

190. The decrease is marked in all the affected districts of the Presidency proper, and it is especially large in the Gujarát districts as compared with other districts, as will be seen from the following figures:—

Its connexion with the recent famine

			Decrease per cent.				Decrease per cent.
Ahmedabad	...	...	13.73	Násik	...	...	2.84
Kaira	...	...	17.88	Ahmednagar	...	...	5.73
Panch Maháls	...	...	16.44	Poona	...	...	6.31
Broach	...	...	14.69	Sholápur	...	...	3.95
Surat	...	...	2.05	Sátára	...	...	6.43
Thána	...	...	1.24	Bijápur...	...	...	7.69
Khándesh	...	...	2.29	Belgaum	...	...	1.88

Emigration on a somewhat large scale of people in search of field work about the time of the Census partly accounts for the decrease in Bijápur. There was similar emigration at the same time from Sholápur and Ahmednagar, but it is interesting to note that both these districts, which were very severely affected and returned millennial death-rates of over 53 and 66 in the year 1900, show a decrease in population of 3.95 and 5.73 per cent., while Sátára, which was only lightly affected and returned a death-rate of 41.15 *per mille*, shows a larger decrease (6.43 per cent.) in population. Excluding the decrease due to plague from its commencement, the percentage decrease still amounts to 4.35 in Sátára against 3.09 in Sholápur and 5.34 in Ahmednagar. A large proportion of the decrease in Poona must also be ascribed to plague. In regard to the Gujarát districts the Commissioner, Northern Division, believes that one important cause of the decrease in population is the decline in recent years in births. This decline, he states, began before the famine year and is ascribed to the diminished vitality of the people owing to poor harvests and general depression. He adds that "from observation he is able to say that childlessness is very common among the higher agricultural castes such as Pátidárs and Anávla Bráhmans, and large families are never seen. How far if at all this is made up for by increased fecundity in the lower classes, he is unable to say." Various other causes have no doubt operated in bringing about a reduction in population. Thus certain reports of 1897 regarding relinquishment of lands in the Mátar táluka of the Kaira district showed that the population of that táluka had been decreasing for several years past: the reasons assigned were malarious climate, increasing unproductiveness of the soil and a tendency to abstain from matrimony owing to the increased expenditure involved. The effects of famine are, however, clearly reflected in the statistics for Gujarát. Though want of employment tends to force the rural population to large centres and though large towns in the Deccan and Karnátak have suffered severely from epidemics of plague, the increase in the percentage proportion of urban as distinct from rural population in Gujarát must to a considerable extent be due to excessive mortality in villages owing to famine conditions. The following are the figures:—

District.	1891.	1901.	District.	1891.	1901.	District.	1891.	1901.
Ahmedabad	30	35	Khándesh	18	20	Bijápur	8	10
Kaira	14	18	Násik	12	12	Belgaum	8	8
Panch Maháls	12	17	Ahmednagar	14	11	Dhárwár	22	20
Broach	21	25	Poona	20	22	Kolába	11	10
Surat	24	26	Sholápur	17	21	Ratnágiri	6	7
Thána	11	11	Sátára	9	9	Kánara	12	13

It must, however, be noted that the number of villages in 1901 was 40,694 against 40,303 in 1891, a comparison which leaves no room for the existence of desert tracts and abandoned village sites characteristic of famines in old days. At the same time in severely affected Gujarát districts the number of occupied houses per square mile has decreased to the extent shown in the margin, probably on account of the stress of the recent famine. As regards the decrease of 1½ millions in the population of this Presidency

District.	1891.	1901.
Ahmedabad	56	55
Kaira	130	119
Panch Maháls	40	35
Broach	52	47

during the last decade statistics based on normal rates and already given in this section indicate that recent famine conditions have resulted in a reduction in the population of about 1 million, to which an increase in death-rates contributed about 700,000 and a decrease in birth-rates about 300,000.

VII (3).—CRIME.

Increase in
crime, 1899-
1900.

191. In Appendix 67 the number of offences of all classes committed in each affected district during the twelve months ending October 1900 is compared with the average of the two years 1897-98 and 1898-99. There was a general increase in the number of offences against property. The percentage increase of such offences over the average in each district is shown below :—

District.	Increase per cent.	District.	Increase per cent.	District.	Increase per cent.
Ahmedabad ...	170	Khándesh ...	236	Bijápur... ..	35
Kaira ...	113	Násik ...	66	Belgaum ..	22
Panch Maháls ...	297	Ahmednagar ...	60		
Broach ...	15	Poona ...	44		
Surat ...	172	Sholápur... ..	43		
		Sátára ...	45		
Gujarát ...	130	Deccan ...	122	Karnáta (affected) ...	28

The increase was most marked under the heads "Thefts" and "House-breaking." Cases of dacoity also increased in all districts except Thána, Násik and Sátára, but in Khándesh and Panch Maháls districts alone the increase was noticeably large. As regards the former district, the Commissioner, Central Division, observes as follows :—

"In Khándesh the outbreak of crime was very serious indeed. The increase in dacoities from the average number of 376 to 1,528 presents a picture of the state of the country. Notwithstanding the most strenuous efforts on the part of the police, it was impossible to afford adequate protection to life and property, and the diaries of the police officers are painful reading. The strength of the armed police force was increased by 383 men. It will be recollected that the kharif crops had totally failed and what this means to the hill folk can be imagined. The pinch of hunger soon turned an ordinarily docile people into bands hunting like famished wolves for sustenance. From over the northern border also streamed refugees from a still more sorely stricken tract and this added to the difficulty of coping with the situation."

The Bhils of Northern Gujarát and the Miáns from Káthiawár were responsible for most of the dacoities in the province of Gujarát. In several districts special measures were taken to collect suspected characters and keep them on relief works under organized control. The result of such measures was especially satisfactory in Sholápur, which showed the lowest proportion of increase in the number of offences, although it was one of the most severely affected districts in the Presidency. The Collector of the Panch Maháls notices one special feature of famine crime in that district, which was the readiness of large numbers of the population (Bhils, Naikdas and even Kolis) to steal cattle in order to kill them for the sake of their flesh. This tendency led to more serious crime also as will be seen from the following extract from the report of the Commissioner, Northern Division, on the police administration of his division for 1900 :—

"When anything of value, which could be converted into money to buy food, could be taken, it was taken and force was resorted to if needed. The murders in the Panch Maháls were of the latter kind, the Bhils employing their bows and arrows with murderous effect. Usually a boy or a girl or may be a grown-up person watching cattle was killed in order that the cattle may be appropriated for food and the witness removed. Except in this district crimes of atrocity against the person were fortunately rare."

Grain Riots.

192. In September 1899 there was a series of attempts by large gangs of Bhils to loot grain from shops and private houses in the Jhálod Mahál of the Panch Maháls district and in the adjoining Native State of Sunth in Rewa Kántia. The total damage was estimated at about Rs. 12,000. It was necessary to summon military assistance from Baroda before the Bhils could be completely

dispersed and a few casualties resulted. No grain riots were reported from any other place.

193. The conduct of the people employed on relief works was in the face of severe temptation generally excellent. Only one instance of a disturbance caused by them was reported; it occurred on the Thána Ghodbandar road relief work in the Thána district. A number of beggars from Káthiawár and other parts who had come to Bombay were taken to Thána and employed on that work. These people who were unaccustomed to hard labour were averse to control, and some of them attacked the police and handled them roughly, but the ringleaders were soon arrested and the others thereupon returned to work.

Conduct of people employed on relief works.

194. The numbers of offences committed during the second and third years of famine have not been reported for all districts. Crime diminished considerably during the second year as compared with the first, and in Ahmednagar, Poona and Belgaum districts was even less than the average. In the third year of famine, the number of offences was above the average in Khándesh and Panch Maháls, but in most other districts crime appears to have been reduced to normal limits.

Crime in 1900-02.

VII (4).—LOSS OF CATTLE.

195. In Appendix 68 is given a statement showing the variations in the number of cattle in 1900, 1901 and 1902 as compared with the preceding year. The figures of 1896-97 are also given for the Deccan and Karnátak. The loss in 1899-1900 was greater than in the previous famine, the percentage being nearly 28 against 19 in 1896-97. The actual number lost in 1899-1900 was 1,965,000, viz., 835,000 or 50 per cent. in Gujarát; 912,000 or 27 per cent. in the Deccan; and 70,000 (net) or 4 per cent. in the Karnátak. Thána lost 14,000 or 3 per cent., and Thar and Párkar 134,000 or 51 per cent. Bijápur is the only district from which an increase (15,000) was reported. The mortality was comparatively heavier amongst milch cattle and young stock than among work cattle as the efforts of the people were especially directed towards saving the latter. The percentage proportions of the loss in 1899-1900 of the different classes of cattle to the total of each class, and also to the total loss are shown below:—

Loss of Cattle.

1899-1900.

	PERCENTAGE PROPORTION TO THE TOTAL OF EACH CLASS OF			PERCENTAGE PROPORTION TO TOTAL CATTLE LOST OF		
	Plough cattle lost.	Milch cattle lost.	Young stock lost.	Plough cattle lost.	Milch cattle lost.	Young stock lost.
Gujarát... ..	39	59	52	25	44	81
Deccan	23	30	31	38	35	27
Karnátak	6	6	1	52	41	7
Thána	2	3	7	21	29	50
Thar and Párkar	97	98	66	4	54	42
Total	21	34	29	30	41	29

Even in ordinary years in Ahmedabad the cattle belonging to the Rahabáris (cattle breeders) run down in condition in the hot weather but pick up again with the green fodder in the rains. In 1899 however they were never able to pick up at all, and by October they were dying everywhere, except in Modása, where the small and comparatively hardy breed managed to keep in condition for a long time on leaf fodder. Some of the Rahabáris took their cattle to the Rájpipla hills or other mountain tracts as early as August, but many wandered about in the district with their herds, which gradually deteriorated in condition. The loss was heaviest in the Panch Maháls and contributed more than anything else to the impoverishment of that district. The Naikdas and Bhils became expert at cattle lifting and for the sake of meat enticed animals away from villages to places where they could safely be killed. The high rate of mortality

had not ceased when the census of 1900 was taken, and owing to retardation of the monsoon many newly imported beasts also died with the others. Subsequently when rain came, not a few cattle which had survived the period of drought died through eating too greedily of fresh green herbage. In the four northern Gujarát districts the total loss was no less than 61 per cent. : in the Deccan it varied in different districts in proportion to the extent of the dearth of fodder. It was greatest—47 per cent.—in Khándesh. From the less severely affected district of Násik it was reported in 1900 that milk and clarified butter were practically unobtainable. In Ahmednagar also over 29 per cent. of the cattle succumbed, and the Collector of that district states that the number has fallen very nearly to what it was at the end of the 1876-77 famine. In Poona, Sholápur and Sátára the loss was not so heavy as grass or jowári fodder was obtainable in several places. The mortality was however very high among the cattle sent from the eastern tálukas of Poona to the western forests. In the Karnátak the mortality was not serious and in Bijápur there was an increase of over 15,000 cattle, which is explained to be due to the fact that as the district lost nearly half the number of its cattle in the famine of 1896-97 there were not very many to maintain in 1899-1900 whilst the rabi crops and irrigated gardens yielded sufficient fodder for the reduced stock. In Thar and Párkar the monsoon of 1898 being almost a total failure no grass grew in any part of the Desert and thousands of cattle died of starvation. As a consequence on 1st June 1899 not more than 40 per cent. of the original stock were left, and the total failure of the monsoon for the second time in succession caused a large proportion of this remnant also to be swept away. Those cattle too which had been taken to foreign territory in the preceding year perished there on account of the dearth of fodder. A small proportion of the remaining cattle were driven to the Nára Valley jungles and the Makhi Dhand, but the climate and the rank grass of those tracts did not suit them, and they too nearly all died.

196. Everywhere superfluous or weakly animals were freely sold to butchers or to members of the low castes, who bought them for their skins and for the sake of meat. Appendix 69 contains a note and statement submitted by the Director of Land Records and Agriculture in February 1900 showing the estimated loss of cattle in the four northern Gujarát districts in the five months ending December 1899 as gauged from the exports of hides, skins, bones and horns during that period. The extensive trade in such articles however chiefly benefited not the original owners but middlemen and contractors who made considerable profits.

1900-01.

197. The number of cattle in June 1901 is compared below with the number in June 1900 :—

	Number of cattle in June 1900.	Number of cattle in June 1901.	Increase (+) or decrease (—).	Percentage of increase or decrease.
Gujarát	814,000	828,000	+14,000	+1·80
Deccan	2,481,000	2,388,000	—43,000	• —1·80
Karnátak	1,497,000	1,361,000	—136,000	—9·06
Total	4,742,000	4,577,000	—165,000	—3·50

In all the districts of Gujarát except Kaira and Surat, the stock increased. In Kaira the numbers were almost stationary, but Surat lost about $7\frac{1}{2}$ per cent. The increase in the northern Gujarát districts was mainly in plough cattle, Panch Maháls showing a gain of over 52 per cent. while in Broach, Ahmedabad and Kaira there was an addition of 32, 26 and 18 per cent. respectively. Most of the increase was due to importation with the aid of takávi or charitable funds. As regards milch cattle Ahmedabad and the Panch Maháls showed an increase of over 8 per cent. while Kaira, Broach and Surat suffered a further loss of 1,567, 2,958 and 8,457 respectively. All the Gujarát districts lost heavily in young

stock. In the Deccan in all the districts except Khándesh, where the cattle increased by nearly 14 per cent., there was a further diminution in agricultural stock in 1900-01, and in the Karnátak the loss was heavier than in the previous year. The decrease in the Deccan and Karnátak is explained to be due to the sale of large numbers in order to obtain means of subsistence.

198. In June 1902 the cattle in the affected districts numbered 5,172,000 ¹⁹⁰¹⁻⁰² against 4,975,000 in June 1901, thus showing an increase of 4 per cent. The increase was fairly general, and due partly to importation and partly to natural causes.

199. Large as has been the loss of cattle throughout the Presidency owing to famine it must be remembered that a proportion of the mortality must have been amongst useless or superfluous animals, for the cultivator was driven to apply his limited resources to the preservation of his best cattle. But even so the deplorable effects of this great decrease both amongst plough and milch cattle cannot be estimated lightly. The proportion of cattle saved must have belonged to a considerable extent to the wealthier classes: it is the poorest cultivator on whom the burden fell most heavily and the chief portion of the cattle lost are no doubt those that could least easily be spared. The loss of cultivating power moreover is not the only loss involved; for with the disappearance of cows and female buffaloes the owner is deprived of sources of wealth in the shape of clarified butter, milk and whey, which are also the most nutritive ingredients of his daily food: agricultural productivity must also be lessened by the shrinkage in the supply of manure. It is therefore gratifying to learn from recent reports that the loss of plough cattle is being steadily recouped. It has been ascertained that there is now (April 1903) a general sufficiency of plough cattle in Gujarát owing to importation chiefly from Central India, and that though there is still some lack of them in the Deccan, cultivation is no longer seriously hampered by recent losses. Present conditions point to a reduction in quality rather than quantity, for the animals imported into Gujarát are certainly inferior to those of indigenous breeds. Whilst there is a natural deficiency of good young stock, it is reported that cattle and clarified butter are now to be purchased in most districts at prices which are normal or lower than normal. Though these phenomena are subject to varying causes, and whilst the low price of cattle may be largely due to decreased purchasing power and the reduced price of clarified butter may be ascribed to a spirit of thrift which prefers sale to home consumption, yet they are in some measure welcome symptoms of recovery.

General conclusions

PART IV.

VIII.—FAMINE IN NATIVE STATES.

Causes and
Extent
1899-1900.

200. As in British districts in the Presidency the rains of 1899 were very deficient in Káthiawár and in the States in Gujarát and the Deccan. In Appendix 70 the rainfall of 1899-1900 and of 1900-01 at the principal stations in the different States is compared with the normal. The total rainfall of 1899 in Káthiawár, Cutch and the Gujarát States varied from 5 to 38 per cent., and in the other States (except Mudhol) from 50 to 68 per cent. of the normal. It was also very irregularly distributed. As a consequence there was a more or less complete failure of crops and fodder and great scarcity of water supply in Káthiawár and the Gujarát States. These, like British Gujarát, had enjoyed a succession of favourable seasons since 1825 and were believed to be immune from famine: the people were therefore neither inured to hardship nor prepared to face such a calamity. In the States of the Deccan and Southern Marátha Country the distress was not so intense as in the north of the Presidency and it varied in severity according to rainfall and yield of crops in the different States more or less to the same extent as in the adjoining British districts. The total area affected comprised about 50,000 square miles with a population of $6\frac{1}{2}$ millions, and included the whole of Káthiawár, Cutch and other Gujarát States (except about half of Dharampur) and more than half of the States in the Deccan and Southern Marátha Country. The details for the three years of famine are given in Appendix 71.

1900-01.

201. In 1900-01 owing to the late monsoon and deficient rainfall the season in most of the States, although not as disastrous as in the preceding year, was far from satisfactory. The estimated yield of crops was 6 annas in the rupee in Káthiawár, 3 to 12 annas in Pálanpur Agency, 8 annas of kharif and 10 annas of rabi in Mahi Kántha, and 6 to 8 annas in Rewa Kántha except in Rájipla where it was slightly better. In Kolhápur alone were the crops generally up to the average, while in Jath they failed almost entirely. In the other States the outturn was more or less poor. The result was that distress prevailed almost everywhere to some extent, whilst in Jath it was severe. The affected area comprised 32,000 square miles with a population of nearly $3\frac{1}{2}$ millions.

1901-02.

202. The season of 1901-02 also was not favourable. The light and intermittent character of the monsoon was, particularly in the Gujarát States, insufficient for the kharif crops, while the rabi suffered severely from damage caused by rats and locusts. Consequently famine conditions prevailed in Káthiawár and the Gujarát Agencies and in Miraj (Junior), Jamkhandi, Sánгли, Mudhol, Jath and Daphlápúr among the Southern Marátha Country States. Altogether an area of 35,000 square miles with a population of over $3\frac{3}{4}$ millions was affected. The main feature of the situation in Káthiawár in 1901-02 was, as described by the Agent to the Governor, distress due to want of income among the upper classes, from the Mulgrasias and small Tálukdárs up to the larger Darbárs.

Food supply.

203. The food supply was sufficient throughout the famine, as all requirements were adequately met by importation, owing to which prices though they rose considerably above the normal in 1899-1900, remained on the whole fairly steady. The prices of food-stuffs as they stood in each month from October 1899 to October 1902 are shown in Appendix 72.

Migration.

204. There was extensive emigration into British territory of famine-stricken people from Native States, especially in the north of the Presidency, but there was hardly any immigration into the States except perhaps of people from Rájputána, Márwár and other northern States on their way to relief centres in British territory.

205. The general policy of Government was "that the actual direction of famine relief operations in Native States should remain as far as possible in the hands of the Darbárs subject only to the general supervision of the Political officers concerned, who should bring promptly to the notice of the Darbárs any instances in which the relief afforded appears insufficient or in which there is undesirable departure from the general principles for the administration of such relief." Accordingly in the larger States except such as were under the management of Government officers the Darbárs were left to conduct their own relief operations with or without the aid of loans from Government. But the large number of petty States grouped together in Thána Circles in Káthiawár and the Gujarát Agencies had no resources in men or money which could be utilized for the administration of relief and operations in such areas had to be conducted by the Agency officers and by officers specially lent by Government for the most part with funds borrowed from Government. Besides direct loans, the Political Agents were authorized to guarantee loans which the Darbárs might be able to obtain from other sources, the guarantee being to the effect that in the event of the loan with interest not being discharged in accordance with the stipulations agreed upon, Government would take the State under management and arrange for the repayment of the loan in priority to all other claims except tribute and other Government dues. Up to the 15th November 1901, altogether 147½ lakhs of rupees were borrowed by the various States. Of this amount over 100½ lakhs were advanced by Government, and the remainder was obtained under guarantee. The details are given in Appendix 73. The totals for the different groups of States are as follows :—

Relief operations.

G. R. No 8554,
dated 29th Nov.
1899.

	Advanced by Government.	Borrowed under guarantee.	Total loans.
	Rs.	Rs.	Rs.
Káthiawár	64,99,900	40,74,436	1,05,74,386
Gujarát States	30,23,768	3,32,877	33,56,645
Deccan and S. M. Country States ...	5,57,000	2,50,000	8,07,000
Total ...	1,00,80,668	46,57,313	1,47,37,981

Since the 15th November 1901 further loans aggregating Rs. 26,68,810 have been sanctioned by the Government of India of which Káthiawár received Rs. 12,50,000, Pálanpur Agency Rs. 5,38,810, Rewa Kántha Rs. 5,25,000, Mahi Kántha Rs. 3,30,000 and Jath Rs. 25,000. The grand total of loans received is therefore over one hundred and seventy-four lakhs of rupees, and it has recently been announced that three years' interest on such loans will be remitted or paid by Government.

206. Appendix 74 contains a statement showing the numbers relieved in different ways from month to month during the three years from 1899 to 1902. The proportion of affected population on relief during the three periods is shown below :—

Numbers relieved.

(Figures in Thousands.)

State.	1899-1900.					1900-01.					1901-02.				
	Affected population.	Daily average numbers			Percentage proportion of column 6 to column 5.	Affected population.	Daily average numbers			Percentage proportion of column 10 to column 7.	Affected population.	Daily average numbers			Percentage proportion of column 15 to column 12.
		On work relief.	On gratuitous relief.	On all kinds of relief.			On work relief.	On gratuitous relief.	On all kinds of relief.			On work relief.	On gratuitous relief.	On all kinds of relief.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Káthiawár	3,753	140	38	178	G. 10.1 6.4	3,258	2	1	3	G. 2.3 0.1	2,258	10	4	14	G. 7.1 0.6
Utch	553	21	2	23	G. 10.1 4.0	..	..	..	..	..	..	..	..	..	..
Other Gujardt States	3,160	66	28	92	G. 10.1 4.2	820	1.3	0.8	1.6	G. 2.3 0.2	1,308	18	2	20	G. 7.1 1.5
Deccan and S. M. Country States	987	25	13	38	DK. 8.5 9.8	408	17	8	26	DK. 5.0 8.0	137	2	0.7	2.7	DK. 2.4 1.6
Total ...	6,337	252	79	331	T. 8.6 5.2	3,486	20.3	9.3	20.6	T. 4.1 0.9	3,733	30	6.7	36.7	T. 4.6 0.9

G. represents corresponding percentage for Gujarat.

DK. Do. do. Deccan and Karnatak.

T. Do. do. entire affected area in British territory.

It cannot be said that the relief operations in Native States were generally as efficient as those in British districts. The resources of most of the States were limited, while the want of uniformity in standards of relief encouraged the indolent to wander from place to place in search of lighter tasks. It was amongst these wanderers that the heaviest mortality both in the States themselves and also in the adjacent British districts occurred.

Relief works.

207. Employment for relief labourers was provided mostly on tank and road works. In Káthiawár a number of irrigation tanks were constructed under the superintendence of the Agency Engineer. The earth-work of the Dhrangadra-Mália and Cambay-Petlad Railways of the projected branch line from Deesa to Tharád and Rádhanpur *via* Diodar, and of the conversion of the Morvi State Railway to the metre gauge were also carried out as relief works. Small works, including those for the improvement of water supply, were undertaken where necessary. With a view to exclude foreigners admission to works was not generally allowed except on production of certificates from competent authority to the effect that the applicant belonged to the State concerned. The system adopted on the works was usually piece-work with or without a maximum limit, but in some places the task work system with a minimum wage was substituted at a later stage. Children and adult dependants of labourers on relief works were generally relieved by cooked food either in kitchens attached to the works or in the nearest poor-houses. In Akalkot and Jath cash allowances were granted to dependants instead of cooked food, while in Bándsa grain wages were given.

Gratuitous relief.

208. As regards gratuitous village relief the practice followed in most of the States was to collect those eligible for it into poor-houses or kitchens: relief by dole at the homes of the people was as a rule confined to a few necessitous cases only.

Relief to weavers in their own craft.

209. Special relief in their own craft was given to weavers in Akalkot State. Advances at the rate of Rs. 20 per hand loom were made for the purchase of materials, and up to November 1900, Rs. 2,505 were disbursed in this way, besides yarn (of the value of Rs. 3,000) which was procured at the cost of State funds. The cloth produced was purchased from charitable funds for distribution among the people on relief. In no other State was special relief to weavers found to be necessary.

210. The reported expenditure on direct famine relief during 1899-1900 in all the Native States amounts to Rs. 82,13,234. The details are given in Appendix 75. The incidence of cost per unit relieved for all the States taken together is 1 anna 9 pies. The incidence for the different States is given in the following table:—

Famine Relief Expenditure.

State.	Thousands of day-units relieved in 1899-1900.	Total expenditure in 1899-1900.	Incidence of cost per unit relieved.	
			Rs.	₹ p.
Cutch	9,667	21,31,410	3	6
Cambay	868	80,803	1	5
Pálanpur Agency	24,632	20,56,561	1	3
Rewa Kántha Agency	6,667	6,20,936	1	6
Mahi Kántha Agency	5,442	4,76,967	1	4
Dharampur	484	67,163	2	2
Bánsda	461	56,730	1	11
Gujarát States	48,221	54,90,570	1	10
Bhor... ..	151	44,590	4	9
Akalkot	1,805	1,62,821	1	5
Aundh	347	15,369	0	8
Phaltan	144	28,057	3	1
Kolhápúr and S. M. Country States	6,999	6,50,896	1	7
Jath... ..	2,968	2,25,632	1	2
Daphlápúr	55	1,923	0	6
Deccan and S. M. Country States	11,869	11,29,288	1	6
Total	60,090	66,19,858	1	9

Note.—Káthiawar has been excluded from the above table as the expenditure figures (Rs. 15,99,370) reported do not appear to represent the entire expenditure. The amount reported is stated to be expenditure on works alone and gives a low incidence of 1½ pice per unit relieved.

211. The expenditure on charitable relief incurred up to the end of March 1902 by the local committees of the Charitable Relief Fund in the several States amounted to Rs. 16,70,027. Out of this amount, Rs. 13,48,293 were provided by the Provincial Committee of the Bombay Presidency Famine Relief Fund, and the remainder was made up of local subscriptions and "other receipts." By far the largest portion (Rs. 14,04,107) was devoted to the assistance of peasant cultivators as contemplated in Object IV. The details are given below:—

Private charity.

State.	I	II	III	IV	Miscellaneous.	Total.
	Supplementing the subsistence ration, &c.	Providing for orphans.	Relieving the respectable poor.	Assisting peasant cultivators and giving them a fresh start in life.		
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Káthiawár	1,15,962	6,023	4,335	5,94,356	13,182	7,33,858
Cutch	8,787	1,153	3,040	7,270	...	20,250
Cambay ... ..	...	1,598	4,029	14,243	20,641	40,511
Pálanpur Agency	8,281	1,706	7,208	2,96,529	71	3,18,795
Rewa Kántha	721	5	...	1,51,320	87	1,52,133
Mahi Kántha	21,522	104	542	3,09,198	3,658	3,35,024
Akalkot	23,394	234	1,713	22,433	34	47,808
Kolhápúr and S. M. Country States (including Jath) .	14,030	36	1,974	8,758	1,850	26,648
Total	1,92,697	10,859	22,841	14,04,107	39,523	16,70,027

There was little other organized private charity. Here and there relief was given by wealthy merchants, either jointly or individually, and by other charitably disposed persons, but want of organization detracted greatly from its usefulness. It is estimated that some Rs. 9,93,800 were spent by the principal merchants in Cutch in charity; this amount as well as such other amounts as were raised by public subscriptions were utilised in opening cheap grain shops, distributing food and clothing to the poor, maintaining poor-houses and orphanages, making grants to poor cultivators for the purchase of seed, &c., and in making new wells or repairing and deepening old wells. The several Missionary bodies also in the different States spent large sums of money in relieving distress.

Takávi
advances.

212. Takávi advances were made in most of the States for land improvement, for subsistence and for the purchase of seed and cattle and other agricultural purposes, but the amount was comparatively small owing to the limited resources of most of the States. In Káthiawár 9,000 plough bullocks were imported and distributed among cultivators in the Thána circles at a cost of Rs. 25 per bullock, the amount being debited in each case as takávi.

Cattle and
fodder.

213. In Káthiawár and the Native States of Northern Gujarát there was great dearth of fodder, and although every practicable measure was taken to save the more useful cattle, the mortality among them was enormous. In the States of the Deccan and Southern Marátha Country the scarcity of fodder was not so pronounced except in a few isolated cases, *e.g.*, in Aundh, Phaltan, Miraj (Senior) and Miraj (Junior). In Káthiawár and in the Northern Gujarát States efforts were made to raise quick-growing fodder crops by irrigation from existing wells or new wells specially dug for the purpose, and it is believed that a number of useful cattle were thus saved. Large quantities of baled grass were also imported from outside. All forests and pasture lands were thrown open to free grazing, and the deportation of cattle to grazing grounds was encouraged, but the mortality was nevertheless exceedingly heavy. General statistics of mortality have not been furnished for all the States. As regards plough and milch cattle the loss in a few States has been estimated as follows:—

	Per cent.		Per cent.
Cutch	53	Rewa Kántha	70
Cambay	69	Phaltan	30
Pálanpur	83	Akalkot	10
Mahi Kántha	68		

Plough bullocks were purchased with the aid of takávi or charitable funds and distributed among the poorer cultivators. Efforts were also made to recoup to some extent the great losses suffered by Rahabáris whose herds had hitherto provided a constant supply of fine cattle to Gujarát. For Mahi Kántha 1,000 cows of the best Gujarát breed, with a number of bulls, were purchased from charitable funds and distributed as free gifts among Rahabáris in selected areas on condition that they should not part with the cows or their progeny out of Mahi Kántha.

Public health.

214. Vital statistics have not been reported for all States, and it is feared that where reported they are not always reliable. In Cutch, Káthiawár and the Northern Gujarát States which were chiefly affected there was no regular system of registration of births and deaths. The very heavy mortality may, however, be inferred from a comparison of the percentages of decrease in population since 1891, as recorded in the 1901 Census, in the Native States and in the adjacent British districts for which there are full statistics:—

District.	Percentage of decrease.	State.	Percentage of decrease.
Ahmedabad	13	Rewa Kántha Agency	34
Kaira	17	Mahi Kántha "	37
Panch Maháls	16	Pálanpur "	27
Broach	14	Káthiawár "	15
Surat	2		

The reported general mortality in the other States during the year 1900 is compared below with the average of ten years ending 1896 :—

State.	1900.		Average of ten years ending 1896.		State.	1900.		Average of ten years ending 1896.	
	Number of deaths.	Rate per mille.	Number of deaths.	Rate per mille.		Number of deaths.	Rate per mille.	Number of deaths.	Rate per mille.
Cambay	16,175	180	2,863	92	Akalkot	2,840	37	1,490	20
Dharampur	9,217	76	1,491	12	Kolhápúr	35,954	39	23,355	25
Bánsda	2,329	56	617	15	S. M. Country States ..	25,310	39	15,650	24
Aundh	2,600	40	1,980	30	Jath and Daphlápur ...	2,243	28	1,991	25
Phaltan	2,308	33	1,585	24					
Bhor	5,346	34	3,676	23					
					Total	104,222	46	54,608	34

The distribution of mortality by causes has not been reported and no attempt has been made to estimate the number of deaths from actual starvation; but the most prevalent causes appear to have been dysentery, diarrhoea, cholera and fevers as in the adjoining British districts. A malignant type of fever was also very common, attacking the rich and poor alike with fatal effects. In 1900-01 the public health, although much better than in 1899-1900, was far from satisfactory. Cholera and fever of a malignant type caused a material increase in the mortality, while the inevitable effect of the preceding year's distress was to reduce the birth-rate to an appreciable extent. In 1901-02, however, except in Kolhápúr and the Southern Marátha Country States where severe outbreaks of plague occurred, there was a general improvement.

215. In 1899-1900 there was a large increase in the amount of crime, chiefly consisting of cases of theft and house-breaking. The total reported offences against property during the year 1899-1900 are compared below with the average of the preceding two years :—

	1899-1900.	Average.		1899-1900.	Average.
Káthiawár	2,275	802	Mahi Kántha (part) ...	588	141
Cutch	1,111	608	Dharampur... ..	111	47
Cambay	336	129	Bánsda	189	58
Pálanpur Agency ...	3,402	1,406	Akalkot	209	166
Rewa Kántha	2,505	879			

Figures for other States have not been reported. In 1900-01 the number of cognizable offences remained somewhat high in all the more important States; but in 1901-02 the proportion of violent crime was small.

PART V.

IX.—FINAL REMARKS.

Unprecedented
continuance of
famine condi-
tions.

216. It is believed that it has never before fallen to the lot of any Administration in India to have to compile an account of a serious and extensive famine lasting continuously for more than three years. Relief measures were begun in September 1899 and they were carried on without intermission until December 1902. In previous chapters of this report it has been necessary for various reasons to separate the total period into years, but different years have to be adopted for different purposes, and even the month in which relief reached the lowest point has varied in each year. It would have been very inconvenient and difficult therefore to have compiled a separate report for each year of the famine, and the course which has been adopted, that of preparing one report for the whole period of famine, will for reasons which appear below be seen to be advantageous as well as practically inevitable.

General
expenditure.

217. Appendices 76, 77 and 78 show (1) the expenditure on famine relief incurred by Government up to the end of October 1902 under the different heads of account as reported by the Accountant General, the expenditure by Local Boards and Municipalities and from the Famine Charitable Fund, and the amounts of advances under the takávi Acts, and of land revenue and takávi remissions; (2) the indirect expenditure incurred in connexion with famine under the different service heads; and (3) the same as (2) under the different classes of expenditure, such as salaries, allowances, grain compensation, etc. The total Government expenditure on direct famine relief amounted to nearly Rs. 5,17,77,000, and in addition remissions of land revenue and takávi have already been sanctioned to the extent of Rs. 1,83,30,000 and Rs. 36,40,187, respectively. The indirect expenditure on extra establishments, etc., amounted to Rs. 23,39,500 in 1899-1900, Rs. 9,25,200 in 1900-01 and Rs. 7,64,100 in 1901-02, i. e., a total of Rs. 40,28,800. Thus the total cost to the State of the three years' famine was short of 8 crores of rupees by less than 23 lakhs, while 57½ lakhs were expended from charitable funds and something less than 5 lakhs by local bodies.

Contrast with
previous
famines in
extent and
severity.

218. Scarcely 20 months had elapsed from the close of relief operations on account of the famine of 1896-97 when the measures rendered necessary by the failure of crops in 1899 were commenced. That famine was in many respects as severe as any previous famine of which there was record, but apart from the effects of it, which there was no sufficient interval of prosperity to counteract, the famine of 1899-1900 was in itself materially more severe and extensive. The area affected was larger by 14,000 square miles and the proportion of the population of the whole Presidency affected was greater by 12 per cent. In 1896-97 the outturn of food-crops was 34 per cent. of the average in the Deccan and 25 per cent. in the Karnátak, but in 1899-1900 it was only 12 per cent. in the former and 16 per cent. in the latter, while in Gujarát it was so small as 4 per cent. The level of sub-soil water was so low that irrigation from wells, which gave material relief in the former famine, was generally both difficult and costly in the latter. The average price of staple food-grains was only 18 lbs. per rupee in 1899-1900 as compared with 20 in the Deccan in 1896-97. The consequence was that the proportion to the affected population of the daily average numbers relieved rose from 3.7 per cent. in the former to 8.6 per cent. in the latter famine, and the proportion of the maximum number relieved from 6 per cent. to 16 per cent. The maximum daily average number of relief workers in any month in 1896-97 was little over 300,000; in 1899-1900 it was little short of a million. There was a proportionate increase in the number of persons relieved gratuitously, whether on works or in their villages or in poor-houses.

Necessity of
adapting
measures to
circumstances.

219. These are facts which cannot fairly be overlooked in any criticism of the operations. In dealing with famine it is necessary to consider not what would be best in the most favourable circumstances but what is

practicable and most suitable in the circumstances existing. It has been recognized that when there is an adequate establishment competent to eliminate the weakly and to adjust tasks to the capabilities of the workers a system of piece-work without a minimum wage is the best, but in most places during the worst period of the famine such an establishment was not available and by no efforts could be made available. There are many advantages in small scattered works, but when the number to be relieved is large in proportion to the establishment which can be employed, adequate supervision of persons employed on such works is impossible. In consequence of the outbreaks of cholera and in order to keep people near their homes on the approach of the rains in 1900 it was determined even at great risk to utilize small works as far as possible in Gujarát, but they were pronounced by the Commissioner, Northern Division, to be mere dole camps. In the following season when the numbers to be relieved were smaller and a competent establishment was available, employment on such works was found to be not only a suitable test but economical. In similar circumstances daily payments even to the individual have been found practicable, but ordinarily they are possible only if paid in lump to gangs, and on many occasions the numbers were so large that frequent payments could not be made at all.

220. The main lesson to be learned from the contrasts between the results in different divisions of the Presidency and at different times in the same division is that no efforts on the part of officials and the charitable can be successful in relieving people who will do nothing to help themselves and will not accept reasonable conditions. As already pointed out, able-bodied people of many classes in Gujarát obstinately refused to leave their homes in the first year of the famine and could have been saved from the effects of want only by free gifts of food or money without discrimination. The greater success of the relief measures in the Deccan in that year was not due to more liberality, because the conditions were throughout more stringently enforced in that part of the Presidency than in Gujarát, but entirely to the attitude of the people, who of their own accord sought relief and gladly acceded to the terms. But so early as the second year of the famine experience had had its effect also in Gujarát, and able-bodied people in need of relief willingly worked for a subsistence wage so that in many cases the outturn cost less than in normal times. Gratuitous relief, which owing to the enormous mortality had been given on a most lavish scale in the latter part of the first year of the famine, was reduced to normal proportions without evil results. The death-rate remained high owing to the ravages of a most virulent type of fever, but the relief measures were as successful as in the Deccan. The sufferings and loss of life in Gujarát are to be deeply regretted, but they were apparently necessary to teach the people that in a time of disaster exertions on their own part are necessary for their salvation.

Co-operation
of the people
essential.

221. Such a series of adverse circumstances as has been recorded naturally put the Bombay revenue system to an unprecedentedly severe strain. In 1896-97 there was virtually paid voluntarily 93·7 per cent. of the assessment in the Deccan (including the Karnátak or Southern Marátha Country). A similar result could not, of course, be expected in a famine recurring after so brief an interval and lasting for three years. There has been remitted 37 per cent. of the revenue due for the three years in Gujarát and 21 per cent. in the Deccan, and the remission has been made with discrimination to those in need of it. There have been advanced 203 lakhs of rupees as compared with 30 lakhs in 1896-97, and while in that year only $\frac{1}{3}$ rd was advanced under the Agriculturists' Loans Act, $\frac{3}{4}$ ths have been allotted for the purposes contemplated in that Act in the last years. Unfortunately many of the cattle purchased with the aid of these loans in 1900 died owing to the insufficiency of fodder and the absence of new grass until a late period of the year and much of the seed purchased was lost owing to successive failures of rain, but the total advances together with gifts from charitable funds have been sufficient to leave cultivators at the close of the famine with what is necessary for their occupation and everywhere agricultural operations have been resumed without serious loss of efficiency. It has before been shown that there has been little or no increase on the whole in the transfer of land to the non-agricultural classes,

Test of the
revenue
system.

that in the Deccan and Karnatak the area in occupation has on the whole actually increased and that the contraction of cultivation in Gujarát has not been extensive. One will search in vain in the statistics for indications of such results of a series of disastrous seasons as would have been inevitable under an oppressive assessment or under a revenue system which is not generally well adapted to the circumstances of the people.

Conduct of
officials and aid
of non-officials.

222. It only remains to acknowledge the devotion to duty of officers of all classes, without which the effects of famine would not have been counter-acted with so much success, and the valuable aid rendered by many non-official gentlemen. The strain on supervising officers of prolonged constant work, responsibility and anxiety has been enormous and it has been borne cheerfully and ungrudgingly. Owing to the necessity of accepting the services of all such applicants as might reasonably be expected to be of use some who were unworthy of trust were employed and somewhat numerous frauds have been discovered, but the conduct of the great bulk of the subordinate staff, including village officers who were necessarily exposed to unusual temptations, has been worthy of praise. Owing to the scarcity of men of influence in the villages, which renders the execution of relief measures in this Presidency exceptionally difficult, little non-official aid in the general operations can be expected, but many gentlemen resident in the larger towns have unstintingly devoted their time and their money to special forms of relief. A statement of those whose exertions were noticed by the District Officers and of the nature of the services reported to have been rendered by them is appended (Appendix 79). The assistance of members of the various Missions, who add to their philanthropic zeal intimate knowledge of the characteristics of many of the lower classes, has been of exceptional value.

[Notes—Appendices and maps will be found in Volume II.]

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