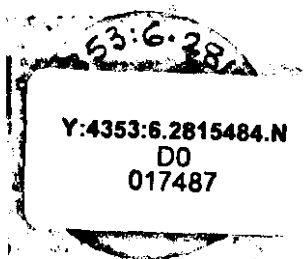


REPORT  
ON  
FAMINE OPERATIONS  
IN THE  
BHAVNAGAR STATE,  
IN 1899-1900.



Bombay:  
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To

HIS HIGHNESS SHRI BHAVSINGHJI,

*Thakor Sahib of Bhavnagar.*

YOUR HIGHNESS,

Agreeably to Your Highness' directions I beg to submit the following report upon the Famine operations in the State of Bhavnagar during the prevalence of the Famine of 1899-1900, which have been carried on under the orders issued by Your Highness as the result of your tour of inspection in the most affected districts. In order to make the record one of permanent value, I propose by way of preliminary to embody in it the necessary information concerning the physical character and resources of the State, and then, having given some account of previous famines in Kathiawar, and especially of that of 1877-78, to describe at length the origin and progress of the recent famine, the measures taken for meeting it—charitable, public works, relief, and others—its effect upon the public health, and finally the condition of the people of the State as they emerged from this season of unprecedented calamity.

#### THE PHYSICAL AND STATISTICAL FEATURES OF THE STATE.

The State of Bhavnagar lies at the head and west side of the Gulf of Cambay in the Kathiawar Peninsula, between  $21^{\circ} 18'$  and  $22^{\circ} 18'$  north latitude, and  $75^{\circ} 15'$  and  $72^{\circ} 18'$  east longitude. Its area is about 2,860 square miles, and its population 467,382 according to the Census of 1891. A number of villages belonging to the British district of Gogha are scattered over the Bhavnagar territory. The State is divided into twelve districts or sub-divisions, namely, Daskroi, Sihor, Mahuwa, Kundla, Lilia, Umrata, Botad, Gadhda, Bhal, Talaja, Rajula, and Jesar. The territory presents a varied aspect, being in some parts, as in the Bhal, a mere salt flat, while in Lilia it is a rich plain of black soil. Sihor and Kundla are, on the other hand, hilly and undulating, though the country nowhere rises to a great elevation. The climate, especially on the south coast, is temperate, and the heat in the hottest part of the territory is much less than that of the Guzerat mainland. The thermometric readings at the capital town of the State show a mean minimum of  $101^{\circ}$  in January, and a maximum of  $102^{\circ}$  in July. The average rainfall, as taken at the same place during the last ten years, is 22 inches. The soil, except in the Bhal, where it is highly impregnated with saline matter, is almost everywhere black. Rice land exists, but in an inappreciable quantity, and generally speaking the country may be broadly divided into garden and dry crop lands. The salt soil of the Bhal however produces, without irrigation, a very fine wheat of the Kátha variety. The crops consist chiefly of cotton, jowari, bajri, wheat, gram, oilseeds and sugar-cane, and the ordinary sorts of pulse and millet. Tobacco also is grown in small quantities. The mode of cultivation generally resembles that followed in British districts in Guzerat, and the tools employed are the same. Jirayat or rain crop fields are as a rule ploughed twice, the second furrowing being crosswise. Wadi, or garden lands, are generally ploughed three or four times, each ploughing being deeper than the one

before. Ground which has long lain fallow in Ashad (June and July) is ploughed and cross ploughed as soon as the first rains have moistened it, and is then allowed to lie untouched until the next rains, when it is again turned. After it has been harrowed and soaked with rain the stones, roots, and weeds are cleared, and it is ready for sowing. The implement used for sowing is the *Santul* or *Favana*, a cleverly constructed tool, with a wooden bowl at the top through which the grain is poured into four hollow bamboos down which it runs, passing out through a hole at the back of the prongs of the harrow. Two persons usually work these drills, one driving, the other filling the bowl from a bag tied round the waist.

### PREVIOUS FAMINES IN KATHIAWAR.

Following the example set by the British Government and by various Famine Commissions, I will proceed to give a brief account of such famines in the Province and in the State of Bhavnagar as have been authentically recorded. These have been due in part to visitations of Nature, in part to internal disorders, hostile invasions, and political disturbances. The last famine in the Kathiawar Peninsula, before the break-up of the Mogul Power in Guzerat, was in 1636, when grass and water failed in the northern districts. During the century that passed between the disorders that broke out in Guzerat after the death of Aurungzeb (1707 A.D.) and the Settlement of Kathiawar undertaken by Colonel Walker in 1807-8, no fewer than \*eleven famines of more or less severity occurred

in the Province. There is no doubt that these were greatly aggravated, if indeed some of them were not in great part caused, by the devastations wrought

by Mahratta invaders. On the average famine occurred during this period of a hundred years at intervals of nine years. Then came the Permanent Settlement of 1807, when it was hoped that the new and more settled order of things would bring prosperity and contentment to the Province. But notwithstanding Colonel Walker's statesmanlike measure Kathiawar continued to be an unsettled land, and for many years its social and political system merited the description which has been given of it as a system of sanguinary boundary disputes, murders, robbery and outlawry. It was not until 1864, when the reforms introduced by Colonel Keatinge began to give full effect to the beneficent intentions of the British Government, that the Province enjoyed the peace and order with which Government had from the first desired to endow it. Accordingly the period intervening between 1807 and 1864 was marked by famine and distress in even greater frequency, for the average interval was only seven years. In that period there were no fewer

than eight famines\*. Since then no famine has afflicted the Province but such as is to be attributed solely to the failure of Nature. In 1864 there was

scarcity resulting from a deficient rainfall, but there were only two famines, namely, that of 1877-78, and the terrible calamity of 1899-1900 through which Your Highness's territory has just passed.

It may be of interest to refer briefly to some of these earlier famines in the present century, basing my references mainly upon the statistical account of Bhavnagar by Colonel Watson in the *Bombay Gazetteer*, Vol. VI, and upon various old papers preserved in our Record Office.

\* 1718-19; 1723; 1731-32; 1747;  
1751-59; 1764; 1774; 1780; 1785;  
1790-1; 1804.

\* 1811-15; 1820; 1825-26, 1834-35;  
1838-39; 1846; 1851; 1857.



1811-12. In 1811-12 the rains failed in the Province and great scarcity prevailed. But the local distress was aggravated by the immigration of large crowds escaping from a more terrible famine in Marwar. These people wandered over the country, committing crime, spreading disease, and enhancing the price of food.

1813-15. A yet worse calamity visited the country in 1813 and the two following years. The first named year was one of severe scarcity. It was followed in 1814 by excessive rain and destructive floods, while to add to the misery of the country there was a devastating plague of rats in 1815. According to the author of the Tarkh-i-Sorath no rain fell in 1812 and 1813, many died of hunger, and of the survivors many were swept away by pestilence in 1813-14. The state of the country was miserable in the extreme. Corpses remained exposed in the public thoroughfares, for the Hindus were unable to burn and the Mussulmans to bury their dead. Children were deserted or sold, and in some cases eaten. Little could be done for the alleviation of the calamity. A few public works were undertaken, wells were dug, and the Chiefs and well-to-do merchants were bountiful in their charities. But notwithstanding this men and cattle perished in thousands. The famine was most severe in Halar, Machhu Kantha and in the north and west generally, and many of the distressed people emigrated southwards into Gohelwad, where, though there was much distress, the famine was less severe than in the north of the Province. Pestilence, as has been said, added to the horrors of famine, and so strong is the impression which this disastrous time has left upon the memory of the people that it has been perpetuated in a solemn oath, which is still occasionally heard, "If what I state is false, may the sin of Samvat 1869 cling to me!"

1820. In this year the rainfall was excessive; grain became dear, and pestilence caused great mortality, but compared with 1814 the famine was a mild one.

1824-25. The famine of this year fell with special severity upon the Bhavnagar State. The rainfall was seriously deficient, and the natural calamity was aggravated by disturbances in the State. Khuman Jogidao and others went into rebellion against the Darbar, committing crimes and depredations, and plundering and burning many villages. So desperate were the inroads of these marauders, and so intense was the distress caused by the failure of the rains, that but for the prompt and generous measures taken by the Darbar, the consequences would have been most disastrous. His Highness the Thakore Sahib Vajesinhji, who traded largely on his own account, sent eleven ships to foreign ports to procure grain, and thus largely mitigated the distress.

1864. Equally beneficent were the measures resorted to by His Highness Jaswatsinhji, K.C.S.I., Your Highness's grandfather, for the relief of the distress caused in the year 1864, partly through the scanty and untimely rainfall, and partly through the large area that in consequence of the high prices of cotton during the American War had been diverted from grain cultivation. His Highness, writing to the Political Agent, observed that thousands of Kalshis of grain were imported into Kathiawar through Bhavnagar ports and passed on to other provinces, but that owing to the high prices all classes of the people were sufferers. Accordingly His Highness ordered that all transit duties on grain should be sus-

pended for seven years, and these duties were subsequently entirely abolished, a measure for which His Highness was twice thanked by Government. To this enlightened Prince, too, the people were indebted for the opening of a cheap grain shop at which grain was sold at a reduction of 25 per cent. on the market rates, while large quantities were distributed gratuitously to the infirm and helpless poor.

#### THE FAMINES OF 1877-78 AND 1899-1900.

The famine of 1899-1900 was at a very early stage declared by His Excellency the Viceroy to be severe beyond any known precedent, and this must be borne in mind in comparing it with that of the year 1877-78. The comparison, however, may be usefully made, inasmuch as the latter has been described as a typical famine, complete in every form of famine disaster. The two calamities, serious as they both were, exhibit marked differences in area and severity and duration. The most severely affected area in Kathiawar in 1877-78 was defined by a line drawn from Verawal in Junagadh to Talaja in Bhavnagar. Next in the intensity of its suffering was a belt of country lying between this area and a line connecting Jodia with Gondal, and then turning South-East to Bhavnagar. In the later famine practically the whole Province suffered, and there is scarcely a part of it which has not a sad tale to tell of suffering and desolation. In 1877-78 the failure of the early rains especially affected the Kundla and Mahuwa Districts, Kundla, like Botad, Gadhdā and Bhal, having already had a succession of bad seasons. It was estimated that about 1,800 square miles were affected by the failure of the rains in 1877. In the later famine the distress, as has been said, was spread over the whole State, and was severely felt over about 2,100 square miles, or three-quarters of the whole territory. Another point of contrast was that the close of the season of 1877 was propitious, for it rained heavily in September and October, thus not only averting a water famine, which was felt severely in some parts this year, but securing good cold weather crops. Nor were the effects of the famine limited this time to the low castes, as they were in 1877-78, for Ubhadias and cultivators and many people of the better classes have had to resort to relief works on the more recent occasion. The contrast in numbers on relief works is also very marked. In April 1878, the highest daily average of workers on the relief works in the Bhavnagar State was 17,035; this year it has been 37,344. No provision appears to have been made in the former famine for poor-houses on an organized footing, and only 3,920 people who, from old age or infirmity, were unable to work are said to have been maintained by the Darbar. In 1899-1900, however, poor-houses with all necessary provision for comfort were established on an adequate scale at all the district head-quarters, and the maximum number of persons relieved in them at a given time was 9,086. The fodder famine was a feature from which the calamity of 1877-78 was comparatively free, for though grass was short and had to be largely imported, it was not imported on so enormous a scale as this year, and there is no comparison between the losses of cattle during the two seasons. And whereas in 1877-78 the State had not been weakened by recent scarcity, in the later famine many of the cultivators had to face the calamity under the disadvantage of having had to bear losses in 1894 and in 1896. The distress in these years, however, was neither intense nor wide-spread, and the prompt measures of relief adopted by the Darbar prevented any serious suffering. But terrible as the recent calamity has been even in comparison with 1877-78, I would point out that on the

later occasion we have been able to face our troubles with one powerful advantage on our side. I refer to the great service which the railway has rendered to Your Highness's State and people. The railway, as Your Highness knows, had its origin in the famine of 1877-78. When in August of the former year the fear was entertained that a famine was imminent, and that famine works on a large scale might be necessary, it was decided to concentrate the relief works largely upon a railway. To a timid suggestion that the line might not pay, Sir Richard Temple is reported to have replied in a remark which, coming from the ex-Famine Delegate, had peculiar significance. "Think how it will pay in saving life during famine!" The observation has been abundantly justified. For while in 1877-78 the relief works upon the railway saved thousands of people from starvation, the line itself has mitigated the later calamity by distributing thousands of tons of food stuff for man and beast through all parts of the Peninsula.

#### CAUSES OF THE FAMINE OF 1899-1900.

In order to indicate the meteorological conditions which preceded the late famine, the following abstract table is inserted, showing the rainfall at the various recording stations in the Bhavnagar State during the five previous years :—

Name of place.	1895		1896		1897		1898		1899	
	In.	ct.	In.	ct.	In.	ct.	In.	ct.	In.	ct.
Bhavnagar ... ..	24	24	27	65	22	31	37	73	7	7
Sihor ... ..	21	56	19	83	33	31	32	61	7	32
Mahuwa ... ..	22	50	25	16	34	20	18	33	11	78
Kundla ... ..	21	13	17	10	34	31	25	93	8	8
Lilia ... ..	19	95	16	20	34	3	21	96	4	51
Umrāla ... ..	22	27	18	16	33	52	29	36	7	58
Botad ... ..	17	75	22	57	26	71	16	42	3	34
Gadhda ... ..	15	62	18	90	30	37	13	25	7	88
Talaja ... ..	20	0	29	66	31	85	26	38	8	69
Rajula ... ..	22	87	31	96	35	69	20	39	9	42
Jesar ... ..	25	29	23	28	23	59	26	78	15	56
Bhal ... ..	6	74	23	22	30	9	20	0	3	2

A detailed statement of this abstract is given in Appendix B.

As has been already observed the two or three previous seasons had been marked by deficient rainfall in the districts of Botad, Gadhda, and Bhal, and in a portion of Umrāla. In Botad, although the rainfall of 1897 reached 26·71 inches, the fall in June and July was insufficient for the *Kharif* crop, and in 1898 it was scanty, irregular and untimely. In Gadhda and Bhal it was unseasonable and scanty in both years, while a heavy fall in September did much injury to the rain crops. These failures in successive seasons contributed in no inconsiderable degree to the suffering and loss of the recent famine. In the district of Umrāla the sub-division

of Dhasa was wholly, and the sub-division of Poghavada was partially, unfortunate during the past two or three seasons. As regards the severity of their suffering the districts may be arranged in the following groups :—

*Intense.*—Gadhda, Botad, Bhal and two sub-divisions of the Kundla district.

*Severe.*—Kundla, Lilia, Umrata, Sihor, and a sub-division of the Daskrhi (Bhavnagar) district.

*Moderately Severe.*—Mahuwa, Rajula, (now Port Albert Victor) Talaja, Jesar and two sub-divisions of Daskrhi.

A map of the State on a reduced scale is appended and marked A. The areas affected are shown in different colours on it.

As has been already stated, the mean fall in the State in an average year is 22 inches. But in 1899 the highest fall recorded was only 15·56, in Jesar, while the lowest was 3·02 in the Bhal district.

The following figures give the rainfalls at the various recording stations during the year :—

Bhavnagar	...	...	...	...	...	...	...	7·07
Sihor	...	...	...	...	...	...	...	7·32
Mahuwa	...	...	...	...	...	...	...	10·78
Kundla	...	...	...	...	...	...	...	8·08
Lilia	...	...	...	...	...	...	...	4·51
Umrata	...	...	...	...	...	...	...	7·58
Botad	...	...	...	...	...	...	...	3·34
Gadhda	...	...	...	...	...	...	...	7·88
Talaja	...	...	...	...	...	...	...	8·69
Rajula	...	...	...	...	...	...	...	9·42
Jesar	...	...	...	...	...	...	...	15·56
Bhal	...	...	...	...	...	...	...	3·02

Notwithstanding this unsatisfactory record the season opened favourably. There were fair rains everywhere in June, and sowings began at the usual time, and with good prospects. But at the end of June the rain slackened ; in July, usually the month of heaviest rainfall, there was only a scanty fall ; and as the season advanced it persistently held off. Although some parts of the State received more rain than others—for the distribution was, as the table shows, unequal and capricious—over the greater part of Your Highness's territory it was in lamentable deficiency, and the aspect of the country early awakened the gravest anxiety on Your Highness's part and on the part of your Executive.

#### POPULATION AFFECTED.

In endeavouring to estimate the number of persons who have been affected by the famine, it will be necessary to remember that there was a very large influx of people into Bhavnagar itself from the outlying villages, and even from such distant parts as Viramgam, Dhandhuka, and the Goghabara District, and also from the neighbouring States. The total population of the Bhavnagar State, which was returned by the Census of 1891 at 467,382, may now be roughly estimated to be 483,000. It was calculated in November last that of the total population—

59,800 were severely affected,  
164,000 were moderately affected,  
256,000 were slightly affected,

---

Total 480,000

Enquiries showed that the distress had spread to a much larger extent than had been at first estimated.

The area and population so found affected may be distributed amongst the various districts as follows :—

District.	Area in square miles.	Affected area in square miles.	Population as per Census of 1891.	Affected Population.		
				Severely affected.	Moderately affected.	Slightly affected.
Bhavnagar ... ..	215	145	86,439	...	78,788	7,651
Sihor ... ..	198	145	34,784	...	34,784	...
Mahuwa ... ..	406	152	88,740	...	18,341	70,399
Kundla ... ..	412	331	60,034	27,496	32,538	...
Lilia ... ..	149	125	26,774	...	12,471	14,303
Umrالا ... ..	215	165	41,072	...	41,072	...
Botad ... ..	232	232	28,228	28,228	...	...
Gadhda ... ..	191	191	25,525	25,525	...	...
Talaja ... ..	227	115	33,752	...	14,158	19,594
Rajula ... ..	147	72	24,865	...	12,234	12,431
Jesar ... ..	199	117	25,935	...	10,497	15,438
Bhal .. ..	269	269	7,124	7,124	...	...
Total ... ..	2,860	2,059	433,072	88,373	254,883	139,816

#### HIS HIGHNESS' VISIT TO THE AFFECTED DISTRICTS.

A tour which Your Highness made in Gadhda and Botad, and in portions of the Umrالا district, may be said to have put in motion the general plan of relief which has been carried out in the State. The rainfall in these districts had been very scanty during June, and it failed almost entirely during July. The situation seemed so serious that Your Highness, taking a very light retinue, made a rapid tour through this part of the State, making personal enquiry on the spot, and discussing the state of affairs with the local officers and the people themselves. On your return to Bhavnagar, Your Highness issued orders on the 4th of August, giving detailed instructions for measures of relief. These orders have formed the basis on which the general famine administration of the State has been conducted. I should here mention that on receiving a very serious account of the prospects of the Bhal district, Your Highness at once issued orders for the institution of relief works, which were in full swing before the close of the third week in July.

#### INITIAL MEASURES OF RELIEF.

The earlier works above referred to were carried out through civil agency, and were only preliminary to the larger undertakings to be carried out through the Public Works Department. At Ningala Your Highness, when on tour had met the State Engineer to whom orders were at once given to begin the Ningala-Gadhda road as a test work, Ningala being chosen as being easily accessible to the three affected districts of Gadhda, Botad and Umrالا, while Gadhda was selected for the other terminus as being not only the head-quarters of the district, but the seat of the Swami Narayan sect in this part of the Peninsula, and thousands of devotees and pilgrims visit it at all times of the year. It is in no small degree creditable to the preparedness and power of organization of both your Public Works and Revenue Departments that, by the beginning of the second week of August the test relief work was started at Ningala, while the Civil Agency were ready with their works. The average number relieved in the first week after that test work had been started was 4,452, a number which rose in the next week to 27,479, demonstrating that relief works on a much larger scale would soon be necessary. Your Highness, warned by costly experiences recorded in the history

the daily average number to 18,810. The following statement will show the daily average number employed on relief works from August 1899 to September 1900 :—

Month.					Average daily number of people employed on relief works.
August	1899	...	...	...	6,659
September	1899	...	...	...	15,728
October	1899	...	...	...	23,211
November	1899	...	...	...	28,831
December	1899	...	...	...	18,810
January	1900	...	...	...	14,193
February	1900	...	...	...	11,357
March	1900	...	...	...	24,155
April	1900	...	...	...	31,663
May	1900	...	...	...	37,069
June	1900	...	...	...	14,250
July	1900	...	...	...	17,450
August	1900	...	...	...	11,838
September	1900	...	...	...	2,256

The sanitary aspect of our work is dealt with at length elsewhere ; but it should be noted in this place that the decrease in number shown in February, and the much greater decrease in June, were due to sickness—an outbreak of fever and dysentery in the former month and of cholera in the latter. In March there was, as the table shows, a large accession to the number of workers, and on the recommendation of the Chief Engineer further work was provided by opening another large camp at Port Albert Victor, and various useful works, enumerated in Appendix C., for the new town were taken in hand. At this point the works were divided, the Chief Engineer taking entire charge of the Port Albert Victor portion, while the State Engineer was left in charge of the Lord Reay Road, between Khantavda and Khijdia.

#### RELIEF WORKS UNDER CIVIL AGENCY.

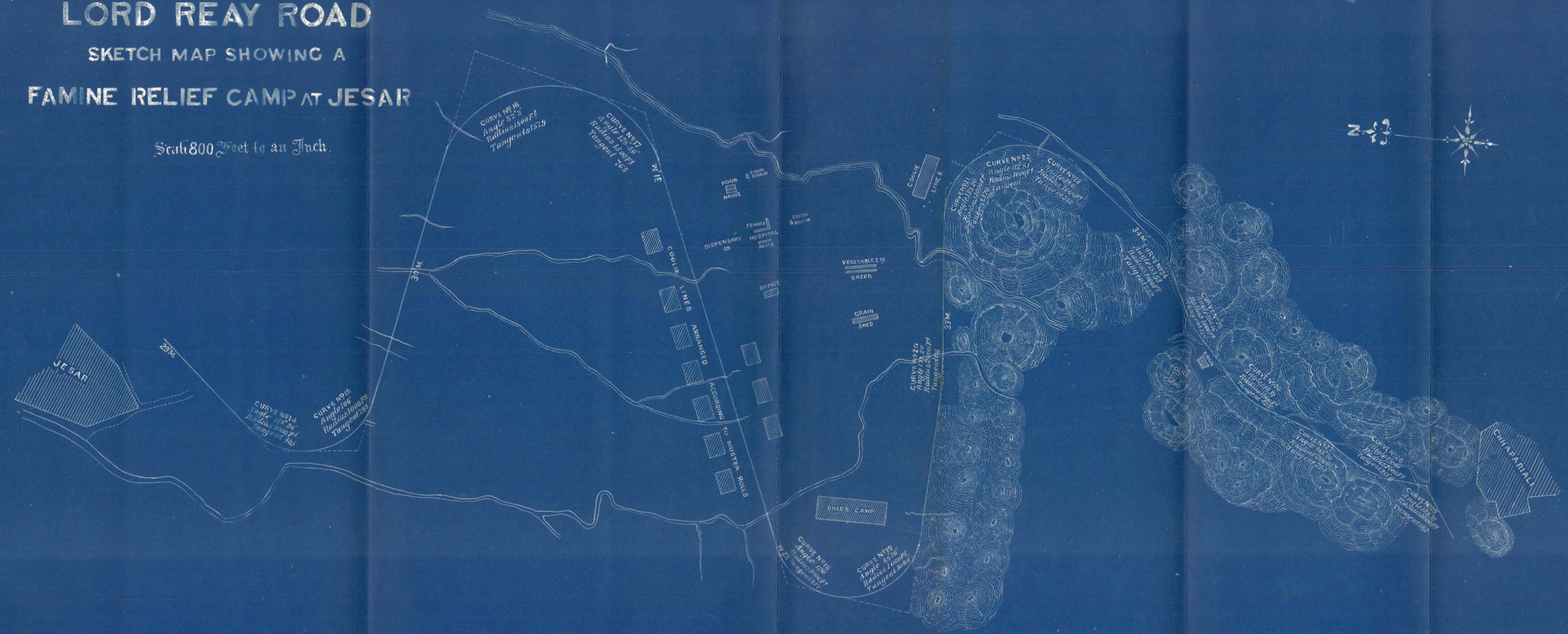
In addition to the works carried out by professional agency, under the Public Works Department, a long programme was undertaken under the supervision of Revenue officers. These supplied labour for people in the vicinity of their villages, who for various reasons could not be employed on the central relief works. They consisted chiefly of the digging of new wells ; the deepening of existing ones ; the digging and deepening of new and old tanks ; the construction of embankments or palas ; the repairing of village roads and similar works. The amount of money expended under these various headings is indicated in the Appendix which classifies the expenditure on relief works. There is reason to believe that much permanent good will result from, at all events, a considerable portion of this expenditure, and particularly from that incurred upon wells. Before this famine the State had as many as 12,319 wells used for irrigation, and Your Highness, recognizing the inestimable service which agriculture derives from this form of irrigation, urged the Revenue authorities to lose no opportunity of adding to the number of *pukka* built wells, at once sanctioning a grant of Rs. 1,50,000 for that purpose, with an additional grant of Rs. 39,695 for deepening and cleaning out and otherwise improving old wells. *Kacha* wells were sunk in great number by the authorities under the encouragement that was given them to raise irrigated and quick-growing crops ; but these belong to another chapter. However it is worth recording that no fewer than 14,263 wells were in use

# LORD REAY ROAD

SKETCH MAP SHOWING A

## FAMINE RELIEF CAMP AT JESAR

Scale 800 Feet to an Inch.



during the famine for the irrigation of quick-growing fodder and hot weather crops, of which 1,500 were new *pukka* built wells, and 444 *kacha* wells, to say nothing of the old wells that were repaired. This gave an irrigating capacity equal to 171,204 bighas or 57,068 acres.

### TANK EXCAVATION.

The accompaniment to this report marked (L) gives statement regarding the number of new tanks excavated and old ones deepened in Your Highness's State in 1899-1900 and the amount of expenditure incurred on them. I give below an abstract of this appendix, from which it will be seen that agreeably to Your Highness's order no fewer than 94 tanks were excavated and repaired, at a cost of Rs. 1,37,857. Some of these were made through the State Engineer's Department, and the rest through the Revenue Department.

Name of District.						No. of Tanks.	Amount of Expenditure.		
							Rs.	a.	p.
Daskrohi	...	...	...	...	...	15	83,866	2	11
Mahuwa	...	...	...	...	...	13	5,215	10	2
Talaja	...	...	...	...	...	6	4,448	3	0
Bhal	...	...	...	...	...	17	3,251	12	11
Lilia	...	...	...	...	...	8	3,663	12	9
Sihor	...	...	...	...	...	4	1,065	3	4
Gadhda	...	...	...	...	...	5	13,417	6	7
Umrals...	...	...	...	...	...	7	3,071	4	3
Kundla...	...	...	...	...	...	9	3,043	8	0
Botad	...	...	...	...	...	9	9,659	11	9
Port Albert Victor Mahal	...	...	...	...	...	1	7,155	0	0
Total						94	1,37,857	11	8

I may observe here that all these tanks are intended to increase the efficiency of the water-supply of the towns and villages concerned. So carefully has the work of excavating and deepening these tanks been executed that most of them will give storage for one year, and some for two years. They will thus ensure against scarcity of drinking water in times of drought. In addition to this direct supply, these tanks feed the village wells from which the crops are irrigated.

Your Highness's State, like many of the other States in the Province, has to encounter great difficulty in undertaking any extensive schemes of irrigation. Intersected and interlaced as it is by villages held by large as well as petty Chiefs under separate jurisdictions, the inconvenience of different boundaries and jurisdictions has to be faced at every step. It is very difficult to persuade the owners of such intervening territory to come to a fair settlement, although it would be as much to their interest as to ours if they would co-operate with us.

### PIECE WORK AND TASK WORK.

The usual difficulties connected with the choice between these two methods of remunerating famine labour had to be encountered. The experience of the Government of Bombay, in connection with this problem is instructive, and it was not lost sight of by the officers in charge of famine operations in Bhavnagar State. In the famine of 1896-97 both methods were resorted to in the Deccan. Task work was generally found to work well, especially in the case of earthwork. Piece work "did not seem to the Governor in Council to be suitable for general adoption in the circumstances of acute distress prevailing in this Presidency, and it would have been in the highest degree injudicious to try on a large scale an experiment which would dislocate the fairly satisfactory arrangements which



“ had been made, and probably have the effect which a radical change had in 1877 of inducing people without other resources to leave the works and wander about, until they were forced into poor-houses or died of starvation (*vide* para. 84 of letter 364, Revenue Department, Famine, from the Government of Bombay to the Government of India)”. What was done in Bhavnagar under the two methods may be briefly indicated. Piece work was tried on the Jesar works, but with unsatisfactory results. The State Engineer reports that some of the workers on the gangs were lazy, while others, in the desire to earn as much as they could, over-worked themselves. Thus large numbers of workers were not paid enough to satisfy their hunger ; they lost condition, and suffered in health. On the other hand the task system answered fairly well, but this was only at the cost of constant fining and strict supervision, and this involved a great strain upon the supervising staff, especially at Jesar during the hot weather, where a large number of temporary clerks suffered from sunstroke. Our experience has shown that piece-work is undoubtedly easier for the supervising staff, but this advantage is more than thrown away where there is a large proportion of idlers in a gang. With task work it is essentially different. The largest number of *dippers* to a burrow pit is two, and carriers, generally four in number, are given to them according to the *lead* and height of the bank, so that in each pit there are generally about six persons, usually members of one family who eat and live together, and have an interest in working up to a reasonable standard. We followed the task work system for this reason, and also because the Famine Code lays it down that great care should be taken to see that the workers do not lose condition.

The following table shows the daily average number of men, women and children among relief workers in the last week of each of the months named :—

Month.	Men.	Women.	Children.	Total.
August 1899 ...	3,661	4,825	1,522	10,008
September " ...	9,252	13,372	4,245	26,869
October " ...	7,545	11,639	3,385	22,569
November " ...	9,308	14,684	4,121	28,113
December " ...	5,701	8,955	2,428	17,084
January 1900 ...	4,618	7,016	1,998	13,627
February " ...	6,471	10,127	2,666	19,264
March " ...	8,349	12,892	3,726	24,967
April " ...	10,933	31,149	7,409	49,491
May " ...	5,987	8,741	3,824	18,552
June " ...	5,514	8,199	3,929	17,642
July " ...	5,885	9,116	4,495	19,496
August " ...	1,371	1,913	484	3,768
September " ...	706	1,180	327	2,163
Total ...	85,801	148,758	44,554	278,618

*Works executed through professional agency.*—Accompanying this report is a statement (*Appendix D.*) relating to relief works executed under professional agency. It specifies the nature and extent of the works, and the amounts expended on them, contrasting these with the outlay that would have been incurred at ordinary rates. A summary of this statement is here appended. It will be seen that the expenditure, exclusive of Rs. 72,400 given in gratuitous relief, amounted to Rs. 11,35,648, that the cost of the work at ordinary rates would have been Rs. 14,23,336, and that the bulk of the expenditure—Rs. 7,56,890—was upon the construction of new roads.

DISTRICT.	Improvements to existing roads.		Construction of new Roads,		Tanks works.		Works for the supply of drinking water.		Buildings.		Miscellaneous reclamation, etc.		TOTAL.		
	Famine expenditure.	Value at ordinary rates.	Famine expenditure.	Value at ordinary rates.	Famine expenditure.	Value at ordinary rates.	Famine expenditure.	Value at ordinary rates.	Famine expenditure.	Value at ordinary rates.	Famine expenditure.	Value at ordinary rates.	Expenditure exclusive of gratuitous relief.	Gratuitous relief.	Value at ordinary rates.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Daskrohi ... ..	51,416	63,709	3,640	4,516	79,350	99,845	37,575	42,815	.....	.....	22,785	21,973	1,94,766	277	2,36,135
Botad-Gadhda ... ..	.....	.....	69,218	76,435	18,432	22,908	.....	.....	.....	.....	3,050	3,281	90,720	.....	1,02,624
Kundla-Jesar ... ..	.....	.....	5,67,358	6,91,135	.....	.....	.....	.....	.....	.....	13,100	13,313	5,79,958	66,379	7,70,827
Mahuwa, Port Albert Victor ...	11,452	14,312	1,16,174	1,37,388	11,466	14,315	18,784	23,460	79,018	82,745	33,810	35,736	2,70,204	5,744	3,13,750
Total ... ..	62,868	78,021	7,56,890	9,09,474	1,09,268	1,37,068	56,359	66,275	79,018	82,745	72,425	77,353	11,35,648	72,400	14,23,336

The statement accompanying this report, marked E, supplied by the State Engineer, shows the daily average numbers employed in each month on the different classes of works under professional agency, and the total units, including dependants, and expenditure from August 1899 to September 1900. An abstract of this appendix showing the total units (including dependants relieved gratuitously), the expenditure incurred, and the incidence per head, is given below:—

DISTRICT.	Units.	Expenditure.	Incidence per head.		
			Ra.	a.	p.
Daskrohi ... ..	1,097,503	1,93,166	0	2	10
Botad-Gadhda ... ..	721,528	90,721	0	2	0
Kundla-Jesar ... ..	5,498,821	6,45,958	0	1	10
Mahuwa, Port Albert Victor ... ..	1,449,633	2,76,204	0	3	0
Total ...	8,768,985	12,08,049	0	2	2

*Wages.*—Like the British Government we began with a wages scale which proved to be too attractive to the people. The State Engineer reported that it was more than ample, and that people were regularly leaving the works to carry supplies to their villages. After careful enquiries it was decided to recast the scale, reducing men workers to the women's rate, women getting the grown up child's rate, while the working children got on the average an anna a day. This scale was adhered to to the end, and was found to work satisfactorily. All payments were made in grain, monthly contracts being made for that purpose, and the quality of the food-stuff supplied being frequently tested by surprise visits to the contractor's stores.

*Dependants and Children.*—It was not found necessary to start kitchens on the relief works, but instead of this each non-working child who had relations on the works was given six ounces of rice daily, the condition accompanying the dole being that the child should be kept in good condition. This condition was kept, for the parents were glad to have this daily addition to the common stock. At each camp poor-houses were constructed on a small scale for the old and decrepit who had accompanied people on the works. Orphans whose parents had died in the camps were admitted into these poor-houses.

*Water-supply and Hutting.*—As there was good water close to the surface of nullas and river beds, no difficulty was experienced in obtaining a sufficient supply of water on the works. Small, deep wells, with dry stone masonry linings, were sunk there, and watchmen were put in charge to protect them against pollution. No provision for hutting was made in the Bhavnagar Famine Code, because it was recognized that shelter would be necessary only during a long continuance of rain, and this of course would be the signal for the workers to disperse to their villages. Besides, experience had shown that hutting was possible on a large scale only on large works, where the people would be stationary for some months. On road works, of course, the huts would have had to be shifted as the line advanced. Nevertheless it was apprehended that some of the workers, who had passed through more than one bad season, and were consequently much reduced, might linger on the works after the rains broke, and to meet the case of such people, and also as a precautionary measure, it was decided to keep in stock a large number of rowtees, made of gunny bags, which proved to be quite water-proof in the heaviest rain.

*The Closing of the Works.*—Relief operations were everywhere unexpectedly prolonged owing to the unusual lateness of the monsoon, and the daily average number of workers rose from 14,250 in June to 17,450 in July. Except in Mahuwa, and in the neighbourhood of Port Albert Victor, rain did not fall anywhere until in the first week of August. This gave rise to the gloomiest apprehensions on the part both of the administration and the people, for a rainless July—usually the month of heaviest rainfall—seemed to threaten us with a second and a more disastrous famine. Heavy rains at the beginning of August at once dispelled our anxieties, and without any pressure from the authorities the people at once began to leave the relief camps for their villages. The Port Albert Victor Camp was quickly closed, and only one central work, at Jesar, was kept open. As the rains continued, numbers, after each weekly payment, left for their homes, until on the 30th of September only about 250 people remained, and these were only kept on to collect and store the tools and plant. Virtually the relief works were closed on the 1st of October.

#### PUBLIC HEALTH AND MORTALITY ON RELIEF WORKS.

Though no deaths from starvation have been reported, and there is reason to hope that few if any have occurred, there was a high mortality in all parts of the State, due mainly to fever, dysentery, and cholera. Appendix G gives a detailed statement of the monthly mortality. One noteworthy fact which is exhibited in the statement is that although in normal years August, September, October and November are the most unhealthy months, these early months of the famine—probably because of the unusual dryness of the soil—were abnormally healthy, especially in the districts which were most famine-stricken. It is difficult to estimate exactly the loss of life that is due to the famine, still more so to compare it with that which was due to the famine of 1877-78. In that year there is no doubt the population was sensibly diminished. In the previous Census—that of 1872—the population was found to be 428,500; in 1881 it was enumerated at 400,323, or a loss of 28,277. The Census that will be taken next February should throw much light upon this important question, and should enable us to judge how far the 11,921 deaths attributed to causes other than starvation, associated with the famine, represent the true wastage due to that calamity.

*The Death Rate.*—The following abstract of Appendix G already referred to shows the mortality per thousand in 1899-1900 in the various districts, comparing it with that of the corresponding month of the previous year :—

District.	1897-99.		1899-1900.	
	Total Mortality.	Per 1000.	Total Mortality.	Per 1000.
Bhavnagar .. ...	1,378	23·9	4,743	82·2
Sihor ... ..	452	45·2	847	84·6
Mahuwa ... ..	513	30·7	1,026	61·4
Kundla ... ..	428	35·5	1,641	136·0
Lilia ... ..	110	57·2	448	233·1
Umrula ... ..	168	31·6	433	81·5
Botad ... ..	286	37·0	1,014	137·8
Gadbda ... ..	190	34·4	1,031	186·7
Talsja ... ..	188	48·4	321	82·8
Rajula (Port Albert Victor Mahal) ... ..	162	32·8	367	74·5

It will be seen that Sihor and Talaja were the only districts where the mortality was not more than doubled, while in Bhavnagar it was more than trebled, and in Kundla, Lilia, and Gadhda it was more than quadrupled.

*The Condition of the Workers.*—The Chief Medical Officer reports that the condition of the people admitted on the relief works was on the whole fair, a circumstance which may be attributed to the promptitude with which Your Highness caused relief works to be started. This is one reason for the absence of deaths directly due to starvation. Another is that Your Highness has, in ordinary years, kept up the poor-houses established through the benevolence of your revered father at the head-quarters of the various districts, where cooked food is given to infirm people, and whither, in accordance with a standing order, all needy people are sent. One of the most happy results of Your Highness' early tour in the affected districts was an order to at once extend the scope of these institutions, and throw them open to all people who were incapacitated by age or infirmity from earning their living. As to the health of the people in the large camps our experience has not confirmed the theory that has been advanced elsewhere that the concentration of labour in large camps tends to sickness. The State Engineer reports that "the concentration of labour in the two large camps had "no injurious effect on the health of the people, as good water was plentiful, food-  
"stuff frequently inspected, and camp inspectors were employed to look after the  
"sanitary arrangements. The death-rate was small, and the number in hospital  
"ridiculously little when compared with the number employed. On the whole  
"the low castes did perhaps the best of any during the famine, certainly on the  
"Jesar works. They are not averse to eating dead carcases, and as a great  
"number died in the large Dharamsala for cattle at Chhapariala, these people  
"had a good time of it." This Dharamsala is the well known place to which the Shrawaks, with the most humane of intentions, no doubt, but with a certainly misdirected charity, send infirm and disabled cattle to die of starvation.

*Cholera on the Relief Works.*—Cholera first made its appearance on the works on the 20th April 1900, at Port Albert Victor, the epidemic lasting there until the 17th July. During that period 444 persons were attacked, of whom 251 died, amongst the victims being Mr. R. Procter Sims, Your Highness' Chief Engineer, whose death, in the midst of labours which he performed with never-failing energy and devotion, is sincerely regretted by everyone who was associated with him in the service of the State. The outbreak on the Lord Reay Road works at Jesar began on the 23rd May. The number of persons attacked, 523, was larger than that in the Port Albert Victor epidemic, but there was a larger proportion of recoveries, the deaths numbering only 236, or fifteen fewer than in the other epidemic. The epidemic on the Port Albert Victor-Mahuwa Road works was the mildest of the three. It began on the 25th May, and lasted until the 21st June, with 190 attacks and 77 deaths. The State Engineer, reporting on the three epidemics as a whole, observes that "the outbreak was in no way due to any want of sanitary arrange-  
"ments in the camps, but was simply a wave of disease which started at Gogha  
"and then swept over the whole of the State. The usual panic set in, and  
"people started bolting from the works to their villages, a number I am afraid  
"to simply die by the way. It was during this outbreak that the Head of the  
"Department, while sticking nobly to his post and refusing to leave the infect-

“ed district for fear that the famine and disease stricken people would not be “ properly cared for, lost his life, and the Department a trusted master and friend.” There were a few cases of measles and small-pox on the works. The Chief Medical Officer took the precaution in good time to vaccinate all the children on the works, the vaccinations numbering 1,530, with 155 re-vaccinations, of which 1,545 were successful. I believe that this is the first time that systematic vaccinations have been resorted to on a relief camp in Kathiawar, and it is more than likely that we owe to this timely precaution our virtual immunity from small-pox.

*Temporary Dispensaries.*—Temporary hospitals were set up on the various stages along the line of relief work, at which out and in-patients were treated. The following table gives particulars relating to the work of these institutions, which served a very useful purpose:—

Name of Dispensary.	Date from which opened and on which closed.	In-patients.					Out-patients.						
		Balance.	New admissions.	Total.	Cured.	Died.	Balance.	Balance.	New admissions.	Total.	Cured.	Died.	Balance.
Surnala ... ..	29 Sep. 1899 to 6 Dec. 1899	...	1	1	1	...	...	...	572	572	569	5	...
Khuntavda... ..	1 Nov. 1899 to 7 Dec. 1899.	...	...	...	...	...	...	...	471	471	410	5	56
Lord Beay Road ... ..	8 Dec. 1899 to 7 Sep. 1900.	...	1,507	1,507	962	521	24	56	3,460	3,506	3,374	88	44
Khilera ... ..	8 Oct. 1899 to 12 Dec. 1899	...	...	...	...	...	...	...	570	570	570	...	...
Moti Talav... ..	8 Dec. 1899 to 31 Dec 1899.	...	...	...	...	...	...	...	28	28	22	6	...
Port Albert Victor ... ..	26 Mar. 1900 to 7 Sep. 1900.	...	528	528	256	272	...	...	1,648	1,648	1,542	67	39
Mahuwa Road ... ..	16 June 1900 to 23 Aug. 1900.	...	200	200	124	71	5	...	241	241	229	4	8
Total ... ..		...	2,236	2,236	1,343	864	29	56	6,970	7,086	6,716	173	147

### CHARITABLE RELIEF.

While the chief part of the burden of famine relief necessarily rested upon the Darbar, free scope was left for the exercise of private charity in supplementing the efforts of the State. But the charity of individuals had to be stimulated by the initiative and example of Your Highness, and when once called into exercise it was dispensed with no small advantage to sufferers whom the bounty of the State would not as easily have reached. The town of Bhavnagar was the only place at which a formal appeal was made to the charity of the public. The Mahajan Sheth, who on such occasions represents the Mahajans, and is regarded as the head of the community, convened a public meeting for the 24th of December 1899, over which, in response to a generally expressed feeling, Your Highness presided. A subscription list was opened, with Your Highness' contribution of Rs. 7,000 at the head, and Rs. 30,736 were subscribed on the spot. The total included, in addition to Your Highness' contribution, Rs. 9,084 from the Darbar servants, Rs. 4,552 from the Mahajans, and Rs. 10,000, the balance of an old Dharmadaya fund which was in dispute between certain sections of the Mahajans. It will give Your Highness satisfaction to learn that Mr. Percival, the former Joint Administrator of the State, sent Rs. 100 to the fund, and thus showed his continued interest in a State to whose well-being his wise administration had contributed in years gone by. The fund was allocated to various purposes, including,

amongst others, the maintenance of cheap grain shops ; the support of cattle ; assistance to persons of good family who could not accept public charity ; the temporary support of orphans before admission to the Darbar poor-houses. Local committees for the administration of the fund on these lines were formed in Kundla, Mahuwa, Botad and Sihor, and excellent work was done by them. The Mahuva Committee deserve special commendation for the liberal and systematic way in which they went to work. In addition to this there was a good deal of unorganized charity in the form of private assistance, such as the free distribution of grain and cooked food, and the assistance given to destitute families of good position, in some instances in such a way that the recipients did not know who their benefactors were. Cheap grain shops were opened on private account in the chief towns of the State. It was originally proposed that these should be run by the Darbar as part of the official system of relief, but this policy was avoided on principle, for it was felt that such places, if conducted by the Darbar, would involve State competition with private trade, and that they would have necessitated importations of grain on State account, which would have been equally objectionable. These ventures were therefore left to philanthropic gentlemen, though the Darbar gave liberal pecuniary assistance. They were so far availed of by the people that the sales at reduced rates numbered 10,77,760. The loss on the transactions amounted to about Rs. 10,000, of which the Darbar bore over three-fourths.

*Poor Houses.*—The Famine Code prescribes that relief shall be given to infirm, friendless or incapacitated persons, in poor houses, and to orphans. Some provision already existed for complying with the former requirements of the Code, for several years ago Your Highness' revered father passed orders that people of the class named should be supplied daily with cooked food at the district headquarters, and with clothes once or twice a year. On the first sign of famine Your Highness gave instructions that the scope of this form of relief should be enlarged. In addition to this, poor-houses were established at all district head-quarters, to which the blind, the crippled, the aged, and persons otherwise incapacitated were removed, and medical comforts were given them in addition to food and clothing. Destitute wanderers who had cut themselves adrift from their homes and were unfit for work, also found a welcome in these institutions, quite irrespective of whether they were Bhavnagar subjects or not. Where darbari buildings were available they were utilized as poor-houses ; where they were not buildings were hired and made available for the purpose. In the districts poor-houses were established at Mahuwa, Kundla, Lilia, Umralla, Botad, Port Albert, Talaja, Sehor, Gadhda, and Jesar. Separate quarters were provided for males and females, and a sick ward, a kitchen and a store room formed part of each of these institutions. In this good work State help has been supplemented by private subscriptions, and the Anath Ashrams (poor-house) at Adhewada, near Bhavnagar, and at Mahuwa, deserve special notice. The latter was maintained by a local committee ; it has had the advantage of receiving pecuniary and other assistance from Your Highness, and it has supported thousands of poor. The total number relieved in the poor-houses of the State, including the Shri Takhatsinhji Ashram, was 1,487,100 and the total expenditure on their account was Rs. 1,00,803. In this number, particularly at the Mahuwa poor-house, were many who came from other States. The Committee of the Bhavnagar Relief Fund supplied clothes at a cost of Rs. 1,919, and Rs. 15,425 were received through the Special Famine Officer for

Kathiawar as the Bhavnagar share of the allotment to the Province of Kathiawar from the Indian Charitable Relief Fund for the provision of clothes for the famine sufferers. The accompanying photographs give an idea of the condition of the poor in the district poor-houses. Considering the reduced condition in which the people arrived, the mortality in the poor-houses was not high, the total deaths being 1,373. This includes deaths in the temporary poor-houses established on the relief works.

*The Shri Takhtsinhji Memorial Poor-house.*—A memorial which had long been in preparation to perpetuate the name and virtues of Your Highness' lamented father has happily been turned to account to meet the necessities of this year of distress, as well as to carry on in permanence the work of charity to the poor upon which the late Maharajah's heart was set. A large fund had already been raised, but no decision had been come to as to the form that the memorial should take, though it was well known that Your Highness favoured the idea of a central poor-house in which the destitute and incapacitated could find a home and medical care. Recently, however, the Memorial Fund Committee obtained Your Highness' formal consent to the erection of a poor-house to be called the Shri Takhtsinhji Anath Ashram, to be located in suitable buildings erected on a site to be furnished free of charge. Your Highness was asked further to allow the buildings as soon as finished to be handed over to the Darbar, who should keep them in repair, and undertake to bear the cost of maintenance of the inmates. Your Highness was graciously pleased to sanction these proposals, and to declare that the Shri Takhtsinhji Anath Ashram should henceforth be a home for all the poor, infirm, and needy people to be found in the Bhavnagar State. The Committee being left free to choose their own site, selected one in a most salubrious position on the banks of the Adhewada River, within reach of an excellent supply of water. They commenced building operations at once, and by the second week in February the institution, which cost over Rs. 15,000 to erect, was ready for the reception of inmates, and on the 4th of March it was formally opened by Colonel Hunter, the Political Agent for Kathiawar. It consists of ten long barracks, capable of holding 1,500 people, with a dispensary and hospitals for males and females, infectious cases and cholera cases. Three of the barracks have been reserved for females, three for persons with families, one for orphans, two for males only, and one especially for Mahomedans. Separate accommodation is provided for people of low castes, and the necessary provision has been made for attendants. Two barracks have been built especially for lepers.

The eleven illustrations which appear on the following pages show :—

- (1) A general view of the Ashram.
- (2) A general view of the Ashram while the inmates are at work.
- (3) Some of the inmates at the time of first admission.
- (4) Worst types of the famine stricken people at the time of their admission.
- (5) Some females with their children at the time of admission.
- (6) Some males with their children at the time of admission.
- (7) Inmates of the Ashram after their stay for 3½ months.
- (8) Orphans with their nursing mothers.
- (9) Breakfast time.
- (10) Lepers near their quarters.
- (11) Women sewing, boys studying, and the potter working at his wheel.



An Hospital Assistant is in charge of the dispensary and hospitals. Besides attending the dispensary and the hospitals, he examines the sanitary arrangements, and the food before it is given to be cooked. Almost all the work in connection with the institution is done by the able-bodied inmates of the poor-house, and it is hoped that this side of the institution may be successfully developed, as in the case of a family of potters who, as soon as they had recovered from the pitiable condition which they were in on admission, set to work making earthen vessels for the use of their fellow inmates. Some of the female inmates are taught sewing. A class for boys has been opened to teach boys, and with Your Highness' permission, a School will shortly be started where the boys of the poor-house and those of the village of Adhewada can attend. Your Highness gave orders that as soon as the famine was at an end the infirm, aged and crippled and orphans from the district poor-houses should be removed to the Shri Takhatsinhji Anath Ashram, and this order is being gradually complied with.

*The Care of Orphans.*—In accordance with Your Highness' instructions an orphanage has been established in connection with the Shri Takhatsinhji Anath Ashram. The number of inmates at present is 297, but this will probably increase as the above order is carried out. Orphans have been left on our hands in various ways. Happily there were few cases in which children were abandoned by their parents, and in most instances the orphans were the children of mothers who have been confined soon after admission, and have died in child-birth, or the mothers of young children have died in the poor-houses, leaving their children to survive them. In numerous instances wet nurses were engaged, and for other children women were engaged to look after them, and much kindness and tenderness have been shown by these people to their little charges.

#### SUPPLIES OF FOOD GRAINS.

The State records show that in the famine of 1825-26, as well as during the period of high prices in 1864-65, the Darbar largely imported grain on their own account. And in 1877-78 the Joint Administration made large importations of various food grains from Karachi and Bombay. In the interval the question of the policy of grain importation by the State has been keenly discussed, and the weight of economic and administrative authority has been decidedly opposed to it. Your Highness, pursuing the principle definitely accepted long since by the Government of India, decided to refrain from any interference with trade. It was felt that no doubt if the State had imported food grains on its own account for payments in kind on relief works, or for seed for cultivators, a large saving would have resulted. But the benefit would have been only partial and temporary, and the ultimate result would have been to discourage traders from importing. There were, however, means open to Your Highness, not for interfering with, but for ensuring the free course of trade, and when the need arose for resorting to these means Your Highness did so with excellent result. In December last it was reported that a number of traders had formed a ring for speculating in grain, the *modus operandi* being such that although no grain passed prices were constantly being forced up, and this of course had a pernicious effect on other markets and seriously prejudiced poor consumers. Your Highness at once caused a warning to be conveyed to the organizers of this combination that if they continued their operations they would bring themselves within the criminal law. This brought the conspiracy—for such it was—summarily to an end, and thereupon prices

fell throughout the province, by Rs. 10 to Rs. 15 per kalshi (of 22 maunds). As to the stocks of grain in the State, it should be mentioned that as required by the Bhavnagar Famine Code enquiries were made, as soon as scarcity seemed imminent, into the grain stocks. It was found that there was much less buried juari than had been anticipated, for the holders had been tempted by the high prices in the Deccan in past years to largely deplete their stocks. The grain in store was estimated to be about 29,000 kalshis, or 319,500 Bengal maunds, sufficient for a two months' supply of the population. This was probably much less than the stocks in hand during the 1877-78 famine, which were returned at 60,000 kalshis, or 660,000 maunds, including the trade stock. But the figures are only approximate, and are not put forward as absolutely correct. The determination of the Darbar to rely upon private trade for the supply of the grain requirements of the State was fully justified by the result. As soon as it was seen that an unprecedented scarcity was imminent, the traders became active, and numbers of people who had never traded in grain before did so in the hope of making large profits. Enormous quantities of grain were imported, both for local consumption and for distribution in other parts of Kathiawar and beyond its border. A statement which appears as Appendix J. shows that the imports of food grains by sea in the year 1899-1900 amounted to no less than 3,367,773 Bengal maunds, with a value of Rs. 1,39,69,288. These figures compare with 578,209 maunds in the previous year, valued at Rs. 16,99,095; and with 360,291 maunds, valued at Rs. 10,48,860 in 1877-78, and 374,920 maunds, valued at Rs. 10,83,075 in 1876-77. It will be seen from these figures how largely this State has drawn upon the food resources of distant provinces. It is true that the famine of 1877-78 was scarcely as severe or as widespread as that through which Bhavnagar has just passed. But this alone will not account for the enormous disparity between the imports in the two years. In the famine year of 1877-78 indeed the imports were even smaller than those of the previous year, showing that the State must have met its requirements very largely either from grain in store or from the stocks of neighbouring States. On the present occasion the imports were almost exactly six times as large as those of the previous year, a quantity far in excess of course of the requirements of the State even in a year of severe famine. The explanation of the enormous disparity between last year's grain imports by sea and those of an ordinary year is that the railway has poured immense quantities of food grains, as well as grass, not only into the Province of Kathiawar but beyond its borders. The through booking by sea and rail established between Bombay and the Kathiawar Railway system has no doubt very largely contributed to the great development of traffic in the famine year. To a very large degree it may be said that the railway, with its utility so greatly increased by facilities for through booking by sea, has saved Kathiawar, for it is difficult to see how, with the terrible loss of draught cattle that has occurred, food grains could have been distributed through the suffering land. It may here be mentioned that while Bhavnagar pursued throughout a policy of free trade in grain, some of the markets upon which it depended for its supplies were at first disposed to follow a different course. Some Bhavnagar dealers who had made large purchases of grain in Surat and Broach were surprised to find that exportation from those ports was absolutely prohibited. The matter was referred to the Political Agent, and he was informed that the interdict had emanated from the Mahajans, and that the district authorities could not interfere. Similar

complaints were made to the Political Agent by other States. In 1896-97 when scarcity was threatened, the Mahajans of Bhavnagar, Rajula and other places petitioned to Your Highness to prohibit the large exportations of grain from this State that were going on, but Your Highness refused to do so.

*Abolition of Sea Customs.*—An experiment of some interest which was resorted to at an early stage in the history of this famine may here be referred to. In view of the threatened distress Your Highness was pleased to temporarily abolish the customs duty on all grain imports. This was decided on in the belief that it would encourage traders to import grain into the province and sell it at a cheap rate. But the result was disappointing. It was soon found that instead of the poor consumer getting the benefit of the remission of import duty, the advantage went to the wholesale dealer. The duty, about  $1\frac{1}{2}$  pies per maund, was too small for its remission, even if the dealers had given the buyers the benefit of it, to lead to any appreciable reduction in price. It was decided, therefore, as soon as it was clear that the poor were in no way benefitted by the suspension of the duties, to reimpose them, and this was done without complaint from any quarter. A far greater sum than has been realized by the restoration of these duties has been expended in assisting cheap grain shops and in helping respectable people of various castes who would not have accepted relief in the ordinary form.

*Prices of Food Grain.*—Detailed information in regard to prices will be found in Appendix K, which gives the monthly quotations for the various food grains, comparing them with the rates ruling in 1877-78. The following table gives the highest rates at which cheap staple food stuffs were sold during the recent famine, as compared with those which obtained in the previous famine :—

Staple food stuff.	1877-78.	1899-1900.
	Price per Rupee.	Price per Rupee.
	lb.	lb.
Wheat ... ..	14	13
Bajri ... ..	14	14
Jawari ... ..	17	17
Rice ... ..	11	13
Ghi ... ..	1.30	1.30
Gram ... ..	16	16

#### CATTLE AND FODDER.

*Losses of Cattle.*—At an early stage in the famine the provisions of the Bhavnagar Code which prescribe the submission of reports on the condition of the cattle, as well as of the people and the crops, were complied with. Reports were submitted in October and November 1899, and on the 15th January 1900 a census of the cattle was taken. The results may be summarized as follows :—

Month.	Plough cattle.	Cattle other than plough cattle.	Total.
1st October 1899 ... ..	77,129	110,478	188,607
1st November „ ... ..	73,498	106,618	179,116
15th January 1900 ... ..	66,017	138,866	204,881

It should be stated that the return of plough cattle may be accepted as being more correct than the figures for cattle generally—given as the result of superficial enquiries made by the subordinates of the Revenue Department—for Your Highness had given instructions to the Revenue Commissioner to make particular enquiries concerning the condition of the plough cattle and to submit a report. The returns show that during the month of October the loss of plough cattle amounted to 3,631. After that time the mortality was considerably reduced, as Your Highness generously supplied grass to all cultivators who were in need of it. It was in the districts of Kundla, Botad and Gadhda that the mortality was highest. Kundla, which returned 11,593 head of plough cattle on the 1st October, had by the 1st of November lost 3,920 and on the 15th January a further 535. Botad, which on the 1st October had 6,400 plough cattle lost 1,632 in a single month, and up to the 15th January it had lost in all 2,011. These numbers, however, must be small compared with the losses in the earlier months of the famine, when large numbers were dying, and undoubtedly the assistance rendered by Your Highness saved thousands of cattle from death. The Revenue Commissioner estimates the loss of plough cattle in the Botad District at 50 per cent. and in Kundla and similarly circumstanced districts at 20 per cent., while in the remaining districts it was probably from 10 to 15 per cent. The mortality amongst milch cattle has, it is feared, been even greater. Several cases are known in which *rabaris* and *bharwads*, professional breeders of cattle, having lost all their stocks resorted to the relief works. They would not have done this while they had a single animal alive. Large numbers of useful milch cattle were reported to have been sold at nominal prices mostly to be slaughtered for the sake of their skins. The truth is that efforts for the preservation of cattle in Bhavnagar were undertaken under great disadvantage. There is a very limited forest area in the State on which cattle could be turned out for grazing, and even had there been more, it is doubtful if cultivators would have taken any large advantage of it. A few cattle camps were, as a matter of fact, started by way of experiment in some of the most affected districts, but little use was made of them, and in the end they had to be closed.

*Fodder Supply.*—From the first Your Highness recognized the importance of the Darbar doing all that lay in its power to save the cattle, the plough cattle in particular, and one of the first orders passed by Your Highness after your visit to the affected districts related to the supply of fodder. Assistance was at once given in the districts where the need was most urgent, namely Bhal, Gadhda, Botad and Umralla. The fodder stocks in the State were found at the beginning of the famine to be sufficient for only a very short time, and large importations were found to be necessary. As in the matter of grain importation the principle of free and unofficial trade was relied upon, and again with success, for private enterprise was found to be fully equal to the supply of the requirements of the cultivators. Side by side with the importation of grass, every effort was made, in pursuance of orders passed by Your Highness on your return from your tour, to encourage the cultivation of quick-growing fodder, arrangements being made for supplying *kos-varat*, *bharot* and *pautha* at the expense of the Darbar to all who desired it. In this way an expenditure of Rs. 32,289 was incurred, the amount being distributed amongst the various districts as follows :—Botad, Rs. 4,534 ; Gadhda Rs. 3,764 ; Umralla Rs. 10,248 ; Lilia Rs. 1,309 ; Kundla

Rs. 4,296 ; Sihor Rs. 3,935 ; Daskrohi Rs. 1,830 ; Talaja Rs. 1,439 ; Jesar Rs. 78 ; Port Albert Victor Mahal Rs. 678 ; Mahuwa Rs. 180. In addition to the above-named measures, a number of cultivators were allowed to fell the babul trees growing in their fields and use them for *bharot-pavtha*. The steps taken to encourage the growth of quick growing fodder had the most beneficial results. In a short time the young green herbage sprang up on all sides, and changed the aspect of a considerable area of the country. A gratifying proof of the success of the measure was afforded when, early in October, Colonel Hunter, the Political Agent, paid a flying visit to Botad, one of the worst districts, and during a ten-mile drive to Ningala saw thriving *chastia* growing in all directions.

*Tagvi Grass Supply.*—Although, as has been explained, the State rigidly refrained from interference in any shape with private trade it had to make large purchases of fodder on its own account in order to be able to supply it to cultivators as *tagvi*. And it was recognized that if the cattle, on which the agriculture of the State were so absolutely dependent, were to be saved, this must be done upon a liberal scale. Private traders responded promptly to the Darbar demands, and grass and *Kadab* were imported in unprecedented quantities from Bombay, Kavi, Tarapur, Satpati, Umargam, Bilimora, Denu, Bulsar, Agashi, Naosari, Kim, Thana, Umargadi, Kalyan, Kalai, Manor, Matwad, Kolak, Bassein, Cambay and Damaun. The total quantity imported was 43,943,000lbs., of the declared value of Rs. 5,49,286, though the actual value is estimated at 12 lakhs of rupees. Of this 8,000,000lbs. of grass were purchased by the Darbar, at a cost of Rs. 1,76,000. The following table shows the quantities and the value of the grass advanced as *tagvi* in the various districts :—

No.	Name of District.	Quantity.	Value.
		lbs.	Rs.
1	Mahuwa, Jesar and Kundla ... ..	841,810	18,502
2	Talaja ... ..	130,000	2,860
3	Iilia ... ..	201,088	4,422
4	Botad ... ..	505,850	11,110
5	Gadhda ... ..	729,724	16,060
6	Daskrohi ... ..	390,010	8,560
7	Sihor ... ..	592,350	13,224
8	Umralla ... ..	757,178	16,654
9	Kundla ... ..	59,570	1,320
10	Bhal, Botad, Gadhda and Umralla. (These four Districts were supplied with grass, locally purchased when the first outcry of distress was raised in August 1899.)	800,000	17,600
	Total... ..	5,007,580	1,10,312
	Grass purchased for Darbar animals...	2,992,420	65,688
	GRAND TOTAL...	8,000,000	1,76,000

In a time of acute distress like that through which we have lately passed an agricultural community is impelled to have recourse to all available expedients for supplementing its ordinary fodder supplies. Thus, prickly pear was used to a large extent for the feeding of cattle, while the mangrove swamps which abound on the shores of Bhavnagar Creek supplied valuable feeding stuff, the

fruit being eaten both by cattle and human beings. Milch cattle thrive on it, for it is pleasant to the taste, and it has been found to assist milk production. Besides this, the gathering of the leaves, on which thousands of cattle subsisted, provided labour for the poor, who carried it off in carts drawn by themselves.

#### LOANS TO LANDHOLDERS AND CULTIVATORS.

*Bhayads, Mulgirassias and other subordinate Vassals.*—There is, unfortunately, little need to explain to anyone connected with Bhavnagar or with, indeed, any of the Rajput States of Kathiawar, that in all of them there is a large community of landholders of good family, many of them closely connected with the ruling houses, who are hopelessly indebted and impoverished. In a season like that which the province has just passed through, these classes would under any circumstances undergo a severe trial, and in Bhavnagar their situation would have become most precarious unless Your Highness had come to their aid and had helped them to tide over the period of distress. First amongst them are the Bhayat, cadets of the Chief who, on separating from the parent house, has received lands or villages as giras. Then come the Mulgirassias, original owners of villages, who have made over a portion of their interest to the State, and of whom there are a large number in Bhavnagar. The view that was taken of their claims may be thought to be somewhat indulgent, but these classes form the chief part of the gentry of the State, and it is sound policy on the part of any Government not to allow any part of the social organization to become permanently depressed, as these classes would undoubtedly have been, had they been left to themselves during this grave crisis, in their fortunes. The service which Your Highness has rendered to these unfortunate proprietors will, we may be sure, long be gratefully remembered. One thing we have learnt during the famine in connection with giras, lands and their holders which ought here to be put upon record. Without entering into any detailed criticism of the rules regarding the sale and mortgage of giras lands, which were promulgated by the Agency nine years ago, I may be permitted to point out that our experience in these hard times has clearly demonstrated that these rules work prejudicially to the girassias themselves. For if they had been rigidly applied it would have been impossible for the States to come to the rescue of the Bhayads and Mulgirassias as they have done. The fact that they have been able to give the help that has been so greatly appreciated, is due in the main to the timely relaxation by the Political Agent of various rules and formalities which stood in the way of a prompt disposal of this class of business. And here I ought to say that, although the Political Agent's notification, dated 19th October 1899, greatly facilitates the sale of giras, Your Highness has been careful not to take advantage of the depressed circumstances to which most of the Mulgirassias have been reduced by the famine. As a matter of fact there have up to now been only three instances in which giras has been purchased. Besides Bhayads and Mulgirassias there is a large number of inferior holders—inamdars, jiwaidars and others on service tenure—who enjoy their lands only during the pleasure of the Darbar, and who are therefore unable to raise money on the security of their holdings. These people felt the pressure of the famine even more severely than their neighbours who had credit to pledge, and many of them were in want of maintenance. As early as in October a large number of applications had already been made to Your Highness to assist these people, and it was determined that help should be given to those who applied to the Darbar in writing for it. As soon as

this decision was made known, people crowded into Bhavnagar to take advantage of it. The amounts lent to the various classes referred to in this chapter were as under :—

	Rs.
Bhayads ... ..	28,000
Mulgirassias ... ..	1,35,440
Jiwaidars and Dharmada holders ... ..	5,735
Other tenants holding land on service ... ..	38,102
	<hr/>
	Rs. 2,07,277
	<hr/>

Besides the assistance thus rendered to the above classes, the Darbar has had to provide on relief works and in poor-houses for the bulk of the destitute people on their estates. For although the revenue officers called upon these landholders to find employment for their people on works in their own villages, very few of them did so ; the rest were looked after by the Darbar.

*Tagavi advances to Cultivators.*—Reference has already been made to the assistance given by the Durbar to cultivators for the production of quick-growing fodder, and to tagavi advances of grass for the maintenance of bullocks. Further assistance, classed as tagavi, was rendered in the cases of cultivators who had lost all their plough cattle, and whose families were not able to assist them to raise irrigated crops. In these cases the Darbar supplied manual labour, which not only gave valuable aid to the cultivator, but which provided employment to the Ubhadias who had not already gone on relief works. The measures that were taken for ensuring not only an efficient and adequate distribution of advances, but their application to the purpose for which they were intended, were devised with the greatest care, and I believe I am justified in saying that they attained the object in view. In addition to the Revenue Commissioner, the wahiwatdars of each district, the deputy wahiwatdars, and the thanadars, who, as the permanent establishment, were responsible for the due working of the tagavi regulations, special relief officers and circle inspectors, numbering in all over eighty, moved about the districts and personally enquired into each application for tagavi, gave the advance and watched the progress of the work for which it had been made, inspected the work, the wells and tanks, and distributed grass amongst the cultivators. The tagavi advances to cultivators, irrespective of the large sums expended on wells under the Public Works Agency, amounted to Rs. 2,89,378, of which Rs. 32,289 were in *kos-varat* ; Rs. 1,10,332 in grass ; Rs. 200 in seeds for quick-growing fodder ; Rs. 40,000 in seeds for irrigation crops ; Rs. 75,000 seeds for monsoon crop ; Rs. 30,057 in grain for maintenance ; and Rs. 1,500 in assistance given for weeding. As the figures show, seeds for monsoon crops were freely advanced to such of the cultivators as applied for them, while in some instances the advances were made by the money-lenders, under the guarantee of the Darbar, exorbitant interest being thus guarded against. The bulk of the tagavi advances were necessarily made as the monsoon approached and the cultivators began to return to their villages, and assistance had then to be transferred from the relief works to the villages in the form of doles and subsistence allowance. It was gratifying to find that many cultivators to whom help was offered in the belief that they needed it were in reality in such good circumstances as to be able to decline the Darbar's assistance.

## REVENUE COLLECTIONS, SUSPENSIONS AND REMISSIONS.

In accordance with Your Highness' instructions, special measures have been adopted to ensure that the revenue should be collected with careful regard to the distressed condition of the cultivating classes. In addition to the standing revenue establishment, (which consists of the Revenue Commissioner, three Assistant Revenue Commissioners, twelve wahiwatdars, six deputy wahiwatdars, and thirty-five thanadars) all the district nyayadhishes and three from Bhavnagar were given wahiwatdar's powers under the Revenue Code, and rendered valuable assistance to the overworked revenue officers. The methods adopted in times of scarcity by the Joint Administration was closely followed in the main—that is to say, the utmost pains were taken to make the collections proportionate to the produce realized. Under the system inaugurated by the Joint Administration, as described by Mr. Percival, it was customary to make large remissions, notwithstanding the fixed assessment, whenever a deficient rainfall, or a large fall of prices, rendered them necessary. In his Administration Report for 1874-75 that experienced revenue officer remarked :—

" The *Khatabandee* (cash settlement) was originally made for four years (Samvat 1928-1931). It has served its purpose of relieving the cultivators from the annoyances and losses of the old system of paying in kind, but it has shown the difficulty of making a fixed assessment for any number of years, in a district where the rainfall is so light and uncertain. The very first year it was necessary to give remissions in many villages where the rain had been insufficient ; the next year the general fall of prices was so great that a reduction of 12½ per cent. all round in some districts and 20 per cent. in others had to be made. The third and fourth year the settlement has been reduced 20 per cent., everywhere, and cultivators, who do not choose to abide by it, have been allowed to have their produce valued in the State grain yard and if necessary further remissions are then granted. It is satisfactory to learn that the cultivators do not ask for this valuation without good reason."

The principles embodied in our revenue system as devised by the Joint Administration have been found capable, when duly expanded, of beneficial application to the requirements of a year of famine. Cultivators who paid the full assessment were allowed at once to remove their produce from their holdings. Those who did not choose to pay the full amount, or had very little to pay it with, had the value of their standing crops first valued by a *Panch*, after which it was removed to the State grain yard and valued, and the collection was made in proportion to the yield. Where there was very little produce to draw upon, the cultivators were allowed to carry it away and no deduction was made on Darbar account. It will be seen from a table which is appended to this chapter that, while the full revenue demand was Rs. 24,25,168, the collection amounted only to Rs. 10,27,260, or 42·8 per cent. on the total demand, leaving an uncollected balance of Rs. 13,97,908, or 57·2 per cent. The table shows that while there have been various degrees of inability to meet the revenue demand, no district has been able to pay its full amount. The most intensely affected district was that of Bhal, where the rainfall amounted to only 3·2 inches, and this being a wheat-growing district the crops wholly failed. There the situation was so helpless that no attempt was made to collect the revenue, which on a full demand would have amounted to Rs. 45,000. In Botad, which suffered very severely, only 13·5 per cent. of a revenue demand of Rs. 1,88,750 was collected, in Gadhda 16·9 per cent. of Rs. 1,12,000 ; and in Umralla 19 per cent. of Rs. 3,10,162. The best collection was in Talaja, where it represented 83 per cent. of the demand, and in Mahuwa the results were nearly



as good, for there Rs. 2,66,834 out of Rs. 3,33,808, or 79·9 per cent. were collected. There is no year on record in which the State has had to sacrifice such a large amount of revenue, and to this of course must be added the enormous outlay which has had to be incurred by the State in various forms of relief, to say nothing of the indirect loss to the State through the depression of trade. Nor is this all. The table shows that there remains an uncollected balance on the year of Rs. 13,97,908, or 57·2 per cent. on the demand. In deciding to altogether remit this sum, Your Highness has given a far larger boon to your subjects than any that is on record, for the largest amount that I can trace as having been remitted in a single year is four lakhs. Your Highness has further decided that none of the large sums advanced as tagavi, and no balances outstanding from former years are to be recovered in Samvat 1957. Here Your Highness has gone even beyond the generous measures of 1877-78, for although the outstanding revenue demand in that year was remitted, over two lakhs of old arrears were collected, as well as about three-quarters of a lakh of advances. Further Your Highness has been pleased to order stay of execution of decrees of the civil courts. In all these concessions no doubt the State has made great sacrifices, but I am convinced not only that the people will gratefully appreciate them, and that in the long run they will tend to promote the prosperity of our revenue as well as that of the cultivating classes. These have gone back to their fields encouraged by the feeling that the year of calamity through which they have passed has left no lingering and clinging burden of taxation behind it, and they will labour with all the greater energy now that Your Highness' generous policy has inspired them with hope and confidence for the future. On all hands, I hear of the delight and gratitude with which these concessions have been received. From each of the mahals reports have reached me that the Durbar may count upon recovering a full assessment for the current year, which would have been impossible but for the remissions that Your Highness has made. Thus, from the Revenue point of view, we have been able to return to normal conditions within a year of the most serious famine on record, and I am convinced that the State will have no reason to regret the liberal policy which it has pursued.

The following is the table of revenue collections and outstanding balances above referred to :—

Name of District.	Land Revenue demand.		Collection in the year.		Percentage of collection on demand.	Outstanding balance.		Percentage of outstanding balance on demand.
	Rs.	a. p.	Rs.	a. p.		Rs.	a. p.	
Mahuwa ... ..	3,33,808	0 0	2,66,834	0 0	79·9	66,974	0 0	20·1
Kunda... ..	4,75,397	0 0	1,22,362	0 0	25·7	3,53,035	0 0	74·3
Lilia ... ..	3,83,527	0 0	1,24,115	0 0	32·2	2,09,412	0 0	54·6
Botad ... ..	1,88,750	0 0	25,500	0 0	13·5	1,63,250	0 0	86·6
Umrals ... ..	3,10,162	0 0	59,203	0 0	19	2,50,959	0 0	81
Talaja ... ..	1,82,099	0 0	1,09,607	0 0	59	22,492	0 0	17
Gadhda ... ..	1,12,000	0 0	18,930	0 0	16·9	1,03,070	0 0	92·1
Sihor ... ..	1,09,853	0 0	44,704	0 0	40·6	65,149	0 0	59·4
Daskroi ... ..	1,03,464	0 0	59,873	0 0	57·8	43,591	0 0	42·2
Port Albert Victor ... ..	1,57,700	0 0	1,08,825	0 0	69	48,875	0 0	31
Bhal ... ..	45,000	0 0	-----	-----	-----	45,000	0 0	100
Jesar ... ..	1,23,418	0 0	87,507	0 0	70·9	35,911	0 0	29·1
<b>Total...</b>	<b>24,25,168</b>	<b>0 0</b>	<b>10,27,360</b>	<b>0 0</b>	<b>42·3</b>	<b>13,97,908</b>	<b>0 0</b>	<b>57·2</b>

## TOTAL EXPENDITURE ON FAMINE RELIEF.

The following table gives a statement of the expenditure on famine relief incurred by the different departments of the State. It will be seen from this that the expenditure up to the 15th September 1900 amounted to Rs. 20,46,736, but it is likely that this will have increased to 22 lakhs by the time the accounts have been completed. This sum will be about equivalent to 55 per cent. of an entire year's revenue in normal times :—

Object and Department.	Details.	Total.
	Rs.	Rs.
Relief Works in charge of Public Works Department ... ..	.....	12,40,683
Works ... ..	11,35,648	
Gratuitous relief ... ..	72,400	
Temporary Establishment ... ..	32,635	
Medical ... ..	.....	3,453
Protection ... ..	.....	39,619
Strengthening the Police Force ... ..	3,062	
Allowance given to Pasaitas posted to guard villages ... ..	5,200	
Pay and Bhatta allowance to parties of the Bhavnagar Imperial Lancers and Infantry posted on the frontier of the State ... ..	22,080	
Special Mounted Police ... ..	9,277	
Civil Relief Works ... ..	61,270	61,270
Village doles ... ..	4,139	4,139
Poor-houses ... ..	1,00,803	1,00,803
Wells ... ..	1,50,000	1,50,000
Repairing and deepening of Wells... ..	38,695	38,695
Tagavi or advances to cultivators ... ..	.....	2,89,378
Kos-Varat ... ..	32,289	
Grass ... ..	1,10,332	
Seeds for quick-growing fodder ... ..	200	
Seeds for irrigation crops ... ..	40,000	
Jwari ... ..	5,000	
Wheat ... ..	35,000	
Seeds for monsoon crops ... ..	75,000	
Grain for food ... ..	30,057	
Assistance given for weeding ... ..	1,500	
Nari irrigation, fodder camp, etc. ... ..	18,642	18,642
Water-supply in villages ... ..	13,671	13,671
Relief to inferior village servants ... ..	5,885	5,885
Special Establishment (Civil Agency) ... ..	8,660	8,660
Allowance on account of dearness of grain (grain compensation given to Karkuns, sowars, peons and other servants) ... ..	42,012	42,012
Grants-in-aid to cheap grain shops ... ..	11,075	11,075
Relief to the copper smith craft of Sihor ... ..	1,000	1,000
Expenses of feeding, &c., of mendicants deported from Bombay by steamer ... ..	2,751	2,751
Miscellaneous ... ..	15,000	15,000
Total ... ..	.....	20,46,736

## ASSISTANCE TO PALITANA SUBJECTS.

The above numbers do not include the Palitana people who were maintained by your Highness under the following circumstances :—

A portion of the Lord Reay Road passes through the Palitana territory. It was, therefore, necessary that the land in the Palitana territory, over which the Lord Reay Road was to be constructed, should be secured. A proposal was, therefore, made in January last, to the Palitana Darbar to make over its land, and an arrangement was come to between the two Darbars that Bhavnagar should maintain Palitana people on relief works in consideration of the land which the latter agreed to make over.

The following table gives the total number of subjects of the Palitana State employed by the Bhavnagar Darbar on their relief work in each month with daily average from February to September 1900 :—

	February 1900.	March 1900.	April 1900.	May 1900.	June 1900.	July 1900.	August 1900.	September 1900.	Total.
Monthly Total ...	1,12,965	1,55,563	2,08,938	1,78,762	63,935	92,548	40,145	29,870	8,81,716
Daily Average...	4,034	5,017	6,964	5,766	2,111	2,985	1,295	962	29,154

The following table gives the daily average numbers of men, women, and children of the Palitana subjects employed by Bhavnagar Darbar on their relief works in the last week of each month from February to September 1900 :—

	Feb- ruary 1900.	March 1900.	April 1900.	May 1900.	June 1900.	July 1900.	August 1900.	Septem- ber 1900.	Total
Men ...	1,390	1,341	1,641	985	1,172	1,103	491	285	8,408
Women ...	2,274	2,339	2,839	1,557	1,712	1,563	471	337	13,012
Children ...	1,623	2,088	2,426	497	443	285	64	42	8,468
Total ...	5,287	5,768	6,906	3,039	3,327	2,951	1,026	664	28,968

### WATER-SUPPLY.

Scarcity of water, amounting in some localities to a water famine, engaged the anxious attention of the Public Works Department. In Bhavnagar town, the permanent population of which was so largely reinforced by wanderers from the districts that it is believed that there must have been a lakh of people in the city shortly before the rains, it was found necessary to undertake special measures in order to guard against a failure of the water-supply. A siding was laid from the fifth mile on the main line of railway down to the Akalol river, and a water train was laid on to bring water from the river into a dipping well constructed close to the station yard. Though this was only a temporary arrangement it cost Rs. 37,575, but it was imperatively necessary if a water famine was to be avoided in the State capital. The districts suffered as severely as the capital, and some of the villages, especially in Botad, Gadhda, Umralla, Kundla and Daskrohi, were greatly inconvenienced. The measures taken here consisted mainly in the deepening of old wells and the filling in of troughs. These works involved an expenditure of Rs. 11,671. The Bhal district was peculiarly unfortunate, for in the best of times the villages here have to depend upon tanks filled with rain water, as the soil is highly impregnated with saline deposits, and the wells are usually brackish. In ordinary years, as the hot weather comes on and the tanks begin to fail, the people, like those in Marwar, emigrate with their cattle to more favoured localities. This year most of them, when their water supply gave out, came in to Bhavnagar, and, as has been explained, augmented the population of the town in an inconvenient degree.

## THE CONDITION OF THE PEOPLE.

A careful review of the information which has come in from the various authorities engaged in the control of relief operations leads me to the conclusion that though the State has been sorely stricken by this latest and greatest of the famines which have visited Kathiawar, the population have borne it well. Trade has, of course, suffered severely. The total failure of the cotton crop led to the closing of mills and presses, and the cotton export trade was of course at a standstill. This had a disastrous effect upon the labour market, and artizans, such as carpenters, masons and so on, found that the ordinary avenues of employment were closed against them as a consequence of the stoppage of trade and of the consequent demand for their labour. But those of the latter class who were not taken on relief works found occupation upon State work, such as the Port Albert Victor buildings. Cultivators and ordinary village labourers (Ubhadias) who were in need of subsistence were at first taken upon the smaller village works, such as the digging and deepening of wells, the building of embankments, &c., and when these were finished they moved on to the larger works conducted under professional agency. A very large number of labourers, probably 23,000 were thus employed, but the number of cultivators who were compelled to seek a living in this way can scarcely have exceeded three thousand, which I take to be a satisfactory proof that this class of Your Highness' subjects has been able in normal times to accumulate a fair amount of wealth. Special classes of workers, such as the weavers in British districts, often require special treatment during famines. In Bhavnagar the class that had to be particularly taken care of was the coppersmiths of Sihor. But for the assistance that was rendered to them there is reason to fear that this famous craft might have disappeared. Perhaps the low castes did better than any outside the wealthy classes. Inured as they are to a hard life—for at the best of times they live from hand to mouth, and in the month or two preceding the rains work has always to be found for them—a season of scarcity brings less change in their circumstances than in the circumstances of the rest of the community, and famine comes with less shock to them than to others. Moreover, the loss of cattle which involved distress to their neighbours brought profit and employment to these people. They made money out of the sale of the skins and bones of the cattle that lay dead on the road side, and they were not averse to eating the carcasses. We may, I think, congratulate ourselves upon the absence from our territory of the more terrible incidents of famine of which painful accounts have come from other states and territories. Children have possibly been abandoned here and there by their despairing parents, but I am confident that such instances were few and far between, and the vigilance with which the movements of the poor were watched by all classes of Your Highness' officers led to the rescue of most, if not all, of the victims of parental neglect, for whom a comfortable home was found in the numerous poor-houses. Wandering beggars were looked after with special care, and knowing how easily these elements, if not properly controlled, might lead to an increase in crime and disease, a special law—Act I of Samvat 1956—was sanctioned by Your Highness on the 4th of November 1899, authorizing the police to collect wandering mendicants, sending those who were in fair physical condition to work in the Public Works relief camps, while the infirm and the young were to be taken to the nearest poor-house. This law was specially enacted for Bhavnagar city, but it was made applicable by noti-

fiction, as the circumstances might require, to other towns. Orders were issued, as soon as the effects of the famine began to be felt, for preventing people from leaving the territory, as ample provision was made for them on relief works, but although constant care was taken to prevent emigration, whether by land or by sea, a not inconsiderable number managed to find their way in country boats to Bombay. It is believed, however, that the numbers who escaped from Bhavnagar was much smaller than that from other states. I think that we could wish for no better testimony to the success which attended our measures than that which is conveyed in a "Note on Famine Relief Operations in the Bhavnagar State," which has been written by Mr. W. T. Morrison, I.C.S., who visited our camps in the capacity of Special Famine Officer for Kathiawar. Mr. Morrison wrote :—

"Botad Mahal is said to be the most distressed part of the State. I have made a house-to-house inspection of the villages of Hardar, Sharwania, Jharis, and Dhankania, (said to be some of the worst in the Mahal) and am glad to say there are no signs of starvation, most of the Ubharias have left the villages for relief works, those who remain still earn enough to eat by selling fire-wood, straw collected from manure heaps, leaves of the Bor tree, &c., and all seem to understand that the Darbari relief works are open to them, whenever they like to apply for work. Only in Hardar did I find some rather pinched Waghri children whom the Thanadar arranged to send to work. People like the Waghris, who refuse to go to work from pure laziness should be made to go, whether they wish or not, otherwise they will go wandering about the country and ultimately many of them may die of starvation. All the villagers I met agreed that a family working on a relief work earned in 7 days enough to keep them for 9 days, and that many of those on relief works after working 15 to 20 days take 3 or 4 days holiday and return to their villages. As the famine wages is supposed to be a bare subsistence, this seems to show that the amount earned is too great."

After some observations on the poor-house Mr. Morrison concludes his note by observing that—

"On the whole I think that the arrangements in Botad Mahal are very good and that the officials are working well."

As to the condition of the better classes, it is gratifying to know that a good deal of distress amongst the poorer members of the higher castes was relieved by private unostentatious charity. An inquiry into the sale of ornaments and utensils has thrown some light upon the distress that prevailed amongst this part of the community, but I do not advise that the results of this inquiry should be accepted as conclusive. Undoubtedly many people who would not accept charity or go upon the relief works were compelled, through the depression of trade and the exhaustion of their resources, to part with their jewellery and household belongings, and the wahiwatdars estimate that property of this nature was sold to the value of from four to five lakhs. I do not altogether accept this estimate, and am disposed to put the figure at about half as much. However, I am sure that if Your Highness had not gone to the assistance of the Bhayads and other holders of alienated lands as you did, these people would have had to place their valuables on the market, and the value of the ornaments and utensils so parted with would certainly have exceeded the estimate reported by the revenue officers.

#### CRIME.

There was a notable absence of serious crime during the famine. Three cases of dacoity were reported to the police. But one of these was an ordinary robbery, and only came technically within the definition of dacoity, inasmuch as more than five persons were concerned in it. Another was a grain robbery—

a class of offence which is not unfamiliar in times of scarcity. The only case of real dacoity was one which occurred at Raliana, a village in the Gadhda district, at the end of August, when famine was beginning to be severely felt. About twenty-five people entered the village, and though they were unable to take possession of any property, a scuffle occurred in which two persons were killed and two wounded on our side. While there were fewer crimes than usual of a serious nature, petty crimes increased by nearly a hundred per cent., the increase being mainly in thefts of grain and fodder. The following comparative table exhibits the criminal history of the State during the last six years, and calls for no comment:—

Year.		No. of Crimes.	Amount stolen.	Amount recovered.	Percentage of recoveries.
			Rs.	Rs.	
1894—95	... ..	367	9,464	8,387	88½
1895—96	... ..	364	12,425	9,163	74
1896—97	... ..	411	17,741	8,810	49½
1897—98	... ..	481	54,973	29,028	52
1898—99	... ..	304	7,363	5,672	77
1899—1900	... ..	708	13,012	7,533	57

The probability of an increase in crime was early foreseen and provided against. The district police were largely strengthened, 52 extra police being added to the standing force, and 59 officers and sowars from the Imperial Lancers and 44 officers and men from the Bhavnagar Infantry were put temporarily upon police duty. The security and tranquillity which the State enjoyed during a time in which there was much that was calculated to lead to disturbances of the public peace was largely due to these measures. The pasaitas and other service tenants under the Revenue Department performed their duties satisfactorily, and the police who were entrusted with the maintenance of order on the relief camps, and with the duty of guarding treasure for payment of the famine workers, also deserve praise. I think it is due to the Police Department to acknowledge the efficiency with which it has met the demands of a very trying time.

#### CONCLUDING REMARKS.

A famine at the best leaves behind it so many causes for regret that any satisfaction with which the success of operations for combatting it is chastened by the remembrance of loss and suffering which the best administrative measures are powerless to relieve or at all events to prevent. This visitation has been, so far as we know, absolutely unprecedented in Kathiawar. This is a depressing reflection, and I am reluctant to endeavour to estimate the amount of suffering that is involved in it. But our sorrow in looking back upon the calamity from which we have lately emerged is mitigated by the conviction that if no famine has ever fallen so heavily upon our Province as that of 1899-1900, none has been combatted with so much generosity and spirit, and, I may add, with so much success, as this has been in the Bhavnagar State. It is a great thing to say—as I think we may confidently say of this famine—that in a calamity which has affected an entire country there have been few if any deaths from starvation. Here I think we have been able to command success; we have at least done all that we could do to deserve it, and in so far as we have failed—if we have failed—it is because the limitations upon the power of man in his contests with the visitations of Nature are absolute. The Administration has done its best,

with what measure of success Your Highness and the British Government must be left to judge, though I gather from the remarks, elsewhere quoted, which Mr. Morrison has made upon our work that Government will be disposed to take a not unfavourable view of it. I may here be permitted the liberty to remark that but for the prompt and generous initiative, the unfailing personal attention to the wants of the people, and the constant support which Your Highness gave to your executive, our best efforts would have failed. Those of your officers who have had to go to you for orders can bear testimony to the readiness with which you dealt with every matter that was submitted to you, and the clear and business like directions which were given by you. By tedious personal investigation on the spot, by prolonged tours in an arid land in the height of the summer, and in spite of the prevalence of epidemic disease, Your Highness made yourself acquainted with the realities of famine, and it is not too much to say that the success of our work has been due to the unfailing and intelligent support which the Administration has received from you from the beginning. The generosity which the State has shown not only in its direct expenditure on relief, but in the unprecedentedly liberal remissions of revenue that have been sanctioned will, I fear, temporarily embarrass its finances. But no state can afford to run a famine cheaply, and I venture to express the confident belief that Bhavnagar will find that generosity, like honesty, is the best policy. We have already seen the benefit of this policy in the fact that the cultivating classes have been kept in good condition, and that a larger proportion of cattle have, I believe, been saved in Bhavnagar than in any State in Kathiawar. As soon as the rains fell the people spontaneously returned to their fields, and there is hardly a tract of land which is not already under cultivation—a rare thing after a famine of any dimensions.

I wish, in my concluding observations, to acknowledge warmly the dutiful devotion with which all branches of the Administration, in all grades, have co-operated in the trying work of the last fifteen months. Your Highness deputed your Dewan, Mr. Vajeshankar Gavarishankar to make a tour in those less affected districts which, Your Highness were unable to visit in consequence of your presence at the head-quarters which was absolutely necessary to direct the famine operations—a tour which I am sure had the most beneficial effect. I should add that Messrs. Harilal Savailal, and E. W. Proctor Sims, were most assiduous as famine Commissioners. It would have been a gratification to me to mention by name some of the other officers who have specially contributed to our success. But they are so numerous that I might fail to give credit in all the quarters in which it is due. The brunt of the work fell of course on the Revenue and Public Works Departments, and after all that has been written it would be superfluous to say here that it was admirably done. One name I particularly must single out for regretful and grateful mention. Had he been alive, there is no one who would have received Your Highness' thanks in as large a measure as Mr. Richard Procter Sims, the lamented Chief Engineer of this State, who had for twenty-five years served Bhavnagar with conspicuous ability and with a single hearted devotion to its interest. With him duty to this State, its ruler and its people, had ever been paramount over every personal consideration. Mr. Sims, though in weak health, had obeyed Your Highness' call to return from leave last cold weather to assist in combatting the famine, and when the strain had become most severe,

and an epidemic of cholera had added to the labours and anxieties of the famine officer, this tried servant of the State succumbed, a martyr to duty.

Lastly, I desire to record that in all that has been done Your Highness has had the approval and the sympathetic support of Colonel Hunter, C.S.I., the Political Agent, of Mr. W T. Morison, the late Special Famine Officer, and of Captain Pottinger, the Assistant Political Agent, Goheldwad Prant.

I have the honor to be,

Your Highness' most obedient and faithful Servant,

PRABHASHANKER D. PATTANI,

*Huzur Secretary.*

BHAVNAGAR, *October 1st, 1900.*





## APPENDIX C.

STATEMENT giving details regarding Relief Works supplied by the State Engineer, Bhavnagar State.

District.	Name of work.	Amount of	Value of	Nature of work.	Utility of works.
		Famine Expenditure.	work done at ordinary rates of construction.		
		Rs.	Rs.		
Gadhda ...	Ningala G a d h d a road.	69,318	76,435	Earthwork	... Facilitating communication between the two principal villages in the Gadhda Mahal and the Railway.
Daskrohi ...	Sidsar road Improvement.	7,995	9,960	Do.	... Raising level of road to prevent it being covered with water when lake is full.
Bhavnagar ...	Road between Ry. line and Saw-mill.	166	192	Do.	... Means of communication between saw-mills and main road which had been stopped by Railway fencing.
Do. ...	Bhavnagar salt works road.	3,475	4,324	Do.	... Increased facility for carts conveying salt to the town.
Jesar ...	Chhapriali Cart road..	2,879	2,885	Do.	...
Bhavnagar ...	Timber float ...	1,817	2,260	Do.	... Deepening the portion which had silted up.
Do. ...	Bhavnagar Town road repair.	38,784	42,210	Breaking metal and repairing roads.	Metal for repairing the Town roads.
Do. ...	Takhtsingje Steam ferry road repair.	8,623	4,525	Earthwork	... Repairing portions washed away by the tides.
Do. ...	Parbhudas talao ...	25,209	31,488	Do.	... Enlarging and deepening one of the principal talaos in Bhavnagar.
Gadhda ...	Khopala talao ...	2,661	3,524	Do.	... Repairing and deepening talao where village cattle and villagers drink.
Bhavnagar ...	Moti talao ...	29,063	37,212	Do.	... Deepening (partially) the principal talao in Bhavnagar.
Do. ...	Ruvapuri talao ...	17,894	22,340	Do.	... Connecting together and deepening talao near Ruvapuri where large numbers of people collect on festivals.
Do. ...	Victoria Jubilee water works.	3,845	4,798	Do.	... Cleaning the debris in the canal which connects the Bhikda lake with the Gavrishanker lake.
Gadhda ...	Khilsara talao ...	8,949	11,265	Do.	... The only tank for miles round from which cattle grazing in the vicinity can get water in the hot season.
Bhavnagar ...	Victoria Park Improvement.	4,590	5,732	Cutting trees, removing weeds and opening out vistas.	Improving and beautifying the Park.
Do. ...	Reclaiming compound behind Chadika hill.	4,490	5,595	Earthwork	... Levelling broken ground for building sites.
Do. ...	Bhavnagar Special water supply.	28,138	31,132	Do. and conveyance of water.	For supplying water to the inhabitants of Bhavnagar.
Do. ...	Reclaiming ground near K a l u b h a's bungalow.	661	820	Earthwork	... Levelling the compound of Kalubha's house.
Do. ...	Polo ground Improvement.	151	230	Do.	... Filling up hollows and holes and rolling.
Do. ...	Moti talao repair ...	125	153	Do.	... Repairing damages caused by the rains.
Do. ...	Peile gardens repair...	1,593	1,995	Moorum work	... Cleaning and deepening wells for irrigation.

## APPENDIX C.—contd.

STATEMENT giving details regarding Relief Works supplied by the State Engineer, Bhavnagar State.

District.	Name of work.	Amount of famino Expenditure.	Value of work done at ordinary rates of construction.	Nature of work.	Utility of works.
		Rs.	Rs.		
Umrala, Jesar & Mahuva.	Lord Reay road ...	5,65,480	6,88,250	Earthwork and cutting.	For opening up the particularly rich track of country lying between Dhola and Port Albert Victor.
.....	Gratuitous relief and relief camp..	72,400	72,400	.....	Maintenance of invalid and decrepit old, and under-aged children and providing "roatis" for all relief workers during the rains.
Port Albert Victor.	Temporary poor house at P. A. V.	4	4	Building	.....
Do.	Port Albert Victor road.	11,452	14,312	Earthwork	Giving increased facilities to trade by connecting town with bundar.
Do.	P. A. V. town road ...	14,180	17,600	Do.	Bringing roads to proper level and partially rolling the same.
P. A. V. and Mahuva.	P. A. V. Mahuva road	66,588	83,800	Do.	For connecting Mahuva with Port Albert Victor and also with a future view to have a tramway.
Port Albert Victor.	Chanch point road ...	2,318	2,900	Earthwork	Road to connect P. A. V. to Tidal Observatory at Chanch point.
Do.	P. A. V. Wharf ...	10,999	12,375	Building	.....
Do.	Do. Bunder Improvement.	10,285	11,570	Earthwork	Increased facilities for trade.
Do.	P. A. V. water-supply.	18,754	23,460	Do.	Supplying the town with pure water.
Do.	Do. Cholera Hospital.	416	465	Building	For Cholera patients.
Do.	P. A. V. Pota talao ...	7,155	8,935	Earthwork	Enlarging and deepening the only tank at P. A. V.
Do.	Do. Canal ...	4,811	5,800	Do.	Diverting a nala into Pota talao.
Do.	Do. Sanitation ...	960	1,185	Keeping town clean	Keeping town and surroundings clean when crowded with relief workers.
Gadhda	Adtala and Pipal fodder camp.	2,075	2,580	Cultivating and growing fodder for cattle.	.....
Do.	Janada fodder farm...	1,343	1,460	Do.	.....
Bhavnagar	Bhavnagar Town wells repair.	5,597	6,890	Cleaning and deepening wells.	.....
Do.	Victoria Park wells repair.	1,411	1,595	Do.	.....
Gadhda	Wells at different villages.	3,898	4,347	Do. and digging new wells.	For irrigating cold weather crops.
Daskroi	Do.	1,058	1,322	Earthwork	Do.
Sihor	Irrigation scheme between Ramhari and Ambla.	21	26	Expenses incurred by Agency Engineer when leveling.	.....
Gadhda	Irrigation scheme for Haripar.	5	6	.....	.....
.....	Tools and plant purchase.	20,780	20,780	.....	.....
Bhavnagar	Store stock, metal and purchase.	49,101	49,101	.....	.....
.....	Tools and plants repair.	4,311	5,389	.....	.....
.....	Conveyance of tools and plants.	294	368	.....	.....

APPENDIX C.—*contd.*

STATEMENT giving details regarding Relief Works supplied by the State Engineer,  
Bhavnagar State.

District.	Name of Work.	Amount of	Value of	Nature of work.	Utility of works.
		Income Expenditure.	work done at ordinary rates of con- struction.		
		Rs.	Rs.		
Port Albert Victor.	P. A. V. Kucheri ...	32,719	32,719	Building	... Offices for the officials in the Revenue and Judicial Depart- ments.
Do. ...	Do. Dharambala.	16,683	16,683	Do.	... Accommodation for travellers.
Do. ...	Do. Workshop ...	2,068	2,308	Do.	... For carpenters and blacksmiths work.
Do. ...	Do. Rooms for Observatory clerk at Chanch point.	1,017	1,145	Do.	... Accommodation for clerks in charge of the Observatory.
Do. ...	P. A. V. quarters for Wahiwati karkoons.	5,340	6,105	Do.	... Accommodation for the office staff of the Wahiwatdar.
Do. ...	P. A. V. quarters for sepoys.	1,665	1,870	Do.	... Accommodation for sepoys in the Revenue Department.
Do. ...	P. A. V. Post and Telegraph Office.	3,096	3,378	Do.	... Residence for the P. A. V. Wahi- watdar.
Do. ...	P. A. V. Wahiwatdar's bungalow.	6,419	7,225	Do.	... Facility of trade.
Do. ...	P. A. V. Platform ...	1,320	1,470	Do.	... For shelter of perishable goods.
Do. ...	Do. Iron-shed ...	923	1,025	Do.	... For the safety of shipping and tidal observations.
Do. ...	Do. Light house and Observatory.	7,229	8,190	Do.	...
Do. ...	P. A. V. Trade faci- lities.	1,374	1,598	.....	
Do. ...	P. A. V. Latrines ...	543	685	Building	...
Do. ...	Do. Miscellaneous works.	3,326	3,741	Miscellaneous	...
	Total ...	12,08,043	14,23,386		

E. W. PROCTOR SIMS,  
*State Engineer.*

**APPENDIX D.**

STATEMENT showing daily average numbers employed in each month on the different classes of works and the total units, including dependants relieved, and expenditure from August 1899 to September 1900.

Month.	NATURE OF WORK.						Units.	Expenditure (daily.)	Incidence per head.		
	Road.	Tank.	Building.	Miscellaneous.	Reclamation.	Harbour work.			Rs.	a.	p.
1899.											
August	Ningala-Gadhda Road	.....	.....	.....	.....	.....	2,790	288	0	1	8
	Sidsar Road Improvement	.....	.....	.....	.....	.....	450	48	0	1	8
	Lord Reay Road	.....	.....	.....	.....	.....	609	69	0	1	9
	Bhavnagar Town Road Repair	.....	.....	.....	.....	.....	726	86	0	1	10
		Khopala Tank	.....	.....	.....	.....	806	105	0	2	1
		Parbhudas Tank	.....	.....	.....	.....	2,646	450	0	2	8
			P. A. V. Dharamshala	.....	.....	.....	...	1,000	...	...	By contract.
September	Lord Reay Road	.....	.....	.....	.....	.....	5,252	726	0	2	2
	Ningala-Gadhda Road	.....	.....	.....	.....	.....	6,465	885	0	2	0
	Sidsar Road	.....	.....	.....	.....	.....	602	84	0	2	2
	Bhavnagar Town Road	.....	.....	.....	.....	.....	210	25	0	1	11
	Takhtsingji Steam Ferry Road	.....	.....	.....	.....	.....	1,502	162	0	1	8
		Moti Talao	.....	.....	.....	.....	3,183	360	0	2	7
		Ravapuri Tank	.....	.....	.....	.....	988	88	0	1	9
		Adhewada Dam	.....	.....	.....	.....	17	3	0	2	10
		Ghojari Vav	.....	.....	.....	.....	9	2	0	3	6
		Victoria Jubilee Water Works	.....	.....	.....	.....	18	2	0	1	9
		Parbhudas Tank	.....	.....	.....	.....	4,517	626	0	2	2
		Khopala Tank	.....	.....	.....	.....	125	26	0	3	4
	Road between Saw Mill and Railway line	.....	.....	.....	.....	.....	21	2	0	1	6
					Polo ground Improvement	.....	64	7	0	1	6
October	Lord Reay Road	.....	.....	.....	.....	.....	8,127	862	0	1	9
	Ningala-Gadhda Road	.....	.....	.....	.....	.....	5,750	606	0	1	8
	Sidsar Road	.....	.....	.....	.....	.....	455	72	0	1	8

APPENDIX D—contd.

Month.	NATURE OF WORK.						Units.	Expenditure (daily.)	Incidence per head.			
	Road.	Tank.	Building.	Miscellaneous.	Reclamation.	Harbour work.			Rs.	a.	p.	
October	Bhavnagar Town Road ...	.....	.....	.....	.....	.....	245	52	0	2	7	By contract.
	Salt Pan Road ...	.....	.....	.....	.....	.....	575	54	0	3	4	
	Takhtsingji Steam Ferry Road	.....	.....	.....	.....	.....	174	27	0	1	6	
	Parbhudas Tank ...	.....	.....	.....	.....	.....	945	79	0	1	6	
	Moti Talao ...	.....	.....	.....	.....	.....	2,541	306	0	2	5	
	Ravapuri Tank...	.....	.....	.....	.....	.....	2,414	286	0	1	7	
	Adhewada Dam ...	.....	.....	.....	.....	.....	9	2	0	3	9	
	Khilsara Tank ...	.....	.....	.....	.....	.....	1,099	108	0	1	7	
	Ghojari Vav ...	.....	.....	.....	.....	.....	11	2	0	2	11	
	Victoria Jubilee Water Works ...	.....	.....	.....	.....	.....	481	54	0	1	9	
	Gadhda Wells ...	.....	.....	.....	.....	.....	222	27	0	1	11	
	P. A. V. Kucheri ...	.....	.....	.....	.....	.....	...	10,256	...	...	...	
	Victoria Park Improvement	.....	.....	.....	.....	.....	222	29	0	1	11	
	Timber Float	.....	.....	.....	.....	.....	198	26	0	2	1	
November	Lord Reay Road ...	.....	.....	.....	.....	.....	11,069	1,173	0	1	8	By contract.
	Ningala-Gadhda Road	.....	.....	.....	.....	.....	4678	466	0	1	7	
	Sidsar Road ...	.....	.....	.....	.....	.....	521	72	0	2	3	
	Bhavnagar Town Road	.....	.....	.....	.....	.....	250	68	0	4	4	
	Salt Pan Road ...	.....	.....	.....	.....	.....	450	45	0	1	7	
	Takhtsingji Steam Ferry Road	.....	.....	.....	.....	.....	121	14	0	1	10	
	Moti Talao ...	.....	.....	.....	.....	.....	3,121	323	0	1	8	
	Ravapuri Tank...	.....	.....	.....	.....	.....	1,605	197	0	1	11	
	Khilsara Tank ...	.....	.....	.....	.....	.....	1,171	138	0	1	10	
	Victoria Jubilee Water Works ...	.....	.....	.....	.....	.....	547	61	0	1	9	
	Irrigation Scheme between Ramdhari and Ambla	.....	.....	.....	.....	.....	11	5	0	1	3	
	Irrigation Scheme at Haripur ...	.....	.....	.....	.....	.....	11	2	0	2	11	
	Port Albert Victor Ob- servatory ...	.....	.....	.....	.....	.....	22	3	0	2	2	
	Daskrohi Wells ...	.....	.....	.....	.....	.....	55	6	0	1	9	

		Daskrohi Wells...	.....	.....	.....	.....	20	9	0	1	2
		Gadhda Wells ...	.....	.....	.....	.....	241	29	0	1	11
					Victoria Park Im-	.....	307	38	0	1	11
					provement ...	.....	306	26	0	1	4
					Timber Float ...	.....					
						Reclamation be-					
						hind Chadi-					
						ka Hill ...	990	121	0	1	11
						Port Albert					
						Victor Ob-					
						servatory ...	25	6	0	3	10
		Daskrohi Wells ...	.....	.....	.....	.....	251	27	0	1	8
		Gadhda Wells ...	.....	.....	.....	.....	56	6	0	1	8
December	...	Lord Reay Road ...	.....	.....	.....	.....	15,222	1,510	0	1	7
		Ningula-Gadhda Road	.....	.....	.....	.....	2,724	301	0	1	9
		Sidsar Road ...	.....	.....	.....	.....	489	210	0	1	9
		Bhavnagar Town Road	.....	.....	.....	.....	329	120	0	5	10
		Road between Saw Mill and	.....	.....	.....	.....					
		Railway line ...	.....	.....	.....	.....	27	3	0	1	9
		Salt Pan Road ...	.....	.....	.....	.....	614	55	0	1	5
		Moti Talao ...	.....	.....	.....	.....	1,277	136	0	1	8
		Ravapuri Tank...	.....	.....	.....	.....	272	36	0	2	1
		Khilsara Tank ...	.....	.....	.....	.....	571	61	0	1	8
		Victoria Jubilee Water	.....	.....	.....	.....					
		Works ...	.....	.....	.....	.....	356	42	0	1	10
		Daskrohi Wells ...	.....	.....	.....	.....	127	28	0	3	6
		Gadhda Wells ...	.....	.....	.....	.....	350	74	0	3	4
					Victoria Park Im-	.....					
					provement ...	.....	240	25	0	1	8
					Gratuitous Relief ...	.....	27	4	0	2	4
						Reclamation be-					
						hind Chadi-					
						ka Hill ...	269	30	0	1	9
						Port Albert					
						Victor Ob-					
						servatory ...	61	33	0	4	7
1900							14,635	1,481	0	1	7
January	...	Lord Reay Road ...	.....	.....	.....	.....	155	18	0	2	0
		Sidsar Road ...	.....	.....	.....	.....	560	173	0	4	11
		Bhavnagar Town Road	.....	.....	.....	.....	32	4	0	2	0
		Takhtsingji Steam Ferry Road.	.....	.....	.....	.....	6	1	0	2	8
		Moti Talao ...	.....	.....	.....	.....					
		Victoria Jubilee Water	.....	.....	.....	.....					
		Works ...	.....	.....	.....	.....	35	7	0	3	2
		Daskrohi Wells...	.....	.....	.....	.....	286	24	0	1	4

APPENDIX **D**—contd.

Month.	Nature of Work						Unit.	Expenditure (daily).	Incidence per head.	
	Road.	Tank.	Building.	Miscellaneous.	Reclamation.	Harbour work.				
January	.....	Gadhda Wells' ...	.....	..... Gratuitous Relief ... Miscellaneous ... Reclaiming Kalubha Saheb's Compound ...	.....	.....	500 45 ...	81 4 599 650	0 1 0 0 1 7 ...	Material only. By adjustment.
February	Lord Reay Road ... Sidsar Road ... Bhavnagar Town Road ... Chhaparialli Cart Road ... Takhtsingji Steam Ferry Road.	..... ..... ..... ..... ..... Moti Talao ... Victoria Jubilee Water Works ... Daskrohi Wells... P. A. V. Water-supply.	..... ..... ..... ..... ..... ..... ..... ..... .....	..... ..... ..... ..... ..... ..... ..... ..... ..... Miscellaneous Works	..... ..... ..... ..... ..... ..... ..... ..... ..... .....	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... P. A. V. Observatory Clerk's quarters ...	26 15,869 102 806 472 81 6 210 180 78 400 116 1,890	8 2,165 17 155 41 5 2 24 28 10 46 674 73	0 4 11 0 2 2 0 2 8 0 1 4 0 2 7 0 5 4 0 1 11 0 2 0 0 2 0 0 1 10 0 2 9 0 0 8	Material
March	Lord Reay Road ... Sidsar Road ... Bhavnagar Town Road ... Port Albert Victor Mahuwa Road	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....	18,970 26 610 683	2,260 4 90 190	0 1 10 0 2 5 0 2 4 0 4 5		



March	Port Albert Victor Town Road	.....	.....	.....	.....	.....	210	30	0	2	8
	Do. Road	.....	.....	.....	.....	.....	484	49	0	1	8
	P. A. V. Water-supply.	.....	.....	.....	.....	.....	189	23	0	1	11
	P. A. V. Pota Tank	.....	.....	.....	.....	.....	25	3	0	1	11
	Daskrohi Wells	.....	.....	.....	.....	.....	190	32	0	2	8
	Gadhda Wells	.....	.....	.....	.....	.....	150	10	0	1	1
	Victoria Jubilee Water Works	.....	.....	.....	.....	.....	26	4	0	2	5
	P. A. V. Kacheri	.....	.....	.....	.....	.....	95	20	0	3	4
	P. A. V. Tel. and Post Office	.....	.....	.....	.....	.....	75	20	0	4	3
	P. A. V. Quarters for Sebandhi Sepoy	.....	.....	.....	.....	.....	17	12	0	11	3
	P. A. V. Quarters for Wahiwati Karoons	.....	.....	.....	.....	.....	112	30	0	4	3
	Miscellaneous Works.	.....	.....	.....	.....	.....	118	22	0	3	1
						P. A. V. Bundar Improvement	410	51	0	1	11
						P. A. V. Observatory	10	4	0	6	4
						P. A. V. Quarters for Observers for Observatory Clerk at Chanch	20	7	0	5	7
						P. A. V. Wharf	15	2	0	2	1
						P. A. V. Trade Facilities	26	3	0	1	10
April...	Lord Reay Road	.....	.....	.....	.....	.....	1,150	97	0	1	4
	P. A. V. Road	.....	.....	.....	.....	.....	22,607	2,662	0	1	10
	P. A. V. Town Road	.....	.....	.....	.....	.....	2,050	281	0	2	2
	P. A. V. Mahuva Road	.....	.....	.....	.....	.....	1,190	107	0	1	5
	P. A. V. Chanch Road	.....	.....	.....	.....	.....	5,075	532	0	1	8
	Bhavnagar Town Road	.....	.....	.....	.....	.....	180	16	0	1	11
	Sidsar Road	.....	.....	.....	.....	.....	491	58	0	1	10
	Takhatsingji Steam Ferry Road	.....	.....	.....	.....	.....	18	3	0	2	8
							18	3	0	2	8

APPENDIX D—contd.

Month.	Nature of Work.						Units.	Expenditure (daily.)	Incidence per head.
	Road.	Tank.	Building.	Miscellaneous.	Reclamation.	Harbour work.			
April...	.....	P. A. V. Water-supply ...	.....	.....	.....	.....	570	57	Rs. a p. 0 1 10
		Daskroi Wells ...	.....	.....	.....	.....	554	74	0 2 1
		P. A. V. Pota Tank ...	.....	.....	.....	.....	280	30	0 1 8
		Bhavnagar Special Water-supply ...	.....	.....	.....	.....	412	162	0 6 8
			P. A. V. Kacheri ...	.....	.....	.....	89	7	0 2 10
			P. A. V. Dharamshalla ...	.....	.....	.....	3	1	0 5 4
			P. A. V. Quarters for Wahiwati Clerks..	.....	.....	.....	85	33	0 6 2
			Quarters for Sibandi Sepoys ...	.....	.....	.....	870	41	0 1 9
			P. A. V. Wahiwatdar's Uttara ...	.....	.....	.....	51	17	0 5 4
			P. A. V. Cholera Hospital ...	.....	.....	.....	68	21	0 5 4
				Miscellaneous works.	.....	.....	27	8	0 4 8
						Quarters for Observatory Clerk ...	5	1	0 3 2
						P. A. V. Observatory ...	18	5	0 4 5
						P. A. V. Wharf.	390	43	0 1 9
						P. A. V. Bandar Improvement ...	730	82	0 1 9
						P. A. V. Trade Facilities ...	75	8	0 1 8
				Gratuitous Relief ...	.....	.....	3,220	337	0 1 10
		P. A. V. Canal...	.....	.....	.....	.....	111	11	0 1 7
			P. A. V. Post and Tel. Office ...	.....	.....	.....	126	62	0 7 10

May ...	Lord Reay Road ...	.....	.....	.....	.....	.....	17,017	2,164	0	2	0						
	P. A. V. Road ...	.....	.....	.....	.....	.....	850	91	0	1	8						
	P. A. V. Town Road ...	.....	.....	.....	.....	.....	230	54	0	3	9						
	P. A. V.-Mahuwa Road ...	.....	.....	.....	.....	.....	4,578	514	0	1	9						
	P. A. V. Chanch Road ...	.....	.....	.....	.....	.....	410	48	0	1	9						
	Bhav. Town Road ...	.....	.....	.....	.....	.....	251	54	0	3	5						
		P. A. V. Water-supply ...	.....	.....	.....	.....	1,270	146	0	1	9						
		Daskrohi Wells ...	.....	.....	.....	.....	262	48	0	2	11						
		Pota Tank ...	.....	.....	.....	.....	780	86	0	1	9						
		P. A. V. Canal...	.....	.....	.....	.....	876	93	0	1	8						
		Bhavnagar Special Water-supply ...	.....	.....	.....	.....	417	140	0	5	4						
				P. A. V. Kacheri...	.....	.....	16	3	0	3	0						
				P. A. V. Workshops	.....	.....	6	1	0	2	8						
				P. A. V. Quarters for Wahiwati clerks ...	.....	.....	81	60	0	11	10						
				P. A. V. Quarters for Sibandhi Sepoys ...	.....	.....	41	10	0	3	11						
				P. A. V. Tele. and Post Office ...	.....	.....	51	15	0	4	8						
				P. A. V. Wahiwatdar's Uttara ...	.....	.....	81	10	0	2	0						
				P. A. V. Cholera Hospital ...	.....	.....	25	3	0	1	11						
				P. A. V. Iron shed.	.....	.....	46	5	0	1	3						
				P. A. V. Platform...	.....	.....	173	18	0	1	8						
												P. A. V. Observatory ...	6	2	0	5	4
												P. A. V. Bandar Improvement ...	1,635	72	0	1	10
												P. A. V. Wharf	25	13	0	8	4
												P. A. V. Trade Facilities.	98	15	0	2	5
					Miscellaneous ...	.....	.....	200	80	0	2	4					
					Gratuitous Relief ...	.....	.....	4,031	330	0	1	6					
June...	Lord Reay Road ...	.....	.....	.....	.....	.....	8,611	935	0	1	8						
	P. A. V. Road ...	.....	.....	.....	.....	.....	1,480	160	0	1	8						
	P. A. V. Town Road ...	.....	.....	.....	.....	.....	1,090	115	0	1	8						

APPENDIX D—contd.

Month.	Nature of Work.						Units.	Expenditure (daily.)	Incidence per head.
	Road.	Tank.	Building.	Miscellaneous.	Reclamation.	Harbour work.			
									Ra. a. p.
June...	P. A. V.-Mahuwa Road	.....	.....	.....	.....	.....	1,689	225 0 2 1	
		Moti Talao ...	.....	.....	.....	.....	7	1 0 2 8	
		Daskrohi Wells...	.....	.....	.....	.....	211	44 0 3 8	
		P. A. V. Pota Tank	.....	.....	.....	.....	1,087	111 0 1 8	
		P. A. V. Canal	.....	.....	.....	.....	141	16 0 1 11	
			P. A. V. Kacheri ...	.....	.....	.....	58	7 0 1 11	
			P. A. V. Wahiwatdar Karkoons' Quarters	.....	.....	.....	180	47 0 4 2	
			P. A. V. Wahiwatdars' uttara	.....	.....	.....	78	27 0 5 6	
			P. A. V. Iron Shed.	.....	.....	.....	8	8 2 10 8	
			Miscellaneous work.	.....	.....	.....	82	5 0 2 6	
			Victoria Park Improvement	.....	.....	.....	215	22 0 1 10	
				.....	.....	.....	106	15 0 2 8	
				Trade Facilities.	.....	.....			
				P. A. V. Observatory	.....	.....	18	2 0 1 9	
				P. A. V. Wharf	.....	.....	17	2 0 1 10	
				P. A. V. Bandar Improvement	.....	.....	175	18 0 1 7	
				.....	.....	.....	1,638	145 0 1 5	
				Gratuitous relief	.....	.....			
		Bhavnagar Special Water-supply	.....	.....	.....	.....	56	18 0 5 1	
		P. A. V. Water-supply	.....	.....	.....	.....	1,410	216 0 2 5	
July ...	Lord Reay Road	.....	.....	.....	.....	.....	9,508	1,301 0 2 2	
	P. A. V. Road	.....	.....	.....	.....	.....	6,119	621 0 1 7	
	P. A. V. Town Road	.....	.....	.....	.....	.....	326	36 0 1 9	
	P. A. V.-Mahuwa Road	.....	.....	.....	.....	.....	4,807	497 0 1 7	

	P. A. V.-Chanch Road	.....	.....	.....	.....	.....	217	26	0	2	10
	Bhavnagar Town Road	.....	.....	.....	.....	.....	271	52	0	8	1
	P. A. V. Water Supply	.....	.....	.....	.....	.....	619	70	0	1	9
	Moti Talao	.....	.....	.....	.....	.....	36	8	0	8	6
	P. A. V. Pota Tank	.....	.....	.....	.....	.....	41	6	0	2	4
	P. A. V. Canal	.....	.....	.....	.....	.....	48	6	0	2	0
	Bhavnagar Special Water Supply	.....	.....	.....	.....	.....	49	9	0	2	11
	Daskrohi Wells	.....	.....	.....	.....	.....	19	4	0	8	4
	P. A. V. Kacheri	.....	.....	.....	.....	.....	29	6	0	8	8
	Quarters for Wahiwati Karkoons	.....	.....	.....	.....	.....	61	15	0	8	11
	Quarters for Sibandhi Sepoys	.....	.....	.....	.....	.....	11	2	0	2	11
	P. A. V. Wahiwatdars' Uttara	.....	.....	.....	.....	.....	97	42	0	6	11
	P. A. V. Post and Tele. Office	.....	.....	.....	.....	.....	11	5	0	7	3
	P. A. V. Workshop	.....	.....	.....	.....	.....	19	2	0	1	8
	Cholera Hospital	.....	.....	.....	.....	.....	8	1	0	2	0
	P. A. V. Iron Shed	.....	.....	.....	.....	.....	12	10	0	13	4
	Victoria Park Improvement	.....	.....	.....	.....	.....	261	30	0	1	9
	Miscellaneous Works	.....	.....	.....	.....	.....	210	32	0	2	5
	P. A. V. Observatory	.....	.....	.....	.....	.....	41	9	0	8	6
	Trade Facilities	.....	.....	.....	.....	.....	8	1	0	2	0
	Quarters for Observatory clerk	.....	.....	.....	.....	.....	7	3	0	6	10
	P. A. V. Bandar Improvement	.....	.....	.....	.....	.....	36	5	0	2	3
	P. A. V. Wharf	.....	.....	.....	.....	.....	27	5	0	2	11
August	Lord Reay Road	.....	.....	.....	.....	.....	2,525	205	0	1	4
	P. A. V. Road	.....	.....	.....	.....	.....	6,454	802	0	1	11
	P. A. V. Town Road	.....	.....	.....	.....	.....	691	50	0	1	2
	P. A. V.-Mahuva Road	.....	.....	.....	.....	.....	126	15	0	1	10
	P. A. V.-Chanch Road	.....	.....	.....	.....	.....	2,154	229	0	1	8
	Gratuitous Relief	.....	.....	.....	.....	.....	79	10	0	2	0

APPENDIX D—concl'd.

Month.	Nature of work.						Units.	Expenditure (daily).	Incidence per head.	
	Road.	Tank.	Building.	Miscellaneous.	Reclamation.	Harbour work.				
August	.....	P. A. V. Water Supply.	.....	.....	.....	.....	221	24	0 1 8	
		P. A. V. Pota Talao ...	.....	.....	.....	.....	35	4	0 1 10	
		Bhavnagar Special Water Supply ...	.....	.....	.....	.....	...	18,127	...	Tanks.
		Moti Talao ...	.....	.....	.....	.....	7	1	0 2 9	
		Daskrohi Wells...	.....	.....	.....	.....	12	8	0 4 0	
			P. A. V. Kacheri...	.....	.....	.....	27,147	...	...	By Contract.
			P. A. V. Quarters for Wahiwati Karkoons ...	.....	.....	.....	14	3	0 2 5	
			P. A. V. Quarters for Sibandhi Sepoys...	.....	.....	.....	8	1	0 5 4	
			P. A. V. Tele. and Post Office ...	.....	.....	.....	49	16	0 5 2	
			P. A. V. Wahiwat-dars' Uttara ...	.....	.....	.....	49	8	0 2 7	
			P. A. V. Cholera Hospital ...	.....	.....	.....	60	8	0 2 1	
			P. A. V. Iron Shed.	.....	.....	.....	5	6	1 3 2	Material.
			Victoria Park Improvement ...	.....	.....	.....	259	80	0 1 10	
			Miscellaneous Work.	.....	.....	.....	272	86	0 2 0	
			Gratuitous Relief ...	.....	.....	.....	950	109	0 1 8	
						P. A. V. Observatory ...	...	4,670	.	Lamps.
						P. A. V. Wharf	...	4,742	...	Material.
					P. A. V. Bandar Improvement ...	721	90	0 1 11		
September	Lord Reay Road ...			P. A. V. Platform.	.....	.....	567	...	By Contract.	
				Gratuitous Relief ...	.....	.....	2,359	386	0 2 8	
						251	30,062	...	Rowties.	

E. W. PROCTOR SIMS,  
State Engineer.

**APPENDIX E.**

STATEMENT showing the daily average numbers of Men, Women and Children among Relief Works in the last week of each month.

Work people.	1899 August.	September.	October.	November.	December.	1900 January.	February.	March.	April.	May.	June.	July.	August.	September.	TOTAL.
Men ...	3,661	9,252	7,545	9,308	5,701	4,618	6,471	8,349	10,933	5,987	5,514	5,885	1,371	706	85,301
Women ...	4,825	13,372	11,639	14,684	8,955	7,016	10,127	12,892	31,149	8,741	8,199	9,116	1,913	1,130	1,43,758
Children ...	1,522	4,245	3,385	4,121	2,428	1,993	2,666	3,726	7,409	3,824	3,929	4,495	484	327	44,554
Total ...	10,008	26,869	22,569	28,113	17,084	13,627	19,264	24,967	49,491	18,552	17,642	19,496	3,768	2,163	2,73,613

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E. W. PROCTOR SIMS,  
*State Engineer.*

## APPENDIX F.

STATEMENT giving the Expenditure of the Temporary Establishment employed on the Relief Works from beginning to the end of September 1900.

Month.						Amount.			Remarks.
1899.						Rs.	a.	p.	
August	...	...	...	...	...	322	0	0	
September	...	...	...	...	...	1,864	0	0	
October	...	...	...	...	...	2,675	0	0	
November	...	...	...	...	...	2,782	0	0	
December	...	...	...	...	...	2,488	0	0	
1900.									
January	...	...	...	...	...	1,950	0	0	
February	...	...	...	...	...	2,054	0	0	
March	...	...	...	...	...	2,951	0	0	
April...	...	...	...	...	...	3,454	0	0	
May	...	...	...	...	...	4,017	0	0	
June ...	...	...	...	...	...	2,109	0	0	
July ...	...	...	...	...	...	3,072	0	0	
August	...	...	...	...	...	2,172	0	0	
September	...	...	...	...	...	725	0	0	
Total Rs. ...						32,635	0	0	

E. W. PROCTOR SIMS,  
State Engineer.



APPENDIX G.

COMPARATIVE STATEMENT showing the mortality in the affected districts from August 1899 to August 1900.

District.	1899 August.		Sept.	October.		Nov.		Dec.		1900 January.		Feb.	March.		April.	May.		June.	July.		August.		Total.		Death rate per thousand.					
	1897.	1899.	1897.	1899.	1897.	1899.	1897.	1899.	1897.	1899.	1898.	1900.	1898.	1900.	1898.	1900.	1898.	1900.	1898.	1900.	1898.	1900.	1898.	1900.	1897-98.	1899-1900.	1897-98.	1899-1900.		
Bhavnagar ... ..	83	57	185	55	186	64	180	71	104	148	126	87	64	98	134	27	149	591	99	1498	74	632	69	689	76	526	1878	4748	28.9	82.2
Sihor ... ..	...	18	45	18	33	31	48	27	35	38	50	51	48	53	52	57	45	60	25	156	20	84	27	90	29	105	452	847	45.2	84.6
Mahuva ... ..	...	85	45	22	64	23	70	34	49	88	34	30	28	30	29	74	46	71	80	88	27	309	44	238	47	144	618	1026	30.7	61.4
Kundla ... ..	...	25	73	9	56	22	54	18	39	98	41	57	25	78	28	95	18	155	24	264	15	480	25	237	30	161	428	1641	35.5	136.0
Lilla ... ..	...	6	9	8	14	7	18	7	6	16	6	24	12	14	8	9	9	27	5	48	9	209	7	46	13	32	110	448	57.2	238.1
Umrala ... ..	...	5	23	7	21	5	11	9	6	12	8	9	20	12	31	13	24	60	9	175	2	87	8	59	5	36	168	433	31.6	81.5
Botad ... ..	...	16	50	13	40	23	29	14	20	29	80	54	12	60	17	67	13	91	12	182	13	178	27	158	18	229	236	1064	37.0	137.8
Gadhda ... ..	...	20	18	9	21	14	24	23	17	30	20	37	10	35	17	40	8	56	19	381	8	149	17	72	17	165	190	1031	84.4	186.7
Talaja ... ..	...	11	13	8	17	13	10	14	17	10	17	17	25	5	31	7	19	11	10	53	7	26	13	68	9	74	188	321	48.4	82.3
Rajula (Port Albert Victor Mahal) ... ..	...	9	17	6	20	8	18	13	15	9	16	15	14	23	14	68	8	16	6	62	14	69	9	39	11	25	162	367	32.3	74.5
	83	202	428	150	422	209	402	230	308	368	348	331	258	412	361	457	339	1188	239	2355	189	2273	240	1677	254	1554	3860	11921	...	...

**APPENDIX H.**

STATEMENT showing the total quantities of Food Grains imported by sea in 1899-1900 as compared with 1877-78.

Grains.	1876-77		1877-78		1898-99		1899-1900	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Bengal Mds.	Rs.	Bengal Mds.	Rs.	Bengal Mds.	Rs.	Bengal Mds.	Rs.
Grain ... ..	191,730	4,50,825	162,323	4,74,379	227,144	4,82,245	1,644,897	63,09,239
Rice and Dal ... ..	183,190	6,32,250	197,968	5,73,481	351,065	12,16,850	1,722,886	76,60,029
Total ...	374,920	10,83,075	360,291	10,48,860	578,209	16,99,095	3,367,773	1,39,69,268

APPENDIX J.

STATEMENT of the monthly price in lbs. per rupee of Jowari, &c., during 1899-1900 and 1877-78.

Month.	Wheat per rupee.		Bajri per rupee.		Jowari per rupee.		Rice per rupee.		Ghi per rupee.		Gram per rupee.		Grass per rupee.	
	1877-78.	1899-1900.	1877-78.	1899-1900.	1877-78.	1899-1900.	1877-78.	1899-1900.	1877-78.	1899-1900.	1877-78.	1899-1900.	1877-78.	1899-1900.
August ... ..	lbs. 16	lbs. 18	lbs. 17	lbs. 20	lbs. 22	lbs. 24	lbs. 14	lbs. 15	lbs. 1-35	lbs. 2-0	.....	lbs. 21	lbs. 60	lbs. 120
September ... ..	14	16	14	16	17	18½	14	13	1-30	2-5	16	18	20	60
October ... ..	16	15	17	14	24	17	15	13	2-0	2-5	18	20	26	40
November ... ..	20	15	20	17	24	20	16	13	2-5	2-10	24	18	28	40
December... ..	17	16	17	18½	25	21½	16	13	2-5	2-5	24	20	28	50
January ... ..	16	15	16	18	23	20	14	13	2-5	2-0	24	20	30	50
February ... ..	16½	16	14	18	20	20	15	13	2-5	1-35	17	21	30	50
March ... ..	16	13	14	14	20	20	11½	13	2-5	1-30	20	21	30	60
April ... ..	17	16	16	16	20	20	12	14	2-5	2-0	19	21	30	70
May ... ..	17	15	16	15	20	13	11	14	2-0	2-0	19½	18	80	70
June ... ..	16	14	16	16	22	20	11	14	1-30	1-35	20	16	80	60
July ... ..	18	14	17	15	20	20	17	14	1-32½	2-0	17	17	90	30
August ... ..	17½	15	17½	16	22	20	16	14	1-35	1-35	18	16	125	50

## APPENDIX K.

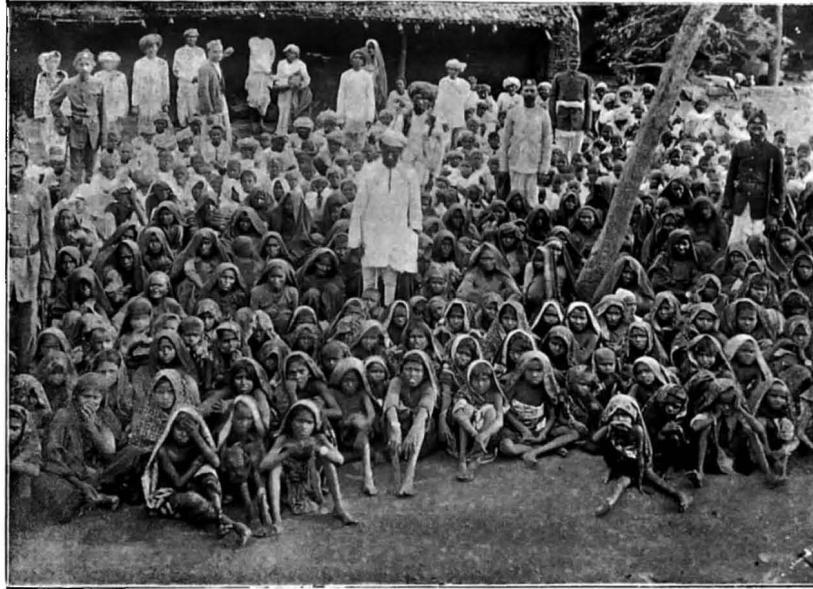
STATEMENT showing the number of new tanks excavated and old ones deepened in the Bhavnagar State in 1899-1900 and the amount of expenditure incurred on them.

No.	No. of Tanks.	Name of District and Village.	Amount of Expenditure.	Total.
			Rs. a. p.	Rs. a. p.
1		<b>BHAVNAGAR DASRKOHI.</b>		
	4	Bhavnagar—		
		Parbhudas Talao ... ..	25,209 0 0	
		Moti Talao .. ...	29,063 0 0	
		Ravapari Talao ... ..	17,894 0 0	
		Victoria J. W. Works ... ..	8,845 0 0	
	1	Tarsimia ... ..	641 14 0	
	1	Budhel ... ..	718 15 0	
	1	Bhumli ... ..	619 14 0	
	1	Hathab ... ..	740 10 9	
	1	Trapaj ... ..	1,280 11 2	
	1	Bhandaria ... ..	1,195 6 10	
	1	Jaspara ... ..	741 10 9	
	1	Rajpara ... ..	363 6 9	
	1	Khadadpar ... ..	263 13 0	
	1	Sankhdasar ... ..	526 0 8	
	1	Sidsar ... ..	762 12 0	
				83,866 2 11
2	15	<b>MAHUWA.</b>		
	1	Amratwal ... ..	11 13 2	
	1	Gadhada ... ..	563 0 0	
	1	Dhudhálá ... ..	458 4 2	
	1	Motá Jadrá ... ..	461 4 6	
	1	Khubhan ... ..	561 14 1	
	1	Dudhálá Mota ... ..	345 3 8	
	1	Náná Asráná ... ..	437 10 5	
	1	Bhadrod ... ..	673 14 0	
	1	Rupavati ... ..	571 15 7	
	1	Nikol ... ..	573 6 7	
	1	Naip... ..	215 1 2	
	1	Maluva ... ..	215 1 10	
	1	Náná Khuntavdá ... ..	128 1 0	
				5,215 10 2
3	13	<b>TALAJA.</b>		
	1	Unchadi ... ..	752 14 11	
	1	Methala ... ..	1,104 4 4	
	1	Bhadrawal ... ..	791 9 3	
	1	Déhor ... ..	304 13 3	
	1	Kundhadá ... ..	1,044 9 3	
	1	Sathra ... ..	450 0 0	
				4,448 3 0
	6			



No.	No. of Tanks.	Name of District and Village.	Amount of Expenditure.	Total.
8	UMRALA.		Rs. a. p.	Rs. a. p.
	1	Parwala ... ..	871 9 7	
	1	Timba ... ..	399 4 8	
	1	Ujalwaj ... ..	897 0 1	
	1	Bhandaria ... ..	230 14 5	
	1	Dhasa ... ..	850 7 5	
	1	Noghauvadar ... ..	211 8 6	
	1	Sarkadia ... ..	110 8 0	3,071 4 8
9	KUNDLA.			
	7			
	1	Bhuwa ... ..	479 11 0	
	1	Adsang ... ..	203 15 8	
	1	Dhar ... ..	191 14 0	
	1	Khadkala ... ..	529 5 11	
	1	Moldi ... ..	180 15 7	
	1	Dadhia ... ..	506 7 10	
	1	Borola ... ..	366 9 6	
1	Amratwel ... ..	277 14 2		
1	Sarkadia ... ..	306 10 9	3,043 8 0	
10	BOTAD.			
	9			
	1	Botad ... ..	2,245 4 6	
	1	Dhankania ... ..	1,973 14 3	
	1	Jotingda ... ..	365 4 8	
	1	Tardhara ... ..	992 10 8	
	1	Samadhiala ... ..	224 5 8	
	1	Lathidad ... ..	1,693 5 10	
	1	Patna ... ..	985 5 9	
	1	Chakampar ... ..	189 4 0	
1	Ratanwaj ... ..	990 5 8	9,659 11 9	
11	(RAJULA) Port Albert Victor.			
	1	Pota Talao ... ..	7,155 0 0	7,155 0 0
	94	GRAND TOTAL ... ..Rs.	.....	1,37,857 11 8

One Lakh thirty-seven thousand eight hundred and fifty-seven rupees, eleven annas and pies eight only.



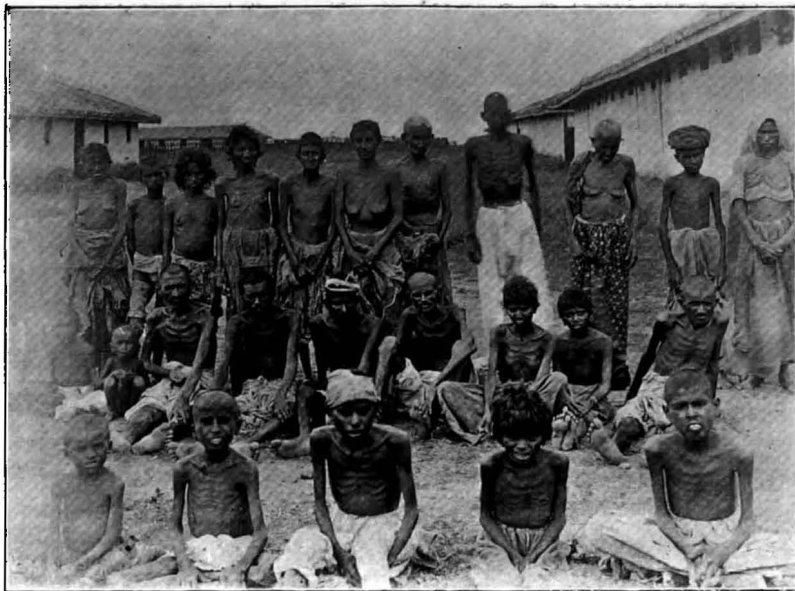
(i)

**A general view of the Ashram.**



(2) A general view of the Ashram while the Inmates are at work.



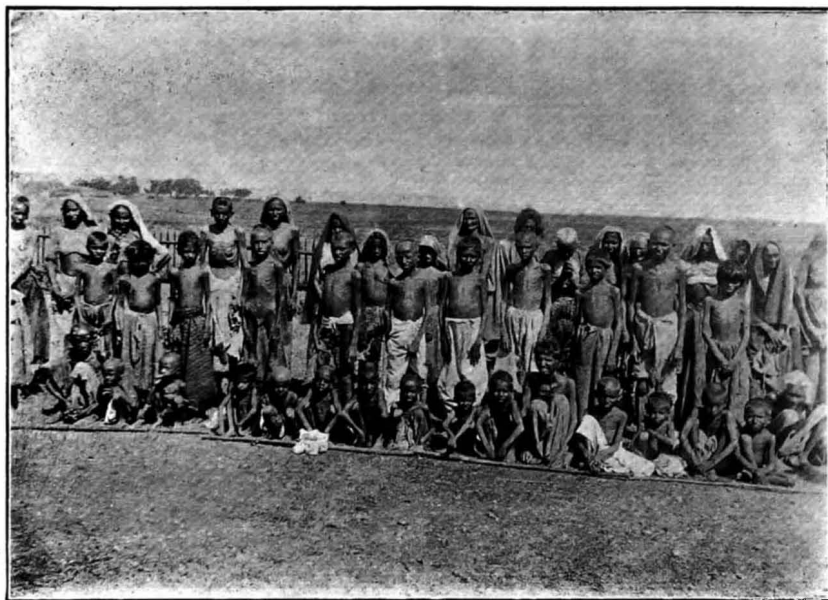


(3)

**Some of the Inmates at the time of First Admission.**

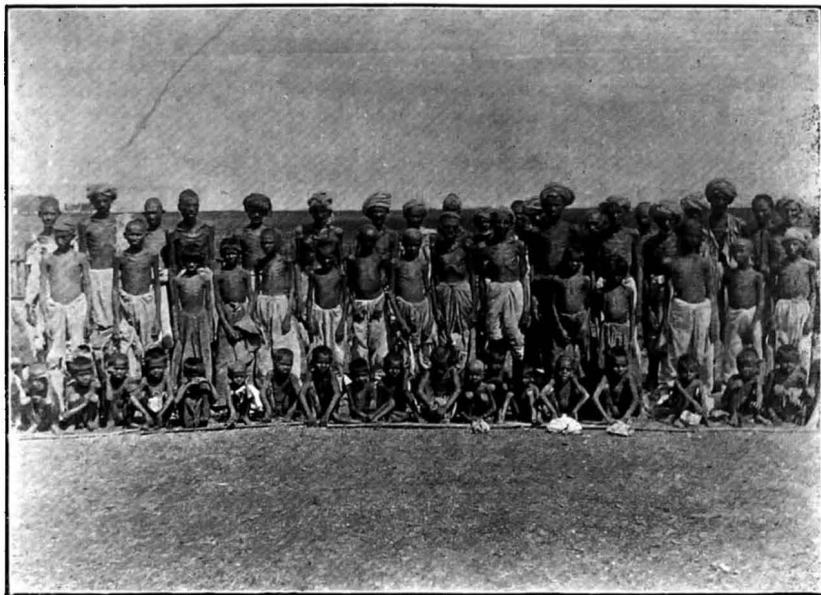


(4) **Worst Types of the famine-stricken people at the time of Admission.**



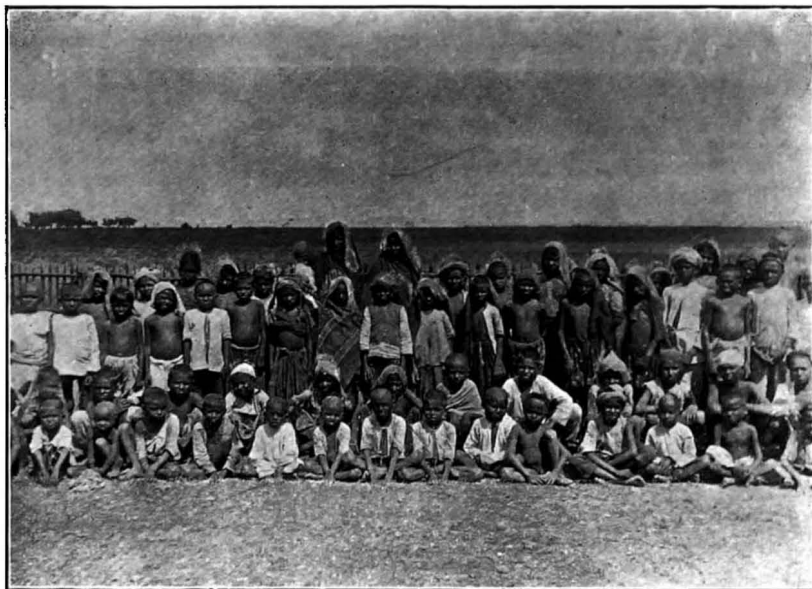
(5)

**Females with their children at the time of Admission.**



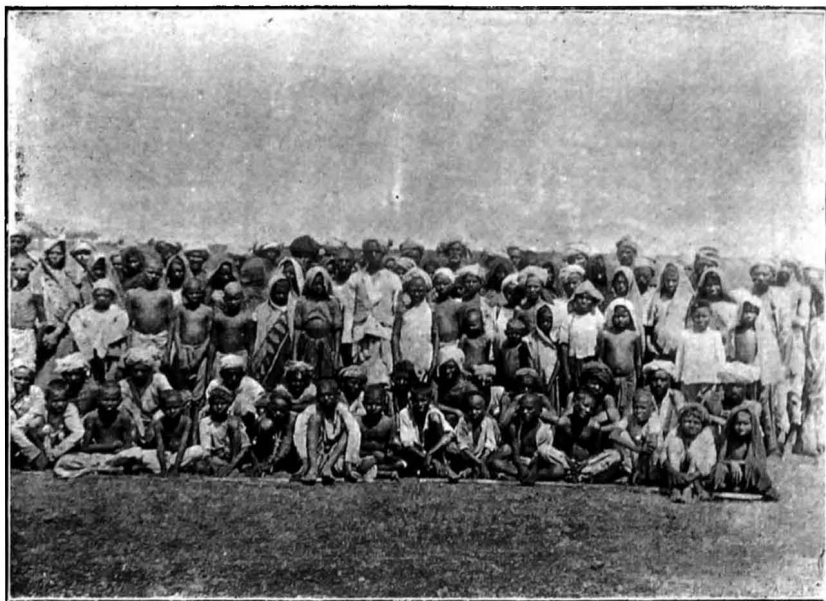
(6)

**Males with their children at the time of Admission.**



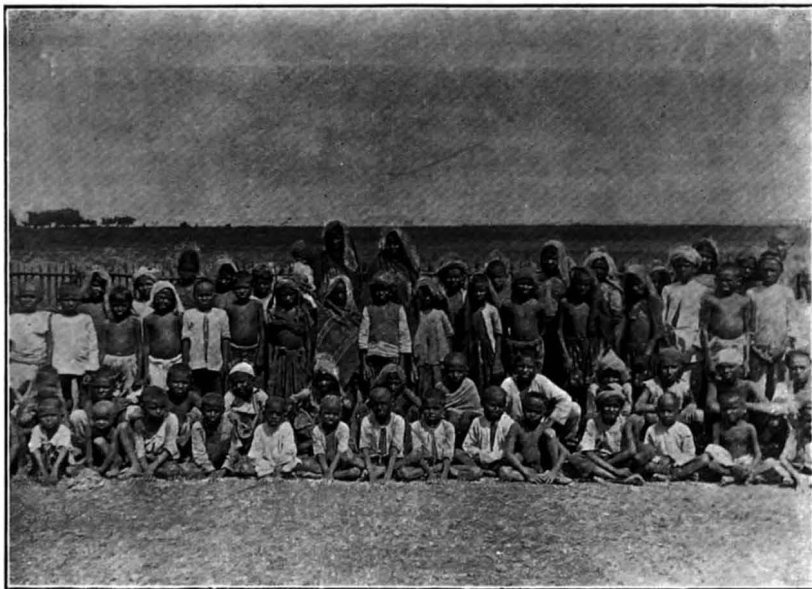
(F)

**Orphans with their Nursing Mothers.**



(7)

Inmates of the Ashram after their stay for 3½ months.



(F)

**Orphans with their Nursing Mothers.**



(9)

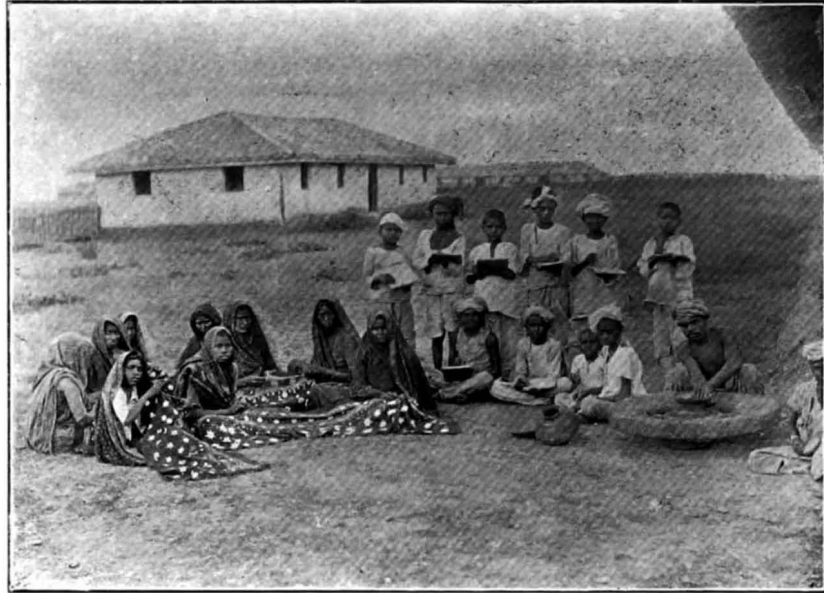
**Breakfast Time.**





(10)

**Lepers near their Quarters.**



(11) **Women sewing, boys studying and the Potter working at his wheel.**