

**REPORT**  
**ON THE**  
**FAMINE IN THE PUNJAB**

**IN**

**1896-97.**

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**Price Rs. 2-9-0,**

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**Lahore:**

**PRINTED AT THE PUNJAB GOVERNMENT PRESS,  
1898.**

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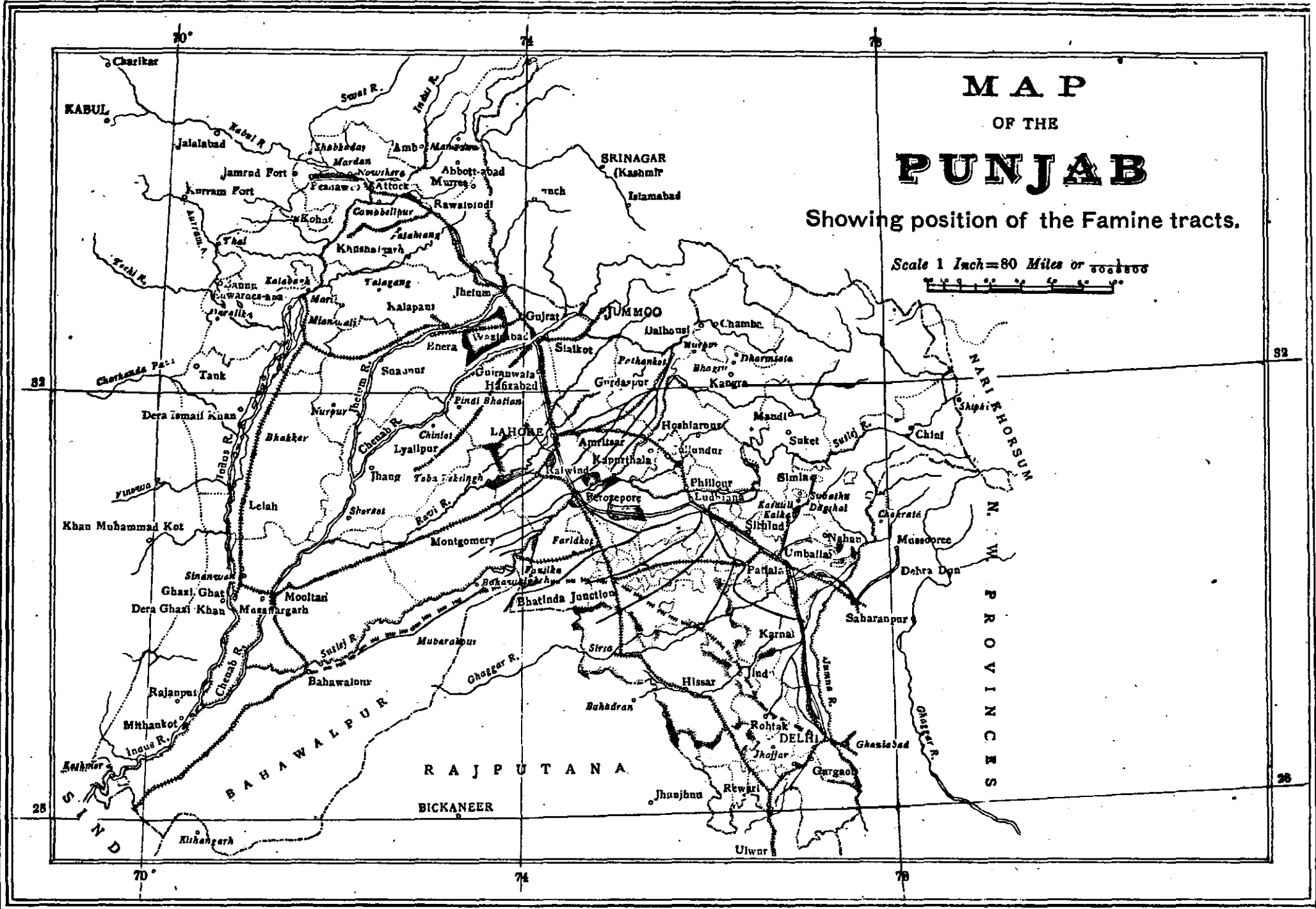
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Ditto      in Rabi.	
Rainfall in Kharif 1895.	
Ditto    Rabi 1896.	
Ditto    Kharif 1896.	
Ditto    Rabi 1897.	
Crop failures in Kharif 1895.	
Ditto    Rabi 1896.	
Ditto    Kharif 1896.	
Ditto    Rabi 1897.	
Map of the Cis-Sutlej territory ... ..	... Between pages 74-75.

# MAP OF THE PUNJAB

Showing position of the Famine tracts.

Scale 1 Inch = 80 Miles or 128000



READ—

- (1) Circulars of the Government of India in the Revenue and Agricultural Department, No. 313-F., dated 23rd August 1897, and No. 318-F., dated 3rd September 1897, calling for reports on the past famine and on the works carried out by relief labour.
- (2) Punjab Government Circular No. 1334 S., dated 3rd September 1897.
- (3) Various reports from Commissioners, Deputy Commissioners and Public Works Officers.

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### Introductory Note.

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IN Mr. Holderness' report on the famine of 1896-97 it is stated that the number of persons (in terms of one day) relieved by Government in the whole of India amounted to 800 millions. Of these 800 millions,  $22\frac{1}{2}$  millions were relieved in the Punjab. Thus if 1,000 be taken as representing the total of famine relief in India, the Punjab figure in comparison to this total is 28; and if 1,000 be taken as representing the total relief in this Province, this total is distributed between the nine districts in which regular relief operations (as distinguished from test works) were undertaken as follows:—

Hissar ... ..	547
Gujrat ... ..	226
Rohtak ... ..	73
Karnal ... ..	58
Delhi ... ..	23
Umballa ... ..	22
Lahore (Sharakpur) ... ..	20
Ferozepore ... ..	16
Gurgaon ... ..	8
Lahore (second period) ... ..	7
	1,000

By comparison the share of the Punjab in the immense scheme of Government relief is insignificant, but it is no insignificant thing that relief equivalent to the feeding of the entire population of the Punjab for one day—for that is what the figures amount to—should have been given at the expense of Government in this Province. The cost of this relief, including the cost of the establishment employed in supervising and administering it, amounted to  $22\frac{1}{2}$  lakhs. But relief was also given by Government in the form of suspensions of land revenue amounting to 22 lakhs, and loans for the purchase of seed and cattle amounting to  $11\frac{1}{2}$  lakhs. Over and above this Rs. 12,67,521 were distributed by the Indian Charitable Relief Fund.

The Government of India having asked for a report on the relief operations in this Province, the following narrative has been prepared from the Government records and from the reports specially called for from the nine famine districts.



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Numerous extracts from the district reports are printed as Appendix I to this Resolution.

The term "famine" is used for convenience sake throughout this Resolution as referring to the nine districts mentioned above in which relief operations were undertaken; and any relative signification, such as, it is believed, attaches to the term in some other Provinces, as distinguishing districts in which there was severe famine from "scarcity" or "distressed" areas, is not intended to be conveyed by its use in connection with the Punjab districts in question. In the Punjab there was scarcity and distress caused by high prices almost everywhere. Distress caused by agricultural failure covered a much wider area than the nine famine districts. If famine be the term applicable to the conditions under which people in considerable numbers accept employment at relief works rates of wages, then there was famine in nine districts; but severe famine such as visited the worst parts of the North-West and Central Provinces was present perhaps in the Hissar District alone.

This Resolution and the relief statistics appended embrace the operations of the local famine in the Sharakpur Tahsil of the Lahore District, which commenced in the spring of 1896 and terminated in the autumn of that year, as well as the more general relief operations which, commencing with the relief works opened in the Phalia Tahsil of the Gujrat District in August of that year, were, consequent upon the failure of the monsoon rains, followed in the cold weather by the measures undertaken throughout the Delhi Division and in the Ferozepore and Lahore Districts.

## CHAPTER I.

### Cause of the famine.

1. It cannot be said that the Punjab Famine of 1896-97 was entirely due to the failure of the monsoon rains of 1896, because relief operations had been found necessary in the preceding spring in the Sharakpur Tahsil of the Lahore District, and the Phalia relief works were opened in August before it became known that the monsoon rains would cease at the end of that month. Had the monsoon, however, not failed it would probably have been unnecessary to undertake any relief operations in the cold weather, and the Phalia relief works would no doubt have been closed with the ripening of the autumn crops. The failure of the kharif harvest, however, intensified the distress in the Gujrat District, rendering the closure of relief works there impossible, and the strain caused by this failure, coming as it did in succession to two previous bad harvests, was too much for the weaker tracts of the Province, especially in the Eastern Punjab. The failure of the rains upon which depended the rabi sowings of 1897 on dry lands rendered the situation during the closing days of 1896 an extremely gloomy one, devoid even of that element of hopefulness which the prospect of a favourable spring harvest would have supplied. Fortunately the rain of the second week of January 1897, while enabling agriculturists in the Western Punjab to slightly extend the area of sowings, gave assurance that the spring harvest in the ground, though of greatly diminished area, would be practically secure. Both the kharif harvest of 1895 and the rabi of 1896, especially the latter, had been particularly bad. The Punjab, however, in this respect more fortunate than the adjoining North-Western Provinces and Oudh, had enjoyed a series of excellent harvests from 1892 to 1895. The excessive moisture, which during this period both in the North-Western and Central Provinces had caused considerable damage and destruction of crops over large areas, proved in the Punjab an almost unmixed blessing. Thus the Province had not been called upon to stand the strain of hard times for so lengthened a period as in the more distressed parts of India, and hence it is that though, judged by the number of persons relieved, the expenditure incurred, the extent of crop failures, the duration of the drought and dearth of fodder and the high prices which prevailed, the Punjab Famine of 1896-97 was probably as severe as any famine which preceded it since annexation, yet as compared with other parts of India the Province must be regarded as having escaped somewhat lightly.

2. This result is in the main due to the circumstance that cultivation in the Punjab is so largely protected by irrigation. It is, however, by no means the case that the protection thus enjoyed is sufficient, or that any serious diminution in the annual rainfall can fail to cause agricultural failure over large areas. In a normal year as much as 70 per cent. of the total harvested crops are grown without the aid of irrigation. In the Himalayan and sub-montane districts a serious failure of rain would be a calamity of the first magnitude. The periodical floods in the rivers are due in a large measure to the rainfall, and on the sufficiency of this flooding the success not only of the numerous inundation canals, but also of the million and a half acres of *sailab* cultivation in the river valleys, depends. Moreover in all well-irrigated tracts agriculturists look for the assistance of timely showers to supplement the efforts of their well-cattle and give the hard-worked animals an occasional respite from labour. In parts of the Province extensive failures of well-crops ensue if this assistance is not received. It is, however, a feature of the Province that a very large area is protected by artificial irrigation, and year by year the proportion of cultivation thus rendered secure is increasing. What can be done when irrigating sources are strained to their utmost is illustrated by the crop figures of 1896-97, in which year the area of harvested crops grown by irrigation exceeded the normal by nearly 20 per cent., and amounted to 47 per cent. of the total area of crops grown in that year, as compared with a normal proportion of 30 per cent. only.

3. It will be necessary, in order to explain why famine, necessitating measures of relief, affected certain parts of the Province and not others, to notice the local distribution of irrigated areas, no less than the data of rainfall, during the period under review. The first of the maps appended to this Resolution is an irrigation map. It does not show the *locality* of the areas in each district commanded by irrigation. A map prepared on that basis would exhibit a somewhat different colouring, but would not illustrate the aspect of the situation which from a famine point of view is of the greatest importance, namely the proportion of the crops grown on an average of years in each district which receive irrigation. The map appended represents the *proportion of irrigated to total crops* in each district on an average of ten years ending rabi 1896. The colouring therefore indicates generally the extent to which each district is independent of rainfall. The percentage figures for each district are given in column 2 of Statement No. II A. The percentages for Divisions are as follows:—

Division.	Percentage of total crops grown by irrigation.	Division.	Percentage of total crops grown by irrigation.
Delhi ... ..	11	Ráwalpindi ... ..	31
Jullundur ... ..	26	Pesháwar ... ..	35
Lahore ... ..	57	Deraját ... ..	41

The Delhi Division is thus much more dependent upon rainfall than any other portion of the Province.

4. The rainfall statistics of the unfavourable harvests commencing with kharif 1895 are for the famine districts given in Statement No. I. For the Province as a whole a series of maps are appended showing the average rainfall of each district and the actual rainfall recorded in each harvest at the district head-quarters as compared with the average for the district. For comparison with the rainfall map of each harvest is a map showing the crop failures in that harvest. "Crop failure" must be understood in the general sense of deficiency in the area of harvested crops as compared with the average, and represents short sowings as well as failure to come to maturity. The outturn of particular crops, such as wheat, cotton, oil-seeds, is estimated as so many annas in the rupee in the harvest forecasts, and the Director of Land Records and Agriculture is in the habit of similarly estimating the total crop of the Province in each harvest, but these estimates are not available for each separate district, and in any case the very rough approximation which they furnish cannot be regarded as of much statistical value as compared with the fairly accurate returns of areas harvested. No attempt therefore is made to introduce any allowance for outturn into the "crop failure" statistics framed as above explained. Generally it may be stated that, except in the case of rabi 1897, when the outturn per acre was distinctly good, the yield as well as the area of crops was below the average in the harvests under consideration. The proportion of harvested crops in each season to the average is shown by percentage figures in Statement No. II A.

5. The kharif crop of 1895 was a bad one. In area it was 15.5 per cent. below the normal, and it was rated by the Director of Land Records and Agriculture as a 12-anna crop. The Hissar District suffered most, the matured area being only 30 per cent. of the normal. Those districts in or near the hills which are generally in danger of suffering from an excess of rain did well. There was a great lack of fodder in most districts.

6. The rabi crop of 1896 may be described as decidedly bad. In area it was 20.6 per cent. below the normal. Not only were sowings greatly contracted owing to the early cessation of the previous monsoon, but the winter rains in December and

January failed largely. The contraction of the unirrigated area amounted to 37.7 per cent. as compared with the average of 11 years, but this was to some extent compensated for by an increase of 543,750 acres (or 12 per cent. above the normal) in the irrigated area. In fact the irrigated area, which on the average amounts to 34 per cent. of the whole, in this season amounted to 48 per cent. of the cropped area. The proportion of matured crops to normal area in the six Divisions was as follows :—

Division.			Percentage.	Division.			Percentage.
Delhi	...	...	61	Ráwalpindi	...	...	83
Jullundar	...	...	86	Pesháwar	...	...	83
Lahore	...	...	87	Deraját	...	...	90

The Delhi Division, as in the previous season, suffered the most. In no tract except the Chenab Colony was the harvest a good one.

7. The monsoon rains of 1896, though they commenced later than usual, for a time gave promise of a favourable season. The August showers, however, were very scanty in the South-East Punjab, and towards the close of that month rain practically ceased all over the Province, and hot parching winds set in, doing much damage to the crops. The result of this early failure of the monsoon was most disastrous as the kharif crops in the ground shrivelled up and sowings on dry land were much reduced, while those which were effected failed to a large extent to germinate. With three exceptions, maize, which was a successful crop in the hills, the inferior grains which ripen early, and jowár, which was stationary, all the autumn food-staples showed a greater or less decrease even as compared with 1895. The rice crop was everywhere much below the average. All the millets were poor crops, and a very large proportion of the jowár was given to the cattle. The outturn of the various pulses was considerably below even the meagre totals of the previous year. Sesamum was the only one of the oil-seeds which showed an increase in area, but the yield was very poor. The others fell off very much. Sugarcane showed a slight increase, but a large proportion was given to the cattle to supplement the deficiency of fodder. There was a remarkable increase of 24 per cent. in indigo and the yield was good. The fodder crops show the largest increase of all owing to the great scarcity of grass. The area put under cotton was above the average, but the matured area was 5 per cent. less than that of the previous year and the outturn was generally poor. On the whole the autumn harvest of 1896 was 19 per cent. below the average, but having regard to outturn as well as to area, the Director, Land Records and Agriculture, estimates it as fully one-third below the average. In Hissar the failure of crops was nearly absolute. In Jhang and Muzaffargarh the harvest was above, and in Bannu equal, to the average. In other districts it varied from 50 to 5 per cent. below the normal.

8. The early cessation of the autumn rains rendered the prospect of the spring harvest very gloomy, and the winter rains were unduly delayed. But when the latter did arrive about the middle of January they did not fail. With the exception of the greater part of the Delhi Division the Province received favourable rain up till the beginning of April. The contraction of sowings on unirrigated lands was met by a large extension of irrigation. The irrigated area was the highest on record for this harvest, and for the first time since annexation exceeded the area cropped on dry land. Except drought, there were no calamities of season, and the crops generally were less affected by blight and disease than has been the case for many years. The shrinkage of all cereals and pulses was very marked. Wheat, the staple food-grain of the Punjab, was just over 6 millions of acres compared with an average of  $7\frac{1}{2}$  millions. The yield of all crops, however, was as a rule above the average. The heavy strain on agricultural stock caused by the scarcity was evidenced by an increase in the area of failed crops grown on irrigated lands, due to the bullocks being unable to work the wells. Kangra, Jhang and Gujranwála and the four northern frontier districts had all

good harvests. Hoshiárpur, Jullundur, Mooltan, Amritsar, Muzaffargarh and the remaining frontier districts had an average crop. Gurgaon alone in the Delhi Division was up to the average. In all other districts the crops varied from very bad to poor. The area of matured crops was 21 per cent. below the average.

9. The following figures taken from Statement No. II A represent the percentage of *deficiency* (as compared with the average of ten years) of the harvested area in the nine famine districts during the four seasons just described :—

District.*	Kharif 1895.	Rabi 1896.	Kharif 1896.	Rabi 1897.
Hissar	70	54	75	74
Rohtak	23	46	18	67
Gurgaon	13	24	12	14
Delhi	6	24	Nil.	40
Karnál	26	40	32	44
Umballa	6	40	8	47
Ferozepore	34	11	38	35
Lahore	22	24	16	24
Gujrát	2	22	30	29

It may be noted that the rabi is the more important crop in this Province, its share of the total crops being  $56\frac{1}{2}$  per cent. as compared with  $43\frac{1}{2}$  per cent. grown in the kharif season. There are only seven districts in the Province in which the normal kharif area exceeds that of the spring harvest. Three of these, Simla, Kángra and Hazára, are in the hills, and can generally count on a sufficiency of monsoon rain; a fourth, Dera Gházi Khan, is largely dependent upon inundation canals. The remaining three, Hissar, Rohtak and Gurgaon, are in the Delhi Division, and the kharif harvest in these three districts, which depends almost entirely upon the monsoon rains, is in area on the average about double the rabi. In the remaining districts of the Delhi Division the normal rabi area only just exceeds that of the kharif harvest. The average area under wheat in the whole of the Delhi Division is less than the average area of this crop in the Dera Ismail Khan and Bannu Districts together, and amounts to only 9 per cent. of the total area under the crop. It will therefore be understood that this Division is more affected by bad kharif harvests than by failure of the spring crops, and this is particularly the case with the Hissar District, in which the kharif harvest in a normal year amounts to 70 per cent. of the total crops and pays five-sixths of the revenue of the district. What is implied by crop failures such as are denoted by the percentage figures in the above table is expressed in a concrete form by the Deputy Commissioner of Hissar, who calculates that, while in a normal year his district produces nearly 60 per cent. more food than the people require, in the year 1895-96 the crops sufficed for little more than half the population and in 1896-97 for only one-third.

10. The contraction of the cropped area consequent upon drought is not the only symptom of agricultural distress in seasons of scarcity in this Province. A feature of Punjab famines of almost equal significance with crop failures is the mortality among cattle caused by the drying up of fodder supplies, and thus at a time when the normal food-supplying area of the people undergoes serious diminution an extra demand for fodder crops to supplement the insufficient pasturage and

\* It should be noted with reference to this table that the percentages in the case of all districts except Hissar do not adequately represent the extent of crop failures in the distressed portions of the districts. In Hissar practically the whole district was affected. In the other famine districts the distressed areas were confined to portions—in some cases to very small portions—of the district, while the statistics relate to the district as a whole.

keep alive the residuum of cattle necessary to agriculture is made at the expense of grain-producing crops. This effect of drought is evidenced by the crop figures of the year 1896-97, when the area of food-grains amounted to only 80 per cent. of the total area of crops as compared with an average of 84\* per cent. In 1892-93, which was a good year, the area of food-grains amounted to 86 per cent. of the total area of crops. This subject of cattle mortality will be further noticed in Chapter III following. The following extract from the Punjab Famine Report, 1878-79, may be quoted here. It refers chiefly to the mortality among grazing cattle. Perhaps a more serious incident of such periods of drought is the mortality among plough and well cattle, no less from overwork than from insufficiency of food :—

Perhaps, however, the most considerable calamity from which the Province occasionally suffers is extensive mortality among the cattle, caused usually by the failure of the kharif rains and crops. Vast numbers of kine are maintained in the waste lands (Bárs), which form the centre of the lower portions of the Punjab Doábs; and in fair rainy seasons these Bárs produce abundant grass for their support. When no autumn rain falls, this pasturage fails completely. Similarly, in the other comparatively rainless portions of the Punjab, where there is little irrigation, as in the western half of the Jhelum and Ráwalpindi Districts, the western half of Karnál, and the Hissar Division, the failure of the autumn rains, though not involving a famine if the rabi sowings are secured, produces terrible mortality among the cattle.

11. The years 1896 and 1897 were marked by a rise in the prices of all food-grains to a level never previously attained, and in respect of this concomitant of famine the Punjab generally was in no better position than the more distressed Provinces of India. Cheap railway transport, the telegraph, the widespread ramifications of the grain trade and the active speculation in grain stocks which coincided with, if it did not in some degree contribute to, the initial upward movement in prices, all combined to produce and maintain a condition of practical equilibrium of prices, at any rate throughout the districts served by railways. Wherever prices were lower than elsewhere the cause was to be sought not in the more favourable agricultural circumstances of the district but in its remoteness from the line of railway. Thus throughout the present distress the prices of food-grains in the Bannu District were almost invariably lower than those recorded in any other part of the Province. Another remarkable feature of the past two years was the tendency towards equality of the prices of the different kinds of food-grains. This is clearly shown in Statement No. III appended and in the diagram in the Punjab Administration Report for 1896-97.

12. Sir Dennis Fitzpatrick was at one time seriously apprehensive that the inordinate rise in prices, occurring as it did in districts agriculturally secure, no less than in tracts where the crops had failed, would result in Government having to undertake relief measures in almost every district of the Province. Though prices continued high for a very long time and are still considerably above the normal, it cannot be said that the experience we have now acquired points to the conclusion that Sir Dennis Fitzpatrick's apprehension was in danger of being fulfilled. Broadly speaking, relief works were confined to tracts in which agriculture had failed, and though some small works were opened for the relief of Lahore and Delhi City, and a few test works for the relief of townspeople were started in the vicinity of other towns, the experience of the past famine seems to point to the conclusion, which without being finally accepted at any rate stands unrebuted, that high prices alone will not produce famine conditions or necessitate relief measures in tracts which have not suffered from agricultural failure. In this Province the last census returned 59 per cent. of the people as engaged in agriculture. Referring to this result the Provincial Superintendent explains :— "But it would be the greatest mistake to consider that this by any means adequately represented the proportion of the community dependent on agriculture for its subsistence. In the rural areas almost every villager is an agriculturist in some sense, but in many instances he combines agriculture with some

\* It would appear that with the extension of irrigation the proportion of food crops to total crops tends to decrease. In the figures supplied to the Famine Commissioners in 1878 the area of food crops was returned as 18½ million of acres out of a total of 21 million acres of all crops, the percentage of the former thus being 88½. Of the irrigated crops included in these statistics only 81·9 per cent. were food crops.

other handicraft or profession. If a shop-keeper, he may own part of the land, and in the west of the Province may cultivate it also; if a carpenter, weaver, sweeper, or the like, he may either own or rent a small plot or hold a plot free of revenue, which he cultivates in addition to his ordinary duties; and if he does not hold land in his possession, he will almost always be found acting as a field labourer during the harvest season." The above explanation, together with the detailed statistical information contained in Mr. Maclagan's Census Report, go to show that in this Province the fortunes of the general population of any particular district stand or fall with the fortunes of its agriculture. High prices, unaccompanied by agricultural failure, are a distinct boon to the agriculturist and to those dependent upon him, and under such conditions it is only the poorer artisans in large towns on fixed money wages, who do not like the majority of village menials get paid in kind, whose distress arising from high prices may necessitate measures of relief. The general conclusions of the Punjab Government in this matter, arrived at after a special inquiry, were communicated in a letter No. 263 S., dated 23rd June 1888, to the address of the Government of India, which, with the Director of Land and Record and Agriculture's memorandum of the results of inquiries made district by district, is reprinted in Appendix II.

13. One measure which was loudly clamoured for in the Native Press at the commencement of the famine was the arbitrary regulation of prices by Government. Such an exercise of authority is no doubt quite consonant with oriental ideas. To prevent any mistakes on the part of inexperienced officers as to the policy to be adopted in this matter, the following Circular was issued by Government in October 1896:—

A conference of officers was held here yesterday with regard to the scarcity impending in many districts. Among other matters there came under discussion the question of the course to be pursued in the event of grain-dealers combining to raise prices to an inordinate and uncalled for extent as they are now alleged to be doing in some of the larger towns in the Province, and the Lieutenant-Governor thinks it well to state the view that commends itself to him as it did to the officers present at yesterday's meeting.

In paragraph 7 of the proceedings of the Lieutenant-Governor, No. 152, dated 5th October 1888, it is laid down that "under no pretext whatever can any officer be held to be justified in bringing pressure to bear on the dealers, however serious may be the want of food, or however high may be the prices demanded in times of famine"; and taking the word "pressure" in its ordinary and natural sense the Lieutenant-Governor entirely accepts that view. But there may be occasions on which a Deputy Commissioner or Commissioner would be only doing his duty if, while carefully abstaining from putting on pressure in that sense, he were to discuss the matter of prices with some of the leading grain-dealers with a view to dissuading them from entering into any combination to raise prices to an inordinate and uncalled-for extent.

As a rule the larger grain-dealers have better information and are better able to form an estimate of the position than our officers can be, and when they come to the conclusion that they will gain more in the end by raising prices to a certain pitch, it will probably be in the long run best for the people that prices should be raised to that pitch; but there are occasions when they are apt to be carried away into running up prices and holding up their stocks to an extent beyond what a true estimate of the position would require, and in such cases it is only right that our officers should reason with them on the matter and draw their attention to considerations which they may have overlooked or insufficiently attended to. It would for example be perfectly justifiable when, at a moment like the present while things are still far from being hopeless, the grain-dealers raise the price of wheat to 8 seers the rupee, for a Commissioner or Deputy Commissioner to point out to them that that was the highest price in the terrible famine of 1860-61, which is commonly spoken of as the "ath seria," and that with the development of communications that has since taken place things are unlikely ever to be so bad again. Similarly, it would be very desirable to ascertain as far as possible what the stocks in hand and locally obtainable actually are, and it would be perfectly justifiable to draw the attention of the dealers to the Reuter's telegram just published announcing that three cargoes of Californian wheat have been shipped to India, and to warn them that if prices here are run up beyond a certain figure, there is no saying how much wheat may be attracted from the Western world and how far it may pull down prices.

Under what circumstances and to what extent an officer would be justified in interposing in this way, and how far his interposition would be likely to have any effect, it is of course impossible for any one except those on the spot and having to deal with the particular case to say.

The Lieutenant-Governor's only object is to point out that while officers should, as directed in the year 1888, carefully abstain from putting on anything that could be called pressure, they are not prohibited from offering opinions and advice, and endeavouring to bring the grain-dealers into a reasonable frame of mind when they think that their interposition to this extent is called for and that it is likely to do good.

## CHAPTER II.

### Narrative of events.

14. Ever since the failure of the kharif harvest of 1895 the revision and amplification of the programmes of relief operations for the insecure districts had engaged the attention of Government. Until a few years ago the insecure tracts for which the maintenance of relief programmes was required by standing orders were, outside the Delhi Division, confined to the Sharakpur Tahsil of the Lahore District and the Hazára District, which latter had been visited by the famine of 1877-78. Sir Dennis Fitzpatrick, however, caused the list of insecure areas to be revised, with the result that portions of the Kángra, Hoshiárpur, Amritsar, Gurdáspur, Gujrá, Jhelum, Rawálpindi, Bannu and Dera Ismail Khan Districts were included among the tracts for which relief programmes must be maintained. The Phália Tahsil of the Gujrá District was thus brought on the list, and the commencement of relief operations which there assumed such importance did not find the Gujrá District authorities unprepared with a programme. On the other hand the probability of relief measures being necessary in Ferozepore was not anticipated. The greater portion of the area of that district is commanded by the Sirhind Canal and the District Inundation Canals, and, as is shown in the chapter relating to food stocks exports and imports, the district as a whole, even in a famine year, is a surplus one. The absence of a previously prepared programme did not, however, prejudice or delay the minor relief operations which were afterwards undertaken for the small areas of this district in which local scarcity manifested itself. Had it been necessary, provision could have been made for relief works in Ferozepore on a larger scale, as the earthwork of the Ludhiána-Ferozepore Railway project was well situated as regards the distressed area.

It may be noted with reference to the programmes of relief works generally that the estimates of the number of persons who could be supported were eventually found to be considerably below the mark, the tasks having been calculated too high, and the large proportion of carriers to diggers not having been allowed for.

15. Early in 1896 attention was drawn to the state of the Sharakpur Tahsil of the Lahore District, and towards the end of March relief works, the first started in the Province, were opened and remained open for five months until the following August. The scarcity in Sharakpur—it can hardly be called a famine—was due to the failure of the fodder supplies and the consequent mortality of cattle upon which the population mainly depend, both as graziers and for the working of the wells upon which the food supply of the people is grown. The distress affected a little more than half the tahsil. When the people realized the impossibility of saving their cattle if they stayed at home many families emigrated with their cattle and all their belongings to the Chenab Canal, the banks of the Ravi and Sutlej, and the sub-montane tracts of Siálkot and Gurdáspur. Many villages were left half empty, and in two only one family remained. It is estimated that over 1,700 families left the tahsil. The population, as is usual in the case of cattle-owning tribes, are nomadic in character, and no permanent ill-effects are anticipated from this emigration. Throughout the tahsil, as in other tracts where this provision was called for, the Government forests were thrown open to grazing, and though a good deal of damage to tree growth resulted, the fact that a considerable number of cattle were saved by this means amply justifies the measure. Nevertheless the number of cattle that perished during the first half of 1896 was very large, the estimate placing the mortality at 12,544, of which more than half were plough and well cattle. Relief works were started with a view to provide for those who remained in the tahsil and to prevent further emigration. The maximum number of persons relieved on any day, including dependents, was 10,945, or about 8 per cent. of the population of the tahsil, and the number of one-man-one-day units was 452,235. The cost of operations, which were carried out under the



superintendence of an Assistant Commissioner, as civil relief works was Rs. 43,254. The closure of the works was directed when, owing to the exhaustion of the local programme, the relief workers, having been directed to proceed to the Gugera Branch of the Chenab Canal, a distance of about 14 miles, where provision for their further employment had been made, refused to do so. The numbers had, however, previously been considerably reduced, and the occurrence at the time of some very heavy showers which put the whole country under water and gave promise of a good fodder crop confirmed the authorities in their decision to close relief operations. It was not found necessary thereafter to open any works in this tahsil. In fact the near proximity of the ordinary excavation work on the Gugera Branch of the Chenab Canal gave ample employment to all residents of the tahsil who would take the trouble to travel the short distance intervening. No cases of starvation were at any time, either during the relief operations or afterwards, reported from Sharakpur.

16. Meanwhile in July 1896 the Commissioner of Rawalpindi reported the existence of famine in the Phalia Tahsil of the Gujrat District. The greater part of this tract lies within the Bar or up-lands between the Chenab and Jhelum Rivers, and the cultivation is largely dependent upon rainfall. As in Sharakpur, the trouble commenced with a fodder famine dating from September 1895. The subsequent failure of the rabi harvest of 1896 was met by the grant of liberal suspensions, and *takavi* loans were advanced for the kharif sowings. These measures did not suffice. The people began to wander in the jungles in search of *pilu* berries: test works were tried and were at once attended by numbers of village menials, the class always the first to feel the pinch of scarcity; accordingly in August 1896 regular relief works were opened, and the operations thus commenced continued in progress till June of the following year. It will thus be seen that scarcity declared itself in Gujrat in consequence of the failure of the rabi harvest of 1896 and before the abrupt termination of the monsoon rains had disappointed all hopes of an autumn crop. The failure of the kharif aggravated the situation and rendered necessary the continuance of relief operations for a lengthened period. The Phalia Tahsil is the centre of a tract which, as will be seen from the rainfall and harvest maps, suffered from unfavorable seasons since 1895, and the relief works served the population of the adjoining Pind Dadan Khan and Jhelum Tahsils of the Jhelum District, and also drew recruits from the distressed areas of Shahpur, Gujranwala and Sialkot. Of the conduct and management of these works a further account will be given. It will suffice to state here that in regard to the number of persons relieved, the expenditure incurred, and the duration of operations these relief works in the Gujrat District were second in importance to those in Hissar alone.

17. The month of September having passed practically without rain it was realized that we had to deal with the distress and scarcity arising out of the failure over considerable areas of three harvests in succession. To gauge the extent to which measures of relief other than suspensions of revenue and *takavi* loans would be necessary, reports were immediately called for from all districts, and Sir Dennis Fitzpatrick, anticipating the possibility of high prices, even without agricultural failure, causing such distress as would call for Government action, directed the preparation of relief programmes for the districts which were previously regarded as secure. Instructions were at the same time issued to facilitate the supply of funds for such test and relief works as might be opened under emergent circumstances; under Commissioner's orders Circle Inspectors were directed to enter upon their duties; and arrangements were made for the advance of loans for seed and plough bullocks should a fall of rain occur before the season for the rabi sowings had quite passed away. The result of the inquiries made district by district was reported to the Government of India about the middle of November, and though up to that date, beyond test works in Karnal, relief operations were confined to the Gujrat District, it was intimated in general terms that the Delhi Division was in the worst case, that the Hissar District would very soon

be the scene of relief operations, and that as regards the Province generally, granted an average rabi harvest, relief measures would not be needed for other classes than the village menials and poorer artizans in towns, but that should the rabi fail, agriculturists would come on our hands in large numbers. The apprehensions which Sir Dennis Fitzpatrick entertained as to the possibility of relief works being necessitated by high prices even in districts in which agricultural failure had not occurred have already been alluded to. The situation thus reported to the Government of India has been referred to in Mr. Holderness' report as depicted in very sombre colours, the anticipation of distress, he remarks, having as events turned out been exaggerated; but had the rabi harvest, which it must be remembered is a more important crop in the Punjab than in any other province, been a failure, the result would have been most calamitous, and in Sir Mackworth Young's opinion it was incumbent on the Local Government to warn the Government of India of the contingency of such a disaster.

18. The Punjab Famine Code imposes upon Commissioners the responsibility for reporting the imminence or existence of famine in any district, and except in one case (Mooltan) all such reports were accepted by Government throughout the period under review, and a state of famine was thereupon officially declared. As a guide to their judgment in the exercise of the responsibility thus cast upon them, Commissioners generally adopted the expedient recommended in Section 42 A of the Famine Code, and directed the opening of test works to gauge the demand for employment at the famine rate of wage. Many such test works were opened in districts such as Ludhiána, Gujranwála, Siálkot, Ráwalpindi, Jhelum and Mooltan, other than the nine in which famine was officially declared. Generally, it is believed, these test works served the purpose intended, and in no case in which they failed to draw, and the inference thus afforded as to the non-existence of famine conditions was accepted, did the subsequent course of events furnish any indication of a mistake having been made. In other words Government has no knowledge of any loss of life due to starvation or its attendant privations occurring in any district in which relief works were not opened. It is just possible that the reverse may have happened, and that in two or three districts, such as Lahore, Gurgaon, Umballa or Ferozepore, such distress and scarcity as existed might have been combated by means of ordinary District Board works without resorting to the more expensive and troublesome system of relief works carried out under Code Rules. But the uncertain outlook of the closing days of 1896 rendered it incumbent on Government to lean to the safe side in all doubtful cases. It should be mentioned, moreover, that in all tracts for which relief operations were undertaken agricultural failure had been most severe—much more severe than crop percentages for whole districts would indicate, and nothing but the extraordinary and unexpected powers of resistance of the Punjab agriculturists, in regard to which some further remarks will be made, prevented in these areas the unrestrained recourse to Government relief works which was produced by similar crop failures in other parts of India. The dates by which regular relief works were opened in the several

Hissar	...	Week ending 14th November 1896.
Rohtak	...	Ditto 9th January 1897.
Gurgaon	...	Ditto 23rd January 1897.
Delhi	...	Ditto 12th December 1896.
Karnal	...	Ditto 14th November 1896.
Umballa	...	Ditto 23rd January 1897.
Ferozepore	...	Ditto 19th December 1896.
Lahore	...	Ditto 23rd January 1897.

districts are noted in the margin. Relief on test works had in all cases been given for two or more weeks previously. No statistical forms are prescribed by the Code in the case of test works, and the numbers employed on them do not appear in the returns appended to this report. Strict injunctions were given by Government with a view to the test of famine being made a genuine one, and inasmuch as dependents were not admitted to test works, the abuse of this feature of the Code system of relief, which was afterwards so frequently the subject of comment and discussion, did not become operative at first, and did not bring about the declaration of famine in any district by impairing the value of the initial test.

It may be thought that in parts of the Delhi Division, especially in Hissar, the commencement of relief operations might with advantage have been undertaken by an earlier date. The fact that this was not done furnishes effective testimony to the staying power of the people, but no account of the situation would be complete without a reference to the immense benefit which resulted in some of the most distressed portions of Hissar, Rohtak and Delhi from the employment afforded by the Southern Punjab Railway works which were being brought to completion as our relief operations commenced. The Deputy Commissioner of Hissar speaks of the effect of these works, upon which the people of the northern portion of his district had been continuously employed, in mitigating the distress and increasing the staying power of the population of this tract. At Delhi City, too, some 3,000 or more townspeople were employed throughout the cold weather of 1896-97 in breaking ballast for the line.

19. When it was seen that relief operations on a more or less extended scale would be necessary in several districts, it became the special object of Government to make available for famine labour every large work of public utility which could be brought forward and recommended on its own merits. Sir Dennis Fitzpatrick had been much impressed with the almost universal testimony of relief officers as to the uselessness of unmetalled roads, which were the chief feature of the district programmes, and as to their unsuitability for famine relief labour. This had been the experience in Sharakpur, and what Sir Dennis Fitzpatrick saw on the occasion of his visit to the Gujrát relief works confirmed him in his opinion. Under ordinary conditions a good deal of trouble and correspondence with the Supreme Government is necessary before large Imperial works can be included in relief programmes, and there are special rules in the Code on the subject of railways as relief works which distinctly deprecate the utilization of such works for the purposes of famine relief. When, however, the necessities of the position were explained to the Government of India the demands of the Local Government met with an immediate response, and in every instance the Supreme Government sanctioned the carrying out on Famine Code principles, as occasion might require, of such railway and canal works as were recommended by the Local Government. Thus the Ghaggar Canals in the Hissar District, the construction of which might have been postponed for another couple of years owing to the numerous thorny questions connected with the project not having been settled, were made available without any delay and became the backbone of relief in this district. The Jhelum Canal in the Gujrát District was an ideal relief work, and furnished the means of introducing in that quarter a sound and discriminating system of relief which was much needed in consequence of the break-down of the attempts to enforce properly stringent relief conditions on works such as district unmetalled roads. The Nardak Rájba (Canal Distributary) in the Karnál District, the "cuts-off," or chord channels, on the Western Jumna Canal in the Umballa and Hissar Districts, and the earthwork of the Delhi-Agra Railway in the Delhi District are other examples of large works which, with the consent of the Government of India, were opened to famine labour. The sanction of the Government of India was also accorded to the earthwork on three other projected railways being made available, but fortunately the necessity did not arise for undertaking these works.

20. In the last week of December the rain which so much improved prospects in the North-Western Provinces extended to the eastern portion of the Punjab, including the Delhi Division and the sub-montane districts in the Jullundur Division; in Umballa especially advantage was taken of this to increase the area of sowings; but the greater part of the Punjab did not share in this timely fall, and the situation at the beginning of the second week of January, as described in a Government Resolution published a few days after, was extremely critical. On the 10th of January slight rain in several districts was followed on the 14th by a storm of some intensity which suddenly developed over the centre of the Province and brought to those districts which had not shared in the December rainfall a most welcome and on the whole adequate supply of rain, which was

supplemented from time to time by further showers throughout the remainder of the cold weather. Unfortunately the Delhi Division, which had been specially favoured in December, thereafter received a very scanty and wholly insufficient supply, and the rabi crop on rain lands in that Division proved as poor a one as in any previous harvest. As regards the rest of the Province, it may be said, as it was commonly said at the time, that the rain of the second week of January saved us in the Punjab from famine. It secured the crops not only on dry lands, where these had germinated, but also on the million and a half of acres of *sailáb* or inundated land, which, though possessing sufficient moisture for sowings, is dependent on the winter rains for the maturing of the harvest.

21. Thus when February arrived the situation had developed itself. All anxieties as to the safety of the rabi harvest over the greater part of the Province had, if not disappeared entirely, at least been greatly relieved. It was realised that in the Delhi Division the harvest would most probably be a failure on rain lands, but, as had been explained to the Government of India in the November forecast, the rabi is of much less importance in the Delhi Division than in the rest of the Province, and as relief works had been started in all its insecure tracts the only possible course as regards this Division was to watch and direct the course of relief operations and trust to a favourable monsoon to break up the famine.

22. As a consequence of his visit to the Ghaggar Canals in January, Sir Dennis Fitzpatrick issued instructions as to the agency by which relief works should be managed, and directed the attention of all officers, now that the initial difficulties connected with the opening of relief works had been overcome, to the necessity for securing a reasonable outturn of work from famine labourers. Without here entering on the controversial question whether relief works can more suitably be carried out on a piece-work or on a task-work system, it is obvious that, even though the works may not from the point of view of utility be of a nature which it would be advantageous to bring to an early completion, and though perhaps delay might even be beneficial in making the available programme go further, yet, if relief works are to be a test as well as a remedy for distress, the exaction of full tasks becomes an essential condition of good famine administration, and it was from this point of view chiefly that Sir Dennis Fitzpatrick in directing attention to the weekly statements of outturn insisted on efforts being made to get greater value in work done for the expenditure on wages. Certainly it was largely owing to the greater stringency observed in this respect that the increase in the numbers on the Gujrát relief works was first checked and then converted into the gradual decline which ended in the works being closed in June.

23. In general the policy of Government during the first period of relief administration was to insist on strict adherence to the provisions of the Provincial Famine Code. Sir Dennis felt that it was essential to give at least a trial to the Code system which had been the outcome of previous experience adopted after mature deliberation by those who had studied the subject, and though it was on occasions represented, especially in connection with the Gujrát relief works, that in some respects the liberality of the Code was in danger of being abused, Sir Dennis on the whole was not in favour of making new departures during the initial stages of relief operations. Throughout the famine, therefore, the system pursued was in general accordance with the Famine Code, but in minor matters, such as the exclusion of dependents in some cases, Sunday wages, the classification of labourers, and the like, Sir Mackworth Young did not feel called upon to interfere with the discretion of District Officers in introducing at a later stage modifications which experience had suggested to them. In fact, Sir Mackworth Young, who assumed charge of the Administration on the 6th of March, found things running most smoothly, and, having satisfied himself by a visit to the Gujrát works and by consideration of the excellent reports submitted weekly from Hissar that both principles and details of relief administration had been thoroughly grasped by the responsible officers in these two most important districts, he concluded that, with

the prospect of the early harvesting of the rabi crop and of the diminution in the numbers on relief anticipated therefrom, the situation on the whole was by no means such as to furnish ground for serious apprehension, provided that the coming monsoon did not again prove a failure. Sir Mackworth was the more assured in his confidence from his knowledge of the wonderful staying power of the cultivators in the Punjab and of the advantage which the Province enjoys over other Provinces in consequence of its large protected area.

It was in the second week of March that the high-water mark of famine was reached; in other words that the numbers relieved daily reached the maximum. The average number relieved daily during this week was 127,758. The fluctuations from week to week in the numbers relieved are exhibited in the diagram which follows this resolution. In Hissar the numbers continued to increase until July, but the Gujrát figures, which up to this month had occupied the first place in the returns, henceforth showed a continuous diminution until the works were closed in June.

24. The rabi harvest undoubtedly had the effect of relaxing the severity of the strain on the endurance of the people which had been in operation during the previous months.

Effect of the rabi harvest. Prices eased off somewhat, and the Punjab regained its normal position as an exporting Province, which it had temporarily lost during the last half of 1896-97. A demand for harvest labourers reduced the numbers on relief works in most districts, and relief operations closed in Lahore by the end of April, and in Gurgaon during the first week of May. In the former district they had lasted a little over three months, and the numbers had never reached 3,000 on any day. The works were mainly for the relief of Lahore City and of a belt of insecure villages in the cis-Ravi portion of the district. As already stated, relief works were not reopened in the Sharakpur Tahsíl after the close of operations in the previous summer, but the Commissioner, fearing that possibly provision for the residents of this tract as well as of the adjoining Gujránwála and Montgomery Districts might be required, caused it to be proclaimed throughout the three districts that employment on relief works would be given to all comers on the Gugera Branch of the Chenab Canal, and arrangements were made accordingly on a selected length of excavation conveniently situated for all three districts. Not a single applicant, however, turned up, which circumstance must be regarded as a very satisfactory result indicating the absence of famine conditions in this part of the country.

In Gurgaon the maximum daily attendance on relief works had barely exceeded 3,000, and it was found that there was no need for relief works after the date above mentioned.

25. Thus by the beginning of May the "famine" districts had been reduced to seven, and of these the two outside the Delhi Division, Gujrát and Ferozepore, gave no

Ferozepore District. cause for anxiety. In the case of Gujrát the weekly diminishing numbers on relief showed that it was only a question of time for the works to be closed. In Ferozepore closure might have been directed on 1st May, when there were less than 100 persons returned in the relief statement. Operations were, however, continued till the third week in August, but the numbers never reached 1,000. The maximum daily attendance in Ferozepore is shown as 4,149 in the week ending December 26th. Undoubtedly the pressure on relief works in this district was in a large measure reduced by the employment afforded on the Agahwah Canal extension, upon which work an average of 1,600 men, women and children were employed for 23 weeks on a piece-work system. This work was not made available as a Famine Code work, because the local canal fund could not afford the extra expenditure involved in the task work system. Nevertheless as a piece-work it effectually served the purposes of famine relief, while as regards cost the expenditure is said to have amounted to only half what it would be at Public Works Department rates. The canal extension was completed in time for the irrigating season and enabled an extra 13,000 acres to be irrigated. Credit for these results is due chiefly to Rái Bahádúr Maya Dás, Superintendent of the Ferozepore Inundation Canals.

26. As the numbers on the Hissar relief works increased steadily it became a matter for serious consideration whether the available works would last out until the famine should be over. The main work of the district, the Ghaggar Canals, was approaching completion. The Western Jumna Canal chord channels were employing a full complement of labourers. Every conceivable project which contained earth-work was brought forward and discussed, and among others a ditch round the Commissariat Cattle Farm to act as a protection against trespass—a work which, though useful, as its object indicates, would never have been undertaken but for famine—was brought into requisition. The Ghaggar Canals were supplemented by canal roads, and in the north-western portion of the district the clearance of an old irrigation channel from the Ghaggar, known as the Rangoi Cut, was put in hand. Failing works inside the district the question of drafting labourers to large works beyond its borders was seriously discussed. The cost of any drafting arrangements by rail was found to be very considerable indeed, and such a measure could only have been recommended as a last resort. Fortunately it was not found necessary thereafter to have recourse to drafting. The first of the large works outside the district to which labourers might have been sent was the projected railway through the Native States known as the Ludhiána-Dhuri-Tohána scheme to connect the Southern Punjab Railway with the North-Western main line at Ludhiána. Due sanction was obtained from the Government of India to make this work available for Hissar relief labourers, but the famine was over before the exhaustion of works rendered this necessary. The mainstay of relief operations in Hissar during the hot weather was the work on village tanks, which had been reserved by the Deputy Commissioner for this purpose. Captain Dunlop Smith lays special stress on this feature of his famine policy, and the Lieutenant-Governor has no doubt that he was right in thus directing operations with a view to bringing the agriculturists back to their villages to await the arrival of the rains. In the other four districts of the Delhi Division the relief returns, though exhibiting a tendency to increase up to the breaking of the rains, at no time seemed alarming, and there was no apprehension that the available relief works would be exhausted.

27. The condition of affairs in Hissar in June, on the 25th of which month the highest daily total (98,312) of persons relieved was reached, is graphically described by Captain Dunlop Smith in the extract from his report on page xv of Appendix I. Added to the difficulties of the famine, cholera supervened, and locusts made their appearance, and would have caused damage had there been anything for them to eat. Later on, after the rains arrived, locusts laid eggs and had to be dealt with by special measures. Owing to the careful and energetic measures of the Civil Surgeon and the Engineer Officers in charge the cholera was kept away from the relief camps. The Jubilee holidays this month gave a well-earned rest to both the relief labourers and the establishment on the works, and, as will be seen from the extract from the District Report on page xv of Appendix I, the political effect of this concession was very good. The same auspicious occasion saw the close of the relief operations on the Jhelum Canal in Gujrat. The numbers on the works had been reduced to 3,727, of whom only 1,157 were male adult workers, and Government, acting on the advice of the Commissioner, decided that there was no longer any occasion for keeping the works open. Those of the relief workers who were still left on the works were provided with money sufficient for from 3 to 12 days' maintenance, according to the distance of their homes. The final breaking up of the camp is thus described by Mr. Granville, the officer in charge:—

On the evening of the 21st June 1897—after making payments as above—the people were invited to an entertainment consisting of bonfires on the spoil bank of the canal at intervals, illumination by means of torches and *chirdgs*, fireworks, music and theatricals by local performers. The whole being wound up by an address in the vernacular by Náib Tahsildár Muhammad Hussain, who explained to the people generally the policy of the Government in dealing with the scarcity throughout India, and particularly the action by the Commissioner, Deputy Commissioner and other officers of Government on their behalf. Finally, the people with one voice gave three cheers for the Queen-Empress, and then retired to their homes to ponder over and talk about what they had seen and heard. Such rejoicings had never before been witnessed, so they said, in this neighbourhood.

28. On the 12th of July the real monsoon rains broke in Hissar, and the further falls received on the 20th and 29th of the month created the most hopeful feeling for the future, and, with the immediate diminution in the attendance on relief works owing to the demand for field labour, gave promise of the total cessation of relief operations when the harvest now brought into view should be reaped. In other parts of the Delhi Division, except Karnál, the rains of July put an end to relief works, the workers having dispersed to labour in the fields. Thenceforward gratuitous relief alone to a weekly diminishing number of people was continued in the Rohtak and Umballa Districts. In Delhi the Municipal kitchen for the relief of the poorer classes was still kept open, but for the district at large relief operations had ceased. In Karnál the relief works might have been closed in July so far as the agricultural population was concerned, but the work on the Nardak Rájbaħa was kept open on the piece-work system until the end of September for the relief of the Purbiás, of whom there are a considerable number at Karnál.

29. The monsoon rains, though late in arrival, were not too late for this Province, and preparations having been made beforehand for the distribution of the Government advances under the Agriculturists' Loans Act and the allotments from the Indian Charitable Relief Fund, full advantage was taken of the exceptionally favorable sowing conditions. An account of the expenditure in this Province of the Indian Charitable Relief Fund, which was not confined to the nine districts in which relief operations were undertaken, has been separately prepared by the Provincial Secretary to the Fund. The figures relating to the Government Takávi advances will be found in Statement No. XI. These advances are further referred to in Chapter VIII following.

30. As will be seen from the diagram annexed to this Resolution, the numbers on relief in September had dwindled down to insignificant proportions. No special directions were issued by Government to hasten the close of relief operations. In fact the famine was allowed to die a natural death. Expenditure is shown in the Treasury accounts as having been incurred in subsequent months, but this was on account of establishment charges and adjustments of previously unadjusted items. Except in the case of the Municipal poor-house or soup kitchen in Delhi, which was kept up after 1st October, all actual famine relief had ceased by that date.

30 (a). The kharíf harvest of 1897, according to the returns just published, has been an exceptionally good one, exceeding the area of last year's crop by 40 per cent. and the decennial average by  $13\frac{1}{2}$  per cent. In fact the crop area, 11,394,076 acres, has been exceeded only by that of kharíf 1892 (12,113,228 acres). The increase as compared with the previous year's harvest is distributed all over the Province, with the exception of the Gurdáspur and Muzaffargarh Districts, each of which shows a slight decrease. By far the largest increase (391 per cent.) is returned from Hissar. Next to Hissar the districts with the largest proportionate increases are Karnál (147 per cent.) and Ferozepore (77 per cent.) Hissar alone is responsible for nearly one-third of the total Provincial increase. The crop as regards outturn is rated by the Director of Land Records and Agriculture as an 18-anna one.



## CHAPTER III.

### Nature, extent and effects of the famine.—Relief Statistics.

31. The area of the Province, which contains 31 districts, is 101,827 square miles. The area of the nine famine districts is 25,459 square miles, or about one-fourth of the whole, but of these nine districts only 11,960 square miles or 11·7 per cent. of the area of the Province are returned as "affected."

Area statistics.

The population of the affected tracts was 3,207,030 or 15 per cent. of the population of the Province according to the Census of 1891 and 45 per cent. of the population of the nine famine districts.

The actual figures for each district are as follows:—

District.	Area.	Population.	Affected area.	Population of affected area.
1	2	3	4	5
Hissar ... ..	5,163	776,006	3,763	543,814
Rohtak ... ..	1,797	590,475	1,467	451,920
Gurgaon ... ..	1,984	608,929	558	197,928
Delhi ... ..	1,290	638,589	630	380,715
Karnál ... ..	2,440	603,718	2,123	498,862
Umballa ... ..	2,754	1,033,427	8,755	717,969
Ferozepore ... ..	4,302	886,676	407	122,810
Lahore ... ..	3,678	1,075,319	521 + 174	50,010 + 88,125
Gujrát ... ..	2,051	760,875	562	154,857
Total ... ..	25,459	7,114,114	11,960	3,207,030

So far as they relate to "affected" area these figures must be regarded as rough approximations only, because there is no unmistakable line of demarcation which distinguishes distressed from unaffected areas. Moreover, the degree to which the areas in different districts were affected varied very considerably.

32. So far as distress can be gauged by the numbers on relief works the degree of intensity may be estimated from the following figures:—

Relief statistics.

District.	Number of units relieved.	Corresponding proportionate figure.	Maximum daily numbers on relief.	Week in which maximum was reached.	Proportion of column 4 to population of affected area.
1	2	3	4	5	6
Hissar ... ..	12,201,632	547	*82,507	Week ending June 19th ...	15·10
Rohtak ... ..	1,654,338	73	12,781	" " 12th ...	2·82
Gurgaon ... ..	173,544	8	3,011	" " March 13th ...	1·99
Delhi ... ..	498,533	23	4,130	" " February 6th ...	1·08
Karnál ... ..	1,299,291	58	12,361	" " March 27th ...	2·47
Umballa ... ..	483,791	22	5,279	" " " 20th ...	0·73
Ferozepore ... ..	361,753	16	4,149	" " December 26th, 1896	3·30
Lahore (Sharakpur) ... ..	452,235	20	10,425	" " June 13th, 1896	20·80
Lahore ... ..	107,188	7	2,571	" " February 6th ...	2·90
Gujrát ... ..	5,067,993	226	50,600	" " " 20th	32·73
Total ... ..	22,453,305	1,000	127,758	" " 13th March 1897	...

Except that the distress was probably more severe in Karnál than in Rohtak, the figures in column 3 above fairly represent the relative degrees of famine in the several districts.

\* The figures in this column represent the maximum daily total maintained for a period of one week. On particular days the numbers ran up higher; thus in Hissar the high-water mark was reached on 25th June, when there were 93,312 persons on relief of all kinds.



Sex, age and condition of persons relieved. 33. The 22,453,305 persons relieved consisted of—

- (1) 7,294,574 men.
- (2) 7,195,573 women.
- (3) 5,462,408 children.
- (4) 2,500,750 not specified.

If the 2,500,750 units last mentioned be distributed between men, women and children in accordance with what is believed to represent approximately the facts, the resulting distribution will be—

Men.	Women.	Children.
7,429,140	7,301,333	7,722,829
Per cent.	Per cent.	Per cent.
(33'1)	(32'4)	(34'5)

The percentages in the several districts were as follows :—

District.	Men.	Women.	Children.
Hissar	35	33	32
Rohtak	27	39	34
Gurgaon	32	38	30
Delhi ...	33	38	29
Karnal	35	30	35
Umballa	43	44	13
Ferozepore	37	32	31
Lahore	35	38	27
Gujrat	32	30	38
Total	33'1	32'4	34'5

A similar table dealing with *workers* only and excluding dependents and all persons gratuitously relieved is given below :—

District.	Men.	Women.	Children.
Hissar	41	39	20
Rohtak	32	41	27
Gurgaon	33	40	27
Delhi ...	35	44	21
Karnal	50	32	18
Umballa	52	37	11
Ferozepore	41	34	25
Lahore	38	33	29
Gujrat	44	43	13
Total	42	39	19

34. If we now consider the method of relief the following results in the form of percentages of the total number of units relieved in each district are obtained from statement No. VI:—

District.	PERCENTAGE OF TOTAL RELIEF UNITS RELIEVED					Total.
	As relief workers.	As dependents and non-working children.	Gratuitously in villages and otherwise.	In kitchens.	In poor-houses.	
Hissar	73.8	11.9	11.0	2.6	0.7	100
Rohtak	57.4	13.5	29.1	...	...	100
Gurgaon	91.7	6.3	...	...	...	100
Delhi	54.1	5.6	0.7	...	39.5	100
Karnal	62.6	11.9	18.8	6.7	...	100
Umballa	67.1	3.5	32.9	...	...	100
Ferozepore	89.6	9.9	0.3	...	0.2	100
Lahore (Sharakpur)	84.2	15.8	...	...	...	100
Lahore	100	...	...	...	...	100
Gujrat	67.8	28.8	...	3.4	...	100
Total	70.8	15.4	10.0	2.5	1.3	100

Thus just over 70 per cent. of the persons relieved had to do some work in return for the assistance they received, but of the workers 53 per cent. were women and children and the labour which they gave was necessarily of a very poor standard of efficiency.

35. The cost of the relief given, and the form in which it was given, with the results obtained in each district, will be discussed in detail in the following chapters. Before doing so it is necessary to notice in general terms the main features of the famine or scarcity in each district.

36. *Hissar*.—The reason why this district suffered so much more than any other is the circumstance alluded to on page 6 above, that it is distinguished from all other Punjab districts as being pre-eminently a kharif tract in which everything depends upon the monsoon rains. None of the famines which in the past have afflicted the Punjab have left the Hissar District untouched, though the scarcity of 1877-78 passed over it lightly. The people, as Captain Dunlop Smith remarks, are accustomed to famine and to meet it. The land revenue assessment is extremely light, and a bumper harvest puts very large profits into the pockets of the agriculturists. There is no undue pressure of the population on the cultivated area: the density of population per square mile of cultivation is only 174, and the average holding of 35 acres is larger than in any other Punjab district. The rural population according to the Census of 1891 was 87.4 per cent. of the whole. Agriculturists are returned as 67.3 per cent. of the population, but as explained by the Census Commissioner (see page 7 above) many of those who are returned under other occupations headings are connected with or dependent on agriculture. In ordinary times the district exports food-grains largely, and notwithstanding the almost complete failure of the kharif of 1895 the stocks on hand enabled the people to carry on for a year without State help. During the period of relief operations imports of food-grains, as shown in the chapter on the subject, were necessary on a large scale, but since the harvest of kharif 1897, has been brought to the threshing floor exports have been proceeding with extraordinary briskness. The distressed area comprised the whole district except the canal villages and the outlying Budhláda tract, situated within the Sirhind Canal area to the north. Of the population of this distressed area the maximum numbers relieved for a week were 15 per cent. of the whole, and the average numbers relieved during the 321 days that relief operations were in progress amounted to 7 per cent. of the whole. In view of the extent to which the crops had failed the relief granted cannot be regarded as out of proportion to the distress which must have

prevailed. Moreover, it is to be noted that 6 per cent. of the persons relieved belonged to Native States, chiefly to Bikaner (4·9 per cent.), and 0·5 per cent. to other British districts. The following abstract of a more detailed table given by the Deputy Commissioner relates to the castes of the persons relieved in Hissar:—

*Percentages of total relief units.*

Nature of relief.	Land-owning castes.	Village menials.	Others.
On relief works ... ..	37·1	46·3	16·6
Gratuitously ... ..	27·8	50·8	21·4
Spinning and grinding ... ..	52·7	29·3	18·0
Poor-houses ... ..	33·6	46·5	19·9

The percentages relating to *relief works* in the above table are the most important as, including dependents, 88 per cent. of the total were so relieved. It will thus be seen that in Hissar, as indeed everywhere, the menial castes representing the village artizans constitute the main element in the relief returns. Among agriculturists it was chiefly the thriftless Muhammadan Rájputs and Pachádas who came on our hands. Relief works in Hissar were spread all over the district, and the policy of reserving the excavation of tanks for the period of greatest stress placed relief within the reach of all. The mortality returns on the whole furnish evidence that success has attended the efforts to cope with famine, and His Honor believes that the famine policy of Government has been pursued within legitimate limits in Hissar. Though the proportion of the total population relieved was not large as compared with equally severely distressed areas in other Provinces, it cannot be said that relief was not given to the extent that was necessary, nor on the other hand does it appear that the distress was in any way exaggerated or the relief measures pushed beyond the requirements of the situation.

37. *Rohtak*.—The Rohtak District has always suffered in times of famine in a degree less only than in Hissar, but since the last period of scarcity the unprotected part of the district has been greatly reduced. Owing to the irrigation from the Bhiwáni distributary opened three years ago West Rohtak scarcely suffered at all. East Rohtak has had the benefit of the new Bhalot distributary. The area shown as affected is the area of the three tahsils of Rohtak, Sámpla and Dhajjar, although one-half of each the first two is rendered secure by irrigation. In the Commissioner's opinion the affected area would be more correctly described as 1,000 square miles with a population of 300,000. Within the insecure area the deficiency of rain and failure of crops was nearly as complete as in Hissar. The unirrigated area in the district as a whole was in 1895-96 44 per cent. and in 1896-97 only 36½ per cent. of the average of the three years 1892—1895. On the other hand the irrigated area in 1896-97 was trebled as compared with that of the same three years. Withal it only amounted to half the unirrigated area. The district in ordinary seasons is well able to support itself. In 1879 the export of cereals was put at 1,600,000 maunds. It would be no exaggeration, the Commissioner says, to put it now at 2,500,000 maunds. The Southern Punjab Railway connecting the district with Delhi has just been opened.

Relief operations in Rohtak commenced in January and lasted till the end of August. If the population of the affected area be reduced to the 300,000 which Mr. Clarke considers the appropriate figure, the average numbers relieved throughout the eight months amount to 2·3 per cent. of that population,—not a very

high proportion. The agriculturists of this district are a sturdy independent lot and have exhibited great energy and powers of resistance in meeting the famine and doing their utmost to counteract its effects. A noticeable feature in the relief statistics is the large proportion (42·6 per cent.) relieved gratuitously either as dependents or at their homes, but this method has undoubtedly proved the most economical, and as the only available works in Rohtak were village tanks and roads, little or nothing would have been gained if the proportion of workers had been greater, while the expenditure on the other hand would have been larger than it actually has been.

38. *Gurgaon*.—The scarcity in Gurgaon was confined to the Rewári Tahsíl and the portion of the Gurgaon Tahsíl adjoining the Rohtak District. The distressed area was 558 square miles with a population of 197,928. Relief operations lasted from the third week of January to the middle of May only. The maximum number of persons relieved in any week never exceeded 2 per cent. of the population of the affected area. In fact the famine was, as described by the Commissioner, a *kamins'* famine only, caused by the failure of about one-half of the unirrigated crop in 1896-97 in the affected area and about one-third in the previous year. In the remainder of the district the agriculturists were particularly well off throughout and generally the distress in Gurgaon cannot be compared with that which prevailed in the same district in 1877-78.

39. *Delhi*.—The half of the Delhi District south of the city, lying between the Western Jumna and Agra Canal irrigation systems, together with the city itself, constituted the affected area. One of the chief features of the relief operations was the Municipal poor-house or soup-kitchen, at which 196,903 units or 39·5 per cent. of the total number of persons were relieved. The relief works round Delhi were also largely for the relief of the city population, which in a period of such high prices necessarily underwent considerable deprivations. The total number of persons relieved by Government in this district (498,533) would probably have been considerably exceeded were it not for the employment in ballast-breaking afforded by the Southern Punjab Railway and the allotments for the respectable poor in Delhi City made from the Indian Charitable Relief Fund.

40. *Karnál*.—The Deputy Commissioner's description of the insecure area in this district, which will be found on page iv of Appendix I, is a very true one. Partly owing to the character of the inhabitants and partly to its dependence on rainfall the harvests in the Nardak and Naili tracts in Karnál are always precarious. It is a matter for congratulation that the two principal relief works in this district—the Nardak and Kaithal Rájbahás—will tend to diminish the insecure areas requiring to be watched in future famines. Since 1877-78 the southern portion of the Kaithal Tahsíl has been rendered secure by the construction of the Sirsa Branch of the Western Jumna Canal. Communications have also improved as the district head-quarters are now connected by rail with Delhi and Umballa. That famine was really prevalent in this district may be inferred from the fact that agriculturists, many of them Rájputs, appeared in large numbers on the relief works, the proportion as compared with *kamins* being estimated as about half and half.

41. *Umballa*.—The crop failures in Umballa in kharíf 1895 and 1896, as will be seen from Statement No. II A., were not so marked as in the other famine tracts of the Delhi Division. It was the rabi harvest of 1896 which failed so disastrously in this district. Even so it appears from what the Deputy Commissioner says on page v of Appendix I that famine would not have been "declared" but for the bad prospects of the rabi of 1897. Captain Parsons considers that the famine he had to deal with was a famine of prices. It may more correctly be described, as is done by the Commissioner, as a *kamins'* famine. The extent to which crops failed in the two rabi seasons of 1896 and 1897 would be quite sufficient to account for distress among the village menials, who are said to be specially numerous in

Umballa. Few agriculturists resorted to relief works. They managed to get along by borrowing and mortgaging their land. The maximum number of persons on relief in any week was 5,279 in the third week of March.

42. *Ferozepore.*—It is curious that the most distressed portions of the district were situated within the area commanded by the District Inundation Canals. The fact is that owing to very low water in the Sutlej these canals generally failed to work in 1896. The inhabitants of these tracts are a particularly thriftless class of Muhammadan agriculturists. There was also an area of distress in the Moga Tahsil just north of the Sirhind Canal commanded area. On page vi of Appendix I Colonel Massy gives it as his opinion that the so-called famine in Ferozepore was only a severe strain upon the poorer classes caused by a couple of bad harvests coupled with high prices. The percentage of the cropped area in Ferozepore as compared with the average in the four seasons—kharif 1895 to rabi 1897—is shown in Statement No. II A. to be 66, 89, 62 and 65, respectively. As these percentages are for the district as a whole, which includes a very large area of Sirhind Canal irrigation, it may be inferred that agricultural failure was very severe in the more distressed areas. Nevertheless the proportion of agriculturists who resorted to relief works was small, though it must be remembered that the returns do not include the numbers employed on the Agahwah Canal extension alluded to on page 14 which served as a most useful relief work.

43. *Lahore.*—The circumstances of the Sharakpur famine of the hot weather of 1896 have been already described on page 9. Possibly relief operations might have been dispensed with here owing to the existence of ordinary works on the Chenab Canal in the adjoining district, but this would have caused a still further denudation of the tract of its inhabitants, and might have resulted in permanently injuring this tahsil, which, surrounded as it is by more favourably situated tracts, requires very careful watching and revenue management. At last settlement a reduction of the revenue demand was found necessary and special arrangements had to be introduced to give relief when wells fall into disuse. The subsequent relief operations in the cis-Ravi portion of Lahore were largely for the relief of the poor of Lahore City and its environs. There was also a tract some ten miles from Lahore, for the relief of which a large tank work was started. The rabi harvest of 1897 caused such a demand for labour in the canal tracts that it was found possible to close the relief works in April. The famine in Lahore was nothing more than a temporary scarcity. High prices it is true affected the town population, but the operations of the Charitable Relief Committee made provision for such distress as arose from this cause.

44. *Gujrat.*—The 562 square miles in this district which are shown as "affected" comprise the Bár or high-lying dorsal tract in the Phália Tahsil between the Chenáb and Jhelum rivers, which is almost entirely dependent on rainfall. It is probable, however, as has been already remarked, that the affected area from which the Phália relief workers were recruited includes portions of the Shahpur and Jhelum Districts as well as of the remainder of the Gujrat District. The principal element among the relief workers was the Bár Musallís, a low caste of Musalmáns resembling sweepers, who are ordinarily employed as menials by the agriculturists of the Bár villages. In view of the proportions assumed by relief operations in Gujrat and of the misgivings as to the necessity for relief on so large a scale which are suggested by the facts connected with the management of the works, elsewhere alluded to, it will be well to quote here the Commissioner's own account of the circumstances, which he considered necessitated the starting of relief works :—

Owing to the failure of the rains in the autumn of 1895 and spring of 1896, and consequent failure of two successive harvests, as well as the short outturn of those of 1895, symptoms of agricultural distress showed themselves. I drew the Deputy Commissioner's attention to the fact early in 1896, and advised him to open test works when necessary. At first endeavour was made

to meet the difficulties of the season by granting large suspensions of revenue, and by liberal takávi advances, chiefly for the purchase of cattle, which had suffered most owing to the total failure of fodder. The area chiefly affected was the Bár, or entirely *baráni* portion, of the Phália Tahsil. Parts of the Hithár Circle adjoining were also affected. Gradually distress spread to the parts of the Gujrát and Kharián Tahsils lying to the west of the Grand Trunk Road. It was acutest, however, in the Phália Tahsil. Arrangements had been made to provide relief works early in the year 1896 for starving labourers. But the projects devised were entirely the raising of district roads—useless work mostly—and were calculated to provide employment to only some 5,000 persons for six months.

Rabi 1896 was a failure; hence in July 1896 the Deputy Commissioner reported a state of famine in the district, and I submitted the report prescribed by paragraph 43 of the Punjab Famine Code, through the Financial Commissioner, for the information of Government. Test works had been opened on four roads and gave employment to about 800 persons, mostly *kam:ns*. These works were, however, insufficient to meet the needs of the starving people, and I therefore, at the time of submitting my report above mentioned, authorised the Deputy Commissioner to open regular relief works in anticipation of the sanction of superior authority. I also, under instructions from Government, personally visited Gujrát and advised the Deputy Commissioner how to proceed—telegraphing the result to Government on the 4th August. I found that the ration wages on the test works had been too liberal, and ordered strict adherence to Code rules. But these rules themselves gave shirkers the minimum wage—a fact the workers soon discovered—and there were no sufficient means of punishing the lazy. In addition the Famine Officer was far too tender hearted; hence the works were crowded by lazy Mussallís, many with large families. Numbers were, however, kept down by the peripatetic character of the works on the roads and the fact that the Bar of Phália is thinly populated.

It is difficult to estimate what would have happened in Gujrát had full tasks been exacted from the relief labourers from the first. Probably the maximum numbers would have fallen considerably short of 50,000. The Lieutenant-Governor, however, is satisfied that a famine relief centre in this part of the Province was beyond all question called for, and that relief operations were justified no less by the statistics of crop failures in the affected areas than by the actual signs and symptoms of distress appearing among the people. Unfortunately the Gujrát District did not share in the generally favorable rainfall of kharíf 1897 and the cropped area though above that of kharif 1895 was 10 per cent. below the average, but it may be hoped that the recent excellent rain will give a good rabi crop and that before long a return to full prosperity will be enjoyed by the agriculturists of this much tried district. The Jhelum Canal, though taking out of the river within the Phália Tahsil, is not designed to irrigate any portion of its area, but indirectly no doubt the district will benefit by its construction.

45. Allusion has already been made to the mortality of cattle which Fodder famine and mortality of results from seasons of drought, and which is cattle. indeed one of the most serious consequences of such calamities in this Province. It will probably never be known to what extent agricultural stock has been depleted during the past two years, but some indication of the losses may be gathered from the following statistics of the exports of hides and skins of horned cattle:—

*Statement of exports of hides and skins of cattle.*

Year.	Raw hides.	Dressed or tanned hides.	Total.
	Maunds.	Maunds.	Maunds.
1892-93 ... ..	49,385	40,980	90,365
1893-94 ... ..	41,129	25,501	66,630
1894-95 ... ..	46,851	14,385	61,236
1895-96 ... ..	114,466	20,567	135,033
1896-97 ... ..	109,769	27,275	137,044
			} Average 72,744
1897-98 first quarter ... ..	37,146	8,797	45,943
1897-98 second quarter ... ..	11,452	1,098	12,550
			} Average 136,026

Thus since the drought commenced the export of hides has, except during the quarter ending September 30th, 1897, proceeded at a rate which, so far as these statistics are a guide, means that the annual mortality has been doubled. The average weight of a hide is stated by Captain Dunlop Smith, who weighed a

number of them, to be 15 sérs, so that the exports of 1896-97 represent 365,450 animals. Of course all hides are not exported, and the figures therefore are of value only for the purpose of comparison with the export statistics of normal years.

Among the extracts from district reports (pages x to xii of Appendix I) will be found some passages relating to the fodder famine and its results in the "famine" districts, but mortality of cattle is known to have occurred in many other districts and not only in those for which special famine reports have been submitted. The Deputy Commissioner of Hissar, calculating by the hide export statistics, reports that "132,325 animals or 92 per cent. of the plough and well cattle of those found to exist in April 1895 disappeared in the two years following the next October." The following figures relating to deaths of cattle by starvation or slaughter during the famine, and excluding mortality by disease, are taken from the district reports, and are given for what they are worth:—

Rohtak	...	...	...	3,356	head.
Karnál	...	...	...	15,029	"
Ferozepore	...	...	...	33,000	"
Lahore	...	...	...	16,917	"

One unfortunate consequence of the fodder famine which does not appear in any mortality statistics was the sale of their cattle by the poorer agriculturists to those who could afford to buy and keep them till the drought was over. Extensive sales of this description are reported from many districts, and no doubt the necessity for this course was only too universal.

46. The returns of agricultural stock compiled in the Revenue Department (Statement No. XIV of the Land Revenue Report) are based on enumerations made in the specially attested villages each year. As only one-fourth of the villages are so attested yearly, the returns are consequently from one to three years out of date for the remaining three-fourths of the villages. With this explanation the following figures from the return of agricultural stock are given. It has been arranged to have an annual cattle census in future:—

*Figures in thousands.*

Year.	Bulls and bullocks.	Cows.	Male buffaloes.	Cow buffaloes.	Calves and buffalo calves.	Total.
1893-94 ...	4,283	3,674	582	2,080	2,674	13,293
1894-95 ...	4,295	3,707	548	1,819	3,052	13,421
1895-96 ...	4,346	3,722	582	1,792	3,123	13,565
1896-97 ...	4,254	3,629	582	1,729	3,026	13,220

These figures show a decrease of 345 thousands in the figures for 1896-97 as compared with those of the previous year. For the reasons above explained, the full extent of the losses in the famine cannot yet be gauged. Even as it is the figures are of doubtful value. Of the 345 thousands decrease referred to, no less than 269 thousands decrease are shown as having occurred in the Gujrat District, but in the year 1895-96 an increase of 246 thousand was recorded for the same district. The figures seem far from reliable.

47. At an early stage of the drought orders were issued by Government for the opening to grazing of Government forests wherever this could be done without causing serious permanent injury to the trees. The measures taken to carry out these

Utilization of forests.

orders are noted in the following extracts from the Annual Forest Reports for 1895-96 and 1896-97 :—

*Extract from Forest Report for 1895-96.*

**Rawalpindi.** In Rawalpindi 69 square miles of reserved forest were thrown open in May to all animals, except camels and goats, under the orders of the Commissioner. The concession was not, however, taken advantage of to any great extent, except in the Fatahjang Tahsil, where the scarcity was greatest.

**Jhelum.** In this Division all the reserves, except Tilla (8,400 acres), were thrown open to grazing. Fortunately there were 3,943 acres where the grass had not been touched, and a further area of 105,054 acres where only cutting had been previously permitted.

**Chenab.** A number of *rakhs* and *belds* in the Gujrat District were opened to grazing at half rates, and 2,954 animals were allowed to graze.

**Kangra.** During May and June, when a scarcity of fodder prevailed, several of the *triháis* were temporarily opened to the grazing of the cattle of the surrounding villages.

**Simla.** It was arranged that grazing should be permitted in the Kalesar forest, but no cattle were sent in.

**Lahore.** In all tahsils, except Chunián, the distress was very great, and all the *rakhs* in the Sharakpur Tahsil, and the majority in Lahore, were thrown open to grazing. At first the *rakhs* were opened on the condition that only leaves and small twigs should be removed, and by means of the sickle only. However, axes were used, large branches were cut and long strips of bark were torn off, causing a great deal of damage. After a time the *rakhs* were closed to lopping, but re-opened again a few weeks afterwards. Little further damage was done, as most of the trees had been already denuded of their branches. In addition to the free grazing, revenue to the amount of Rs. 1,155 was remitted under the Commissioner's sanction.

**Montgomery.** In this Division also the lopping of trees was permitted in the unclassed forests on the same conditions as in Lahore: great damage was done, numerous trees being cut down at half their height. The reserves are generally closed to grazing during the hot weather, but this year, at the request of the cattle-owners, all reserves containing any grass were re-opened to grazing.

**Mooltan.** Four thousand and fifteen acres of the closed compartments of the Makhдум Vanoi Reserves were opened to grazing for three months, February to April, and also some of the closed areas in the Kabírwála Range.

*Extract from Forest Report for 1896-97.*

**Rawalpindi.** The whole of the Reserves were thrown open to all animals except browsers. This concession was made use of freely in the plains forests, but not so much in the hills.

**Jhelum.** According to the annual plan of operations 159 acres were to be kept closed entirely; but, owing to the distress for fodder, the whole of this area, in addition to that already prescribed, was opened, with the exception of 33 acres of planted area, for the greater part of the year.

**Kangra.** In addition to the prescriptive of annual plan of operations, further areas were opened for sheep grazing. A claim was put in for grazing 500 sheep in Lohára for six weeks under *patta* granted by the Deputy Commissioner, which was admitted and grazing allowed.

**Simla.** Gujars were allowed in Kalesar outside the old fire lines. Owing to the great scarcity of fodder, the cattle of the Commissariat Department had to be sent away from the farm at Hissar, and were allowed to graze in a portion of the Kalesar forest.

**Lahore.** Great distress prevailed for want of fodder. Grazing was admitted in almost all forests in the Division. All *rakhs* in Sharakpur Tahsil were opened free to lopping and grazing throughout the year; *Rakhs Pajían* and *Jedhu* in Lahore Range were also opened to free lopping and grazing on recommendation by Deputy Commissioner. *Shahdara Reserve*, with exception of the compartments lately felled, was opened on nominal fees for the benefit of neighbouring villages. Monies realised as securities for lease of forests for grazing were all refunded. In the more distressed districts offers were made to villagers to bring their cattle to *Chánga Mánga* to feed them free on mulberry leaves, which are readily eaten by cattle, but the villagers refused to leave their homes. In *Chunián* and *Amritsar Ranges* the distress was not so bad owing to the more extended irrigation.

**Montgomery.** Almost all the forests were opened to grazing to meet the distress for fodder.

**Mooltan.** Similarly in Mooltan large additional areas were opened.



Expressed in figures the grazing concessions allowed are shown in the following table:—

Year.	1892-93.		1893-94.		1894-95.		1895-96.		1896-97.	
	Square miles.		Square miles.		Square miles.		Square miles.		Square miles.	
Available areas ...	5,830 (a)		5,909 (b)		5,957 (c)		6,028 (d)		6,816 (e)	
	Closed		Closed		Closed		Closed		Closed	
	Entirely.	Partially.	Entirely.	Partially.	Entirely.	Partially.	Entirely.	Partially.	Entirely.	Partially.
	856	775	825	868	833	864	599	1,075	421	1,861
Total area affected ...	1,631		1,693		1,697		1,674		1,682	
Percentage closed ...	28.0		28.6		28.5		27.77		24.68	

(a) Exclusive of 223 square miles Civil and Military Reserved and Protected Forests.  
 (b) Ditto 1,039 ditto ditto ditto.  
 (c) Ditto 1,040 ditto ditto ditto.  
 (d) Ditto 1,044 ditto ditto ditto.  
 (e) Ditto 256 ditto ditto ditto.

The measures of closure were regulated mainly in the interests of non-browsing animals. Owing to the exclusion of goats and sheep the area of partial closings is somewhat high. In some districts lopping was also allowed, the cattle being content to feed on leaves and the coarsest grasses in the absence of better fodder. There is no doubt that numbers of cattle that would have succumbed were saved by the measures thus undertaken. But it must be remembered that when drought is universal there is but little grass even in closed reserves. Half the stock of the Hissar Cattle Farm were sent away, sold or died, and notwithstanding the extensive area of this reserve the remaining 4,16 head were only kept alive at an expenditure which, if the figures given by Captain Dunlop Smith on page xii of Appendix I are correct, nearly approached 4 lakhs of rupees.

48. The figures for 1896-97 relating to alienation of land throughout the Province will not be reported until the Annual Land Revenue Report is submitted to Government in March, and though a statement of the totals has been received in advance, the Lieutenant-Governor will reserve his remarks until he has seen the Financial Commissioner's comments and explanations. Meanwhile the figures for the past six years are given below:—

Alienations of land.

Table showing alienations and redemptions of land in the Punjab.

Year.	MORTGAGES.			REDEMPTIONS.			SALES.		
	Area.		Mortgage-money in rupees.	Area.		Mortgage-money discharged in rupees.	Area.		Price in rupees.
	Total.	Cultivated.		Total.	Cultivated.		Total.	Cultivated.	
	Acres.	Acres.		Acres.	Acres.		Acres.	Acres.	
1891-92 ...	486,581	352,817	1,55,73,471	299,116	217,248	69,85,257	302,541	172,072	95,63,614
1892-93 ...	548,678	364,354	1,66,74,652	348,227	226,549	71,37,626	371,038	171,446	1,00,56,967
1893-94 ...	660,165	465,410	2,33,57,603	461,053	317,453	1,07,76,294	382,150	218,703	1,22,17,971
1894-95 ...	603,183	432,573	2,15,79,277	372,391	259,584	85,53,422	320,567	185,823	1,18,15,663
1895-96 ...	606,850	453,661	2,29,63,856	412,295	292,505	93,54,800	351,553	203,469	1,20,27,195
1896-97 ...	672,723	471,809	2,51,48,411	453,920	309,572	1,19,46,816	371,258	199,160	1,40,46,594

As might be expected the figures are high under mortgages—the highest yet recorded. It is, however, satisfactory to note that this is equally true of

redemptions. As regards sales the area sold has been equalled or exceeded in previous years, but the purchase price is 38 lakhs above the previous highest. Of the area mortgaged and sold the percentage of the whole which passed into the hands of new agriculturists is noted below :—

MORTGAGES.		SALES.	
Total area.	Cultivated area.	Total area.	Cultivated area.
31	34	20	24

It is not known to what extent these figures are affected by redemptions, as statistics of redemptions from new agriculturists are not available.

The total consideration money amounted to—

	Rs.
Mortgages	2,51,48,411
Sales	1,40,46,594
<b>Total</b>	<b>3,91,95,005</b>

In 1895-96 it amounted to 350 lakhs. It is impossible to say how much of this sum of 392 lakhs represents the demands due to the famine. If the estimate be made with reference to the excess over the previous year, it amounts to 42 lakhs. But the previous year was also a year of scarcity. On the other hand if we go back to the year 1893-94, which was a particularly favourable one from an agricultural point of view, the excess amounts to 36 lakhs only. It is well known that the transactions recorded in any year do not all belong to that year, and it may be that many of the transactions caused by famine have yet to be brought to book. Making allowance for such considerations, it would seem that to say that 100 lakhs were borrowed or raised by sale of land on account of the scarcity during the two years 1895-97 would not be an exaggeration. The significance of this result is discussed in Chapter X following. The largest amounts have not been borrowed or realized in the districts where famine was most intense. The average *per district* in the year 1895-97 was 13 lakhs. The borrowings and sales (consideration money) of the nine famine districts were as follows :—

<i>District.</i>	<i>Lakhs.</i>
Hissar	7'35
Rohtak	9'83
Delhi	8'90
Gurgaon	8'21
Karnál	5'97
Umballa	19'55
Ferozepore	37'99
Lahore	15'53
Gujrát	12'47

Some extracts from the district reports on the subject of alienation of land will be found on pages vii to ix of Appendix I.

49. Whether the famine had any marked effect upon the returns of crime cannot be definitely answered until the Criminal Report for the year 1897 comes to hand. The information on this point contained in the reports from the nine famine districts is generally to the effect that the increase of crime caused by the scarcity was not very appreciable. On page xiv of Appendix I Captain Dunlop Smith states that the increase in the total number of cases reported was under 10 per cent, this increase being confined to cattle-theft and petty pilfering. Among the prisoners released from the Rohtak Jail in token of Her Majesty's clemency on the

occasion of the Jubilee, there were only four whose offences were considered due to the prevailing scarcity. The District Superintendent of Police of Umballa says :—

The castes which supply the largest proportion of criminals in this district are Jâts and Ranghars. These are also the principal agricultural classes of the district. Nearly all of those among them who indulge in crime have also vested interests in agriculture, and circumstances existed which made the prevalence of high prices by no means an unmixed evil among these classes.

In Ferozepore it is noted that, though petty thefts increased, serious crimes against property were conspicuous by their absence. In Lahore an increase in petty thefts is attributed in part to the influx of famine-stricken people from the Bikaner direction.

Though in several places the feeling against the banniahs and grain-dealers, who were accused of raising prices for their own ends, was very strong, there was a general absence of grain riots. The cheap shops in towns established under the auspices of the Charitable Relief Committees were very popular, and served to allay such temporary irritation.

50. In regard to relief works it seems that very mixed opinions were held by the various classes affected. The relief labourer in a few cases considered that Government was taking advantage of the famine to get cheap labour out of him, but there were exceptions to this view of the Government policy, notably in the case of village tanks, where the workers felt that they owed a debt of gratitude to the *Sarkâr* for employing them on a work of material benefit to themselves. Captain Dunlop Smith (page iii of Appendix I) bears testimony to the universal feeling of loyalty which the measures of Government evoked. The Deputy Commissioner of Karnâl says :—

The disposition of the people as regards relief measures was one of intense gratitude, and it would be hard to exaggerate the political effect these measures produced. This is the opinion of every European officer in the district in contact with the people. "*Sarkâr ne Zilâh ke basâya*" was on every tongue.

The Deputy Commissioner of Lahore reports that the people generally have shown themselves grateful for the assistance rendered them. Expressions of loyalty and good-will to Government are not wanting among the zamîndâr class, but, it is added, in the towns things are taken more as a matter of course.

In Gujrât the zaildârs, who may be regarded as representatives of the agricultural interest, expressed deep gratitude to Sir Dennis Fitzpatrick for Government undertaking to feed their *kamins* for them, a responsibility which, they said, would otherwise have fallen on them. That any responsibility in the matter should be recognized—and a duty on the part of land-owners of looking after their field labourers to the best of their ability is recognized in many parts of the Province—explains in some degree a good deal of what might otherwise be inexplicable in connection with the powers of resistance in the face of scarcity and high prices exhibited by the lowest classes of the population. That in Gujrât feelings of gratitude were evoked even among the relief workers is illustrated by the incidents attending the closing of the works which have already been referred to.

The Deputy Commissioner, Sardâr Muhammad Afzal Khân, says :—

The people are grateful to Sarkâr for the relief measures taken to help them. The kindness and generosity shown by Government to the people has been very beneficial. The people say that Sarkâr is their *mâ-bâp* and is ready to help them in their troubles.

## CHAPTER IV.

### Food stocks and movements of food-grains.

51. The Punjab in all but very abnormal seasons exports food-grains in large quantities, both to the Ports and to the rest of India. It has been mentioned in the North-Western Provinces Government Famine Resolution of November last that from 1893 to 1895 those Provinces were largely dependent on the unlimited supplies of grain poured in from the teeming granaries of the Frontier Province. With the cessation, however, of exuberant harvests in the Punjab towards the end of 1895 exports fell off, and though every year's figures, including those of 1896-97, show an excess of exports over imports of food-grains in the Punjab returns, the balance of movement in the outward direction was temporarily reversed during the six months ending 31st March 1897. The following table exhibits the fluctuations in the trade in food-grains according to the rail and river borne trade returns of the past five years. It may be stated by way of comparison that during the five years ending 1877-78 the net exports (annual average) of food-grains from the Punjab were 161 thousands of tons :—

Year.	Exports.	Imports.	Net exports.	
Thousands of tons.				
1892-93	280	80	200	
1893-94	502	46	456	
1894-95	1,071	31	1,040	
1895-96	600	34	566	
1896-97	250	100	150	
Details for 1896-97	1st quarter	111	7	104
	2nd "	81	3	78
	3rd "	30	42	-12
	4th "	28	48	-20

The above figures do not include the trans-frontier trade which, except in 1896-97, was comparatively insignificant. The *net* figures are—

	Thousands of tons.
1892-93	3 exported.
1893-94	1 "
1894-95	1 "
1895-96	2 imported.
1896-97	22 "

More than half the imports in 1896-97 were from Bajaur.

The annual grain consumption of the Province, as estimated by the Director of Land Records and Agriculture, amounts to 5,200,000 tons roundly, so that during the four years preceding 1st April 1896 the food-supply exported (net) amounted to a quantity which would have fed the Province for between five and six months.

Since 1st April 1897 the tendency of exports to exceed imports has reasserted itself, and for the first two quarters of the year 1897-98 the figures are as follows :—

Period.	Exports.	Imports.	Net exports.
1st quarter ...	57	30	27
2nd " ...	73	9	64

*Note.*—During these six months there was a net import of 5,000 tons from across the frontier, *viz.*, 4,000 tons in the first quarter and 1,000 in the second quarter. In August and September the trade with Bajaur, Tirah and Kabul practically ceased owing to the frontier disturbances.

52. The foregoing figures include the trade of the Native States subordinate to the Punjab Government. During the past year, with effect from February 1st, 1897, a system of registration by districts of imports and exports by rail of food-grains was introduced. It is doubtful how far the results of this registration are entirely to be depended upon, as inquiry in one case, where the figures seemed questionable, elicited the fact that Commissariat grain consignments had been excluded from the returns. Before noticing these district figures it may be interesting to give the figures derived from the periodical trade returns relating to the several blocks into which the Punjab is divided for the purpose of trade registration. These blocks are—

Details according to trade registration blocks.

- I. Delhi City.
- II. The rest of the cis-Sutlej territory including Bahawalpur.
- III. The territory between the Sutlej and the Jhelum.
- IV. The Jhelum-Indus Doab.
- V. Peshawar and Kohat.

The trans-Indus Derajat has no railway within its limits, and its trade no doubt appears in the returns of Block IV. These blocks are perhaps not very well chosen, Nos. II and III being unduly large in comparison to the others. However, the statistics of trade in food-grains for these blocks are given for what they are worth. River-borne trade which is small in comparison with that carried by

rail is not included. Its inclusion would no doubt slightly increase the exports from Blocks II, III and IV:—

*Table showing net exports and imports (minus sign) of food-grains from and to trade registration blocks.*

Period.	Delhi City.	Cis-Sutlej.	Sutlej-Jhelum.	Jhelum Indus.	Pesháwar and Kohát.	
Thousands of Maunds.						
1892-93 ... ..	1,039	10,249	-4,357	-1,638	-21	
1893-94 ... ..	234	9,611	1,807	-129	-257	
1894-95 ... ..	929	19,955	4,448	2,064	105	
1895-96 ... ..	277	10,792	2,559	1,189	-213	
1896-97 {	1st quarter ...	-121	2,279	773	-196	25
	2nd " ...	22	1,333	692	-167	-41
	3rd " ...	-298	-776	415	-1	114
	4th " ...	-318	348	-470	-296	131
Total 1896-97 ...	-715	3,184	1,410	-660	229	
1897-98 {	1st quarter ...	-248	-190	1,443	-259	-2
	2nd " ...	68	604	127	-186	37

The circumstance that the city of Delhi should at any time export more than it imports implies of course that it is a large collecting centre for grain brought by carts, and otherwise than by rail, from the adjoining Punjab and North-Western Provinces districts. Wheat is often thus brought into Delhi merely that it may become entitled to the trade designation of Delhi wheat. The cis-Sutlej territory's exports consist largely of grain, which is sent in enormous quantities to the North-Western Provinces. The Sutlej-Jhelum Block contains the Chenab Canal Colony, and it will be observed how comparatively important its exports have been since the harvest of rabi 1897 came into the market. This block is the great wheat-producing area of the Province. The Jhelum-Indus Block since the commencement of 1896-97 has not produced sufficient grain for its own consumption. This block contains the important garrison of Ráwalpindi which seems to absorb very large supplies of food-grain. It is noticeable about the Pesháwar Block that it exported by no means inconsiderable quantities of grain during the last half of 1896-97, when the Province as a whole was in the exceptional position of not being able to provide for its own consumption. This surplus is more than accounted for by the supplies drawn from Bajaur, Tirah and Afghánistán. Import from these countries was very brisk during the latter half of 1896-97.

At no time has the export trade to the Ports ceased entirely. During the year 1896-97 seventy-five thousand tons, or 30 per cent of the total exports, were carried to the sea-boards. Of the imports of the same year half came from Sind, which Province largely contributed to the support of the population of the Hissar District during the present famine.

53. Turning now to the district figures alluded to above details of imports and exports for each fortnight from the commencement of February to the 25th of October 1897 will be found in Statement IV appended. The districts of Kángra,

Details by districts.

Hoshiárpur, Hazára, Kohát and Dera Gházi Khan, which include no railway stations within their limits, do not appear in the return. The Rohtak District contains one petty station on the Rájputána-Málwa line, the imports and exports from which in no sense represent the trade of the district. Analysing the figures for the remaining districts, we find that, excluding Delhi and Pesháwar, the returns of which exhibit peculiarities, the other districts may be divided into three classes, *vis.*—

- (A) Those in which the exports exceeded the imports practically without intermission throughout the whole of the nine months. These may be termed the *surplus* districts.
- (B) Those which throughout the whole of the period imported more than they exported, and are thus *deficit* districts.
- (C) Those which depended on outside supplies until the rabi crop came into the market and then became exporting districts.

The surplus and deficit districts with the quantities exported and imported are as follows :—

A.		B.	
SURPLUS DISTRICTS.		DEFICIT DISTRICTS.	
Name of District.	Quantities exported.	Name of District.	Quantities imported.
	Maun's.		Maunds.
Jullundur ... ..	872,400	Ráwalpindi ... ..	1,162,200
Ludhiána ... ..	711,800	Hissar ... ..	975,600
Ferozepore ... ..	448,100	Umballa ... ..	376,500
Gurdáspur ... ..	378,500	Jhelum ... ..	190,600
Dera Ismail Khan ... ..	225,800	Gujrát ... ..	99,900
Muzaffargarh ... ..	162,700	Simla ... ..	85,000
Bannu ... ..	130,300	Montgomery ... ..	77,700
		Siálkot ... ..	73,700

The class C districts which imported until the rabi was harvested and then had a surplus to export are as follows :—

District.	Quantity imported previous to rabi.	Quantity exported after rabi.
	Maunds.	Maunds.
Gujránwála ... ..	46,300	477,400
Amritsar ... ..	23,400	349,900
Lahore ... ..	190,500	203,100
Gurgaon ... ..	35,500	199,400
Jhang ... ..	19,000	184,000
Mooltan ... ..	86,700	112,700
Shahpur ... ..	35,300	46,000
Karnál ... ..	28,800	29,600

54. The exports from the Jullundur District undoubtedly include a contribution from the district of Hoshiárpur and also probably from Kángra. Even so the figures are interesting as throwing some light on an issue raised 15 years ago by the Settlement Officer of Jullundur, who put forward as a reason for limiting the enhancement of revenue, shown by the usual tests to be claimable, the argument that the food-supply produced within the district was insufficient for the support of its population. That Ferozepore should appear in the list of surplus districts notwithstanding the extent of crop failure during the two years 1895—1897 affords evidence of the strength of the resources of this district as a whole. The town of Ferozepore was, moreover, reputed to be in possession of enormous stocks of grain at the commencement of the famine. Ráwalpindi will always be a deficit district. The demands created by the existence of a large garrison both here and at Umballa no doubt account for a considerable share of the imports. Moreover, the movement of troops to the frontier this year necessitated the collection of large supplies at the base at Ráwalpindi. The Hissar imports were entirely due to famine. The Deputy Commissioner in his report draws attention to the fact that, with the exception of Allahabad, none of the North-Western Provinces famine districts imported so much grain as Hissar. Although the crops of kharif 1895 and rabi 1896 in this district were insufficient for the support of the population, the exports of grain did not cease and imports commence until October 1896, and this fact, together with the inquiries and calculations which he made, has led Captain Dunlop Smith to the conclusion that when the famine began there must have been in Hissar very considerable stores of grain—with agriculturists no less than with dealers. He computes that this store was sufficient to feed the population for sixteen months. Since October 1897, when the excellent autumn harvest came into the market, Hissar has been exporting largely, the prices obtainable for the kharif grains being no doubt too tempting for the agriculturists, who would probably be acting more prudently if they paid more attention to the replenishment of stocks. That both Jhelum and Gujrát should appear among the deficit districts is a result which might have been inferred from the existence of distress in this quarter. The Gujrát relief works served the needs of the Jhelum District as well, and were situated in proximity to the more distressed portions of the latter. Having regard to its population, which is larger than that of any district of the Punjab, the imports into the Siálkot District were trifling. Delhi imported largely until July, the net imports being 451,300 maunds. Between July and October fluctuations occurred, the tendency being for the exports to exceed the imports. Helped by supplies from Bajaur and Tirah, Pesháwar was able to export largely to the rest of the Province during the months preceding the rabi harvest. During April, May and part of June the tide turned the other way, and imports largely exceeded exports. From July onwards the district again became a surplus one.

55. At no time did Government attempt any interference with the grain trade, nor was it necessary, apart from the local arrangements made by District Officers with contractors and *banniahs* for the supply of grain at particular relief works, to undertake any such interference. It is true that, as noticed in Chapter V the District Board of Gurgaon attempted a small speculation in grain, but this was done without the knowledge of Government. There was a tendency on the part of several Native States to prohibit the export of grain to British territory, but the Rulers yielded to the counsel addressed to them by Sir Dennis Fitzpatrick in the following circular letter (No. 21, dated 25th November 1896):—

I am directed by His Honor the Lieutenant-Governor to request that you will as soon as possible bring to the notice of the Darbar the following points connected with the present scarcity.

2. Several communications have lately reached this Government representing the hardship resulting from orders passed by States prohibiting the export of grain from these territories. In one instance the representation came from an important State complaining of the action in this particular of an adjoining State; in other instances the representations came from merchants who stated that the orders issued prevented them from enforcing contracts which they had made, and in consequence disabled them from fulfilling engagements they had made and thus caused them ruinous loss.



3. This is matter for great regret, but further it is to be observed that orders issued by any Government prohibiting the export of grain at a time like the present not only injures the subjects of other Governments, but must in the long run injure the subjects of the State issuing such orders. No doubt if at this moment there are extraordinarily great stores of grain within the limits of a State, and that State prohibits export, it may reduce the price of grain for its subjects for a little time, and, if we could be sure that the scarcity would last only a little time, its subjects might thus be benefited; but it is to be feared that a scarcity like the present one may last a long time, and then what will be the result? The stores of grain in the State will soon become exhausted, the more so as the grain would be sold at an artificially cheap rate, and then where are the people to get grain? Even if other neighbouring Governments do not retaliate and say: "As you would not allow grain to come from your State to us when you had an abundance, so we will not allow our grain to go to you"—even if the neighbouring States returning good for evil were not to do this, but were to allow the grain to pass freely, the grain-dealers of the State which had issued the order prohibiting export would be afraid to import grain. They would say: "We had better not import any more grain into the territory of a State like this, which interferes with trade; we do not know what further such a State may do; we had better spend our money in taking grain somewhere else."

4. It is for this reason that, as explained by the Government of India and by the Lieutenant-Governors of Bengal and the North-Western Provinces and by Sir Dennis Fitzpatrick himself at Delhi the other day, the policy of the British Government is to let grain pass freely from one place to another, trusting that the interest of the grain-dealers will always lead them to send it to the place where it is dearest, that is to say to the place at which it is most required; but it would be difficult for some States to adopt this policy while others refuse to adopt it. It would be contrary to justice that the latter States should have the advantage of importing grain from the former and refuse to allow the former a corresponding benefit. The Government of His Highness the Maharaja of Kashmir has recognized this, and, though it at first proposed to issue orders prohibiting the export of grain from Jummoo, has now abandoned the idea of doing so, and there is every hope that the other great States adjoining the territories under the administration of this Government will do the same.

5. It must be remembered too that it is not only in this matter of the export and import of grain that neighbouring Governments are dependent on one another. The subjects of one Government when in distress migrate into the territories of a neighbouring Government, and especially into the territories of the British Government, where large works and other arrangements for the relief of distress are organized. Are they to be turned out and refused assistance?

This is the real question, namely—are different Governments to work together and help each other in the work of mitigating distress, or is each to work alone and in a narrow and selfish spirit?

His Honor feels sure when the various States consider this question they will agree with him that no orders interfering with the export of grain ought to be issued, and will cancel any that have already been issued. In this they will show their public spirit and their desire to co-operate with the Government of Her Majesty the Queen-Empress.

## CHAPTER V.

### Management of relief works.

56. The Punjab Famine Code provides in general terms that small works shall be managed by Civil agency and large works by the Public Works Department. In every instance the first relief works opened in each district were placed under the management of a Civil Officer, and this arrangement seems to have been adopted without question as a natural one, partly because the first works opened were small works such as roads or tanks not requiring skilled agency for their construction, and partly because in this Province perhaps more than elsewhere Civil Officers are accustomed, as representing the executive of District Boards, to supervise and control the execution of ordinary local works, and especially of works carried out at the cost of the funds of these bodies as were the relief works first started in the Punjab. Paragraph 4 of the Resolution prefixed to the Famine Code will also no doubt be now regarded as not assigning a sufficiently important place to the Department of Public Works. It has now, however, been recognized that it is one thing to control the execution of district works when it is only a question of dealing with contractors; but where large bodies of task-workers have to be organized and the exaction of a proper task becomes a matter of vital importance if the relief works are to be a test of famine, it is obvious that the agency of the Public Works Department should be called into requisition. This was recognized at an early stage in Hissar, but in Gujrát too much delay, it is now believed, was allowed to occur in the introduction of the Public Works agency. Had it been introduced earlier it is probable that the relief works would not have been rushed to the extent that they were, and the numbers on relief would not have risen so high. It must not be supposed that where works were carried out by Civil agency there was an entire absence of professional assistance. The District Board Engineers and Overseers are quite able to conduct relief operations on roads and tanks under ordinary circumstances, when the numbers of labourers are not beyond their powers of organization. On the Kaithal Rájbahá in the Karnál District the relief works were successfully managed by this agency. But when the numbers on any work rise beyond three or four thousand, it will, it is now believed, be generally found inexpedient to carry on operations without an officer of the Public Works Department. Less than three or four thousand are hardly sufficient to justify the expense of a Gazetted Officer. Thus in the case of the Delhi-Agra Chord Railway the earthwork of which was one of the relief works in the Delhi District, a Royal Engineer Officer was placed in charge, and ultimately his salary exceeded the total charges incurred, as the numbers on the work never exceeded 1,000.

57. The plan of a dual agency was tried for a while on the Jhelum Canal and for a short time on the Ghaggar Canals, and was found not to work well. It was at first supposed that many of the duties mentioned in the Code as pertaining to "officers in charge" could only be performed by Civil Officers, and accordingly when work commenced on the Jhelum Canal it was contemplated that the professional portion of the work should be entrusted to an Engineer Officer, while the control and regulation of discipline generally on the works should be in the hands of a Civil Officer. Sir Dennis Fitzpatrick went very fully into this question after visiting both the Jhelum and Ghaggar Canals and decided that the system of dual management was a mistake and that all large works should be under the management of the Public Works Department, Civil Officers of the rank of Tahsildárs, Náib Tahsildárs, Cashiers, &c., being placed at the disposal of the Public Works Department for employment in subordination to the Engineer Officer in charge of the works. The actual distribution between Public Works and Civil agency of the relief works carried out in the present famine is indicated by

the expenditure figures in columns 2 and 3 of Statement No. IX. It will be seen that of the total expenditure of Rs. 19,53,043, incurred on relief works (including expenditure on dependents) Rs. 12,24,807 were spent on works under Public Works Department management and Rs. 7,28,236 on works under Civil management. A description of the works carried out under each agency will be found in Chapter VI following. In Hissar the village tanks were under Civil management and most of the other works were in charge of the Public Works Department. There were also some works carried out under Civil management, but subject to inspection by Public Works Department Officers. In Rohtak only the *kunkar* quarrying was under the Public Works Department. In Lahore and Gurgaon all the works were carried out by the Civil authorities. In Delhi only the earthwork on the Delhi-Agra Railway was placed in charge of the Public Works Department. The Kaithal Rájba work in Karnál was managed by the Civil Department as was also the Karnál-Asaundh road at first, but the latter was soon transferred to the Public Works Department (General Branch). The Nardak Rájba was carried out by the Irrigation Branch of the Public Works Department, and the same agency was responsible for the Abdullapur "cut-off," or chord-channel on the Western Jumna Canal in the Umballa District. In that district all the remaining works were petty works and were managed by the Civil authorities. In Ferozepore the Public Works Department had charge of the two large tanks and of the *kankar* quarrying. Finally in Gujrát the road works constructed before the Jhelum Canal was taken up and the Jhelum Canal itself at first were under Civil management. Instances have been mentioned in the district reports of inefficiency in the management of one or two works under the General Branch of the Public Works Department, but such cases will occur whatever the agency of management may be, and the general conclusions stated above are unaffected thereby.

58. Among the extracts from district reports in Appendix I will be found an account of the organization adopted on some of the more important works. The arrangements necessarily varied considerably owing to the very divergent circumstances of the different works and the numbers of relief labourers who had to be supervised. The need for instructions as to organization and management was very much felt at first, as the Famine Code afforded no guidance whatever, and only after mistakes had been made and experience gained was it possible to arrive at correct conclusions in such matters as the strength of establishment for each thousand workers, the length of canal or road or other work which would employ a given number of labourers with the best results, the arrangements for setting out tasks, measuring completed work, paying the workers, and the like. It will serve no useful purpose to describe now the arrangements adopted in each district in regard to each of these matters. Generally it was found that the best results were obtained by a policy of expansion on large works, much of the confusion which marked the first stage of relief operations in the Gujrát District being the result of overcrowding. In the case of the village tanks in Hissar, which formed so important a feature in the relief system of that district, the village headman was the officer in charge with no other establishment than a vernacular clerk of the candidate Patwári stamp, the works being of course inspected from time to time by Overseers, Mistris and work agents as well as by the Civil authorities. The position assigned to the village headman was rarely abused and generally the task-work system was effectively enforced on these works, the villagers showing a readiness to co-operate loyally in carrying out the intentions of Government.

59. Almost everywhere an attempt was made at first to classify relief workers according to the four classes A, B, C and D of the Code, with a separate class for working children, but in most districts this classification was found too elaborate and was abandoned for one of practically the two classes, B and D, and working children. In the case of the large works, however, under the Public Works Department

in the Hissar, Karnál and Gujráť Districts the maintenance of the A class was persisted in throughout, and though it was frequently pointed out that that class was intended for able-bodied persons accustomed to earthwork, in other words for professional labourers only, the percentage of A labourers remained high throughout. The Public Works Officers, who perhaps naturally were inclined to attach a good deal of importance to outturn, adopted the plan of promoting B labourers to the A class if they found that they could do the A task, and justified their action by the argument that an able-bodied agriculturist, though at first not accustomed to the work, after some experience becomes an "able-bodied person accustomed to labour of the kind required on ordinary works," and so satisfies the Code definition of class A labourer. On the tank works in Hissar only the B and D classes were recognised. As Mr. Higham's proposal to abolish the Code classification and substitute one of Diggers and Carriers, corresponding to the present classes B and D, only mates and specially qualified labourers being admitted to the special class corresponding to A, seems to be generally approved, the subject of classification need not be further noticed here. For the same reason it has not been thought necessary to encumber the statistical tables appended to this resolution with particulars as to the classification adopted in the several districts throughout the famine.

60. The following particulars regarding the organization of the relief labourers for work have been extracted from the district reports :—  
Gangs, task parties and tasks.

*Hissar.*—From 12 to 20 men with their women and children constituted a gang, the average size being 58 persons. A mate was appointed.

*Rohtak.*—Ten diggers each with a proportionate number of carriers constituted a gang. A Muharrir had charge of three gangs.

*Gurgaon.*—Gangs of 50 under a Chaprásí. A Munshi for every six gangs.

*Delhi.*—Ten diggers and 16 carriers to the gang.

*Karnál.*—From 100 to 150 in a gang which was made up of task parties of one digger and an appropriate number of carriers attached.

*Umballa.*—Gangs of 60 with task parties of 6 consisting of 3 men, 2 women and 1 child.

*Gujráť.*—Gangs of 150 under a mate, but the unit was the task party of 5 or 6 persons, members of a family, tasks and fines being in general apportioned with reference to the task party and not to the gang.

The Deputy Commissioner of Delhi mentions as a defect of the gang system the circumstance that its constitution is ever changing, as workers come and go. Mr. Granville, Executive Engineer, Jhelum Canal, complains of the mates bringing pressure to bear upon persons to join the relief works in order that their gangs may be continually kept up to full strength and their position as mate be thus retained. Few officers in fact have a good word for the mate selected from the relief workers, and in several districts Muharrirs or gangmen of the Chaprásí type on fixed pay were substituted.

The diggers' tasks of course varied with the soil and the nature of the work. The Deputy Commissioner of Hissar gives the following as the average tasks set :—

Excavation in	Full task.	Low task.
	C. ft.	C. ft.
Sandy soil ... ..	200	160
Medium soil ... ..	125	90
Hard soil ... ..	75	55

In Rohtak the average task prescribed was 85 cubic feet, and the average task performed was 62 cubic feet. In Delhi the results were almost the same, the principal works in both districts being tanks. In Karnal the high average task of 111 cubic feet per digger was obtained. On the Jhelum Canal the task for a B labourer varied from 38 cubic feet at 0 to 2 feet depth, to 22 cubic feet at 8 to 10 cubic feet depth, the lead being 150 to 200 cubic feet, but these averages are understood to be averages per worker, including carriers and not merely per digger. The results expressed in rates per 1,000 cubic feet are given in Statement No. XII and will be further noticed.

61. The Famine Code provides two alternative methods for calculating wages. The first method, that of section 165, involves a calculation of the cost of each separate item of the ration. The second or "grain equivalent" method is based on the assumption that the subsidiary items of the ration cost the equivalent of 75 per cent. of the grain item. Instructions were issued by Government that the truth of this assumption should be verified from time to time, and the result was that the method of Section 165 was, except in Hissar, Delhi and Umballa, generally adopted, as it was found that with grain at the price at which it stood during the famine the "grain equivalent" method gives a wage in excess of the actual cost of the prescribed ration. The Commissioner of Delhi is of opinion that 50 per cent. and not 75 per cent. of the grain item should be fixed as the grain equivalent in order to make that method of calculating wages suitable. Captain Beadon, Deputy Commissioner of Rohtak, calculated the value of the subsidiary items of the ration with reference to the actual prices of such items prevailing concurrently with the stated prices of grains. He gives the following results :—

Grain at	Percentage which other items (including $\frac{1}{10}$ of grain or flour) bear to value of grain.
16 seers per rupee ... ..	66 per cent.
14 " " ... ..	62 " "
12 " " ... ..	55 " "
10 " " ... ..	53 " "
8 " " ... ..	40 " "

Thus he found that the grain equivalent method of the Code undoubtedly gave too high wages. The wages given by that method with grain at 10 sérs and the wages actually given in Rohtak are compared below :—

*Grain equivalent method.*

Class.	Men.			Women.		
	Rs.	A.	P.	Rs.	A.	P.
A ...	...	0	2 1	0	1 11	
B ...	...	0	1 11	0	1 7	
D ...	...	0	1 5	0	1 4	
						Rs. A. P.
Working children—Maximum	...	0	1 6			
"    "    Minimum	...	0	1 0			
Non-working children	...	0	0 6			

*Actually paid in Rohtak.*

Class.	Men.			Women.		
	Rs.	A.	P.	Rs.	A.	P.
A ...	...	0	1 6	0	1 3	
B ...	...	0	1 3	0	1 0	
D ...	...	0	1 0	0	0 9	
						Rs. A. P.
Working children—Maximum	...	0	0 9			
"    "    Minimum	...	0	0 6			
Non-working children	...	0	0 3			

These two scales represent the rates of wages which were in force concurrently in the adjoining districts of Hissar and Rohtak respectively. In Rohtak the wages actually paid were found sufficient, so that it undoubtedly seems that the method of Section 174 of the Code adopted in Hissar gave too high wages. Captain Dunlop Smith, while admitting that 75 per cent. of the grain item is more than the cost of the subsidiary items, justifies his adherence to that method on the ground that a margin is necessary to provide fuel, and also because of its simplicity in the matter of facilitating calculations. The mistake was occasionally made on some works in Hissar of applying the ready-reckoner for calculating the "grain equivalent" wages on the basis of the price of flour and not of grain. In fact considerable confusion seems to have been caused by the mention of flour in the wage scale in Section 166 of the Code, while in the ready-reckoner grain is given as the basis of the calculation. The Deputy Commissioner of Karnal assumes that "grain" is there a slip for "flour," an assumption which explains the high rates of wages given in that district until the "grain equivalent" method was abandoned. The ready-reckoner appended to the North-Western Provinces Famine Code contains the word "grain" and not flour, so it does not seem to be the case that a 'slip' has occurred. It may be noted that in the Bombay and Madras Codes the principal item of the ration is grain and not flour, the number of ounces being the same as in the Codes of the Bengal Presidency.

As to the adequacy of the prescribed rations, opinions differ. Captain Dunlop Smith considers that the flour item is low and that the allowance of condiments is insufficient, and yet, though wages were generally higher in Hissar than elsewhere, other officers report either that the wages were adequate or that they were too liberal. This latter view was specially held by the officers concerned with the Jhelum Canal relief works. The sufficiency or insufficiency of the prescribed rations is a question in regard to which opinions have been called for in connection with Mr. Higham's investigations, and need not be further discussed here. That lower wages than those based on the ration scale can be given without any apparent ill-effects has been proved by experience in some districts, but there are many circumstances which have to be considered before any deduction as to the over-liberality of the prescribed rations can be made in consequence. It seems, however, to be the universal opinion that relief labourers who bring a large number of children on to relief works can on the famine scale earn more than they can even at ordinary times in other occupations, and therefore more than is absolutely necessary for the maintenance in good health of the whole family.

The practice as regards Sunday wages and Sunday labour varied in different districts. Generally the day was observed as a holiday, but in Karnál labourers were allowed to work and earn a full wage. In Hissar the general rule was that no wages were given for Sunday, and this no doubt counterbalances the higher rates of wages given in that district. In many instances, however, minimum wages were given in Hissar for Sunday, and this was the general rule in other districts. In Lahore, Ferozepore and Umballa (except on one work) no Sunday wages were paid.

In general wages were paid twice or three times a week. Daily payments were the exception. They were made daily in Lahore and on some of the works in Ferozepore and occasionally in Hissar. The plan of fixing wages as so many pice, fractions of a pice being either neglected or treated as one pice, was almost universal, and though in the case of the Jhelum Canal works it was suggested by Government that when daily payments are not made it would suffice to neglect fractions of a pice in the bi-weekly total only, the suggestion seems to have been regarded as tending to introduce complexity. Another common practice was to fix the wage of each class, and within the class of each sex, at one pice below the wage of the class immediately above. Thus the basis of the wage scale at any time was the wage of the A class labourer.

62. The average wage per relief worker in each of the nine famine districts, *i.e.*, the arithmetical average given by dividing the wages bill by the number of relief worker units, was as follows:—

				<i>Pies.</i>
Hissar	...	...	...	18·8
Rohtak	...	...	...	11·1
Gurgaon	...	...	...	14·5
Delhi	...	...	...	18·1
Karnál	...	...	...	22·7
Umballa	...	...	...	21·1
Ferozepore	...	...	...	14·9
Lahore	...	...	...	18·4
Gujrát	...	...	...	17·9
				18·3
		Provincial average	...	18·3

Before drawing any conclusions from these figures allowance must be made for the relative proportions of men, women and children employed in the several districts (see table in paragraph 33.)

63. In the Gurgaon District wages were paid in kind, a practice not authorized by the Famine Code and not brought to the notice of Government until a late stage of the operations in that district. The District Board seems to have made a speculation in grain, anticipating a difficulty in supplying the relief works. In the end there was no loss from the transaction. The wages given were as follows. They are instructive in relation to the discussion of the question of the proper scale of diet:—

A males	...	...	11	Seer of jowár or bájra.
B both sexes	...	...	$\frac{3}{4}$	" " "
C both sexes	...	...	$\frac{1}{2}$	" " "
Children 13 to 18	...	...	$\frac{1}{2}$	" " "
Children 9 to 12	...	...	6	Chittáks.
Children under 9	...	...	4	" "

The only additional item was one chitták of salt per week to each labourer without regard to age or class. These wages, it will be seen, are considerably below the Code scale, which for an A male labourer is 12 chittáks of flour plus 75 per cent. of the grain item, or at least 21 chittáks of grain.

64. The following information is given in the district reports as to fines and reductions to minimum. and reduction to minimum wages:—

*Rohtak.*—Wages paid in proportion to work done. Frequently only the minimum earned. No injurious results noticed when only minimum wage paid.

*Gurgaon.*—No fines and no reductions.

*Deihi.*—No fines, but in case of short work either the individual or the gang were put on minimum wages.

*Karnál.*—Fines had the desired effect.

*Ferozepore.*—On one work the result of imposing fines and giving minimum wages was that 1,500 workers left in two days.

*Lahore.*—In case of short work the male adults of the gang were fined one pice each.

*Gujrát.*—Before Mr. Granville took charge reductions to the minimum wage for short work were not common. Such reductions were enforced by that officer against the task-party if the allotted task was not done, and if less than half the allotted task was performed a "penal" rate of wage was given. The average wage on the Jhelum Canal from 2nd January to 6th March was Re. 0-1-7 $\frac{1}{2}$ . Under Mr. Granville from 6th March till June 19th, when the works closed, the average was brought down to Re. 0-1-3 $\frac{1}{2}$ .

65. The arrangements for payment of wages on major works in Hissar are noted on page xxii of Appendix I. Method of payment of wages. Payments on the village tanks were made by the village headmen and banniahs. In Gujrát wages were paid under the supervision of Náib Tahsildárs. In Karnál they were paid by the officer in charge on the Kaithal Rájba, and by Sub-Overseers generally on the Nardak Rájba.

66. As regards the piece-work system there is little to note. The North-Western Provinces papers relating to the system were circulated early in March 1897, and officers were permitted to submit proposals for its adoption if thought desirable, but, except in the case of one work in Karnál, and that at the close of the famine,



the piece-work system was not resorted to on relief works. On the Agahwah Canal in the Ferozepore District, an ordinary work not carried out under the Famine Code, the employment of labourers on piece-work was, as already noticed (page 14), attended with considerable success. An account of this work will be found on page xxxiii of Appendix I.

It is unnecessary here to enter upon a discussion as to the place which piece-work should be given in our system of relief administration. The matter is being separately dealt with. One consideration which must be kept in view in this Province, if not in others; in dealing with this subject, is that agriculturists of the Rájput and similar castes would rather allow their women to starve than appear upon relief works, and a purely task-work system might therefore be found inadequate in such cases in periods of severe famine.

Mr. Higham is of opinion that it would have been better if in the past famine the larger relief works in the Punjab had been carried out on the piece-work system. As events have turned out, it must be admitted that it would have been better had the Jhelum Canal work been treated as a piece-work. The amount of earthwork in this large project would have sufficed to meet all possible demands for employment, and the *value* of the work done in proportion to the *cost* would have been many times higher than under the expensive system of the Famine Code. It may be questioned, however, whether a mistake was made in not resorting to the piece-work system in the case of any other district. As regards Hissar, the result would only have been to use up the available relief works sooner, thus aggravating the difficulty of the problem of finding new relief works for that district. However that may be, there was no option left to the Punjab Government in the matter, as the Jhelum Canal and other large relief works were made available by the Government of India only on the understanding that they should be carried out under the system of the Famine Code. Had there been any option in the matter, the result would not have been different, as Sir Dennis Fitzpatrick was strongly impressed with the necessity, in view of the enormous demand for famine labour which in certain contingencies he anticipated, for reserving as many ordinary works as possible to be carried out under the relief system of the Famine Code, and it was partly in furtherance of this policy, and partly because the allotment for capital expenditure was running short, that during the cold weather of 1896-97 he directed the postponement of the earthwork on several sections of the Gugera Branch of the Chenab Canal.

## CHAPTER VI.

### Relief works and their utility.

Classes of relief works and statistics of cost.

67. The relief works carried out in the Punjab may be divided into five classes, viz.,

- I.—Irrigation Works.
- II.—Roads.
- III.—Tanks.
- IV.—Kankar quarrying.
- V.—Miscellaneous works.

The extent to which works of these several classes were utilized for relief purposes will appear from the following table, which gives statistics of cost for each class:—

1	2	3					8	9	10			12
		PERCENTAGE OF COST INCURRED ON							RATES PER 1,000 CUBIC FEET.			
CLASS OF WORKS.	Total expenditure.	Wages.	Establishment.	Materials, tools and plant.	Miscellaneous.	Charitable relief, dependants, &c.	Value of work done. Percentage of actual outlay.	Number of cubic feet of earthwork.	Normal (average).	Actual		Rs. A. P.
						On total outlay.				On wages alone.	Rs. A. P.	
Irrigation	Rs. 11,08,306	69	7	8	5	11	40	149,063,374	2 15 4	7 7 0	5 1 9	Rs. A. P. 5 1 9
Roads	2,21,239	84	2	4	4	6	49	44,532,003	2 7 1	4 15 5	4 3 0	4 3 0
Tanks	5,43,060	94	3	1	1	1	94	145,916,975	3 8 0	3 11 6	3 8 0	3 8 0
Kankar excavation	14,270	82	8	2	9	1	68	441,382	2 3 5	3 3 8	2 10 3	2 10 3
Miscellaneous	67,211	64	19	8	5	3	43	9,753,831	2 15 0	6 14 3	4 7 1	4 7 1
TOTAL	19,54,086	77	6	6	4	7	56	349,707,562	3 2 4	5 9 5	4 5 3	4 5 3

Details will be found in Statement No. XII. By the *value* of the work done (column 8) is meant the estimated cost at the normal rates usually paid and adopted for the purpose of estimates when the works are carried out in the ordinary way. Value as thus understood has not in all cases the same signification as *utility*. The value of the irrigation works is shown to be Rs. 4,41,029, or 40 per cent. of their cost, and in this case we may treat *value* as undoubtedly equivalent to *utility*. On the other hand, in the case of the road works, though Rs. 1,08,774 is the estimated sum which it would have cost to carry them out as ordinary works at ordinary rates, it by no means follows that this expenditure would ever have been incurred or would ever be necessary under ordinary conditions. The value, in the sense of utility, of the road works would more appropriately be expressed in terms of the amount which will be saved in annual repairs within the next two or three years, until the effect of the improvements and repairs executed by famine labour has been exhausted, but no data have been given for such a calculation. In the case of village tanks the value from this point of view would be *nil*, but these works possess a utility of their own as will be further explained.

68. The relation of cost to value is not the only important factor in determining the suitability of any work or class of works for relief purposes. It seems to be the generally accepted conclusion, derived from the experience we have acquired, that though the utility of a work is of the first importance in making a selection for relief purposes, a very weighty consideration is its adaptability to the conditions under which famine labour, relief camps, gangs, and task parties are organized. By both these tests—of utility and adaptability to relief organization—irrigation works are universally approved, and road works are as universally condemned. As regards the latter, reference is invited to the opinions on pages xxx to xxxii of Appendix I. The employment of large numbers on roads involves, if suitable tasks are to be enforced, the spreading out of the work often over many miles, and under such conditions supervision is impossible without disproportionately large establishments, while camps have ever to be on the move, and the introduction of systematic organization is thereby rendered most difficult. Raising roads to the extent that is required to give an appreciable amount of earthwork for the employment of large numbers of relief workers is not always an indispensable improvement. In dry seasons the earth and sand heaped up in this way may be blown away before it can consolidate. Left to themselves, District Boards will carry out such repairs as are necessary in the case of unmetalled roads in a piece-meal fashion, with due regard to economy, and at such seasons as may be found administratively most convenient and most suitable with reference to the condition of the soil for digging and for the consolidation of the earthwork.

The *utility* of tanks will be further discussed, but as regards suitability for relief organization they are undoubtedly superior to roads, because from the nature of the case the numbers that can be employed at one time without overcrowding must be limited, and the limit fixed having been reached, the officer in charge can devote himself to the supervision of the work till its completion without concerning himself about further applicants and without the inconvenience of moving camps. Moreover, it is generally possible to provide for a larger number of carriers in proportion to diggers on tanks than is the case on roads where the lead and lift are as a rule short. There is, however, this drawback to village tanks as relief works that they are no test of famine. The residents of a village, famine or no famine, will always be ready to turn out for a small wage, and help to dig out the local pond. Deputy Commissioner, Umballa, mentions that a village headman was found *forcing* the *kamins* to labour on a tank relief work. Tanks therefore should not be resorted to until famine has thoroughly established itself, and as in Hissar the Deputy Commissioner adopted this policy and reserved the village tanks for the hot weather of 1897, it cannot be said that the drawback alluded to was operative in that district. *Kankar* excavation is noticed below. As regards miscellaneous works it is of course impossible to pronounce any opinion except with reference to each particular work.

NAME OF WORK.	Total expenditure.	PERCENTAGE OF COST INCURRED ON					Value of work done. Percentage of actual outlay.	Number of cubic feet of earthwork.	RATE PER 1,000 CUBIC FEET.		
		Wages.	Establishment.	Materials, tools and plant.	Miscellaneous.	Charitable relief, dependents, &c.			Normal.	Actual	
										On total outlay.	On wages alone.
	Rs.						Rs. A. P.	Rs. A. P.	Rs. A. P.		
Jhelum Canal ... ..	3,86,493	66	6	11	2	15	23	28,292,000	3 4 0	13 10 8	9 1 0
Ghaggar Canals ... ..	3,97,330	70	5	6	9	10	46	57,775,628	Various	6 14 0	4 12 4
Nardak Rájbaha ... ..	98,576	68	12	7	5	8	63	25,543,700	2 6 11	3 13 8	2 10 1
Kaithal Rájbaha ... ..	18,886	62	10	19	7	2	39	2,722,075	2 12 0	6 15 1	3 11 2
"Cuts-off," Western Jumna Canal, Umballa District ... ..	21,498	58	5	0	22	9	40	3,839,060	2 12 0	4 8 9	3 3 9
"Cuts-off," Western Jumna Canal, Hissar District ... ..	1,24,429	69	15	8	4	4	54	22,578,240	3 0 0	5 8 2	3 13 1
Rangoi cut ... ..	61,094	86	6	1		7	34	8,312,731	2 8 0	7 5 9	6 4 8
<b>TOTAL</b> ... ..	<b>11,08,306</b>	<b>69</b>	<b>7</b>	<b>8</b>	<b>5</b>	<b>11</b>	<b>40</b>	<b>149,063,374</b>	<b>2 15 4</b>	<b>7 7 0</b>	<b>5 1 9</b>

Statistics of irrigation works.  
 69. The following is an abstract of the statistics in Statement No. XII relating to the seven irrigation works, Class I:—

70. The following notes may be added by way of description of these works:—

*Jhelum Canal.*—The estimate for this canal, which will command nearly the whole of the lower portion of the Doáb between the Jhelum and Chenab, has been sanctioned by the Secretary of State at 125½ lakhs and provides for a canal 83 miles in length with 569 miles of distributaries commanding 1,323 square miles of country. It provides for a full supply of about 3,000 cusecs. It is probable that the canal may be redesigned to carry 4,500 cusecs, in which case its cost would be about 175 lakhs. The excavation work carried out by famine labour was in the deep cutting of the first 15 miles.

It is probable that the work commenced by relief labourers will be continued by an early date by jail labour.

Referring to the figures in the preceding table it may be noted that the value of the work, which is shown to be only 23 per cent. of the cost, is based on the rate of Rs. 3-4-0 per 1,000 cubic feet fixed by the Irrigation Department as the normal rate for this class of earthwork. Mr. Granville, the Executive Engineer in charge, was of opinion that Rs. 5-8-0 would be a fairer average rate for the work done on the Jhelum Canal, but though this work was in charge of the General Branch of the Public Works Department, it was thought to be the proper course to refer to the Branch which usually has charge of Irrigation works to fix the normal rate for a work of the kind, and Rs. 3-4-0 was the rate fixed accordingly. The expenditure on dependents in connection with this work and also on the hutting of relief labourers was very heavy. If even after making allowances for such circumstances it is still considered that the results do not show up very well from the financial point of view, it is believed to be due not to any inherent unsuitability of such a work for relief purposes, but rather to want of experience in conducting relief works on a large scale and to it not having been sufficiently realised at first how important it is to insist on adequate tasks. During the last 15 weeks of the continuance of the work Mr. Granville succeeded in reducing the cost per 1,000 cubic feet from Rs. 13·8 per 1,000 cubic feet, which was the average for the previous ten weeks, to an average of Rs. 6·8 per 1,000 cubic feet, and had the work been continued no doubt, with the experience by that time acquired, the cost of the earthwork would have been brought down still further.

*Ghaggar Canals.*—The Ghaggar Canals are two inundation canals taking out from the right and left banks respectively of that stream at a point, some 8 or 10 miles west of Sirsa, where in the rainy season a lake is formed. The outlet of the lake is the site of the weir, which is intended to hold up the water in the lake and allow it to pass down the canals as required. Heretofore the periodical floods ran to waste owing to there being no means of storing the water and allowing it to run off gradually. The canals tail off into Bikaner territory, and that State has by agreement an interest in the scheme. The estimated cost of the project at ordinary rates is Rs. 6,17,130, the Bikaner contribution being Rs. 3,00,675.

It will be seen from the statement on page 45 that Rs. 3,97,330 were spent on the relief works on this canal, of which Rs. 1,82,396 represent the value of the work done by relief labour. There was also expenditure on the sections of the canals situated in Bikaner territory where the works were utilized for the relief of residents of that State, and the head-works and other works requiring skilled labour were simultaneously constructed, the cost being treated as a charge against the ordinary budget head for Minor Canals.

*The Nardak Rājba* is a distributary from the Western Jumna Canal designed to irrigate a large portion of the extremely insecure tract in the Karnal District, known as the *Nardak*, which is situated between the areas commanded by the Main and Sirsa Branches of the Canal. The work was thus a Famine Preventive as well as a Famine Relief work. In fact, it will possess a very high degree of protective value if it is found that a sufficient supply of water can

generally be spared from the main canal. It was chiefly on account of a doubt on this point that the construction of the rájbaha had not previously been carried out, but these doubts were not shared by Colonel Jacob, whose connection has been long and intimate with the Western Jumna Canal, and, in view of the demand for a useful relief work in this district, Sir Dennis Fitzpatrick agreed to the rájbaha being constructed.

As will be seen from the table on page 45, the cost of this work as carried out by famine labour more nearly approximated normal rates than in the case of any other large work. This is partly due to good management and partly to the fact that towards the close of the famine piece work was permitted on this Rájbaha.

*Kaithal Rájbaha.*—This is a distributary from the recently constructed Sarsuti Canal, which is situated in the Kaithal Tahsil of the Karnál District, north of the area commanded by the Sirsa Branch of the Western Jumna Canal. The Sarsuti Canal belongs to the District Board, having been constructed with the aid of a loan from Government. The new distributary was not completed by famine labour. Arrangements are being made for a further loan to carry the work to completion. The expenditure on famine relief, amounting to Rs. 19,278, of which Rs. 7,485 represents the value of the work done, will not be charged against the loan or against the District Board Funds which, like those of several other districts, were exhausted by the drain caused by famine. The Deputy Commissioner does not give any particulars of the area which will be irrigated by the Kaithal Rájbaha. Probably full data are not yet available. He says, however, that "it will bring water to a thirsty soil and will give an excellent return on capital invested."

*"Cuts-off," Western Jumna Canal, Hánsi Branch.*—These "cuts-off" or chord-channels shorten the canal by 4.3 miles, thereby giving a "higher full-supply level of water surface." Also for a long wandering channel of much too large a section for its requirements has been substituted a channel strictly confined to the capacity required for the volume of water necessary to serve the irrigated area under command, which latter has been increased to some extent by the more favourable alignment. This work is one of undoubted utility, and would probably have been carried out as an ordinary work in due course.

*"Cuts-off," Western Jumna Canal, Umballa District.*—This was a work of the same description as that just described.

*Rangoi Cut.*—The Rangoi cut or channel in the Hissar District is of the nature of a small inundation canal from the Ghaggar. In the year 1895-96 the zamíndárs whose lands are affected by the scheme subscribed Rs. 12,000 to be spent on clearing and widening this channel which had silted up. Before the commencement of relief operations Rs. 7,000 of these subscriptions had been spent. The balance of Rs. 5,000 was credited to Government and the work taken up as a famine relief work. It will be seen from Statement No. XII that Rs. 61,094 were spent on the work, of which Rs. 20,780 only represent the value of the work done. The organization and management of this work were not very successful, and the outturn is distinctly bad. It has not yet been decided on what terms this canal shall be maintained and managed, nor has any report yet reached Government as to the area that will probably be irrigated by its means. The expenditure of funds on the work was sanctioned by Government, before all such questions could be considered, in view of the scarcity of useful works and the necessity for providing for relief labour.

71. Only unmetalled roads were used as relief works, the inclusion of metalled roads in relief programmes having been negatived by Government on account of the small proportion of the expenditure on such works which would be disbursed as wages to unskilled labour. Moreover, the maintenance of metalled roads entails an annual expenditure on repairs estimated at about 10 per cent. of the initial cost, and any unusual development of such works would therefore impose a heavy burden on the funds from which the cost of annual repairs is met.

72. The following table abstracted from Statement No. XII gives the chief particulars of the road works carried out in this Province by relief labour:—

District.	Length of roads.	Total expenditure.	PERCENTAGE OF COST INCURRED ON					Value of work done. Percent- age of actual outlay.	RATES PER 1,000 CUBIC FEET.		
			Wages.	Establishment.	Materials, tools and plant.	Miscellaneous.	Charitable relief.		Normal.	Actual	
1	2	3	4	5	6	7	8	9	10	11	12
Hissar ...	79 Miles	Rs. 60,056	91	5	1	2	1	48	2 4 0	4 11 2	4 4 2
Rohtak ...	14½	2,456	80	4	...	6	10	91	3 0 0	3 3 10	2 9 6
Gurgaon ...	4½	5,293	77	4	11	...	8	58	2 4 0	3 13 8	3 0 0
Delhi ...	5	998	62	15	20	2	...	55	2 11 0	4 15 0	3 1 0
Karnál ...	25	18,162	79	3	13	4	1	24	2 4 0	9 2 4	7 3 2
Umballa ...	2¼	1,557	91	1	1	5	2	100	2 4 0	2 4 0	2 1 0
Ferozepore ...	32½	7,993	93	1	4	...	2	61	2 0 0	3 4 7	3 1 1
Lahore ...	102	43,257	86	1	7	...	5	62	3 4 0	5 4 1	4 8 9
Gujrát ...	91	81,467	80	1	1	7	11	44	2 4 0	5 1 0	4 0 5
Total	355½	2,21,239	84	2	4	4	6	49	2 7 1	4 15 5	4 3 0

The road works in Hissar were carried out by Civil agency under Public Works Department supervision. In Karnál the work was for a short time under Civil management and was then placed under the Public Works Department. Elsewhere the relief works on roads were under Civil management. It will serve no useful purpose to comment on the figures shown in the above table or to compare the results obtained in different districts. They testify generally to the inefficiency of famine relief labour as organized under the Code task-work system.

With the exception of 66 miles of new roads in the Sharakpur Tahsil of the Lahore District, one-quarter of a mile of new road in the Ferozepore District, and 32 miles of road in Hissar converted from village tracks into ordinary District Board *kacha* roads, the whole of the road works consisted of repairs and improvements to existing unmetalled roads. New unmetalled roads are rarely required in tracts such as are visited by famine. The need for new roads arises when owing to any special development in the productive powers of a tract

through irrigation, as in the Chenab Canal Colony, outlets must be made for the produce to be brought to market. Expenditure on railway feeder roads generally takes the form of metalling existing *kacha* roads or improving existing village roads.

74. In the case of Class III *Tanks* a distinction has been made in Statement No. XII between the six *large* tanks constructed, two in Hissar, one in Delhi, two in Ferozepore and one in Lahore, and the small village tanks utilized as relief works in every district except Lahore and Gujrát. It is not clearly stated in the district reports whether existing tanks were cleared and deepened or new tanks excavated, but it is believed that the work was of the former description in nearly every case. The two tanks for the Bhiwáni water-supply appear, however, to have been quite new tanks. In regard to these and the other large tanks particulars are noted in the last column of Statement No. XII. The main statistics are as follows:—

Statistics of large tanks.

Cost.	PERCENTAGE OF COST INCURRED ON					Value of work done. Percentage of actual outlay.	COST PER 1,000 CUBIC FEET.		
	Wages.	Establishment.	Materials, tools and plant.	Miscellaneous.	Charitable relief, dependents, &c.		Normal (average).	Actual	
								On total outlay.	On wages only.
Rs. 56,540	84	8	5	2	1	88	Rs. A. P. 5 14 9	Rs. A. P. 6 10 6	Rs. A. P. 5 9 10

75. As regards village tanks, Captain Dunlop Smith (page xxvii of Appendix I) puts forward a most eloquent plea on behalf of the recognition of these as works of utility. Captain Parsons too (page xxix of Appendix I) insists on the need for tanks in the agricultural economy of his district, and considers them in every way preferable as relief works to *kacha* roads. Mr. Higham in paragraph 27 of his general note places these and similar works in the fourth or lowest class of relief works, explaining—

Class IV comprise village tanks and other petty works which would never be undertaken except for the sake of providing employment for distressed labour, and which will benefit only a few individuals, or at most the inhabitants of a single village. These works can be discontinued at any time, and there is no advantage whatever in stimulating progress, if this involves any increase in expenditure beyond that absolutely required for the relief of distress.

Although it is true that a village tank may benefit only a few individuals or at most the inhabitants of a single village, the case is altered when we have tank excavation carried on in 55 per cent. of the villages of a district, as was done in Hissar, so that it can be said of these works that they benefited more than half the population of the district and are therefore works of *public* utility. At the same time they are works which but for the necessity of employing relief labourers would never be undertaken by Government, for the reason that ordinarily they can and ought to be constructed by village communities or individuals themselves. Irrigation wells are undoubtedly works of utility, but Government and Local Boards do not on that account regard it as part of their functions to undertake well sinking at the cost of public funds. What Mr. Higham says is therefore undoubtedly true. There is no advantage whatever in stimulating progress on village tanks if this involves any increase in expenditure beyond that absolutely required for the relief of distress, and nothing but famine relief considerations would justify the expenditure of so large a sum as Rs. 3,89,077 of the tax-payers' money in one district upon what is ordinarily a private or semi-private object.



76. The following are the main statistics of the expenditure on village tanks. Statistics of work on village tanks. tanks:—

DISTRICT.	Number of tanks.	Total expenditure.	PERCENTAGE OF EXPENDITURE INCURRED ON					Value of work done. Percentage to total cost.	Number of cubic feet of earth-work.	COST PER 1,000 CUBIC FEET.		
			Wages.	Establishment.	Materials, tools and plant.	Miscellaneous.	Charitable relief, dependents, &c.			Normal.	Actual	
											On total outlay.	On wages only.
Hissar ... ..	585	Rs. 3,89,077	98	1½	...	½	...	100	116,375,026	Rs. A. P. Various.	3 5 6	3 4 8
Rohtak ... ..	43	60,657	80	4	6	...	10	61	8,260,600	4 8 0	7 5 6	5 13 10
Gurgaon ... ..	67	8,778	95	2	2	...	1	74	2,180,808	3 0 0	4 0 0	3 13 0
Delhi ... ..	1	1,199	83	4	12	1	...	77	294,707	3 2 5	4 1 1	3 6 0
Karnal ... ..	1	407	99	...	...	1	...	134	219,422	2 8 0	1 13 8	1 13 3
Umballa ... ..	38	22,511	90	3	5	2	...	102	6,370,454	2 12 0	2 11 0	2 6 0
Ferozepore ... ..	11	3,891	96	1	2	...	1	77	1,721,325	1 12 0	2 4 0	2 3 0
<b>TOTAL ... ..</b>	<b>746</b>	<b>4,86,520</b>	<b>95</b>	<b>2</b>	<b>½</b>	<b>1</b>	<b>1½</b>	<b>94</b>	<b>137,422,382</b>	<b>3 7 7</b>	<b>3 8 8</b>	<b>3 7 11</b>

The Deputy Commissioner of Hissar has returned as the normal rate the rate given by the actual outlay incurred, and thus the value of the tank excavation is shown as equal to the cost. As has been already explained, the value, in the sense of utility, of tank works is not to be measured by any rate statistics. The rates showing the actual outlay in the several districts however merit notice. *Prima facie* the work in Rohtak has not been very efficient, as the cost per 1,000 cubic feet for wages alone amounted to Rs. 5-13-10 as compared with Rs. 3-4-8 in Hissar and Rs. 2-6-0 in Umballa.

77. Only Rs. 14,270 were spent on the excavation and collection of *kankar* for road metalling. In few Punjab districts is stone available for road making, and nowhere was the collection and breaking of stone tried as a relief work. The *kankar* quarrying was confined to the three districts of Hissar, Rohtak and Ferozepore, but only the Deputy Commissioner of Hissar has given any definite opinion as to the suitability of this kind of work for relief labourers. It will be seen that Captain Dunlop Smith (page xxxi of Appendix I) regards *kankar* digging as singularly unsuited for famine relief purposes, except under very special conditions, which cannot always be secured. In Ferozepore the results obtained do not appear to be encouraging, as the *value* of the work was only 30 per cent. of the actual outlay. General Marshall, late Chief Engineer, General Branch, was of opinion that the results in Ferozepore were poor, and that *kankar* quarrying will only be a successful kind of relief work when very close supervision is possible and when the quarry is a suitable one. Whether the quarry is a suitable one or not cannot always be asserted beforehand. It depends upon the depth of the soil and the thickness of the *kankar* stratum. In the three districts the value of the work done, which cost Rs. 14,270 as above stated, is put at Rs. 9,773.

Miscellaneous works.

78. The principal works classed as miscellaneous are described below:—

(Statement No. XII, Class V, Entry No. 1).

*Hissar Bir Ditch.*—To quote from the District Report—

The large cattle farm belonging to Government at Hissar and popularly known as the Hissar Bir is under the management of the Commissariat Department. It consists of 66 square miles of good grazing and was formerly partially surrounded by a wire fence. It was proposed to replace this fence by a ditch 4 feet deep and 7 feet mean width, the spoil being piled in an embankment of much the same dimensions.

This work would never have been carried out in ordinary times owing to the expense, but it is of unquestionable utility. It is an effective guard against trespass of both men and animals, which the previous wire-fencing was not, and it has removed much of the friction which formerly took place between the zamindars and the farm subordinates.

The length of the ditch is  $27\frac{1}{2}$  miles. The value of the work is Rs. 11,005 and its cost Rs. 25,068, of which Rs. 16,528 were on account of wages.

*Delhi-Agra Chord Railway.*—This was the only railway work actually undertaken in the Punjab as a relief work. Only a comparatively small quantity of earthwork had been completed when owing to the dispersion of the relief labourers the work was closed. The value of the work done is Rs. 3,803 and its cost Rs. 14,189, of which only Rs. 4,377 were spent on wages of relief labourers. The main item of cost was the salary of the officer in charge, a Royal Engineer Officer deputed specially to the Province. It amounted to more than half of the total cost.

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*Digging Kudsia Channel, Delhi.*—The channel is a branch of the Jumna running under the city wall near the water bastion on to Salimgarh. It had become choked, and its clearance was very necessary. Its permanency is doubtful, but to the extent that it is permanent it will be of great utility.

*Earth filling at Charing Cross, Lahore Civil Station.*—The object of this work was to raise the level of a low lying plot of Government land in the centre of the Lahore Civil Station with a view to its being made an eligible building site. The earth was taken from an old brick mound, but this mound was situated so far off that the unduly long lead made the work most uneconomical. A tramway was introduced, but even with this the work was very costly, the total expenditure being Rs. 7,666. The value of the work done is put at Rs. 1,328, and this no doubt is represented fully by the enhanced value of the land raised.

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## CHAPTER VII.

### Gratuitous Relief.

79. In this Chapter it is proposed to notice all forms of gratuitous relief,  
*vis.*—  
 Contents of the Chapter.

I.—Relief to dependents—

- (a) by cash allowances ;
- (b) in kitchens.

II.—Relief to people at their homes.

III.—Relief in poor-houses.

IV.—Other forms of relief.

There were no kitchens under Chapter IX of the Code. Those referred to under I (a) above were established under Section 140 in connection with relief works.

80. Dependents were admitted on relief works in all districts except Lahore (second period), though they were in many cases excluded from village tanks. The total number of dependents was 4,034,296 units, or 17·9 per cent. of the total number relieved in all ways, *vis.*, 15·4 per cent. by cash doles and 2·5 per cent. in kitchens. The actual and percentage figures for each district are given below :—

District.	DEPENDENTS RELIEVED			REMARKS.	
	By cash doles.	In kitchens.	Total.		
Hissar ... ..	1,461,327 (11·9)	313,579 (2·6)	1,774,906 (14·5)	"Dependents" include non working children and persons relieved under Sections 140 A of the Famine Code.	
Rohtak ... ..	222,992 (13·5)	..	222,992 (13·5)		
Gurgaon ... ..	10,997 (6·3)	..	10,997 (6·3)		
Delhi ... ..	28,035 (5·6)	..	28,035 (5·6)		
Karnál .. ..	154,465 (11·9)	87,000 (6·7)	241,465 (18·6)		The numbers relieved in kitchens have not been separately shown in the Karnál returns, but have been separately shown here, as it appears from the district report that relief was actually given in this way.
Umballa ... ..	16,996 (3·5)	..	16,996 (3·5)		
Ferozopore ... ..	35,581 (9·9)	..	35,581 (9·9)		
Lahore (Sharakpur) ... ..	71,806 (15·8)	..	71,806 (15·8)		
Gujrát ... ..	1,462,300 (28·8)	169,218 (3·4)	1,631,518 (32·2)		
Total ... ..	3,464,499 (15·4)	569,797 (2·5)	4,034,296 (17·9)		

If allowance be made for the fact that no dependents were allowed on tanks in Hissar, the proportion of dependents on other works in that district must have been quite as high as in Gujrát.

The Commissioner of Delhi remarks : " In all works carried out by the Department Public Works the tendency is for the dependents to be excessive. It gives a better outturn to keep the weak workers off the works and treat them as dependents." This remark is no doubt borne out by statistics, but if applicants for work are not able either to dig or carry, it is questionable whether they should be classed as workers. To set them to break clods, as was done on the Phalia road works and elsewhere, merely that they may be classed as workers, is both uneconomical and unnecessary. Of the 4,034,296 dependents the sex and condition are returned as follows :—

Men	...	...	...	...	64,316
Women	...	...	...	...	88,032
Children	...	...	...	...	1,854,048
Not specified	...	...	...	...	2,027,900

The units "not specified" may be distributed between men, women and children in the same proportion as the units specified. The resulting distribution will be roughly—

Men	...	...	...	...	128,296
Women	...	...	...	...	177,000
Children	...	...	...	...	3,729,000

The dependents' question is thus in the main a question affecting children.

81. Section 141 of the Famine Code requires a special explanation to be given in the weekly famine reports in all cases in which the number of dependents and non-working children exceeds 10 per cent. of the number of relief workers. In January 1897, when it appeared that this percentage was being exceeded on the larger relief works, Government called special attention to the matter, and issued the following orders :—

No. 210, dated Lahore, 1st February 1897.

From—The Revenue Secretary to Government, Punjab,

To—{ All Commissioners and Deputy Commissioners in the Punjab.  
All Superintending Engineers and Executive Engineers in charge of Relief Works.

The Lieutenant-Governor has noticed in the weekly famine returns that the number of children and dependents on relief works who receive gratuitous relief is largely increasing, and is very largely in excess of the proportion of 10 per cent. of the total number of relief workers which is contemplated in Section 141 of the Famine Code. Taking the figures for the week ending January 16th for the two largest works now being carried out, it is found that on the Jhelum Canal the proportion of non-working children and dependents is 30 per cent., and on the Ghaggar Canals 19 per cent. of the whole, and 43 and 24 per cent. respectively of the workers. It is to be remembered, moreover, that every child of seven and upwards is classed as a worker, although the work which can be got out of many of the children so classed is practically nil, and that if the number of such children is also taken into account, the proportion of children and dependents becomes very large. In the week ending January 9th it was 40 per cent. of the total number of persons on the Jhelum Canal works.

2. In view of the above facts, the Lieutenant-Governor desires that the direction contained in Section 141 of the Code, as to the submission of a special explanation whenever the number of non-working children and dependents exceeds 10 per cent. of the number of relief workers, be duly observed, and in order that such explanation may be of any value, it will be necessary to institute special inquiries and exercise due supervision in regard to the admission of children upon relief works. It has been represented to His Honor that cases occur in which two brothers arrange that one of them shall remain at home while the other takes the whole of the members of the two families to the relief works and draws for the combined family a total sum in wages which bears to his own individual wage as a worker so large a proportion that a reduction of his own wage to the penal rate allowed to idlers has no deterrent effect and causes him no practical inconvenience. The Deputy Commissioner of Hissar has noted in the Minute Book of the Ghaggar Canals "any menial of the Sirsa Municipality can earn from 50 per cent. to 100 per cent. more on these works by bringing his family with him than he can by doing his daily work in ordinary times."

3. It may be pointed out that the Famine Code provides two alternative plans for relieving non-working children and dependents, and that the system of caring for them in kitchens is that first prescribed (Section 140) by the Code, and is mentioned as suitable for adoption on large relief works. The system of cash allowances to the parents (Section 141) may be introduced "if the Local Government is satisfied that this system is more convenient, equally efficient, and not more expensive than that prescribed in Section 140"; but it appears to have been introduced everywhere without question in preference to that prescribed in Section 140. The Lieutenant-Governor thinks that the time has now come to give a trial to the latter system, at first in a small way, and afterwards, if the results, which should be carefully noted and compared, are satisfactory, on a more extended scale as may be found possible.

These orders were followed by the opening of kitchens for children under Section 140 of the Code on the Ghaggar and Jhelum Canals in the first week of March. They were not opened anywhere else, except on the Nardak Rájbaha in Karnál.

82. The Jhelum Canal more than any other works had been swamped with dependents, and the substitution of the feeding of children in kitchens for the cash allowance to parents in a large measure contributed to arrest the growth of and subsequently to reduce the numbers on that work. As the result of their experience on the Jhelum Canal, both Mr. Granville, the officer in charge, and Mr. Thorburn, the Commissioner, are strongly impressed with the necessity for feeding all dependents in kitchens in future famines.

83. In Hissar also on the Ghaggar Canals the immediate effect of opening kitchens was a reduction in the number of dependents and a gravitation of applicants for relief to those camps in which they had not yet been opened. The number of dependents afterwards increased as did the number of relief workers generally as the stress of famine became more severe, but it is not disputed that the institution of kitchens had an effect in keeping down the numbers of dependents. The cost per unit relieved was, however, just double the average cash dole to dependents not relieved in kitchens, and Captain Dunlop Smith does not think it will ever be possible to manage kitchens as economically as the cash dole system, even taking into account the effect they have in reducing the number of unproductive consumers. Apparently he is opposed to kitchens. His views may be quoted:—

The mothers certainly felt living away from their children all day, and they and the fathers complained that as they never had their evening meal till dark the children returned to the camp before they could eat it, and clamoured for a share. There was certainly ground for these complaints. The Code allowance of two chittáks a day for a child under 7 is hardly sufficient. The political objection is very strong. No matter how sympathetically they are worked they will always be detested by the people, and I think it is unwise to impair the excellent effect produced by Government affording relief on works in times of scarcity by any measure, however economical, which is the cause of so much irritation. At the same time I admit that the kitchens had not a fair trial in Hissar. If they are to have any chance of success, they should be opened in full working order on the same day as the camps to which they are attached, no individual camp must be without its own kitchen, and they must be managed by the same establishment as is responsible for the work.

84. On the Nardak Rájbaha in Karnál kitchens were not opened till April. Here too the cost per head which was 8 pies exceeded the cash dole, but did not, as in Hissar, approach to double its amount. The Deputy Commissioner does not give any opinion as to the success or otherwise of kitchens.

85. Abuses of the dependents' system, such as are referred in paragraph 2 of the Government circular reproduced in paragraph 81 above and in the extracts from the Karnál and Ferozepore reports on page xxiii of Appendix I, are reported from almost every district. In Delhi apparently women with children were not admitted to relief works unless there was a working male of the family. To elude this regulation women were found attaching themselves to men among the workers passing themselves off as their wives. Ultimately it is stated only widows and women with "authenticated"

husbands were admitted. Undoubtedly the premium which the Code system puts on large families tends to such abuses and to relief works being made too popular, but it may be doubted whether, notwithstanding this feature, relief operations ever had the effect of keeping labour away from ordinary works. No authenticated instance of the kind was brought to light, and the Deputy Commissioner, Hissar, and Commissioner, Delhi, testify (page xxiii of Appendix I) to the superior attractiveness of ordinary works wherever they were available.

86. Gratuitous relief to people at their homes was granted at the cost of the public funds in five districts only.  
*Gratuitous relief in villages.* *viz.*—

				<i>Number of relief units.</i>
Hissar ...	...	...	...	1,316,175
Rohtak...	...	...	...	481,236
Delhi ...	...	...	...	3,885
Karnál...	...	...	...	243,334
Umballa	...	...	...	124,447
Total				... 2,170,077

This is exclusive of 76,097 units similarly relieved, but who were given grinding or spinning work to do and are separately noticed in this chapter. The proportion borne by the numbers relieved in this way to the total number of units relieved in each district are given in the table on page 19. In Delhi this form of relief was, judging from the returns, resorted to for three or four weeks only. It is not referred to in the district report. In the other four districts the main statistics of this relief are as follows:—

1	2	3	4	5
District.	Period for which relief was given.	Average numbers relieved daily during this period.	Percentage of population of affected tract.	Average daily cost per head.
Hissar	217 days.	6,065	1'1	Pies. 11'9
Rohtak	250 "	3,202	0'7	10'7
Karnál	238 "	1,022	0'2	10'1
Umballa	240 "	888	0'1	11'6

That the relief granted to the halt, the blind, the infirm, and the helpless in a period of famine did not exceed the percentages shown in column 4 of the above table is a proof that this form of relief was administered with due care and discrimination. It appears from Mr. Holderness' report that in some of the Bengal districts the numbers so relieved amounted to 10 per cent. of the population.

87. The Circle Inspectors through whom this village relief was distributed were mostly men of the Zaildár class, and universal testimony is borne to the honesty, integrity and public spirit with which they discharged, without remuneration, at a time when many of them, owing to suspensions of revenue, were personal losers by the famine, the onerous and sometimes distasteful duties prescribed by the Code. Their procedure was liable to criticisms and objections to which those of them who were illiterate were all the more exposed, and the elaborate character of the forms which they were required to keep up caused them considerable worry. The Circle Inspectors were closely supervised by Tahsildárs, Náib Tahsildárs and the Deputy Commissioner, especially in the preparation of the initial lists. No cases of fraud or dishonesty were discovered.

88. In Hissar and Rohtak the experiment of grain doles was tried, but was abandoned owing to the difficulties encountered. In Karnál, however, grain doles were issued. In Umballa the report is not clear, but apparently the relief was granted in cash.

89. The persons relieved were those mentioned in Section 89 of the Famine Code, but in Karnál a few *parda nashin* women were placed on the registers of relief. In Hissar the respectable poor were relieved at the cost of the Indian Charitable Relief Fund.

90. The returns shew the following number of units relieved in poor-houses:—

District.	Number of units.	Cost.
		Rs.
Hissar ...	87,535	8,741
Delhi ...	196,903	10,727
Ferozepore ...	763	
<b>Total</b>	<b>285,201</b>	

91. In Delhi the poor-houses were not institutions established under Chapter VIII of the Famine Code, but were rather of the nature of the soup kitchens contemplated by Section 139, at which food is distributed to the poor daily, but residence on the premises is not enforced. There were three such institutions—at Delhi, Mahrauli and Najafgarh respectively—but 90 per cent. of the persons shown in the return were relieved in the Delhi City poor-house at the cost of the Municipal Committee. Two-fifths of the total number of persons on relief in the Delhi District were relieved in this way at a cost of slightly over one-fifth of the total expenditure of the district, the cost per head being 10<sup>4</sup> pies. The dole was distributed in the form of cooked food, the allowance to each person per week being—

Man	...	...	3 seers 1 chitták.
Woman	...	...	2 seers 3 chittaks.
Child	...	...	1 seer 5 chittaks.

This works out at 14, 10 and 6 ounces respectively per diem, and is thus less than the penal scale prescribed in Section 170 of the Code for labourers sent to a poor-house for refusing to work.



**Hissar poor-houses.** 92. In Hissar the first poor-house was opened on 22nd January and by 20th March one had been established at each tahsíl head-quarters. As regards the establishment the Deputy Commissioner reports—

The scale of establishment varied with the number of inmates, but was usually as follows:—

- 1 Superintendent, unpaid. This was either a Government official or some leading citizen of the town.
- 1 Vernacular clerk on Rs. 10 per mensem.
- 1 Hindu cook on from Rs. 6 to Rs. 8 (for every 50 inmates).
- 1 Mussalmán cook       "       "       "
- 1 Peon on Rs. 5 per mensem.

The sweepers, water-carriers and watchmen were usually appointed from among the inmates and received a small cash wage or extra ration in addition to the daily food prescribed for the others.

It was never found possible to appoint reliable cooks from applicants for relief, and the peon had to be specially enlisted, as a considerable amount of physical labour was exacted from him.

It is stated that the scale of rations prescribed by the Code was found insufficient after the first few weeks, and a dietary was introduced, which compares as follows with the Code scale:—

	MAN.		WOMAN.		CHILD.	
	Code scale.	Scale allowed.	Code scale.	Scale allowed.	Code scale.	Scale allowed.
	oz.	oz.	oz.	oz.	oz.	oz.
Flour and pulse ... ..	18	26	16	24	14	16
Vegetables ... ..	$\frac{1}{2}$	8	$\frac{1}{2}$	8	$\frac{1}{2}$	4 $\frac{1}{2}$
Other items ... ..			Unchanged.			

These extra indulgences were given at the cost of the Indian Charitable Relief Fund, but were not extended to contumacious labourers. Of the total cost of the poor-houses, two-thirds represents expenditure on food, and one-fourth was classed as miscellaneous, being chiefly on account of the buildings. Just over one-half of the inmates of poor-houses in Hissar were wanderers from Native States, of whom the vast majority were Bikaneris. As these people became fit for removal from time to time they were drafted off in batches to the border and provided with money sufficient to take them home. Men formed 30 per cent., women 25 $\frac{1}{2}$  per cent., and children 44 $\frac{1}{2}$  per cent. of the poor-house population in Hissar.

**Poor-houses elsewhere.** 93. Poor-houses were opened both in Rohtak and Karnál, but there was no need for them and they were soon closed. Judging from the number of inmates in Ferozepore there was little or no need for the poor-houses kept open at each tahsíl head-quarters in that district from April to August 1897. It is stated that persons resorted to these institutions under the mistaken notion that they would receive relief in cash and not in food, and soon left when they found out their mistake.

94. Chapter X of the Punjab Famine Code, which is entitled "Other measures of relief," deals with two subjects only, *vis.*, relief to weavers and relief to orphans. No difficulty as to orphans has arisen in this Province. Indeed, it is believed that several charitable institutions and individuals in the Punjab have undertaken the care of a number of famine orphans from the Central Provinces, this Government having been consulted in regard to several such offers of assistance made by Hindu associations in Lahore and elsewhere. As regards weavers, the Code provides that in localities where weavers are numerous and are unable or unwilling to labour on relief works arrangements may be made for the distribution of thread to them and for the payment to them of the market rate of wages for weaving it into cloth. No such experiment was tried in any district of the Punjab, at any rate at the cost of Government funds. Action was, however, taken under the following section of Chapter V of the Code in Hissar, Karnál, Umballa and Ferozepore :—

93. Recipients of gratuitous relief who are able to do some work shall, as far as possible, be supplied with grain to grind, cotton to spin, silk to wind, embroidery to do, or some other light work suited to their capacity, and shall be paid for their work, the amount of gratuitous relief being gradually reduced as the wage earned increases.

From its position in Chapter V and from the last words quoted above it would seem that the object of this section is to diminish the cost of gratuitous relief by requiring those who can to give some return, however small, for the help afforded. This object does not appear to have been successfully attained where the experiment was tried. The number of units relieved in this way and the form of employment adopted in the four districts mentioned above are as follows :—

District.	Number of units.	Form of employment.
Hissar ...	... 40,201	Grinding corn and spinning cotton
Umballa ...	... 33,656	Spinning cotton.
Karnál ...	... 1,225	Grinding and spinning.
Ferozepore ...	... 1,015	Cleaning cotton.

An account of the work in Hissar will be found on page xxvii of Appendix I. It will be seen that the net cost came to slightly over one anna per head per diem after allowing for profit and loss on materials. As the net cost of gratuitous relief in the district works out at something under one anna per diem, it would seem that so far from diminishing the cost of relief per person as compared with wholly gratuitous relief this expedient has enhanced it. The same result attended the Umballa experiment. There we are told that the gross expenditure was Rs. 4,000 (round), of which Rs. 2,400 were spent on wages and Rs. 1,600 on materials. The sale of the yarn fetched Rs. 1,778. In other words, after expending Rs. 2,400 worth of labour on Rs. 1,600 worth of materials, the value of the latter was enhanced by Rs. 178 only. The net loss therefore was Rs. 2,222, which works out at 12·07 pies *per diem* per relief unit as compared with an average of 11·4 pies per head for wholly gratuitous relief in the district. The Karnál and Ferozepore figures are too small to make the experiment of any value. Possibly the operations of the Indian Charitable Relief Committees may have been attended with greater success. In Umballa the Deputy Commissioner says that the elaborate Code forms for registering and reporting relief of this description were almost too much for the Missionary lady who carried out the operations, and no doubt all Government officers will agree that the trouble involved in the arrangements is hardly commensurate with the results. As observed by Mr. Connolly, Deputy Commissioner of Karnál, the game is not worth the candle except perhaps in towns. There, possibly under good organization, some success might be attained, but unless the report of the Provincial Committee of the Indian

Charitable Relief Fund shows that arrangements of the kind can be made to produce more satisfactory results, it must be recorded that so far as experience goes the plan is not one which should be generally adopted. This opinion in no way detracts from the high value which must be placed on the services rendered by the ladies,—Miss Theobald in Hissar, Miss Pratt in Umballa, and Mrs. and Miss Newton in Ferozepore,—who undertook the conduct of this form of relief. His Honor understands that this duty, especially in the case of the first mentioned lady, represents only a small portion of the labour devoted to the relief of famine and distress and that in the administration of the funds of the Provincial Branch of the Indian Charitable Relief Committee they rendered most valuable aid.

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## CHAPTER VIII.

### Cost of the Famine.

95. Owing to differences of classification, discrepancies in the district statements and divergences between the administrative and treasury figures, the work of compiling the famine accounts has been a very arduous one indeed. Even as it is, there are many items in regard to which further inquiry might lead to alterations in the classification. In some districts it has been possible to reconcile the treasury and administrative figures, but owing to the plan adopted by the Examiner, Public Works Accounts, of charging to ordinary heads various sums expended on famine labour which were taken as representing the value of works at ordinary rates—a process which does not yet appear to be complete—it was determined in the case of the districts in which such complications arose to follow the administrative account statements.

*Explanatory remarks.*

The figures in this Chapter exclude from account the small sums expended on test works in districts in which regular relief works were not afterwards opened, nor is the expenditure of the Public Works Department on the preparation of emergent plans and estimates in connection with relief programmes, in consequence of Sir Dennis Fitzpatrick's orders alluded to in Chapter II, included. In the nine famine districts, however, all charges, of whatever nature, which were debited to the head "33—Famine Relief" have been taken into account in Statement No. IX, appended, which shows the amounts expended in each district under the several relief heads.

96. The total cost of the famine was Rs. 22,34,004. In the introductory note to this resolution the intensity of the famine in the several districts as evidenced by the numbers on relief was indicated by parts of one thousand. Taking the figures there given and adopting the same plan to indicate the share of the total expenditure incurred in each district we get the following results :—

*Cost of relief by districts.*

note to this resolution the intensity of the famine in the several districts as evidenced by the numbers on relief was indicated by parts of one thousand. Taking the figures there given and adopting the same plan to indicate the share of the total expenditure incurred in each district we get the following results :—

DISTRICT.	RELATIVE FIGURE REPRESENTING		Daily cost per unit relieved.
	Numbers relieved.	Cost of relief.	
Hissar ... ..	547	550	Pies. 19'1
Rohtak ... ..	73	45	11'6
Gurgaon ... ..	8	7	15'8
Delhi ... ..	23	22	19'2
Karnál ... ..	58	88	29'2
Umballa ... ..	22	26	23'2
Ferozapore ... ..	16	17	20'3
Lahore ... ..	27	28	19'9
Gujrát ... ..	226	217	18'3
Total ...	1,000	1,000	19'1

Thus the cost of relief per head was greatest in Karnál and least in Rohtak. Hissar was just the average.]

97. Before proceeding to examine the causes for the differences appearing in the table in the last paragraph, it is desirable to inquire what proportion of the total expenditure went to feed the famine-stricken and how much was the cost of *administering* the relief, including, besides establishment charges, the cost of materials, tools and plant, hutting of relief workers and contingent charges of all kinds. The expenditure on relief works includes two heads—wages of labourers and dependents—which represent practically entirely money expended directly in feeding the people. Details of the payments under these heads can be obtained from Statement No. XII, and adding the sums thus ascertained to the figures under the head “gratuitous relief” in Statement No. IX we arrive at the following result:—

DISTRICT.	PERCENTAGE OF DISTRICT EXPENDITURE INCURRED ON		Daily cost per unit relieved of direct relief.  Pics.
	Feeding the people.	Administering the relief.	
	Hissar	85	
Rohtak	89	11	10·3
Gurgaon	90	10	14·2
Delhi	74	26	14·2
Karnal	58	42	16·9
Umballa	76	24	17·7
Ferozepore	75	25	15·4
Lahore	85	15	16·6
Gujrat	80	20	14·7
Total	81	19	15·5

Thus nearly one-fifth of the famine expenditure consisted of what may be called administration charges. As might be expected, the percentage is not high in Hissar because *ceteris paribus* the larger the numbers relieved the less ought the proportion of the charge for administration to be. Moreover, in this district the numbers relieved on village tanks, where the administration charges amounted to only 2 per cent., were a large proportion of the whole. The cost per head of direct relief is slightly above the average in Hissar, where, as already noted, the wages were perhaps too high.

The administration charges in Rohtak, where also tanks were the main feature, are low. The direct relief charge which amounts to only 10·3 pies is remarkably low and is due to the large numbers gratuitously relieved, including dependents, the large proportion of children and the low wages on relief works. Though the works carried out in this district may be of small value, and the tasks performed by labourers poor, it is undoubtedly the case that the administration of relief has been most economical. The Gurgaon and Delhi figures do not call for special notice.—The cost per head for direct relief, 14·2 pies, was the same in both districts, and is below the average. The heavy establishment charges in connection with the work on the Delhi-Agra Railway have already been alluded to.

In Karnál not very much more than half the expenditure reached the labourer as wages or was expended on the maintenance of dependents or as gratuitous relief, and this explains the high incidence of cost per head shown against this district in the table on page 61. There were no relief works on village tanks in Karnál, and the establishment and miscellaneous charges are always heavier in the case of large works under the Public Works Department such as were carried out in this district. The total cost of famine in Karnál was Rs. 1,97,762. Included in this sum items such as the following appear:—

	Rs.
Expenses of preliminary survey ... ..	11,651
Temporary bunds and culverts along the channel	2,819
Maintenance of main line ... ..	2,400
Carriage hire of Government property ...	3,117
Expenses incurred on sheds, hospitals and temporary buildings.	7,800
Unused materials in stock ... ..	7,710
&c.,                      &c.,                      &c.,	&c.,

Nevertheless it must be admitted that the proportion of establishment and miscellaneous charges in Karnál to the expenditure on direct relief is larger than is ordinarily looked for in the case of relief works. Whether this is inevitable or not when the works are of the description of those carried out in Karnál is a matter which may well receive further consideration. Undoubtedly the Rs. 75,000 odd shown in Statement No. XII as the value of the works carried out in this district represents real value. The cost of direct relief per head, 16·9 pies, is higher than the Provincial average of 15·5 pies. Wages were fairly high in Karnál, and piece-work was resorted to for some weeks on the Nardak Rajbaha.

In Umballa the high administration charges on the Abdullapur "Cuts-off" account for the percentage figures in the table on page 61. The charge for direct relief, 17·7 pies per head, is here in excess of any other district. This is no doubt due to the comparatively small proportion of children relieved.

It is not known why the establishment and miscellaneous charges in Ferozepore amounted to so much as one-fourth of the whole. The details supplied by the Public Works officers are somewhat meagre. In Lahore the administration charges were low. The daily cost per head of direct relief, 16·6 pies, is above the average. The wages given in Sharakpur at first were somewhat high.

No exception can be taken to the Gujrát figures. Though the road works in that district may be of doubtful utility, the cost of administering the relief was small, and considering the character of the work and the very large sums spent on hutting, the results on the Jhelum Canal are not unreasonable.

98. The Provincial average for the cost per head of direct relief, *i. e.*, of the money actually disbursed to relief workers or dependents or spent on their food, comes to 15·5 pies. This is less than the minimum wage\* of an adult female, with grain at 10 seers per rupee, according to the ready-reckoner attached to the Famine Code, less also than the wage of a working child with grain at the same rate. Of course it is the large number of dependents and persons gratuitously relieved that brings down the average wage to this figure. If in particular instances undue leniency was permitted here and there in fixing the rates

\*The minimum wage of an adult female with grain at 10 seers is 1 anna 4 pies.

of wages and allowances, it cannot be said that taking the average of the Province the sum allowed as daily maintenance was over liberal. On the other hand, there is no reason for believing that it was insufficient, for if there was one thing noticeable about the relief works in this Province it was the absence of emaciation among the persons in receipt of relief, and in the matter of saving life our relief operations must be regarded as entirely successful.

99. The distribution of the cost of the famine between Government and Local Funds is shown in Statement No. IX as follows:—

		Rs.
Chargeable to Government	...	16,25,525
"    " District Funds	...	5,23,159
"    " Municipal Funds	...	85,320
Total		22,34,004

Famine relief is recognized by both the District Board and Municipal Acts as a function of these bodies in respect of which Local Funds may be made chargeable. The principle of distribution of cost adopted in the present famine was to charge the expenditure on any work to the fund from which such expenditure would be incurred in ordinary times. Thus district roads, tanks and similar works would be chargeable to District Funds, and large canal works to Government funds. Owing to the exhaustion, however of the balances of the District Boards of Hissar, Karnál, Lahore and Gujrát, it was found impossible to carry out this principle of distribution in those districts, and after the Boards had reached the end of their resources the further expenditure was undertaken by Government. In the case of Karnál it was ruled by the Government of India that for the purposes of famine relief a Board should not be required to borrow.

100. As between Imperial and Provincial Funds the distribution of cost cannot yet be stated. It depends upon the closing balance in the Provincial exchequer on 31st March 1898. Provincial finances are just at present in a bankrupt condition. The financial rule that Provincial is ordinarily liable for the whole of the charges under famine relief is sufficient to produce this result on the occasion of any famine on the scale of that of 1895-97. Under the operation of this rule all famine expenditure is charged to Provincial until Provincial Funds are reduced to the minimum\* compatible with the system of working a separate fund. When this minimum is reached all further charges are necessarily borne by Imperial, but charges which are in pursuance of this arrangement debited to Imperial in the first instance may be afterwards written back to Provincial if it is found on making up accounts at the end of the year that the Provincial balance would otherwise exceed the fixed minimum. Owing to the good kharif harvest of 1897 the revenues of the current year will considerably exceed the budget estimate, but the Provincial exchequer will not, for the reasons explained, share in this improvement, as all of the surplus over the 5 lakhs which is allowed to the Province as a working balance will be applied in reduction of the Imperial charges for famine relief.

101. The separate report drawn up by the Secretaries of the Provincial Branch of the Indian Charitable Relief Fund shows that the allotments and subscriptions dealt with by

\* The minimum balance required to be maintained in ordinary years is 10 lakhs. For each of the years 1897-98 and 1898-99 Provincial will be started with a reduced minimum balance of 5 lakhs.

## COST OF THE FAMINE.

the Committee amounted to Rs. 12,67,521, of which Rs. 3,17,884 were collected within the Province. The expenditure of this fund up to 31st October 1897 was upon the following objects :—

	Rs.
Gifts to agriculturists for the purchase of seed and plough and well cattle ... ..	8,35,856
Relief of respectable poor ... ..	2,37,578
Additional comforts to persons on relief works and in poor-houses ... ..	10,022
Relief of orphans ... ..	930
Balance with Provincial and District Committees ... ..	1,70,838

It is unnecessary here to enlarge on the invaluable aid thus rendered in supplement of the efforts of Government to combat the famine. His Honor believes that a perusal of the report of Mr. C. H. Atkins, the Joint Secretary of the Provincial Committee, will afford every satisfaction to subscribers, both in this country and in other countries which have contributed to the Indian Relief Fund, that their generosity could not have been applied to more worthy objects, and that the relief and assistance so provided have been fully appreciated by the recipients, and have served to nourish and enhance the feelings of loyalty and devotion which there is reason to believe have been widely created in the districts afflicted by the famine.

102. The total amount of land revenue under suspension on 30th September 1896 was Rs. 5,12,298, of which five-sixths were arrears of 1895-96. The total amount remitted and suspended during the agricultural year 1896-97 ending 30th September 1897, which corresponds to the harvests of kharif 1896 and rabi 1897, and therefore to the period of famine, was just under 22 lakhs, of which 20 lakhs were due to Government and the balance to revenue assignees. Details for the year 1896-97 are as follows:—

Harvest.	REMISSIONS.		SUSPENSIONS.		TOTAL.	
	Kharif.	Jagir.	Kharif.	Jagir.	Kharif.	Jagir.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Kharif 1896 ... ..	17,716	1,430	11,04,779	85,482	11,22,495	85,912
Rabi 1897 ... ..	48,641	6,683	8,32,139	96,757	8,80,780	1,03,440
<b>Total</b> ... ..	<b>66,357</b>	<b>8,113</b>	<b>19,36,918</b>	<b>1,82,239</b>	<b>20,03,275</b>	<b>1,94,352</b>

The amount remitted is comparatively small and occurred almost entirely in



two districts—Lahore (Rs. 54,434) and Siálkot (Rs. 15,968). The following suspensions were granted in the famine districts :—

District.	Amount suspended.		Proportion of total demand.	
	Rs.	Per cent.	Rs.	Per cent.
Hissar ... ..	3,89,074	50		
Rohtak ... ..	3,41,633	35		
Gurgaon ... ..	57,429	5		
Delhi ... ..	88,336	10		
Karnál ... ..	1,32,837	16		
Umballa ... ..	1,09,028	9		
Ferozepore ... ..	79,354	7		
Lahore ... ..	55,221	6		
Gujrát ... ..	2,06,253	25		

Thus two-thirds of the total revenue suspended was suspended in the famine districts. Outside these the largest suspensions were given in three districts of the Ráwaipindi Division, *viz.* Shahpur (Rs. 1,36,211), Jhelum (Rs. 1,28,586) and Ráwalpindi (Rs. 1,03,586).

103. The relief granted in the form of remissions and suspensions is in excess of that granted in any previous famine. It amounts to about 8 per cent. of the revenue of the Province. The extent to which the outstanding suspended revenue will be recovered depends of course upon the character of future seasons. It is estimated, however, that over six lakhs of Government revenue will have been recovered with the kharif instalment of 1897. If this be taken into account the net loss of land revenue to Government is reduced to 14 lakhs. By way of comment on these figures it is worthy of note that in the year 1896-97 the irrigation revenue, largely owing to the drought, exceeded that of the previous year by 37½ lakhs. Allowing for increased working expenses the gain was 35½ lakhs, so that Government has in a year of famine gained in irrigation revenue more than double what has been lost in land revenue. In fact this gain in irrigation revenue more than covers the cost to Government of the relief operations and the loss of land revenue. The gain, however, is wholly Imperial. The loss is largely Provincial. That a large proportion of the outstanding revenue will ultimately be recovered, especially in the Delhi Division, is very probable. The district reports speak hopefully of the prospects of such recovery.

104. From Statement No. XI it will be seen that the following sums were advanced by Government under the Land Improvement Act, XIX of 1883, and the Agriculturists Loans Act, XII of 1884, in the Province as a whole, during the year ending 30th September 1897 :—

	Rs.
For land improvement ... ..	2,22,149
For seed and cattle ... ..	11,54,490

Of the loans under Act XIX of 1883 three-fourths were advanced in the Jhang District in connection with the Chenab Canal colonization arrangements, and of the remainder only a small portion may be regarded as connected with the famine. It was not possible to follow the lead of the North-Western

Provinces Government in advancing large sums for the construction of *kacha* wells, because there are only a few tracts of very limited extent in this Province, in Umballa, Rohtak, Delhi and Hissar, in which the surface strata are suitable for *kacha* wells. In the three first-named districts Government advances were made for this purpose.

105. Of the Rs. 11,54,490 advanced for the purchase of seed and bullocks, the following loans were made in the famine districts :—  
Advances under Act XII of 1884.

	Rs.
Hissar	4,78,107
Rohtak	4,760
Gurgaon	7,745
Delhi	30,896
Karnal	32,782
Umballa	18,854
Ferozepore	56,171
Lahore	59,345
Gujrat	10,000

A statement of the distribution of the Hissar allotment is given on page xiii of Appendix I. It will be seen that 41,610 persons shared in the Rs. 4,41,290, which were distributed for the kharif harvest, and that in addition 26,485 persons in this district were the recipients of gifts from the Indian Charitable Relief Fund, which allotted Rs. 2,35,375 for this purpose to Hissar. An account of the expenditure of the Charitable Fund under this head has been published in the Provincial Committee's report. In Hissar the plan was adopted of granting Government loans to the solvent, and reserving the charitable allotments for those who could not give the security required in the case of advances under Act XII of 1884. In all districts special arrangements were made to distribute the loans for seed and cattle promptly without the lengthy procedure and delays which often, it is to be feared, are allowed to occur in making advances under the Act.

106. Before closing this chapter the opportunity may be taken of recording a departure from the prescriptions of the Code in the matter of Famine Accounts which experience showed to be necessary. The matter is best explained by the following Resolution of Government on the subject :—

Proceedings of the Hon'ble the Lieutenant-Governor of the Punjab in the Revenue (Searcity) Department,  
No. 677, dated 17th April 1897.

READ—

The following extract (paragraph 2) from Punjab Government Circular No. 23, dated 22nd February 1897, and the replies to that Circular.

2. The Famine Code (Chapter XV) contemplates two systems for the treatment of expenditure on relief works. In Section 247 it is provided that in the case of works under the Public Works Department the system of accounts shall be that provided in the ordinary rules of the Public Works Department. In the case of works not under the charge of the Public Works Department the Code (Section 249) provides for advances to meet famine expenditure. The Examiner of Accounts, Public Works Department, has now represented that he is unable to audit or exercise any check over the expenditure of Civil Officers who adopt

the system of advances under Section 249, and he points out that, in regard to expenditure on District Board works, Civil Officers have always been treated in this Province as Public Works disbursers, and that, as has recently been decided by the Comptroller-General, this arrangement should not cease merely because the works are carried out on relief principles. The Examiner therefore argues that as Civil Officers carrying out relief works are Public Works disbursers, the system of accounts to which they are subject is that contemplated in Section 247 of the Code and not that contemplated in Section 249, and that in fact the works which they carry out are works in charge of Public Works officers for the purpose at any rate of Section 247 of the Code. He is therefore of opinion that funds which may be required by Civil Officers for the payment of relief workers should be obtained, as in the case of Public Works officers and of District Board works carried out as ordinary works by letters of credit and not by advances under Section 249 of the Code. As it is desirable that the Examiner's audit should not be dispensed with in the case of relief works, I am to ask whether in your opinion it will be practicable without great inconvenience to abandon the system of advances in favour of that of letters of credit which the Examiner considers to be necessary. *Prima facie*, if officers of the Public Works Department can carry on relief works on the letter of credit system, it ought to be practicable for Civil Officers to do likewise, but before the orders of Government are issued in the matter it has been considered desirable to consult you as it is possible that the change of system may in the case of small works specially endanger the prompt payment of wages to relief workers.

**RESOLUTION.**—The replies to the above inquiry having elicited a practically unanimous expression of opinion that no inconvenience will result from prescribing the letter of credit system under Section 247 of the Famine Code instead of the system of advances under Section 249 in the case of all works of the nature referred to, the Hon'ble the Lieutenant-Governor is pleased to direct that all Civil Officers in charge of relief works shall regulate their procedure accordingly.

## CHAPTER IX. Public Health.

107. Section 245 of the Punjab Famine Code requires the submission of reports at the end of any period of severe scarcity or famine by the Inspector-General of Civil Hospitals and the Sanitary Commissioner on the operations of their Departments in connection with famine relief. The reports which have been submitted in compliance with this provision of the Code will be found in Appendix III, and their brevity may be taken as indicative of the general absence of conditions calling for extraordinary measures in the Medical Department. It will be seen that in three districts only, Hissar, Gujrát and Karnál, was it found necessary to organize special medical relief, but the extra establishments were small, and in no case was the deputation of an additional Commissioned Medical Officer required. Upon the Civil Surgeons of the famine districts, especially of Hissar and Gujrát, undoubtedly the strain of extra work and responsibilities must at times have been severe, but fortunately uniform good health in the relief camps and an almost total absence of epidemics attended, and no doubt were in a large degree the result of the measures which they carried out. The provisions of Chapter XIV of the Code seem to have been generally observed and were no doubt found most useful. A few suggestions for alterations in minor points have been made, and will be separately dealt with.

108. Throughout the famine the health of the Province as a whole was good. The birth-rate of the Punjab in 1896 was higher than in any other province in India. The death rate, which was less than the birth-rate by 11·5 per mille, amounted to 31·5 as compared with an average death-rate of 35. The actual and the normal death-rates of the nine famine districts in 1896 are shown below:—

District.	Normal.	Actual.
Hissar	30	33
Rontak	32	35
Gurgaon	37	35
Delhi	43	36
Karnál	40	40
Umballa	37	41
Ferozepore	35	32
Lahore	37	31
Gujrát	34	23

The actual and normal death-rates during each month of the famine are compared in columns 23 and 24 of Statement No. V. Except during the months of August and September 1897 in the Hissar District, the excess of the death-rate above the normal was not sufficiently marked in any district to call for special notice. In these months it reached 46 and 59 in Hissar as compared with the normals for the month, 27 and 35 respectively; but there can be no doubt that this rise in the death-rate was due to fever consequent upon the specially bounteous rainfall of the autumn, though the privations which the people had endured must have rendered them less able to resist malaria than they otherwise would have been. In some of the Deraját districts the death-rate during the autumn months was very much higher than in Hissar, malarial fever having prevailed to an unusual degree. The health of the Province as a whole

during the first nine months of 1897 was, as in the previous year, distinctly good. This will appear from the following table :—

*Birth and death rate during 1897.*

MONTH.	BIRTH-RATE.		DEATH-RATE.	
	Actual.	Normal.	Actual.	Normal.
January ... ..	48	40	25	35
February ... ..	48	39	22	29
March ... ..	44	36	21	26
April ... ..	32	31	21	26
May ... ..	31	31	24	32
June ... ..	38	31	25	31
July ... ..	42	35	22	27
August ... ..	45	41	24	28
September ... ..	50	49	34	42

In no month, it will be seen, was the birth-rate below the normal or the death-rate above the normal. In Hissar, though in 1896 the excess of the birth-rate above the death-rate was 12·4 per mille as compared with an average of 10·7 per mille, in the following year the position was reversed, and owing no less to decrease in births than to increase in deaths the death-rate was 2·1 *per mille* above the death-rate. The Deputy Commissioner brings to notice specially the increase in the number of deaths from bowel-complaints (703 in 1896 and 773 in nine months of 1897 as compared with an annual average of 514), which he attributes to eating bad food, jungle berries and grasses during the famine.

109. From the very commencement of the famine officers were enjoined to be most careful to inquire into all cases in which deaths were reported as caused by starvation, and the necessity for authenticating the facts in such cases was frequently demonstrated, as the village watchmen if not checked were found only too ready to save themselves the trouble of inquiry into the cause of death by ascribing it to the prevailing visitation. Thus in Umballa in a case of reported starvation the deceased was found to have actually died of repletion, and out of 17 cases reported in Hissar the Deputy Commissioner considers that in three only of these was death directly due to starvation. Particulars of these cases are given on page xxxiv of Appendix II. Two of the three victims belonged to a Native State. One death from this cause is reported from Gujrát, the victim being a child. Thus for the Province as a whole the deaths by starvation come to four. But it would be incorrect and misleading to conclude that this insignificant figure represents the total effects of the famine on the mortality statistics. There can be no doubt that deaths have occurred as the indirect consequence of insufficient nutriment which renders the constitution an easy prey to any disease which may subsequently be contracted. Deaths from bowel-complaints, which as above noticed occurred in the Hissar District as a result of an unusual and unwholesome diet, are of course indirectly caused by the famine.

110. In Appendix I (pages xxxv and xxxvi) will be found two interesting extracts from the Umballa and Hissar reports on the subject of the wild produce which in famine times is consumed by the lowest classes of the population. In Umballa Mr. Hailey, Assistant Commissioner, made a raid on the food stores of a Chamár community and obtained practically from their hearth-stones samples of nine different substances constituting their daily food, of which only one, rotten gram, was not a wild product. The Deputy Commissioner has been much impressed by the extent to which it thus appears that not only individuals but whole communities can subsist for a length of time on wild produce "without expecting aid or considering the state of affairs other than what has happened before in their history and will happen again." The list of jungle products consumed in times of famine in Hissar is also of much interest as a contribution to our knowledge of famine economics.

## CHAPTER X.

### Present and previous Famines compared.

111. The following account of the previous famines which affected this Province since annexation is derived mainly from the Punjab Famine Report of 1878-79. Previous to annexation the country suffered from several famines, of which the ever-remembered famine of 1783 was the most noteworthy. No subsequent famine has ever approached the *chálisa* [1783 A. D. corresponds to 1840 of the Hindu era] in severity. Of this famine it has been said\*: "No one who has ever been brought much into contact with the agricultural population can have failed to observe the enduring mark left on the country and its tenures by the famine of A. D. 1783. In Hissar, for instance, that famine literally depopulated the country, and the whole agricultural stock perished; at its close hardly any of the original inhabitants remained or could return. Few villages now existing even pretend to a history which goes back uninterruptedly to a period before this famine, and there is not one which does not date its present form of tenure from the time when cultivation was resumed. Every social relation of the people has its origin subsequent to this fatal era."

112. The famine of 1860-61, which was confined to the country between the Sutlej and the Jumna, was caused by the failure of the autumn rains of 1860 and the spring harvest of 1861. Previous harvests had been somewhat short, and stocks of grain were low. The failure of rain continued until June 1861, when unusually favourable autumn rains set in, followed by equally favourable winter and spring rains. Omitting advances to cultivators, which were subsequently recovered, the expenditure on relief amounted to Rs. 11,09,051, of which only Rs. 3,25,106 represent the cost of relief works, the balance of Rs. 7,83,945 being expended on the distribution of food to the poor. The districts which received the largest share of this latter sum were—

District.					Allotment.
					Rs.
Delhi ...	...	...	...	...	2,92,918
Gurgaon	...	...	...	...	2,40,978
Karnál ...	...	...	...	...	67,602
Umballa	...	...	...	...	48,128
Thánesar	...	...	...	...	35,288
Rohtak	...	...	...	...	32,848
Hissar	...	...	...	...	28,099
Sirsa	...	...	...	...	16,069
All others	...	...	...	...	21,395

There are no reliable records of the number of persons relieved. In the town of Delhi, where the largest portion of the famine fund was spent, as many as 30,000 persons received food daily, and 16,000 were at the same time maintained in the villages, but the available information does not admit of any estimate being made of the number of persons relieved in terms of one day. At the worst period of the famine the price of wheat in the Delhi and Hissar Divisions ran up to 8 or 9 seers the rupee, but in the western portions of the Province the price at the same time averaged from 15 to 18 seers. With the end of the drought prices rapidly recovered their normal level. Of the

mortality caused by this famine there is no record. It is admitted to have been extensive, "though not in such numbers as seriously to diminish the bulk of the population," and it is stated that not a single village in the cultivated tracts was broken up; and that as soon as the autumn rains of 1861 commenced absentees returned to their villages and energetically resumed agricultural operations. The loss of revenue in this famine amounted to about 14 lakhs, little of which was ultimately recovered.

113 The causes and circumstances of the famine of 1868-69 were very similar to those of the previous famine. As in 1860-61, the failure of the rains north and west of the Sutlej just stopped short of the point at which famine would have been caused; it was the tract to the south and east of the Sutlej which suffered most severely; and the grain stocks which saved this tract were drawn mainly from the more favoured portions of the Punjab. The kharif crop of 1868, which was poor everywhere, failed entirely in the country between Ferozepore and Delhi. The rabi sowings were seriously contracted, and the year 1868 closed under circumstances of the most grave anxiety. The winter rains, however, proved sufficient north of the Sutlej, but south of that river the rabi crops failed. Stimulated by early rains, the agriculturists sowed unusually large areas with kharif crops, but there followed in July and August a period of terrible anxiety, for, with the exception of scanty showers, the rains again failed. Happily on the 4th and 5th of September 1869 rain fell abundantly throughout the Province and the crops, though almost despaired of, recovered wonderfully. A fair kharif harvest was reaped and the rabi sowings were secured. A sum of  $4\frac{1}{2}$  lakhs was spent in this famine by the Central Relief Committee, but there is no record of the expenditure of the Public Works Department or of District and Municipal Committees. The  $4\frac{1}{2}$  lakhs referred to were expended on the relief of  $8\frac{3}{4}$  millions persons (in terms of one day), of whom over 6 millions were gratuitously relieved. The Divisions in which this relief was given are noted below:—

DIVISION.	RELIEVED.		
	Gratuitously.	On works.	Total.
Delhi .. .. .	2,349,299	274,797	2,624,096
Hissar .. .. .	2,828,566	1,688,741	4,517,307
Umballa .. .. .	283,551	62,253	345,804
Jullundur .. .. .	144,399	115,082	259,481
Amritsar .. .. .	103,737	304,977	508,714
Lahore .. .. .	341,294	138,275	479,569
Gujrat District .. .. .	9,199	865	10,064
TOTAL .. .. .	6,160,045	2,584,990	8,745,035

The suspensions of land revenue amounted to 5 lakhs, of which a considerable portion was afterwards recovered. Though the famine was not so severe as that of 1860-61, prices rose quite as high. During the worst days of the famine

wheat fell to 8 seers the rupee and less in the Hissar Division and in other adjacent tracts of similar character. It is noted that prices equalised themselves throughout the Province more rapidly during this famine than in that of 1860-61; also that recovery to the normal rates was swifter than after the previous famine, from which it was concluded that stocks had been seriously depleted.

Of the mortality in the famine of 1868-69 there is no record.

114. The great Indian famine of 1877-78 in the Punjab only reached the degree of intensity which is called scarcity, and is referred to by this term in the Punjab Famine Report of 1878-79. Up to June 1877 the crops in this Province had been plentiful for several years, and a considerable export of grain to Europe and to the famine in Southern India was proceeding without materially deranging normal prices. But the autumn rains of 1877 proved unusually scanty and the kharif harvest was a general failure except in irrigated lands. The following rabi harvest was, however, a fair one, and the kharif harvest of 1878 was generally good. During this period wheat rose to 12 seers the rupee. Except for an unusual local aggravation in the Hazára District connected with the severe famine in Kashmir, the principal scene of distress in 1877-78 was, as in previous famines, the Hissar Division and the dry tracts of the Delhi Division, especially the Gurgaon District. However, even here the distress amounted to scarcity only, and was due perhaps to the failure of fodder more than to any other cause. It may be mentioned that the Badli Bazár in the Rohtak District was looted and destroyed in a grain riot by the Ját agriculturists, and disturbances of this nature were not uncommon. In the Hazára District some 8,000 people were relieved daily during the early months of 1878 till the rabi crop was reaped. In the other districts in which relief works were undertaken or gratuitous relief distributed the maximum numbers on relief on any one day were as follows:—

Gurgaon	...	...	...	2,155
Karnál	...	...	...	2,281
Hoshiárpur	...	...	...	2,466
Kángra	...	...	...	1,414
Amritsar	...	...	...	7,459
Gurdáspur	...	...	...	5,190
Siálkot	...	...	...	7,753
Ráwalpindi	...	...	...	1,180
Gujrát	...	...	...	1,050

This period of scarcity was the first during which any persistent attempt was made to ascertain the human mortality caused by famine. The deaths by starvation reported between 1st December 1877 and 28th July 1878 aggregated 1,119, of which 700 occurred in the hill and submontane districts of Hazára, Kángra and Siálkot and 313 in the Gurgaon District. With reference to these deaths and in justification of the policy of not undertaking widespread relief measures it was explained by the Punjab Government at the time:—"There has been no widespread famine, and there has existed every probability that after a few months the pressure would entirely cease. The Lieutenant-Governor, therefore, thinks that these deaths, many of which it is probable no human efforts could have long delayed, are themselves a lesser evil than the demoralization of society by the too eager proffer of State help, or than the public embarrassment of creating, for a merely temporary purpose, the vast organization which could alone have effectively prevented all risk to life. The danger was nowhere so diffused, so intense or so likely to last as to justify large measures of village inspection; and the employment of numerous establishments to be continually on the search for the few famine-stricken wayfarers, who may have died before reaching centres of relief, would have involved efforts altogether disproportioned to the result to be attained."



The remissions and suspensions of land revenue in this famine were Rs. 94,467 and Rs. 3,23,347 respectively. Special advances for seed and cattle amounted to Rs. 1,84,000.

115. The following question was put by the Famine Commissioners to this Government and was answered in the Punjab Famine Report as noted below:—

Secure and insecure areas in 1877-78. Question.—*What part of the country is most subject to famine and freest from it and why?*

Answer.—*Those parts of the country which, having an average rainfall of 20 inches and less, are the least protected by irrigation. The portions of the country freest of famine are unquestionably the submontane tracts with rainfall of from 30 to 40 inches.*

It was added:—

The Mooltan Division has a rainfall varying from 10 to 6 inches, but two-thirds of its cultivation is protected by canal or well irrigation; and nearly all the rest is of the class known as *sailáb*, that is to say, situate in moist alluvial lands on the bed or banks of the great Punjab rivers, which are renewed by annual inundations and constant percolation. The Deraját Division has an equally scanty rainfall; but in Dera Gházi Khan more than half of the cultivation is irrigated; and in Dera Ismail Khan a third; there is also the same abundance of *sailáb* land as in the Mooltan Division. The Shahpur District again has a rainfall of only 13 inches, and the reports of the famine years contain grievous complaints of loss of crops on unirrigated lands, and the sufferings of cattle from drought; but 64 per cent. of the cultivation is irrigated, and there is a considerable area of *sailáb*; and, as a matter of fact, the district thus always pulls through its troubles with little or no help.

There are four districts, however, in the south of the Province, which invariably suffer severely in famine years, *viz.*:—

District.						Average annual rainfall.	Percentage of cultivation irrigated.
						<i>Inches.</i>	
Hissar Division...	Sirsa ... ..	...	...	...	...	74	3
	Hissar ... ..	...	...	...	...	17	5
	Rohtak ... ..	...	...	...	...	19	13
	Gurgaon ... ..	...	...	...	...	23	13

The western portion of Karnál (Tahsil Kaithal), the Pipli Tahsil in Umballa, the southern portions of Ludhiána, and the south east portions of Ferozepore, all similarly circumstanced, suffer in the same way. Their all is staked on a rainfall usually less than 20 inches; and, if that fails, the heavens are brass and the earth iron, in a sense which those only know who have lived in those tracts at such seasons; the rivers, which at such times are the refuge of the Punjab graziers, are miles away; the cattle die of thirst as much as of hunger, and the people themselves have a hard fight for their lives, living on wild berries, grasses and roots.

116. Since 1877-78 conditions have changed to a very marked degree in the cis-Sutlej territory owing to the construction of the Sirhind Canal and the Sirsa Branch of the Western Jumna Canal. The irrigation from the Main Branch of the Western Jumna Canal has also been extended. The difference in conditions is illustrated by the accompanying map of the cis-Sutlej territory showing the area commanded by canals in 1877-78 and at the present time. The irrigation in the Gurgaon District from the Agra Canal was in 1878 only partially developed within the commanded area. The new irrigation cannot well be shown on a small scale map. The district inundation canals from the Sutlej in Ferozepore are not shown. As already stated they failed in 1896 and cannot be regarded as on a par with the perennial canals. Since 1878 these canals have been extended to the riverain tract in the Fázilka Tahsil adjoining the Baháwalpur State. It may be noted that since 1877-78 communications in the cis-Sutlej territory have also vastly improved owing to the construction of the Rewári-Ferozepore, Rájpúra-Bhatinda, Delhi-Kálka and Southern Punjab Railways, none of which were in existence in that year. The Nardak Rájbaha, which was constructed as a relief work, will carry irrigation to a portion of the dry tract between the Sirsa and Main Branches of the Western Jumna Canal in the Karnál District, and north of Kaithal in the same district the Sarsuti Canal will still further reduce the unprotected area. The Deputy Commissioner is of opinion that the Karnál

# MAP

OF THE

## CIS-SUTLEJ TERRITORY

showing Irrigation in 1878 & 1897.

Scale 1 Inch = 32 Miles.

**REFERENCES.**

- Irrigation in 1878.....
- Additional area irrigated in 1897.



# M A P


OF THE


## CIS-SUTLEJ TERRITORY

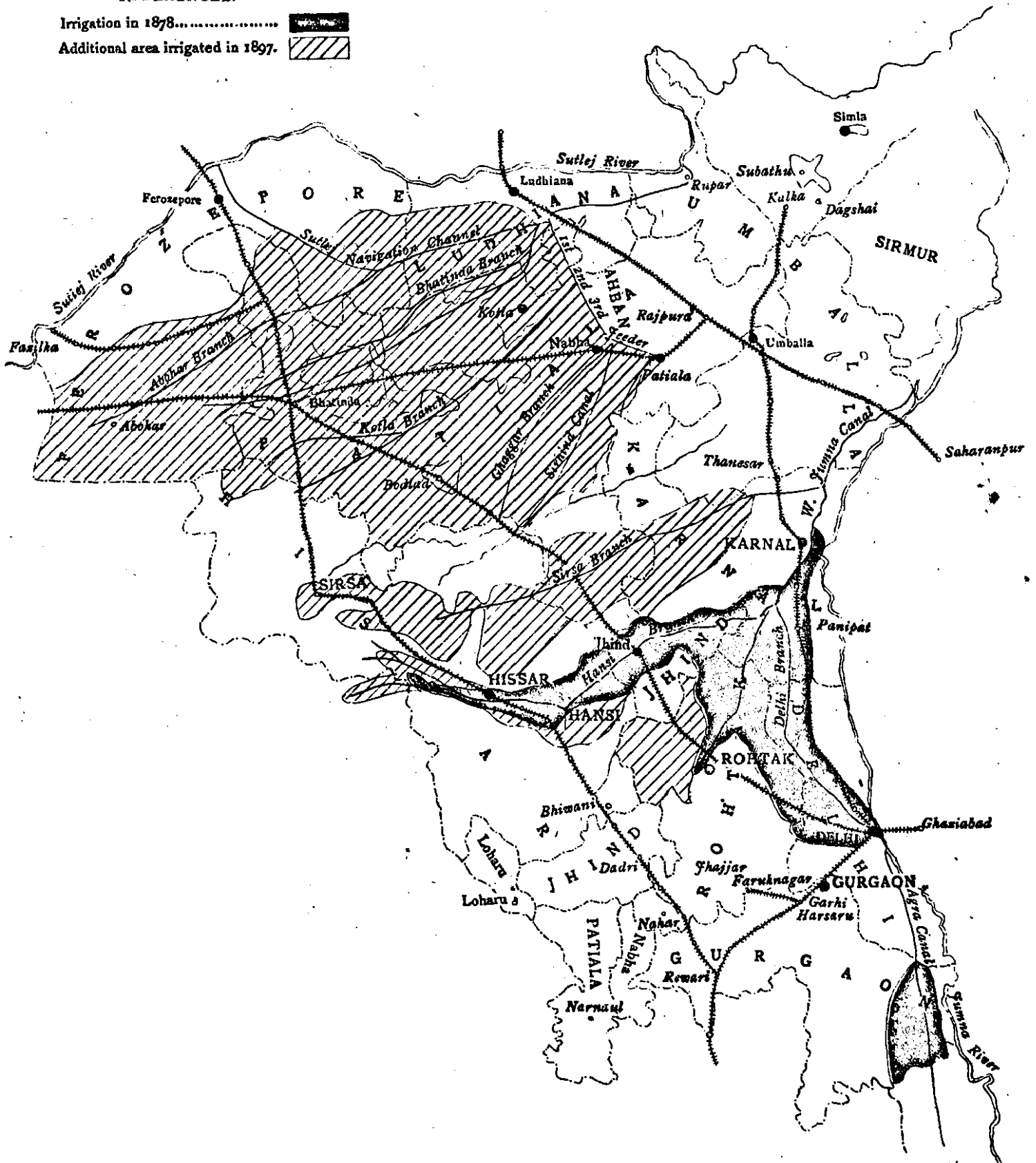
showing Irrigation in 1878 & 1897.

*Scale 1 Inch = 32 Miles.*

**REFERENCES.**

Irrigation in 1878..... 

Additional area irrigated in 1897. 





District could be rendered altogether secure from famine by an expenditure of six lakhs. It is believed that both in Rohtak and the eastern portion of Hissar the Western Jumna Canal distributary system can be further extended. The effect of the Ghaggar Canals will be not so much to extend the area of crops as to improve the very rough and ready system heretofore in vogue of utilizing the Ghaggar floods during the rainy season. The northern portion of the old Sirsa District was in 1884 added to the Ferozepore District, and, as the map shows, is almost completely commanded by the Sirhind Canal. The district inundation canals command a portion of the remainder. Though the tract irrigated by the Sirhind Canal is almost entirely outside the Delhi Division, there can be no doubt that indirectly in many ways the effect of thus protecting so large an area adjoining our insecure districts has been to minimise the effects of scarcity in the latter, by increasing the area from which food supplies can be drawn, by putting a stop to immigration if not indeed opening a field to such migration of agricultural labourers as in times of famine always takes place between dry and canal villages, and generally by bringing into operation to the benefit of the less favoured districts the mutual inter-dependence of residents in adjoining tracts who, connected by ties of caste and marriage, are accustomed to render to each other assistance in times of calamity.

117. The circumstance that the effects of agricultural failure and scarcity in an insecure tract are thus mitigated by the introduction of irrigation into and reduction of the unprotected area in the surrounding tracts deserves to be specially noted in connection with the large Irrigation projects in the Punjab west of the Sutlej; for although the Chenab Canal, and the Jhelum Canal when constructed will not carry protection to existing insecure areas, the cultivation being in both cases almost entirely new cultivation in waste lands previously uncultivated, yet all such projects have a very high degree of protective value, and tracts like the Phalia Tahsil of Gujrat and the Sharakpur Tahsil of Lahore, when the Gugera Branch of the Chenab Canal and the Jhelum Canal have been constructed, will, though outside the area commanded by these schemes, probably never again require to be made the scene of famine relief works. In many ways the Chenab Canal has been of incalculable benefit during the present famine. The actual construction work afforded employment to large numbers, but the employment afforded by the canal works must have been small as compared with the employment offered by the settlers themselves,—by the capitalist and yeoman classes to tenants and by all classes including the peasant grantees to agricultural labourers of the *kamin* order. The unlimited supply of agricultural labour created by the famine must also have greatly benefited the settlers by enabling them to meet the initial difficulties of breaking up the jungle and bringing it under cultivation at reasonable rates for labour. Had there been any scarcity of tenants or *kamins*, it is probable that the progress made by the colonists would have been much less than it has been, and their prosperity would not have been so marked. This prosperity has undoubtedly radiated far and wide to all the districts from which the colonists and their dependents are drawn and by enabling the settlers to not only assist the folks left at home throughout the period of distress, but also in many cases to redeem from mortgage out of their profits the ancestral acres in the district from which they came, the Chenab Canal has had a beneficial influence which it would be impossible to over-rate. That such results would attend the extension of canal irrigation in the Western Punjab seems to have been very imperfectly foreseen by the Famine Commissioners, who in Part II\* of their report dealing with famine preventive measures, while recognising that the millions of acres now lying waste in the west of this Province might one day be drawn upon to feed India, were evidently not very hopeful that colonization of these areas could be effected otherwise than as a gradual process depending upon the growth of population. What they say is:—

The policy to be pursued with a view to accomplishing this object should, we think, be to extend the inundation canals in these districts by degrees, gradually increasing their scope with the increase of population, but keeping in view their eventual transformation into perennial canals. It is the construction of head works, weirs, aqueducts and locks which makes irrigation so costly, and these should be postponed until an increase of population and cultivation warrant the expenditure which they involve.

\* Page 155.

That it is a mistaken policy from an engineering point of view to commence a large canal of this description as an inundation canal is now fully realised. It has perhaps not yet been realised that the anticipations with reference to which it was recommended that the extension of irrigation should be gradual only need no longer be entertained.

118. The following statistics for the Province as a whole relating to the area of irrigated crops as shown in the returns supplied to the Famine Commissioners in 1878 and as reported for the agricultural year 1896-97 indicate more precisely the extent to which the area of protection has been extended during the past 20 years. It should be observed, however, that whereas under present regulations only harvested crops are brought to book, there was no corresponding system in 1877-78 of excluding and making allowances for failed areas in the crop returns. Thus the increase in protected area is in reality greater than the figures would indicate:—

Source of irrigation.		1878.	1897.	+ Increase. - Decrease.
		Acres.	Acres.	Acres.
Canals belonging to Government ...	Perennial ...	698,839	2,614,900	+ 1,916,061
	Inundation ...	779,122	1,118,367	+ 339,245
Private, District Board and Local ...	...	397,131	563,679	+ 166,548
Total Canals ...		1,875,092	4,296,946	+ 2,421,854
Wells ...	...	3,176,074	4,006,984	+ 830,910
Tanks and Ponds ...	...	143,236	27,927	- 115,316
Other sources ...	...	441,384	358,558	- 82,826
Total Irrigation ...		5,635,786	8,720,408	3,084,622

The details for districts will be found in Statement No. II B. The following figures will show the localities in which canal irrigation has extended:—

Canal system.	Districts irrigated.	AREA OF CROPS.		
		1878.	1897.	Increase.
		Acres.	Acres.	Acres.
Agra Canal ...	Gurgaon District ...	22,056	92,085	70,029
Western Jumna Canal ...	Umballa, Karnal, Rohtak, Delhi and Hissar Districts.	364,821	550,651	195,830
Sirhind Canal ...	Ludhiana and Ferozepore, and a small portion of Hissar.	...	630,002	630,002
Bári Doab Canal ...	Gurdáspur, Lahore, Amritsar ...	311,962	653,442	341,480
Chenab Canal ...	Gujránwála and Jhang ...	...	333,654	333,654
Kabul River Canal and Swat Canal.	Pesháwar ...	...	155,066	155,066
Total Perennial Canals ...		698,839	2,614,900	1,916,061
Ferozepore Inundation Canals ...	...	41,469	66,801	25,332
Mooltan Government Canals including Sidhnái ...	...	334,567	427,059	92,492
Montgomery Canals and Upper Sutlej Canals—Lahore ...	...	79,886	170,147	90,261
Dera Gházi Khan Canals ...	...	150,000	166,809	16,809
Muzaffargarh Canals ...	...	209,081	294,914	85,833
Bannu and Dera Ismail Khan Canals ...	...	126,000	212,468	86,468
Pesháwar District Canals ...	...	165,324	169,874	4,550
Shahpur (Government and Private) Canals ...	...	52,000	72,000	20,000
Hoshiárpur (Shah Nahr and Private) Canals ...	...	5,619	20,893	15,274
Other Private Canals ...	...	12,307	81,081	68,774
Total Inundation Canals ...		1,176,253	1,682,046	505,792
GRAND TOTAL ...		1,875,092	4,296,946	2,421,854

The increase in irrigation amounts to 54 per cent. If the quality of the irrigation be considered, the improvement is much greater, as the above increase

is the net result of an increase in the canal and well irrigated area and a decrease in the area irrigated from tanks and other sources. Some of the latter irrigation, especially in the Umballa, Karnál and Gurgaon Districts, would probably now be classed as *sailáb* or inundated.

119. The Government of India have asked for the opinion of this Government as to whether in the present famine the people have shown increased resources and more resisting power than in previous famines of like severity. The facts and statistics just recapitulated may be taken as evidence of the fact that at any rate a larger proportion of the people are protected from famine, and thus it can be said of the population in the aggregate that their ability to resist famine has increased.

120. A matter which cannot be passed over unnoticed in this connection is the enormous increase in the capital resources of the agriculturists, and consequently in their power to raise loans for temporary emergencies, which has resulted from the marked rise in the value of agricultural land, which has taken place within the past 20 or 30 years. Whatever opinions may be held as to the political and economical dangers arising from the sale and mortgage of land by agriculturists to money-lenders, there can be no doubt of the fact that this free trade in land has had a large share in enhancing its value to the extent to which such enhancement has taken place, and has *pro tanto*, apart from other considerations, added enormously to the capital and credit of the agricultural community in the aggregate. The average selling value of land in the Province for the five years ending 1873-74 was Rs. 14 per acre; for the three years ending 1876-77 it was Rs. 19 per acre; for the five years ending September 30th, 1896, it was Rs. 59\* per acre. This means that during the past 20 years the capital represented by the proprietary right in land, even if we consider only the 21 million of acres shown as cropped in 1877-78, has during the past 20 years increased in value by Rs. 84,00,00,000 (Rs. 40 per acre for 21 millions of acres) equivalent to £56,000,000.

121. In Chapter III it has been shown that the additional borrowings on the security of land which may be regarded as due to the famine and scarcity amounted to about 100 lakhs. The inquiry was put to the District Officers from whom famine reports were called for—What would have happened had land not been alienable? In general the answer to this question was either that the relief works would have been swamped or that the zamíndárs would have starved. No doubt both answers are in a measure correct. There are some land-owners who consider it a degradation to appear on relief works and who, as observed by Captain Beadon and Mr. Meredith, would have preferred starvation to that alternative. In the opinion of the former officer the results would have been disastrous had credit been thus restricted. The Deputy Commissioner of Karnál considers that the relief works would have been swamped. The Deputy Commissioner of Umballa says that there would have been a rural tumult and large crowds would have turned out to demand relief either by fair means or foul. In Gurgaon there was no increase in alienations due to the famine,—rather the reverse,—as the greater part of the district benefited by high prices and land was redeemed, so the Deputy Commissioner gives no answer to the inquiry. The Deputy Commissioner of Gujráť (Sirdár Muhammad Afzal Khán) says that had land not been alienable “the zamíndárs would have felt the pinch of distress seriously and would not have been able to borrow to tide over the hard season.” Captain Dunlop Smith’s answer will be found on page vii of Appendix I. Land alienations have never assumed serious proportions in Hissar. In fact the proportion of the area alienated in this district is less than in any district of the Province, a circumstance which is due to the fact that land in Hissar is comparatively of small value and the desire for acquisition on the part of capitalists is not strong. The additional alienations due to famine in this district, though large as compared with the annual district average, are absolutely small, and Captain Dunlop Smith’s view, that if land had not been alienable in Hissar the results would not have been very serious, is no doubt true. It is rather for the districts which have

\* For the year 1896-97 it rose to Rs. 72 per acre.

resisted famine entirely—those in which no State relief was given—that the consideration of the question is important. If the hypothesis (see page 27) is correct that the additional borrowings on the security of land due to the famine amounted to 100 lakhs, it seems to be a fair conclusion that had not this credit been available, either large numbers of persons would have starved, or the enormous additional expense represented by the above figures would have been entailed upon the State. It is a problem of political ethics, which perhaps has never been faced, whether the State, in addition to providing sustenance in famine for the absolutely destitute, ought also to undertake the expense of feeding the peasant proprietors as a consequence of and in order to further the operation of a law prohibiting the alienation of their land. Without discussing further a subject which may give rise to many questions of controversy, it may unhesitatingly be said that the resources and resisting power of the people in this famine have undoubtedly increased since previous famines as a consequence of the increased capital value of land and the enhancement of credit resulting therefrom. Of course these increased resources and consequent increased resisting power remain with the agriculturist only just so long as the land remains with him, and though free trade in land may be beneficial in times of famine, so far as immediate interests are concerned, it may in relation to permanent interests be distinctly detrimental and calculated to reduce the powers of resistance against famine. This is a consideration which must be weighed before arriving at any conclusions of value on the subject of the relation of the alienation of land question to famine policy.

122. The Deputy Commissioners of the famine districts were asked to give instances evidencing the increased resisting power of the people as compared with previous famines. The most noteworthy circumstance which distinguishes the present from previous famines in this respect is the fact that three harvests failed before relief works were commenced in the majority of districts; whereas, as has been noticed in the foregoing account of the famines of 1860-61, 1868-69 and 1877-78, the pronounced failure of one monsoon has on previous occasions been sufficient to bring the country to the verge of famine. Other points which have been noticed are the general absence of vagrancy and aimless wandering of the people which characterized previous famines. It is true that in Hissar at the very worst period of the distress a tendency to wander exhibited itself, but it did not last long. Some trouble was at times caused by the immigration of Bikaneris who flocked to the Ghaggar Canal works at first, and penetrated to Ferozepore and through the Bahawalpur State into Mooltan, Montgomery and Lahore, but measures were taken to secure their return. They never reached Umballa as in previous famines, and generally the administration has been less inconvenienced by this cause than in any other period of famine. In the Delhi Division generally the Commissioner calls attention to the entire absence of grain riots and similar disturbances. The Deputy Commissioner of Rohtak has been impressed by the courageous way in which the people braced themselves up to counteract the effects of famine and worked their wells day and night to extend the area of crops. Mr. Connolly, Deputy Commissioner of Karnal, says that it is the decided opinion of all the leading officials and non-officials in Karnal that the powers of resistance shown by the people have most markedly increased since former famines. Everywhere it must be admitted that the small proportion of zamindars among the relief work labourers affords testimony to the resources to the agricultural community. As regards non-agriculturists and townspeople, the way in which they have managed to maintain themselves in the face of a rise in price of food grains which has been unparalleled in previous famines is truly remarkable. Industrial development, as observed by the Deputy Commissioner of Hissar, is the direction which any famine preventive measures applicable to these classes must take. The Punjab is backward in this respect, but there are not wanting signs that the spirit of commercial enterprise is abroad, and in the case of those industries which are connected with agriculture, as being concerned in the manufacture and conversion of its products, there is much promise of growth and development.

## CHAPTER XI.

### Concluding Remarks.

123. In the foregoing chapters every effort has been made to confine the review of the famine administration in this Province to a narrative of the actual facts, together with such comments as are directly suggested by the collation and comparison of the results reported from the several districts and the opinions of the several reporting officers. There are many debateable points of famine policy, many suggestions for amending the Famine Code, not only in matters of minor detail but also in regard to the main principles of famine relief, which have meanwhile been brought to the notice of Government, and the discussion of which would be beyond the scope of the present Resolution. Opinions have, it is true, been expressed in the preceding chapters on various questions connected with relief administration, but these opinions are only intended to represent the present views of Government formed upon a consideration of the facts, statistics and opinions hitherto brought under review. The inquiries of the Famine Commission, which visits the Punjab about the beginning of April for the purpose of receiving evidence from witnesses, both official and non-official, who have been connected with famine administration, will more appropriately form the basis of whatever changes in the Code system of relief it may eventually be decided to adopt. Furthermore, though experience within the Province itself is, for the purpose of amending the Provincial Code, more valuable than experience in other parts of India, where conditions differ in many respects, it is only reasonable to suppose that many of the useful lessons taught by the events of the past famine in the Provinces in which relief measures were carried out on a very much larger scale will be found deserving of consideration when we come to amend our Provincial Code. These remarks the Lieutenant-Governor thinks it desirable to make, as he does not wish it to be understood that this Government is finally committed to the views on debateable points set forth in this Resolution, nor does he desire in any way to prejudice the free expression of opinion by those who may be called upon to give evidence before the Famine Commission.

124. Such being the scope of the present report, the Lieutenant-Governor will abstain from making any proposals or suggestions for the future, but His Honor will here say this much that he is entirely in accord with those officers who on the principle that prevention is better than cure assign the place of importance in any discussion of future policy to famine preventive measures. That the Punjab was not overwhelmed by a calamity such as visited the adjoining Provinces is largely due to the recognition in the past of this principle, and the present famine will not have been an unmixed evil if it leads to the further recognition by those charged with the supreme administration of the country of the importance of pushing forward the construction of irrigation works in the Punjab. The large perennial canals, even in the west of the Province, as explained in the last Chapter have an influence for good extending far beyond the area they irrigate, and the difficulties anticipated by the Famine Commissioners in connection with the development of colonization in the waste lands commanded by such canals may be regarded as having now been surmounted with the success of the Chenab Canal, the great increase in the value of land and the confidence in Government and its measures thereby established. But in addition to the large perennial canals there are several projects of smaller scope which offer great promise as regards both the financial results and the material benefits to agriculture likely to be secured if they are undertaken. The Local Government, however, has, from want of funds, seldom been in a position to carry out any such irrigation works. The financial policy regulating the quinquennial contracts with Local Governments proceeds on the basis of allowing only for *necessary* expenditure to which Government already stands pledged and for a small additional outlay on new roads and buildings. Productive public works such as irrigation canals can thus only be taken up if the quinquennial contract proves to be a good bargain for the Local Government, and a surplus accumulates towards the end of the term. Unfortunately such



surpluses have not accrued under recent contracts, and thus with perhaps the notable exception of the very successful Kabul River Canal in the Pesháwar District it has not been possible for the Local Government to undertake what it conceives to be desirable in the direction of extending irrigation to unprotected tracts. It may be mentioned specially that there are parts of the Umballa and Karnál Districts in which a systematic survey of the various hill streams and torrents would, it is believed, lead to the formulation of advantageous irrigation and drainage projects, much required in this part of the country. Other schemes in a more advanced state are only awaiting the provision of funds for their inception. District Boards have, it is true, powers in this matter, but the finances of many of them have been crippled by famine expenditure, and few of them could afford any project that was not a comparatively small one. Possibly the ordinary growth of revenues, if seasons are favourable, will admit of a more hopeful attitude being assumed by the Local Government towards all such projects, but, unless special provision is made in the matter by the Government of India, progress must necessarily be very slow.

125. It remains to notice the good services rendered alike by officials and non-officials in the common cause. It has already been stated that out of the contributions to the Provincial Branch of the Indian Charitable Relief Fund Rs. 3,17,884 were raised within the Province itself. Sir Mackworth Young considers that this is a very munificent contribution for so poor a Province as the Punjab. The liberality of some of the leading Ráises and native gentlemen has been most praiseworthy, but the spirit of charity, His Honor learns, pervaded all ranks of society down to the lowest, and the above-mentioned sum which was brought on the books of the Provincial Committee must fall very short of the sum total of charitable effort in the Province. It was in the distribution of the charitable funds that non-officials in this Province rendered such valuable services, and in the arrangements for the administration of the various forms of gratuitous relief under the Famine Code Government often found it necessary to join hands with and enlist the services of the local charitable organizations. Allusion has been made in Chapter VII to the excellent work rendered in this connection by Miss Theobald of the Baptist Mission, Bhiwáni, and by other Missionary ladies. The Revd. S. S. Thomas of Delhi as well as the two Secretaries of the Delhi Relief Fund, Lála Jugal Kishore and Khán Sáhib Muhammad Hassan, are also specially mentioned. The district reports now under review, however, do not cover the operations of the Relief Fund Committees, which moreover were not confined to the districts here treated as famine districts. Reference is accordingly invited to the Report of Mr. C. H. Atkins, C.S. where the work of non-officials in this branch of famine relief operations, is more fully noticed. To Messrs. Masson and Atkins who as Joint Secretaries of the Provincial Relief Committee controlled, under the guidance of the Committee, the expenditure of a sum equal to half what was spent on Government relief measures, the thanks of the public and of Government are due.

126. As regards officials, Sir Mackworth Young fears that because our relief operations in this Province are overshadowed in importance by the immense scale on which famine relief measures have been carried out in other parts of India, it will never be realised, as it ought to be, that there are Punjab officials who have acquitted themselves in a manner deserving of equal commendation with that bestowed on similar good service rendered in other Provinces. No officers, His Honor believes, in any part of India could do more than was done, for instance, by some of those connected with relief operations in Hissar.

The climatic conditions in the Punjab, especially in the hot weather, are as severe, and in Hissar probably more severe than in any other part of India, and to have carried out successfully in the face of such conditions, without in any case the guidance of previous experience, the operations of relief described in the previous Chapters is a task of which those concerned may well be proud.

The district reports contain the names of many officials, European and Native, who are deserving of commendation for good work. These lists are somewhat long, but the Lieutenant-Governor considers that good work should be acknowledged as publicly as possible, and accordingly it is proposed to notice the services of those mentioned, both officials and non-officials, by a separate Resolution to be published in the *Punjab Government Gazette*. Meanwhile it may be mentioned that in respect of the specially arduous character of the work which fell to them and the excellence with which it was performed the following officers are deserving of special mention :—

*In the Civil Department.*

Mr. R. Clarke, C.S., Commissioner, Delhi Division.  
 Mr. M. W. Fenton, Revenue Secretary to Government.  
 Captain J. R. Dunlop-Smith, Deputy Commissioner of Hissar.

*In the Public Works Department.*

Colonel S. L. Jacob, Superintending Engineer, Western Jumna Canal.  
 Mr. H. C. Granville, Executive Engineer, Jhelum Canal.  
 Mr. C. J. Floyd, Executive Engineer, Ghaggar Canals.  
 Mr. G. C. Wakefield, Assistant Engineer, Ghaggar Canals.

Captain Dunlop-Smith has submitted a report on the famine in his district which, as may be inferred from the extracts in Appendix I, is of unusual excellence.

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ORDER.—Ordered, that the foregoing Resolution, with the Appendices, statements and maps referred to therein, be communicated to the Government of India in the Revenue and Agricultural Department; also that copies be forwarded to the Secretary to the Indian Famine Commission; also that it be circulated as usual.

By order of the Hon'ble the Lieutenant-Governor,  
 M. W. FENTON,  
*Revenue Secretary to Government, Punjab.*



For the week ending:—

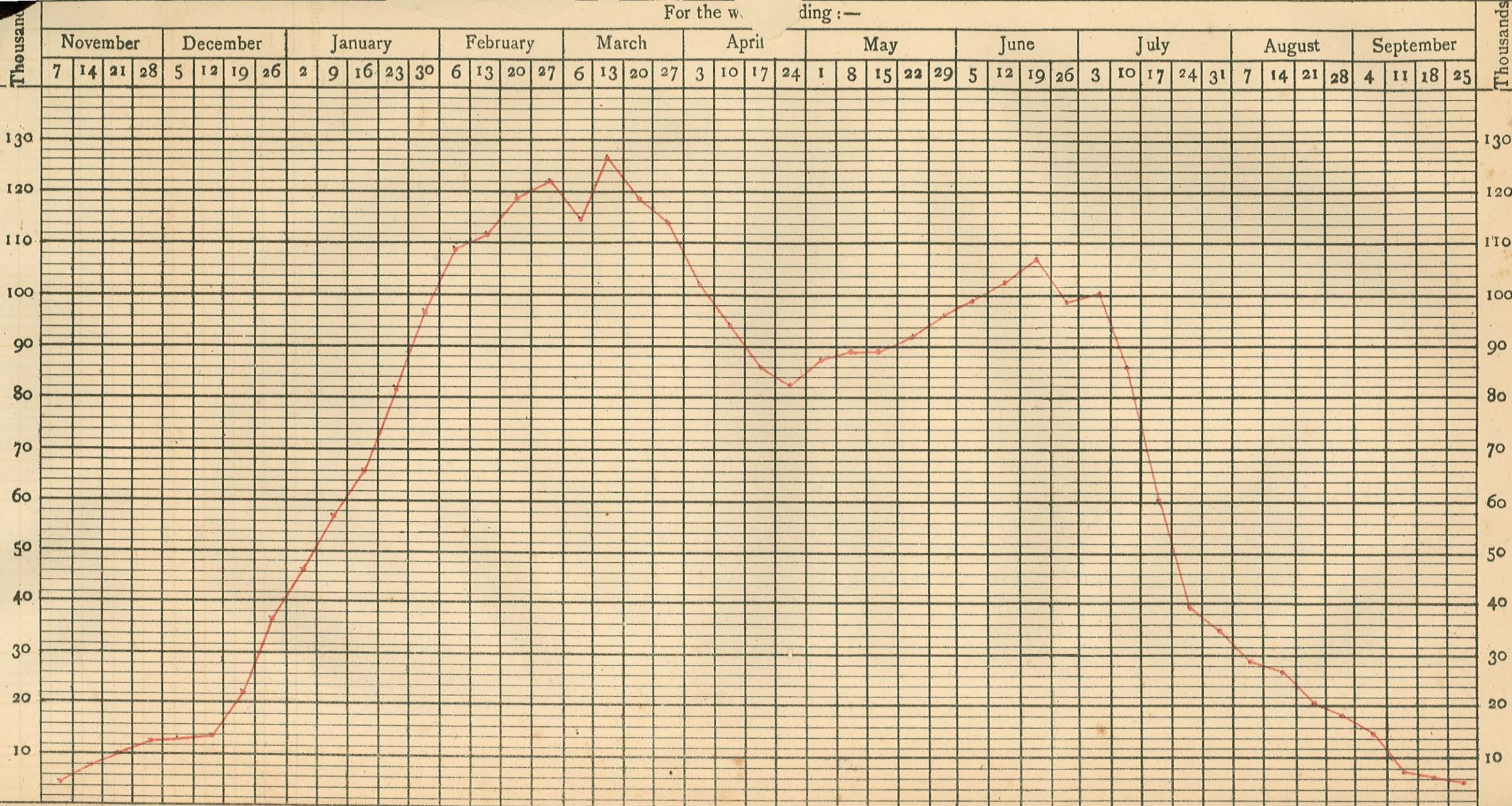
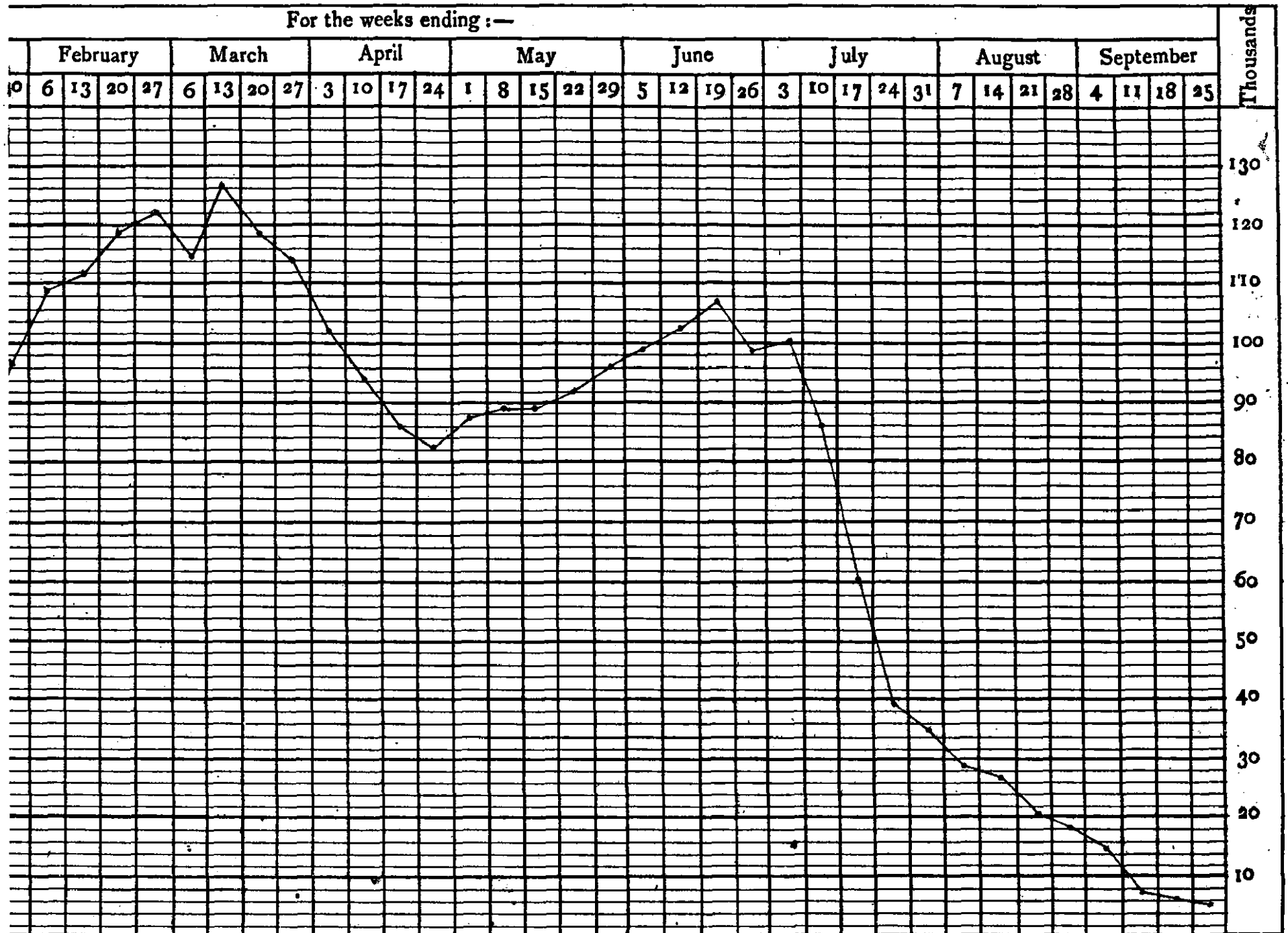




Diagram showing the weekly average numbers on relief from November 1896 to September 1897.



## APPENDIX I.

### Extracts from District Reports.

NOTE.—*Except where other names are given, the following extracts are taken from reports or opinions of the following officers :—*

*HISSAR.—Captain J. R. Dunlop-Smith, Deputy Commissioner.*

*ROHTAK.—Captain G. C. Beadon, Officiating Deputy Commissioner.*

*DELHI.—Captain H. S. P. Davies, Deputy Commissioner.*

*KARNAL.—J. F. Connolly, Esquire, c. s., Officiating Deputy Commissioner.*

*UMBALLA.—Captain C. G. Parsons, Deputy Commissioner.*

*FEROZEPORE.—C. M. King, Esquire, c. s., Officiating Deputy Commissioner.*

*LAHORE.—A. Meredith, Esquire, c. s., Deputy Commissioner.*

## HISSAR.

From the 1st of May till the 15th of October barely  $3\frac{1}{2}$  inches were registered at head-quarters. The result of these five months of burning heat, varied only by light storms, local in their incidence and capricious beyond the worst traditions even of Hissar, need hardly be described. The following table shows the unirrigated areas sown and cropped during the last 4 years:—

1				2	3	4	5
Season.				Acreage sown.	Acreage matured.	ACREAGE FAILED.	
						Actual.	Per cent. on Column 2.
				Acres.	Acres.	Acres.	
Kharif 1893	...	...	...	1,513,795	1,255,144	258,653	17
" 1894	...	...	...	1,435,467	933,800	501,667	35
" 1895	...	...	...	1,422,578	251,614	1,170,964	82
" 1896	...	...	...	1,269,372	175,631	1,093,631	86

Thus the combined matured areas of the last three years were actually less than the average annual area sown during the same period. The failed area in 1896 was nearly nine-tenths of the whole area sown, and; to make matters worse, the actual yield per acre of matured crops was abnormally light. Most of the jowar and one-third of the bajra were only fit for fodder.

\* \* \* \* \*

The *output* of 1895-96 according to the area statistics was reduced to barely 20 per cent of the district average, and that of the following year sank as low as 15 per cent. It would be superfluous therefore to look for other causes of the calamity. But other causes, chiefly economic, have been suggested. Those which arise solely from the one main cause of drought as, for instance, the disorganisation of the agricultural labour market, do not merit discussion. But it has been alleged that the severity and rigidity of our land revenue laws are responsible for precipitating distress which would ordinarily be avoided under a more elastic system. An argument of the kind cannot apply to Hissar, where the assessments have been uniformly light and have worked with great smoothness. The best proof of this is the fact that the relief works were not attended by any large number till nearly six weeks after they were opened, by which time famine had been in existence for nearly six months.

## LAHORE (Sharakpur.)

(LIEUTENANT C. P. DOWN, ASSISTANT COMMISSIONER.)

The actual rains of 1895 ceased very early, with the result that the kharif crop of that year in the greater portion of the tahsil withered before it was ripe. From the same cause a scarcity of fodder, especially grass, began to be felt in the last three months of the same year. The inhabitants of a large portion of the tahsil, comprising portions of the Rohi and Kallarathi, and the whole of the Bar Circle, depend mainly on their cattle for means of subsistence.

only growing sufficient grain for their own requirements, and on these therefore at first the scarcity of fodder bore most heavily. In November and December 1895 the cattle in this part were suffering severely, and in January and February great numbers of them died of starvation, or were taken away by their owners to places outside the tahsíl. On the 31st January 1896 the Deputy Commissioner reported that "the people have left in large numbers with their cattle for the Chenab Canal and other part of the Province; several villages are entirely deserted in the northern part of the tahsíl \* \* \*

There is a great scarcity of fodder, the cattle being mostly fed on Sirkána grass cut into pieces and mixed with the leaves of trees. Two thousand three hundred and thirty-nine cattle are reported to have died in December 1895 and 1,882 in the first three weeks of January from starvation and exhaustion; only one-fourth of the living stock is fit for use, while the rest are quite unfit for work." In January this scarcity of fodder began to be felt in the greater part of the tahsíl, but more especially in the Kallara hi Circle and that portion of the Rohít Circle which lies west of the Grand Trunk Road. Cattle also died here in great numbers, and the inhabitants, in order to save the remainder, emigrated to other parts of the Province. The exportation and mortality of cattle began soon to tell on the prospects of the rabi crop, which, owing to the continued drought, were already very poor. In most villages only half the average area had been sown, and in many even less. The mortality and exportation of cattle caused the wells to fall out of work, and much of the standing crop, which would otherwise have been saved, perished for want of water. In order so save alive the few cattle that remained to them, the inhabitants were forced to feed them on the standing crops, with the result that in many villages virtually no rabi crop was harvested, and in the greater portion of the affected area only a very small percentage of the sowing. The kharif crop of 1895 having also failed by the end of February 1896, the inhabitants of the affected villages were left with very scanty means of subsistence and the poorer classes were almost entirely dependent for their support on the baníás. These latter, seeing their chances of repayment for some time to come to be small, became more and more chary of making advances, doing so only in return for mortgage of land, and in many cases refusing altogether. During February the scarcity of grain and fodder became more severe. The grain stores in villages were exhausted, emigration of people and mortality among cattle became more marked, and the general condition of the tahsíl was so bad that on the 26th February 1896 it was decided to start relief measures.

## HISSAR,

During the earlier period of relief operations I came across isolated instances of large grain reserves kept up by individual agriculturists, but I was not prepared for the revelation these figures make of the extent to which the rural population generally lay up their surplus stock against a time of scarcity. Statistics show that ordinarily whatever surplus food is produced is exported every year, and this custom was kept up till April 1895. Even after that the export trade went on, so that although only a little over half the food-grain required by the people themselves was harvested in 1895-96, the greater portion of that was sent away. In 1896-97 the outturn was only one-fifth of the normal, yet the net imports brought the total available for consumption up to less than half of what was required. In these two years there were, after deducting the net exports, only 2,490,347 maunds to meet an estimated demand of 7,760,060 maunds. The remaining 5,269,713 maunds must have come from the local reserves. When the famine began, therefore, the stores of the agriculturists and the dealers must have contained enough to feed the total population of the district for sixteen months. There is ample evidence that this valuable reserve is quite exhausted, and if the people wish to replenish it to the average standard, they will have to refrain from all exports and put by every surplus grain for the next five harvests. I am of opinion, however, that it will take at least five good years before the local stocks even approach their old figure.

## HISSAR.

Before the improvement in communications a succession of favourable years found the Hissar farmer with his grain pits full and a large store of unsaleable material on his hands. Since the introduction of the railway prices have steadied, a ready market for surplus commodities has been brought within the reach of every one, and, as the annual export returns prove, considerable additions have been made to the wealth of the district. No little progress also has been made in artificial irrigation both by improvements effected in the system of distributing water and the addition of fresh channels, so that not only is there now a much larger area secured against periodical drought, but the villagers, whose fields are commanded by the canals, have been enabled to grow more of the better paying agricultural staples. The results of these great changes are everywhere apparent. There has been a marked rise in the standard of living of all classes. Clothes are cheaper, and the single daily meal no longer contents even the lowest in the social scale. The village

hinds now generally insist upon a cash addition to their remuneration in kind and obtain it. \* \* \* \* \* This satisfactory progress in economic stability has, however, not been checked by those causes, such as the contraction of average holdings and the widespread increase of indebtedness, which have operated so powerfully in other parts of the Province. It has certainly been qualified by the intricacy and uncertainty of our elaborate civil procedure, but such qualification, though appreciable has hitherto been slight.

Another valuable means of lessening the liability of the people to famine is the development of industries other than agricultural. The importance of this subject has been long recognised, but till recently the profits have been largely reaped by foreign speculators. Signs are everywhere manifest now that Indian capitalists are beginning to recognise the industrial capabilities of the country. Within the last few years cotton mills have been opened in a few of the large towns of Hissar, and the trade in indigo has largely increased. This new departure has been successful in more ways than one, and not the least of its most cheering results has been the opening of a new field of labour for the menial classes. The permanent advantages gained by the spread of communications and the steady extension of other protective measures have naturally been confined almost entirely to the peasant proprietors and the tenants who possess fixity of tenure. The share enjoyed by the village menials has been restricted to certain additions to their daily food and comforts in ordinary times. Each period of scarcity has found them as incapable of resistance as they ever were, but as industries grow the demand for labour will extend and this numerous section of the community will become so much the more self-reliant and independent of outside aid. Emigration has been the chief outlet for the congested countries in Europe, but India's future prosperity will depend much more upon the growth of the industrial spirit among her people.

The question whether there has been any change in the mental and moral attitude of the people in the face of such a dire "visitation of God" is beset with much more difficulty, and the different answers will be necessarily coloured by the experience and the temperament of those who are called upon to state the results of their observation. Judging from the accounts of past famines and the patience and resignation displayed by much the greater part of the community under the recent calamity, I consider that if any change has taken place it has not been for the worse. The Government organisation for dealing with these emergencies is vastly improved and the people recognise the fact, but it must be remembered that famine prevailed over the greater part of Hissar for some months before that organisation was brought into play. During all that time no slackness in the people's powers of endurance and effort were observed, and there was an utter absence of anything like grain riots, violent crime and other manifestations of bitter impatience with their lot which one would naturally have expected them to display. The indigenous system of relief, judged according to Western ideas, is unsystematic, and when distress has passed into acute famine it may become pernicious, but it is, thanks to the institution of caste, both searching and efficacious in the beginning. The operations of private benevolence showed no signs of diminishing vitality in the famine now passed and demonstrated that whatever disintegration may have taken place in the village community in recent years the joint responsibility of the family and the caste has not been weakened.

### HISSAR.

As the hot weather wore on and tank after tank was taken in hand, all traces of the old feeling of distrust disappeared, and the complete absence of speculation or anything approaching to dishonesty on the part of the Lambardárs, who were in charge of these works, bears eloquent testimony to the deep and universal feeling of loyalty which the measures of Government evoked. On two other occasions similar manifestations of a thankful recognition of benefits received were observed. Few of those who shared in the bounty dispensed on the anniversary of the 60th year of the Queen Empress' reign appreciated the exact significance of the occasion, but the majority accepted it as a gracious indication of Her Majesty's interest in the humblest and most distant of her subjects, and surprised even those who understood them best by the warmth of their appreciation. Again, when the long deferred rain arrived, and the State, helped by private charity, came promptly forward to assist the cultivator in taking full advantage of nature's change of mood, the unique scale on which succour was given, and, in a less degree, the manner of its distribution, took the people quite by surprise. \* \* \* \* \*

I have no hesitation in saying that, whatever burdens and whatever risks the State may have incurred in fulfilling to the end its self-imposed task of standing between so large a section of the community and ruin, they have already been amply rewarded by the sentiments which they have called forth. Even should this opinion be not shared by others with the same opportunities of judging that I have had, there can be no contesting the broad fact that the efforts of Government have served both to manifest and nourish the sense of human sympathy between the rulers and the ruled.

\* \* \* \* \*



## ROHTAK.

(R. CLARKE, ESQUIRE, C. S., COMMISSIONER.)

Nothing has been more remarkable in the history of this famine than the increased power of resistance exhibited. There was no aimless wandering, no rioting or grain-looting, and no increase in crime that could be with certainty ascribed to the famine. The people never lost heart and the greatest confidence in the ability and willingness of Government to help them in every way. I believe the gratitude felt is real and will be long lasting.

The famine and the people.

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## FEROZEPORE.

I do not think that the people fully understood the motives of Government in regard to relief measures except perhaps in Moga, where they are somewhat more intelligent. There seemed to be a hazy sort of idea that the Sarkár was making use of the hard times to obtain work from the people at lower wages than they would ordinarily get. I am quite convinced that they did not understand the nature of the charitable relief, for I know that on one occasion when a man was told all about it and then asked if he understood, he replied by saying that he understood it, it was to enable Government to get the full revenue. Gratitude for the relief granted the people never showed.

Opinion of the people in regard to relief measures.

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As to the political effect, I doubt whether the relief measures had any in this district, and if there was any political effect, I should say that for the reasons I have just stated it would be distinctly hostile to the Government.

## KARNAL.

The portion of the Karnál District which was affected by famine comprises the tract known as the Nardak in the Karnál and Kaithal Tahsils and the Naili tract of the latter tahsil. \* \* \* The precariousness of its harvests is notorious, and failure of crops reaches the level of famine every seven years. The water level averages 80 or 100 feet below the surface, and in some it actually reaches 150 feet, which means that the cost of sinking wells is prohibitive, and men and animals alike depend for their drinking water on tanks filled by rain. Muhammadan Rájpúts, whose women are strictly secluded and consequently render no help in agricultural operations, form the predominating caste \* \* \* The Rájpúts or Ranghars as they are called are lazy and proud, and they look upon manual labour as derogatory, and much prefer the care of cattle, whether their own or other peoples, they being cattle-lifters by ancestral profession. In the Naili tract, of which Játs, Gujars and Ranghars are the chief cultivators, distress may be said to be chronic. The tract has been well said to fluctuate between drought and drowning: in years of heavy rainfall it is subject to the inundations from the Ghaggar and Sarsuti, and owing to an uncontrolled rough-and-ready system of irrigation, by placing dams across the beds of these streams and forcing the water over the banks, a great deal of water-logging and swamping results in wet years, in consequence of which the people have been literally decimated by fever and pneumonia. In dry years this system of irrigation cannot be practised. The result is that years of drowning are preferred to years of drought, as in the former case a bumper rabi generally follows a bad kharif, while in the latter there is neither kharif or rabi to speak of. The condition of the Naili has been a standing disgrace to us for years, as it could be improved out of recognition by a judicious expenditure of two or three lakhs of rupees on schemes which would be at once drainage and systematic irrigation, while an expenditure of some six lakhs would render the whole district secure.

What was most remarkable about the recent distress was the entire absence of hungry vagrants whose movements were a constant source of trouble in previous famines. What was also remarkable was that not a single death from starvation was reported in the district. Except at the very beginning of the famine, no excitement prevailed; at no time during it were there signs evident that grain riots were likely to occur; people accepted the position with resignation, and, when prices were highest, a palpable calm prevailed everywhere. Many of those on relief works wore their silver ornaments. All this leads me to believe that the power of resistance to famine must have considerably increased, and this is the opinion of all leading officials and non-officials whom I have talked to on the subject.

Power of resistance of the people

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DELHI.

I am of opinion that considerable power of resistance has been shown. As far as I can gather from past history a succession of bad harvests, such as have occurred in this district, would formerly have led to great loss of life and probably to great restriction in cultivation. As neither of these have taken place, it is evident that the power of resistance has increased. But it is also known in the district that from kharif 1896 the people fearing a famine began to lessen their expenditure and to save up their grain. To a certain extent they prepared to meet famine, while as far as I am aware they have generally simply resigned themselves to events.

Resistance to famine.

UMBALLA.

The experience of this famine teaches that a District Officer of Umballa may, in future, as long as general agricultural conditions remain what they are, not be disturbed about the necessity for important relief works if all grains rise to a price of about a rupee for 10 seers as long as a fall in price is expected reasonably soon. He can keep the kamins going with tanks, and the zamindars will not turn out for relief works. Even if grain was only obtainable at 8 or even 6 or possibly 5 seers, only those zamindars would turn out who have completely exhausted their credit, but of course the number of kamins on works would swell largely. If, on the other hand, a famine should occur when the mass of the zamindars have got so much into the clutch of the Banias as to have minimised their credit, then the condition of things will be altered, and work would be required for zamindars as well as kamins. To this stage the majority of the zamindars are progressing, as has been reported for many years.

General conclusions.

\* \* \* \* \*

But I can confidently say that the power of resistance displayed by the kamin classes unaided by anything but nature is remarkable, and that the zamindar aided by the Bania shows equal power of resistance. The kamin, when famine sets in, relies largely on the wild produce of the fields to supplement what he can otherwise obtain, and the zamindar draws upon his credit. Thus both know exactly what to do when famine sets in, and they are often a good deal less perplexed than the authorities. They have a hard time it is true, but they do not expect the Government to play the role of Providence, \* \* \* I am forced to conclude that even if we had started no relief works at all the death-rate would have remained quite normal.

There are in this district perhaps peculiarly large numbers of the menial classes, like chamars, &c. There are at some rural centres large colonies of them. This is due probably to the existence of so many Rajput land-owners in the district. Rajputs, Gujars and Jats form about 10 per cent., 5 per cent. and 17 per cent., respectively, of the rural population of the tract in question, and the Gujars are, generally speaking, as averse to manual labour as the Rajputs. Hence it is that there are large numbers of field-helpers in this district who are more or less permanently resident. When scarcity occurs these people have a peculiarly bad time. They get help hardly anywhere and live on the worst of food. The Banias naturally will not help them, and the zamindars, afraid on their own account, will not. They find closed doors everywhere. \* \* \*

But the rabi period of 1897 belongs to the time when "famine" was declared. What led to "famine" being declared was the want of opportunity to get the rabi 1897 seed in at the proper time in the face of the fact that the previous kharif had been inferior and the previous rabi bad. In fact a bad rabi succeeded two previous consecutive bad harvests.

A famine of prices.

Still the calamity was hardly sufficient to have caused a "famine" in itself. Umballa, for instance, did not have such a bad kharif (1896). What really caused the call for reports under Section 43 of the Famine Code about October 1896 was the state of the grain market all over India. Wide-spread crop failures in Presidencies and Provinces no longer disconnected by want of channels for grain circulation had caused almost universal famine prices for grain to be quoted in all markets. It was this fact which rendered most serious a drought which, as far as Umballa is concerned, might otherwise not have been greatly felt. Had prices remained at all reasonable, there would have been little outcry. The kamins would have rubbed along, and the zamindars, whether they got in crops or not, would have easily borrowed enough to tide over the crisis. This is what they actually did do after all, though with some difficulty in many cases owing to the Banias being chary of lending sufficient. The "famine" was in great measure a "famine of prices." \* \* \*

## FEROZEPORE.

(LIEUTENANT-COLONEL C. F. MASSY, COMMISSIONER.)

The so-called famine was in reality only a severe strain upon the poorer classes, caused partly by a poor *rabi* and a bad *kharif* in 1896 on the unirrigated areas, but mainly by a sudden and abnormal rise in the prices of food-grains, beginning in September 1896. The sudden rise was due, not to short supplies in the district, but to high prices prevailing in the North-Western Provinces, leading to large local exports. The holders of stocks anticipated that the *rabi* of 1897 would be a failure, and that the prices would rise still higher. In Ferozepore City the dealers formed a "ring" which had the effect of raising the rates in all the neighbouring grain centres. The suffering was therefore mainly due to the forcing up of prices, which could not have happened had the rain failure been only local. The land-owning classes generally stood the strain without difficulty. The Jât Sikhs showed the greatest power of resistance. They got rid of their bad cattle and carefully tended the stronger animals. The poorer and thriftless Muhammadan owners in the Sutlej *bet* felt the strain most; but even amongst them very few had resort to the relief works opened under the Famine Code. The worst sufferers were the poorer classes in Ferozepore City, and the *kamins* or village servants in Tahsils Zira, Ferozepore, Muktsar and Fázilka.

\* \* \* \* \*

## LAHORE (Sharakpur.)

(LIEUTENANT C. P. DOWN, ASSISTANT COMMISSIONER.)

There were two main causes which tended to mitigate distress and scarcity among the people—

Causes which mitigated the distress.

- (a) The smallness of the affected area.
- (b) The comparative prosperity of the surrounding country.

Only a little more than half of the Sharakpur Tahsil was really affected by acute distress, so that many people were able to obtain employment in the adjacent districts, thus lessening the numbers for whom work had to be provided. Numbers left the tahsil in the first three months of the year and obtained employment under contractors on the Chenab Canal. Many, too, found work quite close to their homes in Lahore City.

\* \* \* \* \*

## LAHORE (Sharakpur.)

(THE HON'BLE MR. RIVAZ, FINANCIAL COMMISSIONER.)

The report seems to the Financial Commissioner to show that the people were not pressed so hard by inability to support themselves without relief works as to induce them to leave their homes for a famine camp. The works were ultimately closed when the workers refused to go some 10 or 15 miles to labour on the Gugera Branch of the Chenab Canal. It is true that rain fell about the time of the closing of the works, and agricultural operations again afforded employment, but it seems probable that, even without rain, no large number would have gone to Gugera. Their proximity to the homes of the people, and the fact that relief was obtained on easy terms, a full day's pay being earned by less than a full day's work, doubtless induced many to resort to the works who would not have done so in other circumstances, and would either have supported themselves at home or found work under contractors.

The condition of the Sharakpur Tahsil must undoubtedly remain unsatisfactory for some time after scarcity has passed away. The people are already indebted deeply to money-lenders, and to Government, and cultivation cannot be fully resumed till the emigrants return, and further heavy debts are contracted for the replacement of lost cattle, the repair of wells and other objects. The Code directs attention to the importance of advances and other measures for the assistance of the population in recovering from the after-effects of famine, and due regard will be had for the necessity of liberality in granting suspensions and remissions. This, however, is not the place in which to consider the future of the tahsil, and nothing more need be said about it at present.

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## LAHORE.

\*\* As far as can be judged from circumstances, the people have borne the effects of famine calmly and have shown considerable pluck and energy in resisting it. In Sharakpur, where matters were worst, the people emigrated, and anything like severe distress was averted. It must, however, be remembered that as a whole the famine in this district has been a fodder famine, and has made itself chiefly felt in loss of cattle. There were no disturbances of the peace which could distinctly be traced to famine although the scarcity prevailed for a long period.

Power of resistance displayed by the people.

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The people generally have shown themselves grateful for the assistance rendered them. Expressions of loyalty and good-will to Government are not wanting among the zamindár class ; in the town things are taken more as a matter of course.

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## KARNAL

Private charity was universal. In September, when the rapid rise of prices began, two of the Mandal Chiefs, Khán Shamsheer Ali Khán and Rustam Ali Khán, purchased 5,000 rupees worth of wheat and gram, and a cheap shop was opened at which it was sold at cheaper rates to the poorer classes generally. The 'Bháí of Arnauli fed the poor of his village daily, and many Baniás in villages did the same. The well-to-do Ranghars in the canal tracts received in their houses large numbers of their fellow-tribesmen from the distressed area and shared their grain with them. Indeed the well-to-do showed practical sympathy with the famine-stricken people everywhere.

Private charity.

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## JULLUNDUR.

(LIEUTENANT-COLONEL C. F. MASSY, COMMISSIONER.)

It is the habit to cast stones at the Bania, for whom no one has a good word to say. I had, however, scores of cases brought to my notice of large and liberal gifts of money and grain, and of well-organized private daily relief, made by money-lenders and traders to the poor of every denomination : and, but for this wide-spread action on the part of benevolent individuals, I do not think any of the districts in this Division, except Kangra, would have been able to meet the requirements of the poorer classes without applying the provisions of the Famine Code.

Attitude of the Bania.

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## HISSAR.

It is not always easy to estimate what would have happened in any particular contingency had one factor or another been eliminated, and I am not prepared to say, with confidence, what the results would have been had land not been alienable.

What would have happened had land not been alienable.

During the two years of 1896 and 1897 it may be assumed from the statistics of transfers given above that 26,000 acres were alienated in one way or another which would have remained in the possession of their original owners had it not been for the famine. This total has been obtained by deducting twice the average annual net area sold and mortgaged from the actual totals of the two years in question. The average holding in the district is roughly 35 acres. By treating the totals of numbers of cases in the same way, it will be found that 1,000 persons over the average took advantage of their power of alienation to part with their land. Had this power not existed these people would have had to look for support outside of their villages sooner than they actually did, and we should therefore have had to open relief works a few weeks earlier than was actually the case. But that would have been of trifling concern to the State compared with the permanent expropriation and degradation of so large a body of men.

## ROHTAK.

As soon as the crops failed and distress began to show itself, the Banias became chary about advancing money except on the security of land, and there can be little doubt that, as the people became hard pressed, advantage was taken of the opportunity to get old-disputed and time-barred debts renewed probably with the addition of interest. The Tahsildár of Jhajjar is of opinion that in many cases the Bania did not pay the consideration in full. For example, he might take a mortgage for nominally Rs. 100 and get the debt secured by a deed for that amount, while the actual cash advanced would be say Rs. 75. It is not improbable that this was done in some cases, and hereafter the plea that consideration in full was not paid may be raised in the Civil Courts, but it is difficult to say to what extent this practice prevailed.

It is believed that if land had not been alienable the Banias would have refused advances. This would doubtless have driven more people to the relief works (the percentage of agriculturists on the relief works was only 25 per cent.), and would possibly have saved some from getting into debt, but I believe the result would have been disastrous in many cases. Many respectable land-owners were in distress who would have looked upon it as a disgrace to have gone on to a relief work. These would have starved rather than accept relief for themselves and their families either on the works or gratuitously even if they were eligible for the latter.

There is no reason to suppose that credit was unduly restricted.

R. CLARKE.

## UMBALLA.

\* \* The question of "what would have happened had land not been alienable?" if this question deals with an imaginary case of sudden prohibition against alienation introduced at the commencement of the famine, might be answered at once by saying that for certain there would have been a rural tumult and large crowds of zamíndárs turning out to demand relief either by fair means or foul. Very large relief works would at any rate have been needed to keep the zamíndárs quiet, as zamíndárs cannot makeshift to live as Kamíns live. If, on the other hand, the question means "what would have happened had land not been alienable since say 1840 and was also unalienable in 1895-96?" then in seeking for an answer we have to set out upon a field of conjecture too wide to be traversed in a report of this kind.

What would have happened had land not been alienable.

## HOSHIARPUR.

(LIEUTENANT-COLONEL C. F. MASSY, COMMISSIONER.)

The *rabi* yield of 1897 has been about the best on record, and the zamíndárs have largely benefited by the high prices which they were able to secure for their grain as well as by sale of surplus fodder to the people living south of the Sutlej. This was followed by an extraordinary rush of readjustment of mortgage claims. Lands were either entirely redeemed or re-mortgaged (in many cases by owners *inter se*) for largely enhanced sums. So heavy was the additional work thus thrown upon the Registration Offices that Major Inglis was, in May, obliged to order the Non-official Sub-Registrar at Hoshiárpur to refuse to receive fresh documents until his arrears were cleared off. This it took nearly two months to do, even with the aid of four additional Muharrirs. The overflow was dealt with in the tahsil office. I may add that a splendid *khari* harvest is now being reaped in Hoshiárpur, and that the *rabi* of 1897-98 is being sown under most favourable circumstances. The famine elsewhere has therefore been of distinct benefit to the land-owners of Hoshiárpur, who have figuratively gathered in harvests of gold.

Profits to agriculturists from the famine.

## LAHORE.

\*\*\* The following figures will show the number of registrations (mortgages and sales only) made during the last four years in this district:—

			<i>Mortgages.</i>	<i>Sales.</i>
1893-94	...	...	3,236	1,244
1894-95	...	...	3,104	1,308
1895-96	...	...	3,473	1,584
1896-97	...	...	4,086	1,816

The increase in the number of documents presented for registration in the year 1896-97 was due to the prevailing scarcity.

Money-lenders very early began to refuse credit, especially in the Sharakpur Tahsil, and undoubtedly took advantage of the famine to secure the immoveable property of the debtors. To obtain the means of keeping their families and themselves from starvation, the unfortunate zamindárs were compelled to alienate their lands on any terms provided they could procure money or grain. Zamindárs would undoubtedly have starved in some cases had land not been alienable.

## HISSAR.

The great Ját tribe constitutes over one-fourth of the entire population of the district, and within the tribe the Bagri sub-division is by far the largest. The Ját's formed 15½ per cent. of all the admissions to relief works, and two-thirds of these were Bagris; 21.6 of the admissions were from the Mussalmán land-owning castes, nearly three-fifths of whom were Pachádas. The village menials formed the most numerous body on our works, and, if the Dhanaks are to be taken as coming under this description, this class made up 46.3 per cent. of the total relieved on works. As it forms only 25.1 per cent. of the total population of the district, these statistics afford additional testimony to the fact that the *kamins* felt the pinch of famine more acutely than any others. It is curious to note that the Brahmins suffered more than the Ját's, the proportion the former bear to the total of the relief workers being higher than that of the latter, if the respective numerical importance of the two castes be taken into consideration.

## KARNAL.

In January the Public Works Department were put in charge of the Karnál-Asandh road, and I think the decline in numbers was due to the stricter working of the Code and the exaction of fuller tasks. So far the greater majority of workers were village *kamins*. It was, however, becoming evident every day that the Ranghars were being reduced to dire straits, and that their pride would, sooner or later, have to give way, and when the Karnál-Asandh road was finished and the Nardak Rajbaha started they came out with a rush, and with them Rors, Ját's, &c.; and in March the proportion of low and high castes as about half and half.

## FEROZEPURE.

The classes which attended the relief works were principally *kamins* and towns-people. There were a good many Baurias and a number of people who had wandered in search of food from Bikaner and Baháwalpur. The zamindárs were in a minority, and the greater number of the zamindárs relieved were Mussalmáns of the Dogar, Rájpút and Ját castes. Very few Hindu zamindárs came for relief.

## LAHORE.

(W. BULL, ESQUIRE, MUNICIPAL ENGINEER.)

Between January and March the maximum number of labourers reached 1,600 daily. They consisted chiefly of low-caste people, sweepers, Chamárs, Purbias, Musallís and Mussalmans with some few Aráíns and other caste Hindús, the zamíndárs and Aráíns belonging to a small contingent of men from the districts of Jbelum, Gujrát and Jummoo, who had come to Lahore for enlistment for Africa, but, being unable to obtain employment and running short of funds, were compelled to seek work at the famine works.

Of the number employed about half consisted of men and the rest of women and children. None were emaciated or had the appearance of suffering from famine; some men were old and feeble, and the women and children belonged mostly to men employed by the European community of the neighbourhood, while some were from the city and suburbs.

The castes which mostly resorted to relief works in the towns were low-caste people, such as sweepers, Chamárs, Musallís and Mochís. There were also several Hindu and Muhammadan zamíndárs and professional labourers. The falling-off in attendance was due to the approach of the *rabi* harvest of 1897 when these labourers secured work in the fields.

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## HISSAR.

When scarcity appeared to be imminent my predecessor warned the zamíndárs to remove their cattle to neighbouring tracts, where grazing could be had, and large numbers left for the country across the Jumna and parts of the adjoining Native States, where they heard fodder was obtainable. At that time there was no idea that the drought would extend to such a large area, and there is no doubt that in a few months after the cattle left the grazing in some of the districts to which they had gone became almost as scarce as in Hissar. When the relief works were closed and the kharíf sowings of 1897 were over, I endeavoured to obtain some estimate of the proportion of cattle which returned after their long absence, and came to the conclusion that barely one-fifth came back. Unfortunately it was not possible to obtain accurate details.

The only State forest of any importance in the district is the Government Cattle Farm at Hissar, and this was as barren as any other part of the district. The Superintendent was forced to send away large herds of Government cattle to the Nahan Dun and other parts of Northern India. Kázi Muhammad Aslam Khán, however, arranged with the Irrigation Branch of the Public Works Department to allow cattle on the march to the hills to graze on the canal banks. Universal grazing could not be allowed, as in some parts the canals belonged to Native States and in other sections of different lengths had already been leased. But this after all was only a temporary alleviation, and from November 1896 neither Government nor the people were able to take any measures to protect the cattle.

During the cold weather of 1896-97 an enquiry was held into the losses among cattle with a view of enabling Government to forecast the demand for loans to agriculturists for the purchase of cattle and at the same time to help the Charitable Relief Fund Committee to estimate what proportion of the money at their disposal should be devoted to the same object. This investigation was made in the ordinary way through the agency of the Tahsildárs, and the results were checked by the superior authorities. But the proceedings were attended with various difficulties, chief of which were the absence of so many of the people on relief works and the impossibility

MORTALITY OF CATTLE.

of estimating what proportion of the emigrated herds would return. The following table shows the mortality which was calculated to have occurred between the 1st May 1896 and 31st March 1897, a total of eleven months:—

1 TAHSIL.	2 Total at last census, March 1895.	DEATHS FROM				6 Per cent on column 2.
		3 Disease.	4 Starvation or slaughter.	5 Total.		
				Actual.		
Bhlwáni ... ..	18,166	507	8,499	9,006	49	
Hánsi ... ..	33,394	1,341	9,179	10,520	31	
Hissár ... ..	21,038	994	6,303	7,297	34	
Fatahabad ... ..	39,538	363	27,087	27,450	69	
Sirsa ... ..	30,543	2,112	20,749	22,861	74	
Total District ...	142,679	5,317	71,817	77,134	54	

These figures relate only to plough cattle and do not include cows. It will be seen that in the two tahsils with the largest area secured by canals only one-third of the cattle were said to have disappeared, and by far the heaviest mortality occurred in Fatahabad and Sirsa, where the Pacháda element is so strong. As the Rewári-Ferozepore Railway runs through the entire length of this district, which has no less than fifteen booking stations, I asked the authorities to supply me week by week with a statement showing the exports of hides and bones to places outside, and they were good enough to comply. These statements were of the highest value as they kept the authorities informed of the successive stages in this process of depletion. Within the period covered by the figures given above, the Railway books showed the total export of 25,375 maunds of hides and 46,972 maunds of bones. The average weight of a hide was found to be 15 seers, so the total maundage represents a mortality of 67,665 cattle. But in addition to the rail-borne traffic there was a considerable export of hides in country carts and camels from the northern divisions of the Hánsi, Hissar and Fatahabad Tahsils. The villages in that direction are held largely by Ranghars and Pachádás, who are notorious for their kine-killing proclivities. If this export by road be assumed to be one-sixth of that carried by the Railway, it amounts to 11,277 hides during these eleven months. This gives a total export of 78,943 hides. Some of these no doubt belonged to cows, but only a small proportion, as not even a Pacháda will kill an animal that gives milk, if he can possibly help it. Then again all the hides of slaughtered cattle did not leave the district, as those of stolen animals are generally buried to avoid the risk of detection. The Railway returns therefore confirm, in a striking way, the results of the independent enquiries carried out through the Tahsildárs, who had no access to these statistics.

\* \* \* \* \*



The hide statistics show that 132,325 animals or 92 per cent. of the plough and well cattle of those found to exist in April 1895 disappeared in the two years following the next October. Between the spring of 1895 and the beginning of June 1896 no doubt a large proportion of the losses was met by imports of fresh stock, but when the failure of the kharif of 1896 became patent, the additions were too few to be worth taking into account. It may therefore be safely assumed that, with the exception of the canal villages, the district was left with only 15 per cent. of its requirements in the way of live stock when the monsoon broke last autumn. The terrible significance of this fact in an agricultural district need not be enlarged upon.

An interesting sidelight is thrown on this all-important question of cattle mortality by certain facts kindly supplied to me by the Superintendent of the Government Cattle Farm at Hissar. During the twelve months ending March 1897 out of a total of 8,460 heads 835 were sold, 2,399 were sent to other districts for grazing, 320 were sent elsewhere for service or slaughter, 6 were lost, and 584 died. The remaining 4,216, of which nearly 60 per cent. were full grown, were fed at a daily cost of Rs. 1,077 or Re. 0-4-1 per head.

The pressing demand for cattle, when the rain came in the end of July, was met by the issue of loans and gifts, to enable the people to purchase or hire. These have been described already. It was thought at first that there might be some difficulty in procuring cattle in time for the kharif sowings, even though there might be money to spend, and the desirability of holding one or two large cattle fairs was discussed. But the zamindárs were unanimous in declaring that there would be no difficulty, and they were right. As soon as the monsoon broke, large droves of bullocks were brought into the district by dealers and owners with surplus stocks. These came from canal villages in British districts on both sides of the Jumna, from Patiála and Jind, from the Baoni iláqua in Loháru, and from those tracts in the Rájputána States where the autumn harvest is of little account. As will be seen from the figures dealing with *takávi* advance, the proportion of cattle purchased was by no means large, and many of the dealers took their cattle round from village to village, hiring them out to one cultivator after another. The average rate of hire was Rs. 2-8-0 per day for one yoke which was able to plough 10 *kachha bigaks* (2 acres 0 roods 13 poles).

## KARNAL.

In years of drought when the village tanks dry up, and all fodder is exhausted, the distress amongst cattle can hardly be exaggerated. Starving herds are driven off to the Swálik and the Jumna, where many die, and the mortality amongst those that remain behind is enormous. During the past rains I saw many villages using buffaloes in the plough and at the well, a most unusual thing in this part of the Punjab, and the best proof of the havoc the previous year played with plough bullocks.

## FEROZEPORE.

(LIEUTENANT-COLONEL C. F. MASSY, COMMISSIONER.)

The people all through, and more especially the Ját Sikhs, were careful to feed and preserve their young and strong plough and milch cattle. The animals that went to the wall and were sold or allowed to die were mainly "old pensioners," past work, and allowed in ordinary years to live on and look after themselves by grazing in the common waste. The dearth of fodder was met by the importation of immense quantities of *bhúsa*, carried by the zamindárs on their own carts all the way from Dasúya (Hoshiárpur), Jullundur (the Sirwal portion) and Kapurthala.

HISSAR.

Statement No. 9 appended to this report gives the details of the Government advances made in this way, and the leading facts are compared below with those of a similar statement for the charitable gifts :—

1	ADVANCES OR GIFTS ALLOTTED.															
	2	3	4	5	6	7	8	9	10	11	12	13	14			
DETAIL.	To owners.	Actual.	Rs.	2,64,921	60.03	1,51,988	34.44	24,381	5.53	1,73,134	39.23	55,318	12.54	2,12,838	48.23	4,41,290
		Per cent. on total.														
Government advances ...	To occupancy tenants.	Actual.	Rs.	38,187	16.22	1,01,318	43.05	31,403	13.34	70,571	29.98	1,33,401	56.68	2,35,375		
		Per cent. on total.														
Charitable gifts ...	To tenants-at-will.	Actual.	Rs.	1,25,699	18.6	2,04,537	30.2	1,25,889	18.7	3,46,219	51.1	6,76,665				
		Per cent. on total.														
TOTAL ...				3,60,791	53.7	1,90,175	28.1	3,60,791	53.7	1,90,175	28.1	3,60,791	53.7	1,90,175	28.1	3,60,791

The number of persons relieved in both ways was as follows :—

1	2	3	4	5
Agency.	Owners	Occupancy tenants.	Tenants-at-will.	Total.
By Government advances ...	19,597	16,034	5,979	41,610
By gifts ...	8,081	4,641	13,763	26,485
TOTAL ...	27,678	20,675	19,742	68,095

These figures give some idea of the work the distributing officers had to get through. They could not have met with the success they did, if they had not been so efficiently helped by all with whom they were associated, but especially by the Tahsildárs.

On the whole, I think nothing is more striking than the fact that the increase in the total number of cases reported was under 10 per cent., while convictions were only one-quarter above the average. At the same time this increase was confined to cattle-theft and petty pilfering. There were no grain riots and no serious highway robberies, and it was never found necessary to add a single constable to the ranks of the Police. It would be hard to say whether this satisfactory and wholly unexpected state of affairs was due more to the measures of relief organised to cope with the distress or to the recognition by the people themselves of the great fact that the Government would not let them starve.

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### UMBALLA.

\* \* \* \* \*

Both in 1860-61 and 1868-69 refugees from Bikaner and Hariána enhanced the aspect of distress in Umballa. It is noticeable that in 1896-97 there was no such immigration from Bikaner.

(R. CLARKE, ESQUIRE, COMMISSIONER).

This is a marked feature of the recent famine. The Bikaneris never found it necessary to go further than Hissar. This was due partly to improved administration in Bikaner and partly to extensive works undertaken in Hissar and the excellence of the organization in that district.

### HISSAR.

Regular relief works began on the 9th of November in each tahsil. At first applicants for relief were engaged only on digging tanks. But shortly afterwards, when experience had been gained of the necessities of the people, the relief of which had to be based on the principles of the Code, it was found that tank work was by no means suitable for the beginning of famine operations. The people appreciate the importance of tanks very keenly, and any particular village is always ready to turn out to labour on its own tank even when there is no scarcity. Besides, it had already become evident that, even if the spring harvest did not fail utterly, it would be so poor as to have but a trifling effect on the general condition of the people, and the famine would grow more and more intense until the rains should break.

\* \* \* \* \*

During the latter part of November and December relief camps were opened on the sites of the Ghaggar Canals, the Bhiwani Water Works and four large roads. As each large work was started, all the labour on the tanks within a radius of 25 miles was stopped. The people objected most strongly to this policy. For some weeks they clamoured for the excavation of their tanks, pointing out with a good deal of truth how useless it was to spend money on raising roads. But every application was refused, except in the case of villages which were necessitous and had no major works within an easy two days' journey. The consequence was that we were able to carry out most of the latter during the cold weather, when there was little risk to be run in assembling large crowds of people at one spot for weeks together, and the tanks were reserved for the hot months. This scheme of operations was carried through to the end, and was completely vindicated by the results. By the beginning of the hot weather the people began to return to their homes, where there was still a large reserve of work for them to do. The tanks were then completely dry, and the work was carried on under the best possible conditions.

The Ghaggar Canals opened early in December and were soon followed by the Bhiwani Water Works and roads in Fatahabad, Hissar and the north of Sirsa. At first the attendance was poor, and in the north of the district the majority of the applicants for admission to the camps were Bikaner immigrants. A rough census held during the

middle of December revealed the fact that over four-fifths of the labourers on the Ghaggar came from over the border. But just before Christmas a rush began on all the works. The daily average on relief works for the second week in this month was 1,731 and for the third week 2,681. But during the next week this rose to 8,290. This increase was maintained with slight fluctuations till the last week in June.

In the beginning of January the daily average attendance had risen to over 12,000 units. By this time work began to go on smoothly everywhere. The mistakes in payments, classification and gauging, which were inevitable when the famine system was new to every one and the staff in most of the camps had been nearly overwhelmed by the rush, were repaired, and the outturn began to improve. The labourers also were becoming accustomed to the scale of wages. At first they could not understand why these were fixed so low, and on two of the works they struck for a higher rate. Hunger was strong, however, and the strike lasted only one day in each case.

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June was naturally the most trying month of the whole famine. The district was in a condition which it would be almost impossible to exaggerate. The heat by day and night was intense, the tanks were all dry, and, in the case of many villages, the only available water was miles away. Except in the canal tracts, drinking water was found only in scattered brackish wells on the borders of tanks. Nine-tenths of the district was a barren, weary desert. There was no green to break the crushing monotony of the landscape, as even the ever-green jungle bushes were covered with thick dust. The majority of the villages were deserted by a large proportion of their inhabitants, and some villages, chiefly in Sirsa and Fatahabad, were wholly abandoned. During the whole month over one-tenth of the population were in daily receipt of State aid of one kind or another, and the condition of four-tenths more began to give cause for anxiety. Wandering, which had been promptly stopped by the opening of organized relief works in November, began again, and we had great difficulty in dealing with it. This habit of drift during the hot weather, if unchecked, invariably leads to great fatality. The people roam aimlessly about from one relief work to another or between the towns and villages in the hope of getting food. They are generally reduced and liable to succumb rapidly to hunger, thirst or disease. The District Board established posts for storing drinking water on all the main lines of traffic early in May. In June these posts were doubled, and even camel patrols were started, one or two of these animals in charge of a man being set to patrol from 10 to 12 miles of road with *pakháls* filled at each end of the beat. Certainly travelling by road in the Hissar District in the June of a famine year is not without its dangers, and must be experienced to be realized. In spite of all the precautions taken and the money spent on preventive measures, in the Sirsa Tahsil alone, during this month, there were four deaths from thirst on the high roads or in the adjacent jungles.

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Owing to the universal celebration of the 60th year of Her Majesty's Reign the workers in relief camps were allowed either to take two holidays on full pay on the 21st and 22nd June or to earn double wages on these days. Nearly 60,000 people participated in one or other of these privileges at a cost of just over Rs. 12,000. The political effect was very much greater than I anticipated, and fully justified the large outlay. This auspicious event could not have fallen more opportunely as far as this district was concerned. It came at a time when all classes were weighed down by an ever-increasing load of distress. The workers were weary of the long-continued strain and hopeless of the future, while those who were engaged in the task of keeping the people alive had already begun to feel the effects of the struggle. The measures taken to celebrate this unique historical occurrence effectually broke the general depression and put new heart into every one.

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GUJRAT.

(S. S. THORBURN, ESQUIRE, COMMISSIONER.)

Actual relief works opened on the 15th of August 1896. The average attendance in the first week was 1,190 workers with 335 dependents. Commencement of relief operations. It rose in the following week to 1,885 workers with 736 dependents; and for the first four days of the third week was 2,279 workers with 934 dependents. Then there was a strike. I had ordered from the beginning that the coarsest cereal should be used as the food staple on which to base

the ration wage. The Famine Officer, on the basis of wheat flour, had awarded a wage of 2 annas and 3 pies per A Class worker with proportionate reductions for females, children and the lower classes. This the people asserted was insufficient to support life and had consequently struck. (A previous strike on the test works occurred on the 12th of August, but soon ended.) On the receipt of the first weekly progress reports, thinking the wage too lenient, I gave orders that the ration wage should be calculated on gram. This was after relief works were formally opened. In consequence the strike first alluded to above occurred, and the workers remained absent from the 26th of August to the 10th of September 1896. When, however, the wheat flour ration was resumed under the orders of Government, people, partly on this account and partly, I presume, because an easily earned wage calculated on any basis was better than none, rejoined the works. From that time forward the attendance progressively and rapidly increased from 507 with 242 dependents in the week ending the 12th of September to 15,608 with 6,567 dependents in the week ending 26th of December, when the road works closed and the canal work began. I mention these facts to show that the works were apparently made attractive by over-liberality—a fact that is supported by the reiterated statements in the weekly progress reports that the workers were all sound and healthy, and that none showed signs of emaciation.

As to organization, there were at first no separate sub-divisional charges under superior officers such as were introduced later. The work was, I think, regarded as one charge, and divided into sections under Overseers assisted by the *mistris* and mates, who overlooked gangs which were roughly classified by families or persons from one locality. With work moving on at the rate of two or three miles a day anything like exact sub-division would have been impracticable. The superior officers were mostly employed in general supervision and control and in classification of newcomers. Confusion seems to some extent to have been unavoidable under the peculiar circumstances of the case, and the difficulty of exacting a full day's work must have been great. This last was the real weakness I think of Mr. \* \* \* \* 's administration at this period of the work—a weakness to a great extent unavoidable owing to the daily changes and the numerous new enrolments, both of which involved loss of time and loss of money. The weakness of our system of famine relief, even under the conditions laid down in the Code, is that it is too fatherly. Under its provisions life must be saved. None can be refused work, and the distinction between minimum and maximum wage is so small that most prefer to do little work and run the chance of being paid the minimum wage. Thus, taking advantage of the second condition under protection of the first, those with the largest numbers of dependents and relations can earn not merely a subsistence, but even a liberal income with a sufficient margin to save a little, if frugally minded. As I early pointed out Musalli families of five mouths—man, woman, two children between 12 and 14, and an infant—were easily earning over Rs. 13 a month, whilst the mass of the Government and Local Funds menials and the District Police were subsisting on about half the sum, and village *chaukidars* on less than a quarter of it. In fact, in hard times a famine is a prolonged jubilee to the village *kamin* classes. Mr. \* \* \* \* seems to have generally awarded a full wage to every worker, whatever his outturn. His classification of labourers was also too lenient, children being classed as adult labourers—children I mean who should merely have received a minimum child-worker's wage, or have been relegated to the class of dependents on two pice a day and so forth. All these defects were pointed out by me from time to time in my various reports of inspection and sometimes in the weekly progress reports. They were not easy to remedy, as the officer in charge had far too small an establishment, and temporary and honorary hands had to be trained and were unreliable. The influence which dependents had in raising the cost of the work charges was due to payment having been made in cash owing to want of kitchen arrangements—arrangements which, with moving camps, were more or less impracticable, and which always require a proper establishment of trained and paid officials.

### LAHORE (Sharakpur).

\* \* \* \* \*

(LIEUTENANT C. P. DOWN, ASSISTANT COMMISSIONER.)

Owing to the number of workers having become so large, it was considered necessary to transfer them to some large work, the difficulties of supervising and paying them in a daily morning work, such as a road, being very great. Accordingly arrangements had been made with the Irrigation Department for the construction of a length of the new Gugera Branch of the Chenab Canal as a relief work. The part selected for excavation was situate in an

easily accessible portion of the tahsil, about nine miles north of Nankána Sâhib. Relief workers had been given notice before completion of work No. 2 that for the future all who wished to continue to work for the famine wage would have to proceed to the canal for it. From enquiries made among them, I did not anticipate that many, if any, would go there, and that even if any workers did go, they would probably soon leave the famine relief work for work under the different contractors. Accordingly I gave notice that transit wages would not be paid in advance, but would be paid to all workers on their arrival at the new work, which was distant about 14 miles from the place where work No. 2 was completed. I sent the Tahsildâr with a small staff to the new work on the evening of the 18th June to make arrangements for starting a camp. He arrived there on the 19th, and laid out a camp, but no relief workers appeared.

\* \* \* \* \*

### UMBALLA

There was much more worry over the returns and forms required by the Code than anything else, and this is, in my opinion, one main fault of that Code, *viz.*, that its exactions in the way of elaborate and constant returns and many of its strict injunctions about procedure tend to give an air of difficulty to, or make difficult, work which would be comparatively simple to men with freer hands. We managed to get in our returns pretty punctually by dint of great efforts in the way of calls and through having a clear-headed Secretary of the Local Funds Office (through which office all returns and accounts passed), but what with wires from above and the pressure put on by us below one ran a risk of being led to regard the returns as of more importance than the work.

### HISSAR

The work on the Ghaggar Canals, like all other works in the district, was carried out under the control of the Deputy Commissioner. The Civil Relief Officer was the Assistant Commissioner in charge of the sub-division of Sirsa, and the Tahsildâr of Sirsa was placed in immediate charge as Civil Relief Officer of both canals, and as such was put directly under the orders of the Executive Engineer, who was officer in charge of the work for the purposes of the Code. After a consultation between the Civil authorities and those of the Irrigation Department, it was arranged that the officer in charge should have a free hand, that his authority on the work should be shared by none else, and that every official, of whatever Department, attached to the work should be strictly under his orders and should be responsible to him alone. In this way there could be no approach to a dual control, which is risky enough when applied to an ordinary undertaking, but which would sooner or later wreck any project carried out on the lines of the Famine Code. This policy was adhered to throughout not only on the Ghaggar Canals, but on every other relief work in Hissar, and has been attended with the most satisfactory results.

### KARNAL

As to what agency can be most appropriately employed, there can, I think, be little question. At all events, had I the experience gained in the past year, I should have put all famine works from the very beginning under Public Works Department officers, subject to the general supervision of the District Officer. I would of course have placed at the disposal of the officer in charge officers of the class of Nâib-Tahsildârs for the supervision of the payment of wages, the management of kitchens and other subsidiary operations.

### FEROZEPÔRE

I am of opinion that, except where professional guidance is necessary, it would be much better to have all works directly under the Civil Officers. I judge only from the results I have seen. The payments made on the tanks at Gulâbewâla and Kâbul Shah were most irregular. The forms used by the Public Works Department were found far too complicated, and a great deal of time was spent in calling for explanations from the officer in charge, which made the payments most irregular.

In the kankar quarries which were also under the Department Public Works things were also very badly managed. In one case the Department Public Works did not pay the labourers on these quarries for nearly a fortnight. The people pulled through all right, because they were not starving or as destitute as they would have us believe, but if there had been a real famine, the result of this delay would have been disastrous.

### KARNAL.

On the Nardak Rájbaħa the system in force was one of well-supervised decentralization. The officer in charge was Bábu Tej Rám, Sub-Divisional Officer of the Irrigation Department, with a Náib-Tahsildár as an Assistant.

Work was opened simultaneously all along the line of 40 miles and a Sub-Overseer put in charge of a section of about 4 or 5 miles. He had under him 2 mistris and 20 to 30 gang muharrirs with a store-keeper.

The muharrirs were in charge of detail; they had 500 to 1,000 cubic feet\* of work in length according to the density of the labour, and on an average each had 60 labourers with their dependants to attend to. The labourers were divided into working parties of one digger and as many carriers as were allotted to him. The gang muharrir kept a register of names, saw that they worked properly, measured their work each evening and paid the wages. He was continually on the move, checking the work, and carried with him a measuring rod, whilst the Sub-Overseer and *mistris* maintained a general supervision.

\* Running?

R. CLARKE.

One of the chief features of the system was that each working party had allotted to it as much work as would keep him in the same chain for one month.

Mr. D'sa, a District Board official, had charge of the Karnál-Asandh road before it was made over to the Public Works Department, and was then placed in charge of the Kaithal Rájbaħa, and on both works he did excellently in his own way. When I found that the relief workers were only digging 9 or 10 inches deep instead of the regulation foot, he still maintained he was exacting the full task of 100 cubic feet—a statement that neither the Commissioner nor I could accept at the time. He was, however, right; for, as he subsequently explained in his Goanese English: "Sáb, I give 100 cubic feet superficial area. I find the zamindárs only dig nine inches deep; they try to cheat me; I have therefore to cheat them. I give them a task of 150 feet superficial area and tell them it is 100 cubic feet; they zamindárs awful fools, they believe anything."

### HISSAR.

The details of the organization of the large works in the recent famine naturally varied in the different camps with the kind of work to be done, the locality in which it was carried on, the facilities for obtaining food and water and so on. But the main lines of the system first adopted by Mr. Floyd on the Ghaggar Canals, and afterwards modified as experience was gained, were followed on all the other major works in the district. This system was briefly as follows:—A few days before the work was opened sites for camps to hold not more than 3,000 units were fixed and pegged out, work sufficient for some days was laid out on the ground, and the head-quarter tents and huts were pitched on the most convenient spot. Close by accommodation was provided for the hospital, store-room, carpenters' and smiths' shops and the bazár. Arrangements were made for providing drinking water and food and stores of tools and baskets, and thatches for hutting were laid in. It happened more than once that there was a rush of applicants for labour before these preliminary arrangements were complete. In such cases the necessities of the people had to be met at all costs, and work was started. The resulting confusion did not last many days, however and order was very soon brought about.

As a rule each camp held from 2,000 to 3,000 persons. The head-quarters officer tent was on one side of the camp. It was flanked by the tents or huts of the establishment. Behind them on one side came the bazár and on the other the huts for the artisans and the stores. The hospital huts were a little way off. As soon as each family arrived and their names had been entered, they were given two thatches (*sirké*), and the exact spot, which was to form their temporary home, was allotted to them. They could then make what use of the thatches they liked. Some made mud walls and used the thatches as a roof, others contented themselves with making a lean-to hut surrounded with cut furze for privacy's

sake. At first we built huts of the pattern laid down in the Code, which accommodated from 20 to 50 people, but the expense was found to be prohibitive, especially as the workers objected to live in a hut with so many of their fellows, and the risk from fire was very great. So the plan was adopted of laying out the space for the workers in squares of 50 feet. One family was located at each intersection point.

The purely professional establishment on the large works was organised on the same footing as that of any ordinary work carried out by the Public Works Department agency. The scale naturally varied very much with the fluctuations in attendance, and it was often difficult to raise it suddenly when there was a rush of applicants for labour, and to lower it without hardship to individuals when attendance fell-off. The extra establishment necessitated by the additional duties thrown on the officers in charge consisted of a Tahsildár or Náib-Tahsildár as civil assistant to the Engineer, cashiers for payment, clerks for compilation of returns, gang-writers, treasure-guards, and a hospital staff. The numbers of each class of official varied in the same way as those of the superior establishment, but as a rule the scale adhered to was as follows:—

- One civil assistant for each "charge."
- One cashier for 48 gangs, or says 3,000 persons.
- One vernacular muharrir for each "charge."
- Two English-knowing clerks for each "charge."
- One writer for every 4 gangs, or say 250 persons.
- One daffadár and 6 barkandázes for each "charge."
- One small field hospital in charge of a hospital assistant or a compounder.

The Tahsildárs and Náib Tahsildárs, the treasure guards and the hospital establishment received their usual pay. The cashiers were paid from Rs. 15 to Rs. 30, the clerks from Rs. 12 to Rs. 25, and the gang-writers from Rs. 10 to Rs. 15 according to the qualifications and efficiency.

## DELHI.

*Shamsi Tank.*—The gang system on this tank was not very successful, chiefly owing to irregular attendance of workers. The numbers and persons on the gangs hardly ever remained constant. People used to come and work for perhaps three days, then stay at home for one day and then return. This made it very difficult to either allot a task or to get it completed. Experience showed that it was best to mark out each day the gang task and within this the task of every digger, so that whatever time he arrived he would find his task ready. During the last week the gang task for three days was laid out with each separate digger's task. It was found that when this was known each digger was able to complete 120 cubic feet each day, and that it gave satisfaction to all.

## GUJRAT.

(H. C. GRANVILLE ESQUIRE, EXECUTIVE ENGINEER.)

On the Jhelum Canal the family party of five or six persons constituted the "task party," and there were thirty such parties placed under a *mate*, who wrote up the nominal rolls and entered the daily attendance. The people were entered on the nominal rolls according to their position on the work, party by party, in consecutive order. The *mate* was the writer.

The task was prescribed for each "task party." They, being members of one family or closely related, were interested in helping each other. Giving a task to a gang of fifty workers, who are not all interested in each other, leads to quarrelling. There will always be a number of drones in any such working gang who will spoil the outturn, or benefit by the work of others.

## FEROZEPORE.

Gang-system mates were tried, but found quite useless. None of them were literate, nor could they make the labourers work. Eventually we had to resort to candidates for civil employment who had their names down in the Deputy Commissioner's registers. Two or three of them were sent to assist the officer in charge at each work.



## GUJRAT

(H. C. GRANVILLE, ESQUIRE, EXECUTIVE ENGINEER.)

One of our greatest difficulties on the Jhelum Canal has been to prevent mates bringing people, who have not been registered, on to the works. The reason is this: a mate has charge of say 150 workers. If the numbers decrease largely, his occupation goes also. *His object is to keep the work going and to remain on the work, and, however smart and active the supervising officers may be, the mate, like the "heathen Chinese," in ways that are dark, is peculiar, so he brings people from the neighbouring villages on to the work in place of those who have gone, and by a clever arrangement with the mistri, who is also interested in keeping the work open and who measures the work of the task parties daily, these people are allowed to go back to their villages and fields for most of the week, are shown as present in the nominal rolls, and a certain amount of work (perhaps deductions from work done by others) is entered against their names in the nominal rolls. Whole-task parties are not of course treated in this way but a couple here and there, and if an officer calls the rolls, and detects the fraud, the reply is somewhat after this fashion:—The men were here just now, and I marked them present. They have gone to drink water, or bring their food, &c.*

## GUJRAT.

(S. S. THORBURN, ESQUIRE, COMMISSIONER.)

Segregation of classes is also a necessity on relief works. For a long time the respectable, proud zamindárs held aloof from our works rather than work side by side with their village menials or those of lower caste.\* This class segregation was ultimately—i. e. when spacing out was carried out—successfully managed on the canal works in Gujrat, but not on the road works. It could be possibly as easily worked on any class of work by system at starting. Were relief workers grouped by classes on entry, the works would be more freely resorted to by zamindárs, many of whom during the past year have probably remained at home and borrowed all they could on any terms.

## Segregation of classes.

\* I expect another reason was that the zamindár would not dig until he had exhausted his borrowing powers. Once the power of alienation is restricted he will have to work as a coolie or starve.

S. S. T.

## HISSAR.

From 150 to 1,500 digging tools and a corresponding number of baskets were collected on the site of each work prior to its opening. The amounts varied with the size of the work and the number of labourers expected. The tools were the ordinary *kassi*, a cross between a spade and a hoe, with which all the people were familiar. On the large works a reserve of pick-axes was also kept up for use in hard soil. But on every work efforts were made from the beginning to induce the people to bring their own tools. Agricultural implements were a drag in the market during the famine, and by far the larger majority of the diggers used their own *kassís*. The supply of a sufficient number of baskets was a more difficult matter. Baskets soon wear out or get broken, and when these were issued to the people free of charge the waste was enormous. It was found that a large saving was effected by making all the carriers provide their own baskets and paying each from two to four pice per week, according to the facility for obtaining baskets in the neighbourhood.

## Tools.

The scale of tasks given for the diggers in Appendix B of the Code was adopted as a rule on the large works, but was by no means always worked up to. Any attempts originally made to prescribe tasks for the carriers were soon given up. The almost invariable rule over the district was that the carriers and fillers were out of all proportion to the diggers, and the tasks of the former depended entirely on what the latter could give them to do. The following scale for the diggers may be taken as the district average prescribed:—

Excavation in							Full task.	Low task.
Sandy soil	...	...	...	...	...	200	160	
Medium soil	...	...	...	...	...	125	90	
Hard soil	...	...	...	...	...	75	55	

The task for one gang for from 3 to 6 days was calculated and marked out on the ground. The space was then sub-divided into separate tasks for 2 or 3 diggers, if it was impossible to lay out separately the work for each spade. But the separation of

individual tasks, where there was a large gathering of people in a confined space, such as the bed of the Rangoi and many tanks, was difficult to maintain. Still, even when the separation was effected, the majority of the diggers failed to understand exactly how much they had to do. On the Ghaggar Canals this difficulty was overcome by an ingenious, but very simple, device of Mr. Wakefield's. He gave each digger a stick, cut to the exact length of the daily task, the breadth corresponded with the length, and the depth was indicated by a notch. When these sticks were issued the diggers soon learned their use and the improvement in outturn was remarkable. Much has been written and said, even by men who have had practical experience, about the extremely poor results of famine compared with ordinary labour, but my experience certainly has been that, if trouble is taken from the first to get the workers to clearly understand what they have to do, this difference will never be excessive. In this, as in all other branches of famine administration, the human equation is a powerful factor. Experience and knowledge of humanity, combined with sympathy, will do more to produce good work than any scheme of rewards and punishments, however wisely framed and administered.

Before the expedient of measurement sticks was hit upon, the experiment was tried on the Ghaggar camps of giving a bonus of an extra pice to all diggers who did more than the A task, but it did not succeed. The same system was tried on the Farm Ditch towards the close of the famine and Mr. Mainprize was of opinion that it was a success. I did not share his view, but the work did not last long enough for a sound opinion to be formed.

I directed that on all works every child, apparently over seven and under twelve, should receive one pice less than the adult female of Class C, or one pice less than the adult female of Class D, according to his or her output, subject to a minimum of three pice. In practice working children were found to be a great drawback. There was always, except on the tanks, a plethora of adult carriers, and the only work the children could be put to was breaking clods on an embankment. Unremitting supervision was required to keep them at their work, and they constantly got into the carrier's way. Their pay worked out to double that of non-working children, and as, taken all round, their work was useless, they helped to swell the average cost of the output to which they had contributed practically nothing.

Appendix D of the Code contains a ready reckoner which gives the exact wages of all classes according to the "grain equivalent" method at different rates per rupee. As the majority of the different wages in this table are expressed in pies, a modification was made by the orders of the Commissioner which still further simplified matters.

When the system was introduced wages were supposed to be paid daily to a considerable extent. If paid twice a week, without counting Sundays, the wage for three days would come out in even pice, but if the Sunday wage is paid, odd pies would be introduced. The people understand pice, but not pies, and I therefore think that, under all circumstances, the system introduced is the best. It was certainly appreciated on account of its simplicity.

R. CLARKE,  
Commissioner.

Mr. Clarke directed that to find out the weekly wage the rate of the cheapest obtainable food-grain should be taken as a basis. The wage of an adult male of Class A according to this rate was then ascertained from the ready reckoner. If this were, say, one anna ten pies, the wage was assumed to be one anna nine pies; if it were one anna eleven pies, the wage was assumed to be two annas. In fact the wage was always expressed in even pice, the nearest pice being taken where the code gave odd pies. When the highest wage had been thus ascertained the others were also fixed in pice, the wage of each class, sex or age being exactly one pice less than the one immediately above it. For instance if the cheapest grain happened to be jowár, selling at 9 seers per rupee, according to which the Class A male wage was given as two annas four pies in the Code, the actual wages paid on the works were as follows:—

Class.	A.		B.		C.		D.	
	As.	P.	As.	P.	As.	P.	As.	P.
Men ... ..	2	3	2	0	1	9	1	6
Women ... ..	2	0	1	9	1	6	1	3
Children ... ..	...	...	...	...	1	3	1	0

This system worked to the entire satisfaction of every one. The Engineers of both Branches of the Public Works Department were unanimous in their opinion that not only was it the best that could be devised, but it was the only one which admitted

of easy check and enabled them to differentiate to any extent between the various classes. When famine assumes the proportions it reached in Hissar, and spreads over so large an area, relief has to be provided both promptly and efficiently. The one quality which should characterise every detail of the operations is simplicity, and simplicity carried to a degree which it is impossible to obtain in the ordinary work of district administration.

The method of payment on the major works was briefly as follows:—Each work was split up in camps containing between 2,000 and 3,000 units, all told. These again divided into gangs of from 50 to 60 persons. There were thus as a rule 48 gangs in each camp. Gangs 1 to 16 were paid on Mondays and Tuesdays, gangs 17 to 32 on Tuesdays and Fridays, and gangs 32 to 48 on Wednesdays and Saturdays. Each camp had a separate cashier, who was thus fully employed for the six working days of the week, paying, on the average, 800 units per day. A fairly efficient man, after a few days' experience, managed to accomplish this in five hours, so that he had ample time to make up his books from day to day. As soon as the morning roll was called, the supervising officer, usually a Náib Tahsildár, went off with the cashier and a sufficient sum of money to where the first two gangs who had to be paid that day were working. Gang No. 1 then knocked off work and sat down in front of the cashier with their writer in attendance. Each individual was then called up by name, received his or her wage and went straight back to work. In this way no person was ever more than half an hour away from the work. Gang No. 2 was then called up, and, when they had been paid in the same way, the Náib Tahsildár, cashier and writer moved along the work to a convenient place opposite gangs Nos. 3 and 4, where the same procedure was followed.

### FEROZEPORE.

The Code scale of diet was found to be more than adequate, and it was found that a family could make much more than a single coolie in ordinary times till all non-workers were stopped.

### ROHTAK.

The amount of the daily wage was based on the price of the staple food grain, which was gram at 10 seers per rupee.

By the scale in Appendix D the wages of an A Class man with grain at 10 seers would be 2 annas, but the fact is that the grain equivalent of the "other items" of the ration was not given, as the people were working near their homes and had not got reduced before the works were started. Experience showed the wages to be sufficiently liberal under the circumstances.

R. CLARKE,  
Commissioner.

The wages did not vary from week to week, and were paid in proportion to the task performed according to the following table:—

	Men.			Women.		
	Rs.	A.	P.	Rs.	A.	P.
A. Class	...	...	0 1 6	0	1	3
B. Class	...	...	0 1 3	0	1	0
C. Class	...	...	0 1 0	0	0	9
D. Class	...	...	0 1 0	0	0	9

#### Working Children—

	Rs.	A.	P.
Maximum	...	...	0 0 9
Minimum	...	...	0 0 6
Non-working children	...	...	0 0 3
Nursing mother	...	...	0 1 6

The above rates of wage were calculated according to the Code scale, and, as the physical condition of the relief workers, which was carefully and constantly watched, continued good throughout, this scale was found to be adequate.

**HISSAR.**

I do not think that there is ever any fear of famine work attracting people who have already found employment on other works. Isolated instances were met with on some of the major works of whole families receiving more pay on a relief work than the bread winners could secure in ordinary seasons. But these were not frequently met with, as it was unlikely that any one would give up more or less regular employment for the sake of even double the pay of relief works which could not last more than a few months. The last official returns published before the famine put the average day wages of the lowest class of a day labourer in this district at annas 3, whereas the highest wage a man could earn on a relief work at the worst period was annas 2 pies 3, so that, if the discomfort and irksome discipline of a relief camp be taken into account, there can be little doubt which form of labour the majority will prefer. The correctness of this theory was twice conclusively proved during the currency of the famine. The villages in the Tohána Sub-Tahsil contain an indifferent set of cultivators and suffered as much as any other part of the district from repeated crop failures. But owing to the demand for labour on the Southern Punjab Railway, relief works in that direction were postponed for a longer period than anywhere else, and even when the railway earthwork was finished, the residents of Tohána, Jamálpur and the neighbouring villages preferred quarrying ballast for the contractors to joining the camps close by.

Comparison of wages at famine and ordinary rates.

The experience in Delhi was the same, where some 3,000 people were engaged in breaking stone ballast for the Southern Punjab Railway.

R. C.

Again, there was a distinct fall one week in the attendance on the Rangoi cut owing solely to the opening of road work across the Patiála border close by, which was being carried on under the ordinary conditions, the workers' wages varying from two to three annas per head. The Cotton Mills at Hánsi, Hissar and Bhiwáni afford steady manual labour to ordinary coolies, and the complaint of their managers throughout the famine was that they were frequently besieged by applicants for employment.

**ROHTAK.**

Some Railway contractors at Sámpal complained that the opening of relief works made it somewhat difficult to obtain labour for ordinary works. This could not be avoided, as the contractors could not supply work for all who required it, and the relief works had to be opened. I have little doubt that the difference between the relief wage and the contractor's wage was made up by the earnings of working and non-working children and the higher wages of nursing mothers in spite of every effort to prevent abuse of the system, and apart from this the village labourer preferred to take work practically at his own door step, when by doing so he could get a wage which, though low, would provide him with food.

Comparison of relief wages with wages on ordinary works.

\* \* \* \* \*

**GUJRAT.**

(S. S. THORBURN, ESQUIRE, COMMISSIONER.)

It is a pity the Famine Code does not provide a better means of punishing the contumacious. The establishment of poor-houses would have defeated their own end so far as cost is concerned, and if the hands of officers in charge of such works were strengthened in the matter of punishments, a great deal of malingering and idling could be prevented. The best punishment devised was to treat a whole gang as a unit and pay minimum wage to all in the gang if their collective outturn was short. But even that is not enough. When Mussallies or other lazy able-bodied men were turned out of a gang, they often managed to enlist in some other. Ten strokes with a rattan, summarily inflicted on able-bodied shirkers, would have had a most wholesome effect on the general mass.

Punishment for shirking work recommended.

**KARNAL.**

The proportion of dependents to workers on the three famine relief works under Dependents. taken in this district is as under:—

(1) Karnál-Asaudh Road	...	...	...	3.50 per cent.
(2) Kaithal Branch	...	...	...	8 "
(3) Nardak Rájbaha	...	...	...	42 "

The number of dependents on Nos. (1) and (2) is, I believe, abnormally low, while the number on the Nardak Rájbaha is distinctly high. On the former works the relief workers were able to return to their villages every day, the dependents getting relief in

the village from the Circle Inspector, but on the Nardak Rájba a good number of people came from distant villages, lived in the camps, and brought their dependents with them. In one case I remember a sweeper brought 10 children with him, the oldest being about 10 years of age. There was certainly a tendency to abuse the system. Children came to the works without their relations and attached themselves to strangers with a view to getting pocket money, and I had to direct no relief to be given to children unless their parents were also on the works. Eventually I had cooked food, instead of cash, distributed to all children. Women came on the works with their children, but without their husbands, which meant that the latter were working elsewhere. An order directing all such to live in camp quickly put a stop to this.

One had also to guard against dependents going back to their villages once a week and getting relief from the Circle Inspector as well.

### FEROZEPORE.

It was found that the system of dependents was being abused on nearly all the works. Men used to send their women and children to do nothing on the works and get relief without appearing themselves. After the 27th March the system of allowing dependents was stopped on all the relief works, and this was at once followed by a rapid fall in the number of relief workers, which never again exceeded 726.

\* \* \* \* \*

### HISSAR.

A Náib Tabsildár was in charge of all the kitchens on each canal, and a Zaildár or Lambardár, who did not happen to be a Circle Inspector, was put in charge of each separate kitchen, but received no pay. The subordinate staff in each camp was as follows:—

One writer, one door-keeper, one peon, one Mussalmán water-carrier, one Hindu water-carrier.

One Mussalmán cook for every 200 inmates on an average.

One Hindu ditto ditto ditto.

The writer, cooks and the peon had to be specially entertained. The others were chosen from among the workers and received a small wage in addition to their food. The rules for the management of kitchens contained in Appendix F of the Code were observed with some slight modifications. The children very quickly lost their tickets, and it was found impossible to punish them wholesale. So they had their register numbers painted on some article of clothing, and, if these got torn, the numbers were painted on their backs.

### GUJRAT.

(H. C. GRANVILLE, ESQUIRE, EXECUTIVE ENGINEER.)

Kitchens on the Jhelum Canal. The system on the Jhelum Canal Works was as follows:—

There were four enclosures to each kitchen, one for each class, *vis.*, Hindús, Zamíndárs, Mosallís, Kamíns.

At fixed hours, morning and evening, drums were beaten, and the children assembled with their mothers or other relations.

There was a warder in charge of the entrance to each enclosure.

The names of the children were called by the writer, appointed for each class, and the children entered the enclosures as they answered their names one by one, and were seated under a shed made of bamboos and matting.

When all who were present were seated, the cooks brought in the cooked cakes *dál* (pulse), vegetables or *gur*, and distributed them to the children.

The very young children were accompanied by relations who looked after their feeding.

When the children had finished their meal they were let go.

The rations were carefully weighed before being cooked, and the cakes were weighed afterwards, as in jails, to see that they were properly baked, and not under weight.

The medical staff examined the flour, pulse, &c., cooked daily, and the food when cooked.

Bhistis moved about in each enclosure during meals, supplying the children with water.

Each child was furnished with a tin ticket on which there was its register number and the kitchen index. This ticket was given to it on the work on Monday when the task parties were made up and classified.

Registers of the children on the work, showing names, parents' names and number of ticket, was sent to the Kitchen Superintendent, and from these he compiled his register. New admissions were registered daily on the work, and intimation sent to the Superintendent of the kitchen, who only admitted those who were registered on the work.

On Saturdays, when work is closed for the week, the tickets were taken from children, and re-issued on Mondays.

This is the only way to keep village and bazar children, who are not dependent on workers, out of the kitchens, but it does not prevent women bringing the children of their relatives and friends in the adjoining villages to the works.

The food is taken daily from banias, on indent by the Superintendent, and the bill of the bania, signed by a Náib Tahsildár, who is in charge of the kitchen, and the Superintendent, when presented to the officer in charge is endorsed by him for payment at the treasury.

#### GUJRAT.

(S. S. THORBURN, ESQUIRE, COMMISSIONER.)

During Captain Douglas' time also kitchens were opened for dependents who had heretofore been paid in cash. This immediately reduced numbers. One striking feature of the opening of the canal works was the enormous increase in the dependent class. When Captain Douglas joined, the number of this class on the works was 14,300. It rose in the next week 15,300 to 17,500 to 18,800 and then began to decline, the first week after this showing an abrupt fall of 4,500 dependents and a decrease of over 25 per cent. in outlay. There can be no doubt that in future famines all relief given to dependents should be in kind and not in money.

\* \* \* \* \*

#### HISSAR.

Of the total inmates of the various poor-houses only 42·1 per cent. came from Hissar, and 6·9 per cent. were residents of other British districts, the majority of whom came from the distressed tracts in the North-Western Provinces and Oudh. Altogether British subjects made up only 49 per cent. of the total, the other 51 per cent. being subjects of the surrounding Native States. The vast majority of these were Bikaneris, and a large number came from Jeypore.

The largest proportion of strangers was found on the Ghaggar Canals, where only 83½ per cent. of the workers belonged to Hissar. The remaining 16½ per cent. were chiefly from Bikaner.

Of all the Native States Bikaner was most largely represented, Patiala and Jeypore came next, but at a long interval. It is impossible to say with any accuracy how much money was spent on the subjects of Native States, but taking the expenditure on the various famine operations roughly at 12 lakhs, it may be accepted that Rs. 72,000 were spent on people for whom the Government of India were responsible only in the most indirect sense.

#### GUJRAT.

(S. S. THORBURN, ESQUIRE, COMMISSIONER.)

The Circle Inspectors do not seem to have shown up much during the late famine works. At least they are not much referred to in the periodical reports. Mr. Granville was of opinion that they ought to be able to help Relief Officers much in certifying to persons who seek

gratuitous relief. Some few were used as pay-masters, but this use of the agency appeared to me objectionable as there was a certainty, as I pointed out, of "farzi listing." They could be of much use in ascertaining and making known the existence of want or famine either in individual cases or in wide areas. There is always the danger of over-zeal from this agency, and the temptation to work up to the standard of a certificate or complimentary *parwána*, or, failing these, total neglect and apathy.

#### UMBALLA.

Gratuitous relief is intended by the Code to be managed by Circle Inspectors. Circle Inspectors are ordinarily Zaildárs. It is a peculiarity of the Code that it always alludes to the Circle Inspector and prescribes his duties as if he were likely to be a literate and more than ordinarily intelligent man, with a good head for accounts and returns. The Umballa Zaildár, and I suppose he does not differ much from the Zaildár in most districts, is illiterate and only able to do simple things. Confronted with Forms 7 and 24 he would not know what to do, and he is quite incapable of reading and understanding Chapters IV and V. The estimates furnished by the Circle Inspectors under Section 71 were trash, if they really furnished them at all, and the registers of gratuitous relief would never have been prepared at all if a Náib Tahsildár had not been put in charge of the preparation. To make the Circle Inspector work as he is supposed to do under the Code, he would first have to be provided with a translation of the Code, then taught to read it, and finally to understand it. As few (if any) could read it and none could understand it, it follows that the Code is in advance of the generation for which it is written. A Náib Tahsildár was sent through all four tahsils to prepare the registers. Patwáris were then given to the Circle Inspectors to see to accounts and acquittance rolls, and the Circle Inspectors were then capable of going to the treasury to get their money and of doling out the cash (once a week) in the presence of Lambardárs at the different villages in their circles.

#### LAHORE—(Sharakpur.)

(LIEUTENANT C. P. DOWN, ASSISTANT COMMISSIONER.)

Registers of gratuitous relief in Form 4 under Chapter VI of the Code were prepared in April by the Circle Inspectors and duly checked by the Kánungos. The entries were also continually checked by Mr. Stephen, Assistant Commissioner, or by myself in any villages which we happened to visit.

The number of persons in the eleven relief circles of this tahsil entered in these registers was 1,853. In a population of over a lakh and a quarter this does not appear too large a number, and I am convinced that the entries were correct as far as possible. It was not found necessary, however, during the whole period of distress to distribute relief of this kind. I was kept informed weekly by the Circle Inspectors through the Tahsildár as to the state of the people, and it was never found really necessary for this relief to be distributed. Probably many of these persons subsisted on private charity, and some were undoubtedly brought by friends to the relief works, where they received relief as dependents.

#### KARNAL.

Relief was also distributed to the respectable poor of the towns of Karnál, Kaithal and Pánipat. The most notable case of relief under this head that came to my notice was as follows:—

The chaukidár of one of the Nardak villages reported to the Tahsildár that the two Lambardárs of the village were in a starving condition. Though the Nardak Rájba passed through the village, they could not bring themselves to seek work on it, and had declined gratuitous relief from the Government Circle Inspector, because it would mean that their names would be put on relief lists. On hearing this, the Tahsildár went to their homes quickly and found that the Lambardárs and their families had been living on *kahir* berries for ten days and had eaten nothing else, and with difficulty he persuaded them to take relief from him out of the local fund. The Tahsildár reported that they could hardly walk from weakness.

HISSAR.

Each woman was expected to grind five seers every day, excluding Sundays. Those who were too weak or too old for this work or who could not break their *pardah* had to spin cotton. All the arrangements for supplying these workers with their tasks for disposing of the results and for paying the wages were made through the Circle Inspectors. They had to buy the grain and cotton and sell the flour and thread. If they were unable to get rid of these locally, the flour was sent to the nearest poor-house and the thread was made over to the Tahsildár.

The Inspector visited every village once a week and made over to each worker either 30 seers of grain or 12 chittacks of cotton, as the case might be. The grain rate was adhered to throughout, but the spinning task of 2 chittacks a day was raised to from 2½ to 3 a few weeks after the scheme was in operation. Each woman received annas 1-3 a day, but could earn an additional pice by doing 25 per cent. more than her allotted weekly task. Very few of the workers seemed to care about earning the higher wages.

The Circle Inspector bought the grain and cotton and paid for them out of his advance. He then credited the sales to the advance. The work was rather irksome, and took up much more time and attention than the distribution of gratuitous relief. Hence it was that the total of this class of workers never rose very high. The daily average in any one week never exceeded 295, whereas Miss Theobald in Bhiwáni had nearly as many women on her working lists all through the famine. I think the work was honestly performed by the Circle Inspectors. There were no complaints of fraud, though instances of carelessness in weighments or sales were not uncommon.

This form of relief was started on the 8th of February and closed on the 4th of September, having lasted thirty weeks. During that period 40,213 units were relieved, of whom only 585 were men and 7 were children. This gives a daily average of 191 persons. The total cost was Rs. 2,926-9-3, so that the average amount of relief per head per day comes to 13.97 pies, or very nearly annas 1-2. The actual daily average individual wage was really lower than this, as the total cost of this particular branch of operations includes the losses incurred on the sales owing to wastage and other causes. If these were taken into account, the average daily wage would work out slightly in excess of one anna.

HISSAR.

The utility of any particular work is another matter, concerning which there is ample room for discussion, especially as the term may be defined in so many different ways. There is sometimes a tendency to measure the value of any undertaking by the amount of money or its equivalent which will be annually realized on account of it by way of interest or revenue. But there are many schemes of vital importance to the community at large and therefore of the highest concern to Government, the results of carrying out which cannot possibly be expressed by any figures. Among these is tank excavation, for, in Hissar at least, it is no exaggeration to say that the health and prosperity of people depend in no small measure on the tanks being kept in good order. The following table contains the various works carried out in Hissar, grouped together according to their capacity for promoting the well-being of the people and thus yielding to Government a return for the expenditure bestowed upon them:—

- |   |   |  |
|---|---|--|
| <p>Utility of various relief works.</p> <p>I entirely concur.</p> <p>R. CLARKE,<br/>Commissioner.</p> | <p>(1) Public works which will be of great value to the public, whether (a) financially remunerative to Government, or (b) not so remunerative, except in the most indirect way.</p> <p>(2) Unproductive public works of temporary utility to the public.</p> <p>(3) Public works which will benefit only a section of the population.</p> <p>(4) Public works useless except as a means of employing labour.</p> | <p>(1) (a) Ghaggar Canals cuts-off from Western Jumna Canal.</p> <p>(b) Village tanks, Rangoi Channel.</p> <p>(2) Bhiwáni-Tushám Road. Há n si-Tushám Road. Kankar-quarrying. Half of Hissár-Barwála Road. Half of Fatahabad-Tohána Road.</p> <p>(3) Bhiwáni Water-Works. Cattle Farm Ditch.</p> <p>(4) Half of Hissar-Barwála Road. Fatahabad-Tohána Road. Dabwáli-Kalán-wáli Road.</p> |
|---|---|--|

It is hard for any one, who has not had actual experience of the conditions of village life in this part of India to realize the extraordinary importance of tanks on the prosperity of which the agricultural population depends to so great an extent. A popular impression exists

Utility of tanks.



that they are no doubt picturesque adjuncts to a village, that expenditure incurred in cleaning and improving is a legitimate and even laudable charge on the revenues of the District Board, when the latter is in a flourishing financial condition, and that they are convenient works on which to employ the applicants for famine labour when there is nothing better to do. As a matter of fact, the condition of the tanks should be one of the chief concerns of those responsible for the administration of the district. A vast portion of the country is dependent on rain, and wells are everywhere brackish and unwholesome, owing to the peculiar geological formation of the ground. No inhabitant of the district would think of drinking from a well if there were any water, however muddy, in his tank; nor will he use well water for his crops except as a last resource. Then, again, it is a fact that so long as a tank contains any water at all, wells sunk in its bed or close by have much sweeter and more wholesome water than others not so situated. The veneration felt by the people for their tanks and the precautions taken for their protection show the extent to which their importance is realized. Tank water is known among the Jâts as "Janam Ghutti," or mother's milk, and the whole of the life of the village centres round the *Johar*. With the exception of the old canal tracts, it may be said that no village can exist without its tank. As a rule, each estate has two or more, one the *Gharowás* (from "ghara," a pitcher) for drinking purposes, and the other, the "*Mal ka johar*," or cattle tank, where cattle are watered and washing is carried on. For the sake of the tank the whole village community make large sacrifices of valuable land close to the village site so as to provide for the "Uprohan" or catchment area which is laid out with great skill and carefully preserved. The *Johar* is the first object which suggests itself to a liberally disposed person for the exercise of his charity, and the benefactions of the wealthier inhabitants of rural tracts are devoted to the improvement of tanks in one form or another. Shrines and temples are located on their banks, which are planted with the sacred trees under the shade of which the local gatherings take place, while an oath sworn on the bed of a tank is more sacred and binding than any other. A fakir is generally stationed on every important drinking tank as its custodian. During the recent famine these men would not allow a pitcher of water to be filled until the man, woman or child who came for the water had taken away two basketfuls of earth. This shows what the people think of tank excavation.

\* \* \* \* \*

The great permanent utility of the improvements effected on these tanks is apt to be underestimated, as it cannot be expressed in arithmetical terms. Because of them not a single acre will now be irrigated which was formerly dependent on rain, and there will be no return of money in the shape of dividends to Government or the District Board. But they have been of the greatest economic value in that they have minimised, as nothing else has, the results of the late famine and have discounted the pressure of the next period of scarcity. Without them the task of putting heart into the people and settling them down to their old pursuits would have been greatly enhanced. Their political value has been incalculable.

The following table shows the number of tanks excavated during the recent famine:—

1 TAHSIL.	2 NUMBER OF TANKS EXCAVATED BELONGING TO				6 Average number of days each work was open.
	3 Villages.	4 Municipalities.	5 Government.	6 Total.	
Bhiwáni ...	85	2	6	93	35.97
Hánsi ...	99	4	1	104	41.85
Hissar ...	130	1	7	138	22.63
Fatahabad ...	113	...	2	115	17.32
Sirsa ...	128	4	7	139	25.04
Total District ...	555	11	23	589	27.74

There are 976 inhabited towns and villages in this district, and, seeing that as a rule a second tank which required excavation was not begun in any one village until one had been taken in hand in each of its neighbours, it may be said that some 55 per cent. of the total of the revenue estates received this form of assistance.

## UMBALLA.

It has struck me that the great importance in this tract of tanks as works of public necessity over and above utility escapes full recognition by non-resident officers. The fact is that without a tank a village cannot exist. There is no village in the district without its tank or tanks. The cattle are entirely watered from tanks, the villagers too often drink of them and they lave in them, and in times of drought land is irrigated from them. When the tanks dry cattle are with difficulty and labour watered from wells, but there is a real pinch for water. A good village tank is one of the first necessities of its existence. It is sometimes held that money spent on tanks which silt up is money wasted, but this argument would apply to all artificial creations requiring annual maintenance charges. A tank once dug out certainly does duty for a time only, sometimes long and sometimes short; but in this it differs from no other creation which requires attention and repair. Silting is not markedly rapid, and in some soils excavations wear extremely well. Tanks properly treated would be maintained at fixed annual charges taken from malba funds, but the villagers' system is more happy-go-lucky. A real good digging out once or twice in a generation is all they are able to aspire to, and this digging out on the co-operative plan becomes more and more impossible as the communal system disintegrates, which it is rapidly doing under inside and outside influences. Hence it is that tanks seldom get dug out as of old, when it must have been part of the duty of the village serfs to keep them clear. Many originated from excavations made when villages were built and have never been regularly dug out since. At the present time all over the district villages are provided with indifferent tanks only. Hardly any are properly deep, they have often no defined shape, and last May and June showed how little they could be relied on in time of need. Sheets of water showing in the winter, but offering a large surface for evaporation, disappeared in the heat, emphasizing the fact that small deep tanks (with graded ghâts) are better than large shallow ones.

The idea of waste of money in connection with the provision of tanks of the above kind has never occurred to me (I would infinitely prefer the expenditure to that on heaping dust on kutchra roads), and I have been surprised to find them treated rather as "padding" in the district programme of relief works, especially when it is considered that they are the only kind of work it is possible to induce some leading land-owning classes to work on, and that they have the merit of requiring only the roughest of plans and estimates which a layman can rapidly execute. How necessary to the relief work system these tanks are can be understood when I say that Rájputés and Gujars and even Játs always spontaneously refuse to dig at them. They say that it is the business of the disorganised labouring section of the community to dig. The Játs here are degenerate and inclined to ape the Rájputés, who keep their women in pardah, and who will borrow, beg and steal, but to dig are ashamed. *A fortiori* the Rájputés will not work on roads however many are offered them. Moreover, in times of famine they have to remain close to their pardah women. Gujars and Játs imitate them, and the three classes form respectively 10, 5 and 17 per cent. of the rural population.

Now for this large percentage of the population one must provide works they will accept. One answer is that if they are really starving they will work on roads, but experience in Karnál in 1869 showed that zamíndárs would not leave their homes "until too emaciated to be able to work" (see Karnál Famine Report). One cannot argue at a time of famine or practise object lessons teaching them the falsity of social theories on starving men. Such a time is a bad one for driving men the way they do not want to go and for separating them from their families, who often cannot follow them, on the mere pledge that the families will be provided for by systems of gratuitous relief. In famine time the kamín and kangál has no particular home, but the zamíndár has, and unless he emigrates, bag and baggage, he will not leave it. The tank system finds great favour in my mind, and in order to render it acceptable to zamíndárs, and in order to prevent this class of labour from quickly giving out, I am inclined to let it be known that "tanks" are for the zamíndárs and for kangáls the "roads." There is no great hardship to the labourer in this. He is accustomed to seek work and can take his family with him and has no home of value to leave behind. On the other hand, zamíndárs will shy at work if they are to be mixed up with "kangáls." I have just questioned the Hindu Rájput village of Lukhi (Pipli) which is hard up. They would not agree to work at their tank (which is an absurdly inadequate one) till assured that it would be a work for zamíndárs only. They were considerably taken with the idea that the kangáls could go and work like coolís on roads, while they would only be asked to dig together

at home in a gentlemanly way. I may add that in this village of Lukhi the kangal population, which is very large, has already greatly cleared out, showing how easy it is for such to disappear while the zamíndárs stand their ground.

What I would lay emphasis on is that we do not only want to save men from actually starving, but we want to save zamíndárs from borrowing and selling, else all our suspensions and advances for cattle and seed are largely stultified, for we could get banias to become purchase proprietors of the whole district any famine day. In the village of Lukhi for instance when asked what they would do if they did not dig when their maize (a small supply) ran out, the zamíndárs answered they would borrow although the village is already indebted. They said that they could get loans from Jhansa and across in the North-Western Provinces. This means that they will mortgage and sell, as banias will hardly lend on even mortgage to indebted men at the time of the bania's opportunity in drought. The Umballa tract is indebted enough as it is, and it is important to give the zamíndárs a means of ready cash at this season.

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Note recorded by the Chief Engineer, Public Works Department, General Branch, with reference to  
Captain PARSON'S Memo, on tanks.

Many tanks hold water merely because they are not cleaned out. The tendency of water collected in any hollow is gradually to stanch itself by silting up the pores of the soil, and thus in course of time tanks that at first run dry a few days after they fill gradually hold water for longer periods. I mentioned this because the note does not touch on the point, and if it is lost sight of the result of deepening tanks where the soil is not of the stiffest clay may very possibly be that for some years the tanks will not hold water at all. Further, in some cases surface clay overlies sand, and if the clay is cut through the tank will take a long time before it holds water again. The villagers will generally know whether it is safe to deepen a tank, and, if so, to what extent, and as long as this is kept in mind harm may be avoided.

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## UMBALLA.

In fact the conclusions forced upon one are that (1) the construction of new roads offers suitable relief labour, but that (2) the raising of existing roads does not offer such, because  
**Kacha roads as relief works.**  
(a) the heaping of dry earth on to roads at a time of drought is futile and wasteful, and  
(b) raising is only needed as a rule in certain places, the result being that the earthwork available is little, and relief labourers would have to be scattered in gangs throughout the road's length.

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## LAHORE (Sharakpur).

(LIEUTENANT C. P. DOWN, ASSISTANT COMMISSIONER.)

\* \* \* When, however, thousands of workers are employed on the repair of a kacha road, many difficulties present themselves. On such a work hutting is impossible, as the scene of work is daily shifted. There being no shelter for them, workers cannot be forced to remain on the scene of the works at night. Many of them live at some little distance and do not arrive on the work till late in the morning, by which time the sun has become very fierce, hard work is impossible, and consequently only a small task is accomplished. The difficulties of ganging are also very great. In  
**Difficulties of relief organization on kacha roads.**

the month of June, when the work amounted to thousands, I found it impossible to organize workers into permanent gangs. The work would extend over two miles of country, and workers could not be got to attend in the morning in the same place as they left off the night before.

\* \* \* \* \*

LAHORE.

It cannot be said that the works as a whole were very useful; they were selected as the best available in order to provide work for a starving population. The tank which has been cleared of silt at Kána Kácha enables the lands near to be irrigated by means of jhalárs as long as water remains in it, and nazúl properties at Lahore have been improved to a small extent by the hollows being partially filled. A large sum amounting to over Rs. 40,000 was spent in repairing roads in the Sharakpur Tahsil—a work which certainly need not have been carried out if any more promising had been forthcoming.

REMARKS BY COMMISSIONER.

These were the only available works. I concur in thinking them of very little permanent use. I think that in future every attempt should be made to provide labour on remunerative works, especially works of irrigation, which, although they may not be works which would recommend themselves in ordinary years, would still bring in some return, and benefit the villages to some extent. The Aunhi Nullah was condemned, because it would be liable to be silted up and was not a *perfect* work from the view of the Irrigation Department. Net Rs. 40,000 spent on it would have been of far more value than in the way it was spent.

J. B. HUTCHINSON,

*Commissioner.*

FEROZEPORE.

It was hoped that the Gulábewála and Kabulshah tanks would prove useful to a number of villages in the immediate neighbourhood, for the water in the wells of these villages is very bitter and even cattle cannot drink it. If we can get these tanks decently full of water, I have no doubt they will serve the useful purpose for which they are intended, but I fancy that unless the canal is extended to this neighbourhood, or unless it be a year of very heavy rainfall, we cannot hope to see them filled, and if either of these contingencies occurs, the tanks will not be very much used.

Utility of relief works.

These tanks are situated in Tahsil Muktsar, and Colonel Montgomery, Deputy Commissioner, when in charge of the district, asked the Sirhind Canal authorities to extend water to them. The water in the neighbourhood is brackish and bad for drinking purposes, both for men and cattle. I will ask what action has since been taken.

C. F. MASSY.

21st October 1897.

The small tanks in Moga are, however, different. These tanks are only meant primarily for the villages near which they are, respectively. The soil is not nearly so sandy as in Muktsar and Fázilka, and there is every hope that these tanks will prove of the greatest benefit to the neighbouring villagers.

I agree.

C. F. MASSY.

HISSAR.

I think it is now admitted that this form of work by itself is singularly unsuited for famine relief purposes. The ground has first to be bored all over to estimate the depth and thickness of the layer; then the layer must both be of fairly average thickness throughout and must extend over a large area, otherwise the number of people that can be employed must be kept within narrow bounds. Besides this the supervision should be close, and the regulation and measurement of tasks involve a large extra establishment. The work also is harder than earth excavation and only sturdy persons can be employed. Kankar digging, therefore, must be strictly limited and the diggers must be specially selected. Under such conditions it cannot be profitably carried on except as an adjunct to some large relief work close by, where there is no limitation as to numbers.

Kankar quarrying.

## GUJRAT.

(S. S. THORBURN, ESQUIRE, COMMISSIONER.)

I doubt very much the value of small district works like district *katcha* road-making. The money expended on these is to a great extent thrown away. The roads are themselves of doubtful utility, and work on them is difficult to control and manage. The largest of them is soon exhausted, and being the first works taken up, they will (as they have been on this occasion) be generally used up just when relief for the famine-stricken is most needed.

Katcha roads.

## HISSAR.

The following table gives the amount of earth excavation carried out by the different agencies:—

1	2	3	4
Agency.	Description of work.	Total cubic feet excavated.	Per cent. on total.
Irrigation Branch, Public Works Department.	Construction of canals, canal roads and minor distributaries and excavation of tanks.	80,304,868	35.7
General Branch, Public Works Department.	Construction and repair of roads, excavation of tanks and quarrying of kankar.	29,386,830	13.0
Civil Department	Excavation of tanks	115,164,544	51.3
	Total	224,856,242	100.0

\* \* \* \* \*

The aggregate number of working units who turned out this total was 8,590,716, so that the average daily task performed by each amounted to 25 cubic feet. On the major works there were, as a general rule, two carriers to every digger, but on the tanks, where the depth was great and the lead was long, the proportion was sometimes three to one. According to the former ratio the digger's daily task was therefore 75 cubic feet and according to the latter 100 cubic feet.

By including the totals of non-working children and dependents the daily task per unit relieved falls to 20.9 cubic feet. Relief works were open for exactly 321 days, 47 of which were Sundays or holidays. Excluding these the daily average task per worker is 30.5 cubic feet and per unit relieved 24.5 cubic feet.

## KARNAL.

On the Nardak Rājbaḥa I got permission to introduce the piece-work system in the case of the Ranghars to enable them to earn enough for themselves and their female relations who could not come on the works. I allowed Rs. 2-4-0 per 1,000 cubic feet, the ordinary rate being either Rs. 2-8-0 or Rs. 3. I subsequently extended the system to the Purbiās, who were practically the only people left on the works after July. I am strongly in favour of this system being introduced on a famine work towards the close of a famine. I noticed that as the demand set in for labour for agricultural operations, consequent on the burst of the monsoon it took away those men who had none or few dependents with them, while those with many dependents found it for a time more profitable to remain at famine wages, as the total amount paid to a large family exceeded what could be earned by them elsewhere.

Piece-work.

### FEROZEPORE.

The widening and extension of the Aghawáh, one of the Inundation Canals of the district, was completed on the piece-work system. The total earthwork done amounts to 20,078,578 cubic feet. The deepest digging was 13 feet up at the head. The Canal was originally 40 feet wide and has now been made 70 feet in width, and the soil on the old bank had to be removed in order to widen the channel, and in some places the labourer had to carry up the soil from 18 to 23 feet on a rapid slope and yet the average rate paid was only Rs. 2-1-2½ per thousand cubic feet, which rate compares most favourably with those paid on the famine relief system or task work, *i. e.* from about Rs. 3-8-0 to Rs. 9-8-0 per thousand cubic feet, although the highest wages received by a single labourer never exceeded 2½ annas a day. This work of excavation, which consists entirely of excavation, has been done on the piece-work system. The rates given varying from Re. 1-9-0 to Rs. 2-8-0 were for a lift of from 10 to 13 feet and a lead averaging about 70 feet on both sides. The work was given out to families or gangs of relations and friends varying in numbers from 5 to 15. Correct cross sections of the Canal showing existing and proposed bed have been taken and properly plotted for every half furlong, or, where necessary, oftener. The Canal was divided off into convenient lengths, and the cubic contents of the excavation in each length calculated out accurately by means of the cross sections.

The method of carrying out the work was very simple, *i. e.* when a gang applied for work they were shown a length of the Canal and informed that there were so many cubic feet of earthwork in it to be done at a rate (that varied as above) of so much, and that the total value of the work there, was so many rupees. The labourers then saw exactly what they had to do and set to work at once. At the end of each day or two days, as the case may have been, the Dárogah or Overseer came round, roughly measured what had been done, and the workmen were paid in part. The final payment was made when the entire work taken by the gang was finished. The labourers supplied their own baskets and tools, and where they were working by scrapers (*karáhas*) with bullocks they also supplied their own draught animals. If they did not bring tools with them these were supplied them and the value recovered afterwards. When any given length was completed the total value of the work in it as previously calculated was given to the gang after deducting payments on account already made and value of tools, &c., supplied. The gang was then put on another length and the procedure repeated. This arrangement prevented the necessity of keeping up an extensive establishment of Sub-Overseers to make accurate measurements from time to time as only rough measurements were made while work on any given length was in progress and final payments were made on calculations made before work was started. A surveyor or leveller was continually working up and down the Canal giving bed-level pegs and checking all pegs previously put in.

All the labourers appeared perfectly content with the arrangements, evidently recognizing that nothing was to be gained by shirking, while the more work they did the more pay they got. It is clear that the people preferred the 'piece-work' to that of the 'task' system, and the proof of this statement lies in the fact that over two crores of cubic feet of earthwork was finished by 1,352 men, 159 women and 101 children in 23 weeks, or 161 days. These numbers give only the average of labourers employed, because when their crops (such as they were) were far from being ripe and the people were keen on finding something to do, there were over 3,300 labourers working daily on the Aghawáh, and this they did when task system was going on in the same district where the number of labourers was comparatively small and more could have been employed. The people employed on the Aghawáh could work when they liked; for instance in the hot days of June and July when the work was in full swing the labourers rested during the day for several hours together and worked mostly at night, and many of the able-bodied men made as much as five and six annas a day, and it was often the case that a man, his wife, and one or two small children of about 10 years of age have made twelve to fourteen annas per diem: the average daily earnings of ordinary men comes to about or a little over three annas a day.

This important piece of work was done to the satisfaction of all concerned at *half* the Public Works rates, the result being that whereas last year this Canal irrigated only 7,100 ghumáos, this year its irrigation area has been extended to 20,000 ghumáos.

The system was not tried on any of the tanks excavated in Moga or elsewhere, except by mistake in Moga, where the system of daily wage was again introduced as soon as possible.

Remarks on the above by the Chief Engineer, Irrigation Department.

Referring to the account of the Aghawah Canal excavation, quoted in paragraph 6 of your letter under reply, I would remark that it has been ascertained by reference to Rái Bahádúr Maya Dás, Extra Assistant Commissioner, under whom the work was executed, that the description given in the local report was not altogether correct, as the

widening was effected only on one side, while the lift varied not between 10 and 13 feet but between 2 and 13 feet, and the lead varied between 15 and 70 feet instead of *averaging* 70 feet as stated. Moreover, there was no trimming of slopes, and a good deal of the excavated earth was pulled up the banks by means of bullock labor, while the human labor consisted very largely of males. The results obtained on the Aghawah Canal cannot, therefore, be fairly compared with earthwork, which involve the dressing of slopes.

### HISSAR.

From the beginning of December 1896 till the end of September 1897 seventeen cases of death from actual starvation were reported. In each case an inquiry was held by the Assistant Commissioner or Extra Assistant Commissioner in Civil relief charge of the locality where it occurred, with the result that most of the reports turned out to be misleading. Three cases of deaths from "chronic starvation" in the Bhiwáni Hospital were reported in January and May 1897, but hunger was not the direct cause of death. In three cases the Muharrir who took down the original report in writing, misunderstood the man who brought the news. In one case of suicide and another of accidental drowning of a child the village watchman purposely gave in a false report in order to avoid inquiries by the Police. In six cases the cause of death was not starvation, but some specific disease, so that only three persons are known to have died from the immediate effects of hunger. One of these was a Teli widow who lived in the Bhiwáni Tahsil. She had no children alive and was looked after by her son-in-law. The latter took her in May to his own home in the Hissar Tahsil and after a week disappeared in search of work. The woman was brought on the gratuitous relief register and received assistance for nearly ten days. She then disappeared for some days, leaving no trace, and was found in an emaciated and dying condition in the jungle some way north of Hānsi. She had been trying to reach her home in Bhiwáni. When found she was too weak to take much food and died in a very short time. The second case was that of a Chamár woman who was found by a Government official in a very weak state on the road from Hissar to Rájgarh in Bikanir. She was brought to the poor-house in Hissar and was there recognized by two Bikaniri inmates as a resident of that State. She was in the last stage of emaciation, and though she took a little food occasionally she died three days after admission. The third case was that of a Bikaniri wanderer who was found dead by the roadside just across our border. The condition of his body left no doubt as to how he had come to his end. At one time, however, thirst threatened to be a more fatal cause of death. Four people at least died from want of water in spite of the extensive system of water-supply for travellers. Two of these cases occurred in the Sirsa Tahsil and one in the Bagar country to the south of Fatahabad. The fourth case was that of a lad of 16, who had evidently been trying to reach some of our relief works from Loháru, but had lost his way in a duststorm or at night. All four persons belonged to Native States. The residents of this district when travelling always knew where to find a village or a water post. Although hunger and thirst were the immediate cause of death in only seven cases, this total by no means represents the whole extent of the mortality due to the famine. Numerous instances have occurred, and will continue to occur for some time, in which privation and suffering have permanently lowered the vital powers and have rendered the persons affected incapable of resisting the attacks of such ailments as fever, dysentery and pneumonia from which, under ordinary circumstances, they would either have escaped altogether or would have made a successful recovery. Deaths from starvation can only occur during the prevalence of acute scarcity, and under the present organization of Government can be reduced to a minimum, but the loss of human life caused by a famine is not confined to such cases and will continue to swell the mortality returns for some time after famine itself has passed away.

But the figures for deaths from bowel complaints are very different as they show in a striking way how the people suffer during a famine from eating bad food, jungle berries and grasses. The monthly returns are given below:—

PERIOD.	DEATHS RESULTING FROM BOWEL COMPLAINTS.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Average ... ..	22	17	21	26	47	37	39	59	86	61	54	45	514
1896 " " " "	22	13	30	25	21	22	34	74	165	114	85	98	703
1897 " " " "	66	45	38	65	102	105	116	236	"	"	"	"	773

## UMBALLA.

But what came home to me as a matter which, of all others, this famine threw strong light upon was the way in which the lower rural classes can live and have been living and are accustomed to live by the aid of nature when there is no food-grain to be got or when they can only get the smallest of quantities. All officers know that the rural menial supplements his food with wild produce when necessary, but possibly it is not known to all that not only individuals but communities can subsist for a length of time almost entirely on wild produce without expecting aid or considering the state of affairs other than what has happened before in their history and will happen again. This famine proved no other fact that impressed me so much as this. It was brought out in a strikingly clear way that the experience of generations has taught this class that though in times of famine they have to live face to face with starvation they can nevertheless live and not die. At all times, except in times of plenty, these people live in a wretched way from the point of view of other classes, but in famine time they live in a way which is surprising.

I have before me 9 packets of stuffs which were taken practically off the hearth stones of a Chamár community by Mr. Hailey, who came much in contact with these classes when acting as "Famine Officer." These samples were not shown up spontaneously so as to attract the attention of authorities. Mr. Hailey "raided" the houses unexpectedly and procured specimens of the materials put by ready for meals.

The packets contain the following:—

- I.—Husks of jowár (millet).
- II.—*Táss* or husks of rice (eaten with the tops of wild leeks).
- III.—*Sonk* or *sámank* or *sámak*, a wild millet.
- IV.—*Dél*—seed of a weed which grows largely in *urd* or *charri* fields. It is gleaned after the crops have been reaped and some times contains a few *urd* grains.
- V.—Hemp seed.
- VI.—Chaff obtained from gram-threshing floors.
- VII.—Pounded wild plums (*bér*) with stones included.
- VIII.—Root or bulb of the *dhák* (*butea frond sa*).
- IX.—Rotten gram.

With the exception of No. IX these are all wild products, though probably No. III is the wild type of that *Sámank* which is cultivated, *vis.* the bulrush millet (*panicum frumentaceum*). The grains in the packet are much like millet grains. This wild millet grows pretty abundantly, and I was told that the labourers employed to cut the hay on the Cantonment grass lands in September 1896 saved all their wages and lived on this; which can be seen any day growing on the grass farm lands.

This wild millet must be a great stand-by, but, with the exception of one or two of the articles, none contained in the packets could give any nourishment worth speaking of. The pounded wild plums look most indigestible; the husks must contain about as much nourishment as chopped straw; and the *dél* is said to be bad owing to its constipating qualities.

Along with these samples, samples of some vegetables eaten were sent. They were wild leek tops, sarson (*brassica campestris*), and *batowa*. What this last exactly is I do not know, but these three things were said to form the sole morning meal of the Chamár families in question. In only one house maize was found. The wild leeks were being consumed largely in the Mustafabad and Biláspur Circles. The tops are eaten, not the roots. They are boiled down with rice husks or even *bhúsa* to give them substance.

The rotten gram is worth noticing. It was black and had a bad smell. This is about the only class of grain within the reach of such people at such times. Baniahs, waiting for good prices and having kept grain in their pits too long so that it is bad, keep it longer still, waiting for a famine year and then they open up. Some times it is dangerous to open the pits (*kothis*) as the effluvia is asphyxiating. Often the grain is turned out coal black, moist, caked and smelling horribly. Still sale is contemplated, or some times the Baniah will be charitable enough to distribute the muck (there is no other word for it) gratis. Sometimes I interfered when the stuff was too offensive; but when the grain was merely weevil-eaten and rotten in a comparatively mild degree I let things alone. It seemed hard to stop any source of supply and to take away from Chamárs the only class of food-grain they could buy or which Baniahs would sell them.

"Keep your rotten grain for famine years" is a maxim taught the Baniah by generations.

I am indebted to Mr. Hailey for the samples and many of the details given. He took a large interest in famine work and his work was very thorough.



### HISSAR.

As a rule the people eked out their scanty supplies of grain by mixing them with  
 Wild produce used as food. jungle fruit or the leaves or bark of certain trees. A  
 description of the more important of these natural products is given below. They were all largely consumed during the famine, and although they were unnutritious and induced all kinds of gastric complications, it is hard to say what would have happened had they not been available.

The "Jal" (*salvadora oleoides*) is a large ever-green shrub found in the arid tracts of the Punjab, Sind and Rájputána. It flowers in April and the fruit ripens in the hot weather. The berry is called "pil" or "pilu." It is sweet to the taste and is largely eaten, even in prosperous times, by the poorer classes. But the seeds produce irritation in the intestines. Only camels will eat the leaves, which are also made into a decoction and used as a drench for horses. The oil expressed from the seeds has medicinal properties.

The "Kair" (*capparis aphylla*) is a dense branching shrub, devoid of leaves, found only in arid tracts. Ordinarily it blossoms once a year from April to the end of May. The blossoms are of a red coral tint and are called "Burwa." These are mixed with grain and cooked as food by the poorer classes. When the berry is green and hard it is called "Tind." It is made into a pickle and is highly prized at this stage by rich and poor alike. When the berry ripens it is called "Pinju." It is then decidedly unwholesome and is eaten only as a last resort as it produces obstinate constipation. This shrub is regarded with great reverence by the people of the district as it blossoms more than once in famine years. During the present famine it blossomed in the spring and late autumn of both 1896 and 1897. This phenomenon is looked on as a divine providence and is probably caused by exceptional drought.

The "Jand" (*prosopis spicigera*) is a short deciduous thorny tree also confined to the arid zone. The pods, "Sangar," which ripen in June and during the rains contain a sweetish farinaceous substance which is largely consumed, but only in times of scarcity. When green, these have to be boiled before they can be eaten. When ripe they are eaten raw. I also came across instances of starving people eating the bark of this tree which they chopped up and boiled with grasses.

The "Pala" or "Jharberi" (*sizyphus nummularia*) is a prickly shrub, which ripens twice a year in May and October and is highly prized as fodder for cattle. The fruit is a small round acid berry which is used as human food only in times of famine. In ordinary seasons the villagers make large profits by the sale of their "Pala" for fodder.

The "Samak" of Hariána and "Sawánk" of Sirsa (*panicum colonum*) is a dark green grass with a broad blade. It is found chiefly in the Sotar lands and is never cultivated in this district. It resembles rice and is generally boiled with milk.

The "Kaundra" or "Kondhra" is a dark green grass easily distinguished by its pink flower.

The "Chulai" and "Pip" grasses are somewhat acid and have to be minced before cooking.

The "Bhurat" or "Dhaman" (*cenchrus catharticus*) is a grass which grows extensively in Bogar tracts. In famine the people cut and dry the ears which are then pounded to separate the thorns. The grain looks like that of bájra and is generally made into chapattís.

## APPENDIX II.

### Normal condition of the poorer classes.

No. 263 S., dated Simla, 23rd June 1888.

From—H. C. FANSHAWE, Esquire, Offg. Secretary to Government, Punjab.

To—The Secretary to the Government of India, Revenue and Agricultural Department.

I AM desired by the Lieutenant-Governor to acknowledge the receipt of your confidential Circular No. 44 F.—8-1, dated 17th August last, and of your Circular of 2nd September, in which it was desired that enquiry should be made into the condition of the lower classes of the population, especially in agricultural tracts, with a view to ascertaining whether the assertion which is said to have been frequently repeated that the greater proportion of the population of India suffer from a daily insufficiency of food is wholly untrue or partially true as regards the Punjab.

2. In reply I am directed by His Honor to forward, for the information of the Government of India, the printed opinions of the officers who have been consulted on the subject, and to convey the personal observations of Sir James Lyall as follows. The Lieutenant-Governor has thought it best on the whole that these papers should be printed, and that they should be forwarded to the Government of India in order that His Excellency the Viceroy may be in possession of the opinions of the officers consulted exactly as expressed by them.

3. An excellent summary of the opinions received has been made by the Director of Land Records. The statements summarised are undeniably evidence of a positive and trustworthy character, and the Lieutenant-Governor concurs with the Financial Commissioner of the Punjab in accepting the conclusions formulated by Mr. Steedman, *vis.*, that it is untrue that the mass of the population of the Province suffer from a daily insufficiency of food, but that in times of unusual scarcity, not amounting to famine, the poorer classes, whose standard of living is very low, are no doubt reduced to great straits and do not get a sufficiency of food. His Honor believes that the Government of India will have no hesitation in endorsing the justness of this conclusion; but were more evidence desired on the subject, the general position could be further proved by reference to the general excellence of physique in the Punjab, the death and birth rate of the population, and the prevailing rates of wages, which have risen considerably of late years.

4. Sir James Lyall thinks that it may be safely asserted that any observer can see that in years of abundant crops all classes of the people in the agricultural tracts of the Punjab have a very well-fed appearance, certain gypsy tribes perhaps alone excepted. In insecure tracts, however, where a crop fails badly or when crops are scanty for two or more seasons, the lowest classes, comprising village artisans, field labourers and some of the poorest tenants, soon show signs of insufficient diet, though by no means starving. As a rule, however, even in these tracts such signs are not apparent in the case of the peasant proprietors, except in the instances of a few individuals who have exhausted their credit. But the difference of thrift and energy in the different races to which the peasant proprietors belong is very remarkable; and in the same tract some races suffer much more than others. Since the advent of British rule to the Punjab the wages of artisans and labourers in towns have risen very greatly, much more so than those of the same classes in the country. But the town artisans and labourers are apt to suffer more in times of high prices, as high prices do not always mean great local failures of crops, and the rural artisans and labourers are generally paid in kind and can supplement their diet with fruits and vegetables which they pick up for nothing.

5. The fact that the lowest classes in India suffer so quickly from deficiency of food in abnormally bad seasons is not more surprising, the Lieutenant-Governor thinks, than the fact that beasts of the field suffer also, if their customs be considered and the way in which they are content to live down to the lowest possible standard of living be taken into account. Almost all men and women of these classes marry, and marry young, and have families; and they are in the habit of borrowing money at a high rate of interest for expenses which are not always of a necessary kind. The notices of selected cases recorded by Mr. R. Maconachie, Deputy Commissioner of Gurgaon, will illustrate their habits and ideas, and the Lieutenant Governor sees little hope of any change in these. So long as these classes are content with so low a standard of living and multiply so freely, periodical suffering seems almost inevitable, Sir James Lyall cannot imagine any remedial measures which would have more than a temporary effect. The Punjab Government is doing its best to extend agriculture to barren wastes by the construction of new canals, and this will give temporary relief in congested tracts by drawing off part of the surplus population. Weavers and oilmen among the artisan classes of the Province have probably suffered to some extent

from competition with foreign goods, and these classes would be benefited to some extent, at all events, for a time by the establishment of cotton mills or other large manufactories. Such undertakings, however, must be left to private enterprise which can alone deal successfully with them. But though a few trades have suffered a little from foreign competition, the general condition of the classes under consideration is nothing new. It has been the same for ages, and is, the Lieutenant-Governor believes, better now than it ever was before. The more skilled classes of artisans are notoriously better off than they used to be, and the wages of common labourers have greatly risen from what they formerly were.

6. But little has been said in the opinions given by officers regarding the people of the Native States of the Punjab. The Lieutenant-Governor believes, however, that deficiency of food is not as a rule commoner in these States than in the British districts of the Punjab, though the lower classes generally have less moveable property and the land-owners less credit than the same classes under our own administration.

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Note by E. B. STEEDMAN, Esquire, Director of Land Records and Agriculture, Punjab, dated 12th June 1888, on the replies received to the enquiry as to whether the people of India suffer from a daily insufficiency of food or not.

ON receipt of the Government of India's Confidential Circular No. 44 F—8-1 Revenue and Agricultural Department (Famine), dated 17th August 1887, requesting that an enquiry might be made into the truth of recent allegations that the people of India suffer from a daily insufficiency of food, the Commissioners of Divisions were asked to obtain the opinions of the selected officers named below, and to forward them with an expression of their own views to this office. The selection of the officers was made by Colonel Wace.

*Delhi Division.*—Messrs. Maconachie, Purser, Douie, Kensington, Anderson, M. Abdul Ghani.

*Jullundur Division.*—Colonel Birch, Messrs. Francis, O'Brien, Harris; Mirza Azim Beg and Maya Dás, Extra Assistant Commissioners.

*Lahore Division.*—Major Hutchinson, Messrs. Clarke, Dane; Rái Karm Chand, Bhagwán Dás, Extra Assistant Commissioners.

*Ráwalpindi Division.*—Major Roberts, Messrs. Gardiner, Wilson; Ghulám Faríd, Qázi Ali Ahmad, Ghulám Ahmad, Extra Assistant Commissioners.

*Derajat Division.*—Messrs. Steel, Ogilvie, Dames; Ghulám Murtaza, Extra Assistant Commissioner.

*Pesháwar Division.*—Messrs. Udny, Cunningham.

The enquiry instituted by the Government of India may be summarised in two questions :—

1. Is the assertion that the greater proportion of the population of the Punjab suffer from a daily insufficiency of food wholly untrue or partially true?
2. If the assertion is partially true, what are the remedies?

As there is a general concensus of opinion that such an assertion is wholly untrue I do not propose to discuss in this note the remedies which have been suggested by many of the officers consulted.

In treating the first question it will be, I think, the most convenient plan to give first a summary of the opinions received from each Division, and then to frame a "brief and comprehensive statement of the conclusions" which I draw from the inquiries that have been made.

*Delhi.*—At a Conference of the Deputy Commissioners and Settlement Officers of the Delhi Division, presided over by the Commissioner, Colonel Grey, C.S.I., resolutions were adopted regarding the enquiry which are summarised below.

The allegations that the greater portion of the population of the Punjab suffer from a daily insufficiency of food are erroneous and misleading if taken to mean that in ordinary seasons, apart from the visitation of famine, any considerable portion of the population of the Punjab, whether urban or rural, suffers habitually from any degree of hunger. At the same time the diet is of a distinctly inferior class. There is, however, no evidence to show that poor feeding is on the increase; on the contrary, it is believed that the standards of general comfort are higher now than before annexation.

*Mr. Maconachie's* views are also separately given :—

1. In fair seasons there is no actual want of food, but the standard of living is perilously low. Directly prices rise or failing health abridges labour difficulties begin.
2. Short of starvation, there is a stage where green crops, herbs and berries are consumed in larger quantities than is good for health.

*Jullundur*—The Commissioner, *Mr. Mackworth Young*, considers that the assertion is wholly untrue. In ordinary times both the agricultural and the non-agricultural population have a sufficiency of food. No class is habitually underfed.

*Mr. O'Brien*, speaking from a long experience of Muzaffargarh, Mooltan and Ferozepore and a shorter experience of Kangra, states that the assertion is wholly untrue. In Kangra it would be difficult to find a single hungry man.

*Colonel Birch, Mr. Francis and Bábu Maya Dás* speak concerning Ferozepore.

*Colonel Birch* considers that ordinarily the agricultural population is in tolerable circumstances and get sufficient food, but that in time of scarcity the people are pinched and starve when the harvests fail.

*Mr. Francis's* opinion is as follows:—The rural population is hardly ever in want of food. Both solvent agriculturists and agriculturists in debt can always obtain sufficient food. Tenants have more difficulty in times of scarcity. Menials are always assisted by zamindárs in bad times. So long as there is a demand for labour menials do well. The poorer population of towns is probably worse off in times of high prices than that of villages.

*Bábu Maya Dás, Extra Assistant Commissioner*, does not give any general opinion. He says that the inhabitants of certain villages in the Fázilka Tahsil suffer from insufficiency of food, but he admits that no case of starvation has come to his notice.

*Mr. Harris* writes thus of Hoshiárpur:—The assertion is wholly untrue. Proprietors, so long as they are proprietors, never starve. Tenants are also well off. Kamíns are always helped by the zamindárs in bad times. Poor people emigrate in search of labour. A coolie can always get his two annas a day.

*Lahore*.—The Commissioner, *Mr. C. Rivas*, states that the people do not suffer from an insufficiency of food in ordinary years. With a widespread failure of crops, a considerable proportion of the lower classes does, for the time, not obtain an adequate supply of food. But such failures are rare.

*Major Hutchinson* considers that the assertion is wholly untrue of the population of the Mooltan District.

*Mr. Clark* states that the assertion is untrue of Lahore, but admits that in years of scarcity the poorer classes do not get sufficient to eat.

*Rái Karm Chand*, also of Lahore, states that a considerable portion of the population is underfed and that this portion is sure to increase every year if the causes creating poverty are not remedied at an early date.

*Bhagwán Dás—Gurdáspur*.—Writes that the statement is not correct that the agricultural population is in a starving state. The population to the west of the Sutlej is generally in good circumstances.

*Ráwalpindi*.—The Commissioner, *Colonel Nisbet, C.I.E.*, holds that in drought and famine there is a great deficiency of food among the lower classes, but that this is due to other causes besides scarcity. The poorer classes in India suffer less from deficiency of food than the corresponding strata of the population of Great Britain and other Northern countries.

*Mr. Gardiner—Ráwalpindi*.—Writes that in regard to the enquiry the poorer agriculturists and labourers stand on much the same footing, and owing to the large demand for labour in the Ráwalpindi District they can generally obtain a sufficiency of food. The assertion is wholly untrue of the agricultural population generally. The case of Pindigheb is special. There, owing to a series of bad seasons, the people have undoubtedly suffered and many left the country, but they returned to their homes when rain fell.

*Ghulám Ahmad—Ráwalpindi*.—Considers that the assertion that the greater portion of the lower class of agriculturists and of persons connected with agriculture suffer from a daily insufficiency of food is partially true. It holds good both in regard to the rain lands of Pindigheb and to the well-irrigated lands of the district. A higher standard of living than formerly is said to be one of the causes.

*Major Montgomery—Siálkot*.—Is of opinion that a very small portion of the population suffers from insufficiency of food, *i. e.*, that a small percentage of the population that must do so

*Kási Ali Ahmad—Siálkot*.—The people, as a rule, receive sufficient food. No emigration from the district. Even beggars get enough to eat. Village kamíns are well off. Never heard of a death from starvation.

*Mr. Wilson—Shahpur*.—Would answer the question with a highly qualified negative. Apart from unusual scarcities, it is not the case that any considerable proportion of the population of the Punjab suffers from a normal insufficiency of daily food. Frequently recurring scarcities in unirrigated tracts, while they last, do certainly bring a considerable number of the peasantry perilously near starvation point. In normal scarcities less grain is eaten by the poorer classes, and this is largely supplemented with wild berries and fruits. The standard of living is very low, and herein lies the danger.

*Ghulám Faríd—Shahpur.*—Draws a very dismal picture of the state of the people in Shahpur and Gurdáspur. Is of opinion that of the Muhammadan population 4 per cent. live at starvation point, and 20 per cent. do not get sufficient food

*Deraját.*—The Commissioner, *Colonel Ommanney*, is of opinion that in ordinary times there is no insufficiency of food. In times of lengthened drought even there is neither famine nor starvation. The inhabitants of the tracts most subject to drought possess the best physique. High prices no doubt cause distress to the poorer classes, but there is neither regular nor partial insufficiency of food.

*Mr. Steel—Musaffargarh.*—The assertion is wholly untrue of Musaffargarh. Canals and wells render agriculture secure. Wages are high. The inhabitants of the Thal can in times of scarcity always get work on canals, &c., in the district.

*Kázi Ghulám Murtaza—Musaffargarh.*—Is not very clear on the question whether there is a general insufficiency of food or not. Does not say much about distress, discusses methods of assistance

*Mr. Dames—Dera Gházi Khan.*—It can be confidently asserted that no part of the population suffers from insufficiency of food. Has never seen anything resembling famine and never heard of a death from starvation. Wages are high. The assertion is not true either of the secure or the insecure tract of the Dera Gházi Khan District.

*Mr. Ogilvie—Dera Ismail Khan.*—Agriculturists, artisans, labourers and townspeople generally get sufficient food. There are exceptions, but there is very little extreme poverty. In the insecure tracts the population suffers periodically from shortness of food. In times of scarcity emigration commences after a time either to the nearest labour market or to the Indus alluvial lands. At the present moment the Thal is empty of inhabitants owing to continued drought.

*Pesháwar Division.*—The Commissioner, *Colonel Waterfield*, states that he does not consider that any portion of the population of the Pesháwar District are in want. During 1878-79 and 1879-80 when food grains were at famine prices owing to the Afghan War, there was no particular distress. Kohát is similarly circumstanced, and at the present time in spite of two years' bad seasons there is no suffering from insufficiency of food. In regard to Hazára Colonel Waterfield's opinion is not so favourable. He considers the people of the hill tracts to be a poor, ill-grown and underfed looking race, but he does not definitely state that they suffer generally from an insufficiency of food.

*Kohát.*—Mr. Udny has no reason to believe that the people of the district are suffering from a daily insufficiency of food. It cannot even be said that the cattle-owners of certain parts of the district, who have suffered great losses during the last two years as a rule suffer from insufficiency of food.

*Hazára.*—Mr. Cunningham mentions a number of facts which he considers disprove the theory that in ordinary times (*i.e.* when there is no famine nor severe scarcity) the tenants and hired labourers suffer from insufficient food, *e.g.*, high wages, payments in grain, increase in value of land, immunity from drought and seasons of scarcity.

The conclusions to be gathered from the reports received are in my opinion two—

- (1) In ordinary times so long as there is no failure of harvests, scanty though a few successive harvests may be, the mass of the population does not suffer from insufficiency of food. In other words, the greater proportion of the population of the Punjab does not suffer from a daily insufficiency of food.
- (2) In times of unusual scarcity, not amounting to famine and high prices, the poorer classes, whose standard of living is very low, are no doubt reduced to great straits and do not get a sufficiency of food.

So large a portion of the population of the Punjab is purely agricultural or intimately connected with agriculture, and therefore more or less dependent for their livelihood on the character of each harvest, that it may be useful to roughly classify the different tracts of the Province with reference to their liability to suffer from failures of harvests. The condition of the population of each area will be considered with reference to the facts and opinions elicited by the present enquiry.

I have roughly divided the Province into the following zones:—

- (1) Hills and sub-montane tracts where the rainfall is ample and certain.
- (2) Intermediate zone in which the rainfall is fair but uncertain. This may be further sub-divided into—
  - (a) Canal and well irrigated.
  - (b) Unirrigated.
- (3) Unirrigated lands south of zone No. 2, between the Sutlej and the Jumna, with a very uncertain rainfall.

- (4) The tract south of zone 2, west of the Sutlej, with a very small and uncertain rainfall. This may be sub-divided into—
- (a) Irrigated by canals, both perennial and inundation, and wells.
  - (b) Lands flooded by the rivers.
  - (c) The Bárs between the Sutlej and Jhelum.
  - (d) The Thal between the Jhelum and the Indus.
  - (e) Western parts of Jhelum and Ráwalpindi Districts.
  - (f) The arid tracts trans-Indus of the Daman, the Marwat plain and Yusafzai.

In the hills and sub-montane districts where harvests rarely fail the population hardly ever suffer from insufficiency of food. (Messrs O'Brien, Harris, Major Montgomery and Bhagwán Dás.)

In the 2nd zone we find some of the most prosperous districts of the Province, and the general opinion is that except in years of abnormal scarcity the people do not suffer from an insufficiency of food. Harvests rarely fail on the canal-irrigated lands of Lahore and Amritsar, and those irrigated by the Western Jumna Canal are perhaps even more secure. Little less certain are the crops in the well-irrigated lands of Jullundur, Gujránwála and Gujrát. On the unirrigated land crops periodically fail, but the cultivators do not always depend solely upon their rain-lands. They often possess irrigated lands. Where there are only unirrigated lands and a failure of the rains causes a total failure of the harvest the population no doubt suffers and the poorer classes for a time do not get sufficient food, but total failures in this tract seldom occur, and a succession of failures is very rare.

In regard to the state of the population inhabiting the unirrigated tracts between the Sutlej and the Jumna the opinions of Mr. Francis for Ferozepore and of Mr. Maconachie for Gurgaon, the resolutions of the Delhi Conference are available. Here the crops fail more frequently than in any other part of the Punjab. But to counterbalance this the population of the parts (Ferozepore, Hissar and Rohtak Districts) most liable to deficient rainfall and consequent failure of crops are perhaps the most thrifty and enterprising in the Punjab. The holdings are large, there is a large waste area suitable for grazing, and the harvests when sufficient rain falls yield abundantly. When the worst comes the agriculturists migrate in search of employment. The people in fact do not regard a bad harvest as anything abnormal, and their mode of life is adjusted so as to best withstand these periodical calamities whenever they do come.

It is in the better cultivated portion with a larger rainfall and a denser population where failures of the crops, though not occurring so often, are the most disastrous in their results—Gurgaon is an example and the western portions of Karnál.

Nevertheless, we have the distinct opinions of all the officers serving in this tract of country that no considerable portion of the population suffers habitually from any degree of hunger, that the rural population is hardly ever in want of food, and that the poorer inhabitants of towns are probably worse off in time of high prices than those of the villages.

The remaining division comprises the western half of the Province extending from the Sutlej to the frontier and from the western portions of the Jhelum and Ráwalpindi Districts to the State of Baháwalpur and Sindh.

The rainfall in the northern portion is scanty and uncertain and diminishes to a few inches in the south. In this southern rainless tract there is practically no cultivation dependent on rain. All lands under cultivation are either irrigated by canals or wells, or moistened by floods and percolation from the rivers. In this tract it is stated the people never suffer from insufficiency of food. Major Hutchinson and Messrs. Steel and Dames are very clear on this point.

Further north in the Thal of the Sind-Ságar Doáb and the upper portions of the Bár tracts there is a larger rainfall and a certain amount of rain cultivation which is for the most part confined to the higher central portions of the Bárs and Thal where well cultivation owing to the distance to water is impracticable. Here the people are more cattle graziers than agriculturists and lead a nomadic life, wandering from one part of the Bár and Thal to another in search of pasture. Passing from the centre of the Bár towards the rivers the population becomes more agricultural. Well cultivation takes the place of cultivation dependent entirely upon rain and becomes more and more dense as the rivers are approached. Failures of the harvest are frequent on the rain lands. The well lands generally give a crop, but its character depends on the rainfall. Deficient rain means a smaller area cropped and a smaller outturn on each well. A succession of bad seasons results in a number of the wells being abandoned. At the present time the Thal is 'empty of inhabitants' owing to the continued drought of the last few years. Up to the kharif harvest of 1887 the people of the Shahpur Bár had for some time, owing to the same causes, been in very straitened circumstances. But though, owing to this abnormal drought and high prices, there must have been very general suffering from an insufficiency of food among the poorer classes, there appears to have been no starvation. Many migrated in search of labour; others took their flocks and herds down to the rivers;

some stayed at home. Those who remained suffered the most, and for some time their food was largely made up of wild fruits and berries and the seeds of grasses. There is, however, no evidence of a habitual daily insufficiency of food. The superior physique of the inhabitants of this part of the country contradicts such a supposition and is in itself conclusive proof that their ordinary diet is not only sufficient but highly nutritive. It is only a succession of years of deficient rainfall that produces a condition of things such as has been described above, and fortunately this rarely happens. In ordinary times the people are thoroughly well off.

In the western portions of the Jhelum and Ráwalpindi Districts the cultivation is almost entirely dependent on rainfall and is very precarious. But the people are generally well off. The holdings are large; the fatness of one year makes up for the leanness of another, and the people possess considerable wealth in cattle, sheep and goats. At the present time there is considerable distress in the south-western portions of the Ráwalpindi District, but this is entirely due to a succession of seasons of deficient rainfall and is quite abnormal. A considerable portion of the agricultural population have temporarily left the country, but, as the Deputy Commissioner, Mr. Gardiner, notes, they return at once when there has been a favourable fall of rain.

Trans-Indus the circumstances of the dwellers in the Daman, Marwat and Yusafzai are similar. Years of plenty follow years of scarcity, and though the population suffers periodically from shortness of food, there is very little extreme poverty.

The conclusion to be drawn is that there is not a district nor a tract in the Province, neither in the fertile and densely populated sub-montane districts nor in the arid, sparsely populated tracts of Bár and Thal in the west in which the people habitually suffer from a daily insufficiency of food. The population of the tracts where there is least rain and that of the hills and sub-montane districts where there is most rain appears to be in the most comfortable circumstances. The people of the intermediate zone suffer most from failure of crops. In times of scarcity the food of the poorer classes is probably both insufficient in quantity and deficient in quality, but it is only in what may be termed famine years that the population generally does not get enough to eat. The allegation therefore, as stated in the Government of India letter, may, so far as the Punjab is concerned, be designated as wholly untrue.

Note by the Financial Commissioners, Punjab, dated 26th June 1888.

THE reports of all the selected officers to whom the above was referred for enquiry and report are now to hand and have all been carefully analysed and reviewed by the Director in a careful note.

The concurrence of opinion of the officers consulted is so remarkable that the Financial Commissioners have no hesitation in endorsing the Director's conclusion that, so far as the Punjab is concerned, there is no considerable section of the population of whom it can be said with anything approaching truth that they "suffer from a daily insufficiency of food." The very reverse of this is the case, and specially with reference to the lower classes in agricultural tracts to whose case particular attention was directed; for, though their food is often coarse in description, it is wholesome and nourishing and is partaken of three times a day over a very large area of the Province. The Officiating 2nd Financial Commissioner is in a position to endorse all that the present Commissioner of Jullundur writes as regards that Division, as the matter was one which Colonel Gordon Young made the subject of careful personal enquiry during his last cold weather tour.

It is of course understood that in these remarks years of ordinary prosperity alone are alluded to; in seasons of deficient rainfall or of abnormally high prices from whatever cause there is doubtless a large section of the people who come perilously near starvation, and whom nothing but well directed intervention on the part of the Government can save. But for famine years we have now in every province of India special carefully devised codes of instruction, and an organised agency, or rather a pre-arranged agency which can be organised in a few days, for dealing with the painful problems which at such seasons present themselves, and for the present these occasions are understood to be without the limits of the discussion.

If the statement above noted is applicable to any section of the population at all, it is rather to the poorest of the urban population than the agricultural classes. In many cities there are classes of exceedingly poor artisans who feel the pinch of high prices acutely, and women of respectable position whose small earnings will not at the best of times do more than keep body and soul together.

There is ample scope in places like Delhi and Lahore for a charitable organization for the treatment of such exceptional cases.

Mr. Steedman has brought the facts found on reference to each Division into a very convenient form for the information of Government, and the Financial Commissioners do not desire to offer any further remark than that they accept and endorse the conclusions arrived by him.

G. GORDON YOUNG.  
G. R. ELSMIE.

## APPENDIX III.

### Operations of the Medical Department.

No. 4434, dated Lahore, 22nd December 1897.

From—Surgeon-Colonel D. O'C. RAYE, M.D., Inspector-General of Civil Hospitals, Punjab,

To—The Revenue Secretary to Government, Punjab.

WITH reference to your letters No. 1166, dated 5th November 1897, and No. 1266, dated 16th December 1897, <sup>Revenue</sup> <sub>Scarcity</sub>, I have the honor to forward a report on the operations of the Medical Department in connection with famine relief. The Sanitary Commissioner has added a note to this report.

The enclosures of your letter No. 1266, dated 16th December 1897, are returned.

General Report on the operations of the Medical Department during the prevalence of severe scarcity in 1896-97.

IN only three districts of the Punjab was it found necessary to organize special medical relief in connection with the existence of famine during 1896 and 1897. These districts were Gujrat, Hissar and Karnal.

Districts in which special medical arrangements were made.

#### *-Gujrat District.*

2. In the Gujrat District relief works were started on a small scale near Phalia in August 1896. The Hospital Assistant in charge of the dispensary there was, with the assistance of two Vaccinators, at first able to attend to the medical wants of the labourers. The numbers, however, had by Christmas increased so greatly that it was found necessary to depute the following establishment to take medical charge of some 50,000 workers:—

One Assistant Surgeon.

Three Hospital Assistants.

Four Compounders.

Two Vaccinators.

The system adopted was to require this establishment to itinerate among the labourers and distribute medicines to them. At first any one requiring in-door treatment was sent to Phalia, but when the works were carried on at a distance from Phalia, a hospital for the accommodation of in-patients was established on the spot.

System of relief.

When the camp was transferred to Mong for the excavation of the Jhelum Canal, five sub-divisions were formed, each with a dispensary under a Hospital Assistant; while the Assistant Surgeon had charge of a head-quarters dispensary at Bagga, with in-door accommodation.

There were altogether 129 in-patients, most of whom were aged people or children : 21,896 out-patients were also treated on the works.

Number of patients treated. The chief diseases were fevers, affections of the eye, respiratory system, digestive system, skin diseases and ulcers. There were no cases of cholera, and only two of small-pox, regarding which prompt measures were taken, both to prevent its further spread and for the protection by vaccination of all new comers to the works.

There were 68 deaths reported in and near the camp, 11 of which occurred in relief hospitals. The very old and the very young furnished, as was to be expected, the greatest mortality. It is not unlikely that more deaths occurred, but were not registered. There was only one authenticated death attributable to starvation, and was that of a young child.

Deaths.



Much attention was paid to the sanitary condition of the camps, and it is reasonable to conclude that it was due to this, in no small degree, that disease in an epidemic form was entirely absent throughout the operations. The labourers preferred living in the villages adjoining the works to occupying the huts provided for them on the spot, but both villages and camps were kept clean under supervision.

Sanitation.

For the purposes of nature the people preferred resorting to the open fields to the screened trenches provided for them. They were allowed to follow their usual custom, but only at a sufficient distance from camp marked with flags.

Latrines.

The water-supply was always sufficient, good and pure, but wells were systematically disinfected with lime. As many as 87 wells were so treated, and in addition care was taken to keep platforms and surroundings clean.

Water.

#### *Hissar District.*

Relief works were started in the Hissar District in February 1896 on the Ghaggar Canal and the Bhiwáni Water Works; on the Western Jumna Canal in April 1896; and on the Hissar Bír Ditch in May 1896.

Establishment employed.

The extra establishment employed on these works consisted of—

One Assistant Surgeon.

Four Hospital Assistants.

Nine Compounders.

The Assistant Surgeon was entrusted with the general supervision of the medical arrangements on the Ghaggar works, while the Assistant Surgeon attached to the Bhiwáni Charitable Dispensary exercised control over the work of the Compounder, who had charge of the sick labourers connected with the water project of that city.

A total number of 16,588 out and 31 in patients were treated by the special staff the principal complaints being malarial fever, eye diseases, diseases of the digestive system, ulcers and skin diseases. As many as 80 cases of small-pox are returned, all but one being on the Ghaggar Canal works. Ten of these cases were treated as in-door patients. All cases were isolated, and three Vaccinators were deputed to vaccinate the healthy and unprotected children in order to check the disease.

Number of patients treated.

Two deaths are reported as being *probably* due to starvation, although the immediate cause of death was pneumonia. Both of the deceased were children.

Deaths.

The Civil Surgeon, on his periodical inspection of the various camps, found the sanitary arrangements good. The poor-houses established at Sirsa, Hissar, Hansi and Bhiwáni were frequently visited by the Medical Officers attached to the dispensaries there.

Sanitation.

#### *Karnál.*

The famine relief operations of this district were not carried out on a scale similar to the operations in Gujrát and Hissar, and where it was found necessary to establish special hospitals for the labourers on the Sarsuti Canal and Nardak Rájba, they were entrusted to suitable Compounders.

These Medical subordinates treated 44 in-door and 1,369 out-door patients, malarial fever being the principal complaint. On the Sarsuti works there were five cases of small-pox, and these were treated in their own houses.

Patients treated.

The Civil Surgeon did not hear of any case of death as being due to starvation or of cases of illness attributable to this cause.

\* \* \* \* \*

Note by Brigade-Surgeon-Lieutenant-Colonel W. A. CRAWFORD ROE, F. R. C. S., Sanitary Commissioner, Punjab.

THE Inspector-General of Civil Hospitals has given such a clear and precise account of the medical and sanitary measures adopted during the famine relief works in the different districts where they were opened that it will be unnecessary for me to do more than refer to my official visits to the works at Phália in the Gujráat District and to those established for the Ghaggar Canal in the Hissar District. I visited and inspected both of these places, the former twice, and the latter once, during last cold season, when the works were in full operation. I saw the labourers on the works, at roll call, in their huts, and at their food. I also met all the officers concerned with the works, and I consulted with them, and advised on all points upon which they desired my opinion. I also noted the medical arrangements on behalf of the Inspector-General of Civil Hospitals, and anything that was needed I drew attention to. \* \* \*

\* \* \* \* \*

With regard to the general sanitary arrangements of the camps I visited, I thought them very good, and they were attended to carefully by the officers in charge of the different sections or sub-divisions. I noted the general appearance of the labourers and their families, and I saw no evidence whatever of under-feeding, much less of starvation among them. Indeed, to see these people with their goats, calves and donkeys, &c., about them would have led most people (unacquainted with the reason for the assemblage) to imagine that the work was one of general public utility established in order to carry out large public works rather than a famine relief camp.

The mortality among these persons was exceedingly low, and there was no epidemic disease present with the exception of small-pox, of which a good many cases occurred at the Ghaggar Canal works at first. At my visit to these works I saw eight or nine cases of small-pox in the hospital, but the disease did not spread to any extent, as arrangements for vaccination were speedily made and the disease checked rapidly. The general health of the labourers in other respects seemed to me to be extremely satisfactory, and I particularly noted that the children looked well and by no means emaciated. As children, in my opinion, form the best possible test, in all cases of this kind, for determining the effects of poverty, and especially starvation, I can thus affirm from personal observation that no such cases fell under my notice, and I did not see a single child whose condition could in any way be ascribed to want. The general sanitary arrangements here also were satisfactory and carefully looked after by the officers in charge, and generally speaking all the conditions under which the people were living were as good as they could be, so far as my observations extended.

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**STATISTICAL STATEMENTS.**

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# I. Rainfall.

## STATEMENT

Rainfall from 1st April 1895

DISTRICT.	KHARIF 1895.								
	1st April 1895 to 31st August 1895.			September 1895.			Total.		
	Normal.	Actual.	Variation.	Normal.	Actual.	Variation.	Normal.	Actual.	Variation.
Hissar ...	12'17	10'68	- 1'49	2'01	...	- 2'01	14'18	10'68	- 3'50
Rohtak ...	14'43	11'00	- 3'43	3'50	...	- 3'50	17'48	11'00	- 6'93
Gurgaon ...	18'81	17'53	- 1'28	4'84	0'85	- 3'99	23'65	18'38	- 5'27
Delhi ...	20'04	13'31	- 6'73	5'07	0'95	- 4'12	25'11	14'26	- 10'85
Karnal ...	21'01	30'75	+ 9'74	4'69	0'85	- 3'84	25'70	31'60	+ 5'90
Umballa ...	23'85	31'02	+ 7'17	5'47	...	- 5'47	29'32	31'02	+ 1'70
Ferozepore ...	12'73	15'85	+ 3'12	2'65	...	- 2'65	15'38	15'85	+ 0'47
Lahore ...	12'29	7'49	- 4'80	2'44	...	- 2'44	14'73	7'49	- 7'24
Gujrat ...	17'10	18'34	+ 1'24	2'73	...	- 2'73	19'83	18'34	- 1'49

No. I.

to 30th September 1897.

I.  
Rainfall.

RABI 1896.								
Sowing season, 1st September 1895 to 31st December 1895.			Maturing season, 1st January 1896 to 31st March 1896.			Total.		
Normal.	Actual.	Variation.	Normal.	Actual.	Variation.	Normal.	Actual.	Variation.
2.83	...	- 2.83	1.43	0.22	- 1.21	4.26	0.22	- 4.04
4.36	0.25	- 4.11	1.40	1.50	+ 0.10	5.76	1.75	- 4.01
5.72	1.12	- 4.60	1.51	1.55	+ 0.04	7.23	2.67	- 4.56
6.08	1.27	- 4.81	1.96	1.57	- 0.39	8.04	2.84	- 5.20
5.55	0.85	- 4.70	3.16	0.93	- 2.23	8.71	1.78	- 6.93
6.43	...	- 6.43	2.97	1.46	- 1.51	9.40	1.46	- 7.94
3.17	...	- 3.17	2.15	1.61	- 0.54	5.32	1.61	- 3.71
3.32	...	- 3.32	2.19	2.45	+ 0.26	5.51	2.45	- 3.06
4.17	...	- 4.17	5.08	1.27	- 3.81	9.25	1.27	- 7.98

# I.

## Rainfall.

## STATEMENT

*Rainfall from 1st April 1895*

DISTRICT.	KHARIF 1896.								
	1st April 1896 to 31st August 1896.			September 1896.			Total.		
	Normal.	Actual.	Variation.	Normal.	Actual.	Variation.	Normal.	Actual.	Variation.
Hissar ...	12'17	4'33	- 7'84	2'01	0'59	- 1'42	14'18	4'92	- 9'26
Rohtak ...	14'43	9'17	- 5'26	3'50	0'11	- 3'39	17'93	9'28	- 8'65
Gurgaon ...	18'81	11'66	- 7'15	4'84	1'34	- 3'50	23'65	13'00	- 10'65
Delhi ...	20'04	21'23	+ 1'19	5'07	...	- 5'07	25'11	21'23	- 3'88
Karnál ...	21'01	16'56	- 4'45	4'69	...	- 4'69	25'70	16'56	- 9'14
Umballa ...	23'85	22'30	- 1'55	5'47	0'30	- 5'17	29'32	22'60	- 6'72
Ferozepore ...	12'73	2'57	- 10'16	2'65	0'15	- 2'50	15'38	2'72	- 12'66
Lahore ...	12'29	6'60	- 5'69	2'44	0'82	- 1'62	14'73	7'42	- 7'31
Gujrát ...	17'10	10'71	- 6'39	2'73	1'064	- 2'09	19'83	11'35	- 8'48

No. I—CONTINUED.

to 30th September 1897—continued.

I,  
Rainfall.

RABI 1897.								
<i>Sowing season, 1st September 1896 to 31st December 1896.</i>			<i>Maturing season, 1st January 1897 to 31st March 1897.</i>			<i>Total.</i>		
Normal.	Actual.	Variation.	Normal.	Actual.	Variation.	Normal.	Actual.	Variation.
2.83	1.14	-1.69	1.55	0.22	-1.33	4.38	1.36	-3.02
4.56	0.11	-4.25	1.40	0.11	-1.29	5.76	0.22	-5.54
5.72	2.08	-3.64	1.51	0.29	-1.22	7.23	2.37	-4.86
6.08	0.71	-5.37	1.96	0.52	-1.44	8.04	1.23	-6.81
5.55	1.10	-4.45	3.16	0.30	-2.86	8.71	1.40	-7.31
6.43	1.11	-5.32	2.97	0.84	-2.13	9.40	1.95	-7.45
3.17	0.71	-2.46	2.15	1.97	-0.18	5.32	2.68	-2.64
3.32	0.98	-2.34	2.19	2.28	0.09	5.51	3.26	-2.25
4.17	1.03	-3.14	5.08	3.77	-1.31	9.25	4.80	-4.45

# I.

## Rainfall.

Rainfall from 1st April 1895 to 30th September 1897—concl'd.

DISTRICT.	KHARIF 1897.								
	1st April 1897 to 31st August 1897.			September 1897.			Total.		
	Normal.	Actual.	Variation.	Normal.	Actual.	Variation.	Normal.	Actual.	Variation.
Hissar ...	12·17	18·08	+ 5·91	2·01	4·95	+ 2·94	14·18	23·03	+ 8·85
Rohtak ...	14·43	15·35	+ 0·92	3·50	3·69	+ 0·19	17·93	19·04	+ 1·11
Gurgaon ...	18·81	15·52	- 3·29	4·84	1·74	- 3·10	23·65	17·26	- 6·39
Delhi ...	20·04	16·58	- 3·46	5·07	3·96	- 1·11	25·11	20·54	- 4·57
Karnál ...	21·01	14·32	- 6·69	4·69	6·20	+ 1·51	25·70	20·52	- 5·18
Umballa ...	23·85	19·30	- 4·55	5·47	4·67	- 0·80	29·32	23·97	- 5·35
Ferozepore ...	12·73	8·43	- 4·30	2·65	0·55	- 2·10	15·38	8·98	- 6·40
Lahore ...	12·29	12·11	- 0·18	2·44	0·82	- 1·62	14·73	12·93	- 1·80
Gujrát ...	17·10	8·30	- 8·80	2·73	1·20	- 1·53	19·83	9·50	- 10·33



## STATEMENT NO. II.

Total Area under Food-grains and all Crops for  
the ten years ending 1896-97.

## II.

Area under food  
grains and crops

YEAR.	TOTAL FOOD-GRAINS.			TOTAL OF ALL CROPS.		
	Kharff.	Rabi.	Total.	Kharff.	Rabi.	Total.
1	2	3	4	5	6	7
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1887-88	8,207,739	11,315,734	19,523,473	10,089,887	12,700,714	22,790,601
1888-89	7,820,659	12,029,341	19,850,000	9,905,389	13,564,605	23,469,994
1889-90	8,477,905	9,506,131	17,984,036	10,576,296	10,655,062	21,231,358
1890-91	8,107,020	11,922,831	20,029,851	10,144,480	13,391,646	23,536,126
1891-92	7,258,375	11,045,854	18,304,229	8,841,834	12,566,223	21,408,657
1892-93	10,317,373	12,705,679	23,023,052	12,113,228	14,619,636	26,732,864
1893-94	8,088,473	13,757,703	21,846,176	10,101,050	15,544,899	25,645,949
1894-95	7,815,657	12,764,145	20,579,802	10,041,902	14,437,990	24,479,892
1895-96	6,498,329	9,081,101	15,579,430	8,581,760	10,472,118	19,053,878
1896-97	6,035,973	8,856,997	14,892,970	8,144,776	10,369,383	18,514,159
Totals	78,627,503	112,985,516	191,613,019	98,540,602	128,322,876	226,863,478
Averages	7,862,750	11,298,551	19,161,301	9,854,060	12,832,287	22,686,347

# II A.

## Crops

## STATEMENT

*Crop Statement by Districts for the*

Districts.	Percentage of harvested crops grown by irrigation (average of 10 years).	KHARIF 1895.	
		Area of harvested crops.	Percentage of normal area.
1	2	3	4
		Acres.	
Hissar ... ..	6	316,233	30
Rohtak ... ..	10	416,117	77
Gurgaon ... ..	14	484,401	87
Delhi ... ..	19	235,064	94
Karnál ... ..	20	262,054	74
Umballa ... ..	4	456,979	94
Simla ... ..	...	6,983	98
Kángra ... ..	27	373,731	107
Hoshiárpur ... ..	5	370,316	101
Jullundur ... ..	43	310,778	94
Ludhiána ... ..	24	321,831	99
Ferozepore ... ..	31	354,680	66
Mooltan ... ..	84	233,882	97
Jhang ... ..	75	194,702	136
Montgomery ... ..	75	117,714	124
Lahore ... ..	62	257,565	78
Amritsar ... ..	51	278,655	98
Gurdáspur ... ..	21	373,340	94
Siálkot ... ..	51	362,552	101
Gujrát ... ..	29	296,173	98
Gujránwála ... ..	65	225,719	84
Shahpur ... ..	48	221,243	108
Jhelum ... ..	5	296,510	95
Ráwalpindi ... ..	5	454,569	97
Hazára ... ..	12	279,662	107
Pesháwar ... ..	52	244,097	99
Kohát ... ..	23	85,461	108
Bannu ... ..	26	175,319	89
Dera Ismail Khan ... ..	25	191,100	102
Dera Gházi Khán ... ..	46	247,797	93
Muzaffargarh ... ..	76	136,533	101
<b>Total</b> ... ..	<b>30</b>	<b>8,581,760</b>	<b>84.5</b>

No. II A.

four Seasons, Kharif 1895 to Rabi 1897.

II A.  
Crops.

RABI 1896.		KHARIF 1896.		RABI 1897.	
Area of harvested crops.	Percentage of normal area.	Area of harvested crops.	Percentage of normal area.	Area of harvested crops.	Percentage of normal area.
5	6	7	8	9	10
Acres.		Acres.		Acres.	
212,209	46	263,591	25	117,080	26
175,463	54	441,600	82	106,893	33
289,798	76	487,314	88	330,661	86
226,569	76	251,436	101	180,773	60
224,026	60	247,404	68	209,217	56
298,618	60	447,156	92	268,891	53
4,252	86	7,254	102	5,791	117
209,522	89	325,744	93	277,123	117
399,220	81	395,439	107	434,685	88
379,106	84	322,885	98	398,642	88
391,833	84	283,229	87	386,007	83
940,018	89	328,960	62	680,046	65
423,859	94	268,871	111	410,541	90
362,301	120	233,476	163	435,866	144
253,177	81	122,094	85	234,935	75
526,952	76	280,029	84	522,824	76
487,639	88	297,166	104	475,558	86
382,695	80	417,093	105	393,667	82
523,365	88	346,684	96	473,372	80
359,334	78	213,371	70	320,127	71
389,203	90	233,737	87	439,687	102
240,802	83	162,831	80	239,148	82
406,347	81	226,600	72	366,370	73
426,648	78	298,415	63	440,757	80
158,837	86	214,131	82	205,409	111
363,276	78	207,347	84	489,673	104
98,948	102	87,094	110	131,427	135
373,017	88	202,463	103	426,271	100
306,016	86	165,991	89	422,388	92
225,366	90	223,290	84	220,277	88
326,602	99	147,081	108	325,277	98
10,472,118	79.4	8,144,776	81	10,369,383	78.5

# II B.

## Crop area irrigated.

### STATEMENT

*Area of Crops irrigated*

DISTRICT.	1878.					
	CANALS.		Wells.	Tanks and ponds.	Other sources.	Total.
	Government.	Private and District Board, &c.				
1	2	3	4	5	6	7
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Hissar ... ..	62,628	...	10,597	...	27,465	100,690
Rohtak ... ..	96,042	...	22,322	...	...	118,634
Gurgaon ... ..	22,056	...	92,305	76,335	...	190,746
Delhi ... ..	95,346	...	77,498	21,021	...	193,865
Karnál ... ..	107,315	...	127,136	281	30,993	266,365
Umballa ... ..	3,490	...	61,175	25,612	85,599	175,876
Simla ... ..	...	...	...	...	627	627
Kángra ... ..	...	...	...	...	164,398	164,398
Hoshiárpur ... ..	...	5,619	19,470	515	681	26,286
Jullundur ... ..	...	...	224,179	...	...	224,179
Ludhiána ... ..	...	...	119,322	...	...	119,322
Ferozepore ... ..	...	41,469	139,442	...	...	180,910
Mooltan ... ..	334,567	3,692	72,041	...	...	410,300
Jhang ... ..	...	367	224,273	...	2,464	227,104
Montgomery ... ..	58,388	1,674	180,530	...	...	240,592
Lahore ... ..	161,930	...	293,210	...	...	455,140
Amritsar ... ..	108,005	...	156,605	40	20	264,670
Gurdáspur ... ..	63,525	...	55,852	2,800	423	122,600
Siálkot ... ..	...	...	400,743	7,882	17,020	425,645
Gujrát ... ..	...	...	86,260	...	5,881	92,141
Gujránwála ... ..	...	...	378,287	7,502	3,654	389,443
Shahpur ... ..	5,588	46,412	123,695	...	392	176,087
Jhelum ... ..	...	...	29,520	...	2,129	31,649
Ráwalpindi ... ..	...	...	14,801	...	1,356	16,157
Hazára ... ..	...	...	736	...	44,233	44,969
Pesháwar ... ..	...	165,324	32,643	558	18,862	217,387
Kohát ... ..	...	...	761	...	35,187	35,948
Banna ... ..	...	66,000	3,000	...	...	69,000
D. I. Khan ... ..	...	60,000	90,000	...	...	150,000
D. G. Khan ... ..	150,000	6,574	92,218	...	...	248,792
Muzaffargarh ... ..	209,081	...	47,453	...	...	256,534
Total ... ..	1,477,961	397,131	3,176,074	143,236	441,384	5,635,786

No. II B.

in 1878 and in 1897.

## II B.

### Crop area irrigated.

1897.						
CANALS.		Wells.	Tanks and ponds.	Other sources.	Total.	Increase or decrease.
Government.	Private and District Board, &c.					
8	9	10	11	12	13	14
Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
165,017	5,542	9,105	...	540	180,204	+ 79,514
147,531	...	35,435	...	2	182,968	+ 64,334
92,085	...	105,019	...	20,317	217,421	+ 26,675
68,072	...	110,287	423	...	178,782	- 15,083
169,083	3,269	113,686	3,318	...	289,356	+ 22,991
2,759	...	60,148	8,017	12,225	83,149	- 92,727
...	...	...	...	1,214	1,214	+ 587
...	...	...	...	173,037	173,037	+ 8,639
10,801	10,092	50,787	311	7,959	79,950	+ 53,665
...	...	397,221	158	1,436	398,815	+ 174,636
91,383	...	183,512	397	...	275,292	+ 155,970
536,808	66,801	152,792	...	...	756,401	+ 575,491
427,059	9,939	138,878	...	6,624	582,500	+ 172,200
302,969	...	256,024	...	4,514	563,507	+ 336,403
136,024	4,847	169,186	...	8,168	318,225	+ 77,633
402,999	...	272,512	7,371	13,239	696,141	+ 241,001
247,465	...	292,680	836	2,087	543,068	+ 278,398
37,101	27,048	141,435	4,781	10	210,375	+ 87,775
...	9,717	478,664	...	15,982	504,363	+ 78,718
...	...	184,128	...	...	184,128	+ 91,987
230,685	...	326,438	329	...	557,452	+ 168,009
48,637	23,363	158,417	...	...	230,417	+ 54,330
...	190	37,428	...	2,261	39,879	+ 8,230
...	15,043	43,068	...	...	58,111	+ 41,954
...	...	1,589	...	54,085	55,674	+ 10,605
155,066	169,874	73,718	...	6,632	405,290	+ 187,903
...	...	1,842	1,363	35,961	39,166	+ 3,218
...	162,747	3,828	...	...	166,575	+ 97,575
...	49,721	100,128	...	...	159,849	+ 9,849
166,809	5,486	49,005	...	8,774	230,074	- 18,718
294,914	...	50,004	616	13,491	359,025	+ 102,491
3,733,267	563,679	4,006,984	27,920	388,558	8,720,408	+ 3,084,622

# III.

## Prices Current.

### STATEMENT

Statement of Actual and Normal\* Prices Current

[Normal prices are

DISTRICTS.	Food-grains.	APRIL 1896.		MAY 1896.		JUNE 1896.		JULY 1896.		AUGUST 1896.	
		15th.	30th.	15th.	31st.	15th.	30th.	15th.	31st.	15th.	31st.
HISSAR.		S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.
	Wheat ...	15 0	15 0	15 0	14 0	15 0	14 0	14 0	14 0	14 0	14 0
		18		19		18		18		18	
	Barley ...	19 0	18 0	18 0	18 0	18 0	17 0	18 0	17 0	17 0	17 0
		32		33		29		28		28	
	Jowár (Great millet) ...	18 0	17 0	16 0	14 0	15 0	15 0	14 0	14 0	15 0	17 0
	29		27		25		23		26		
Bájra (Bulrush millet) ...	15 0	15 0	14 0	13 0	14 0	14 0	13 0	13 0	14 0	14 0	
	24		29		22		20		21		
Gram ...	23 0	21 0	21 0	20 0	21 0	21 0	20 0	18 0	18 0	18 0	
	31		32		31		29		29		
Maize ...	†	†	†	†	†	†	†	†	†	†	
	17		17								
ROHTAK.	Wheat ...	14 0	14 0	14 0	14 0	14 0	14 0	14 0	13 0	13 0	12 0
		18		19		18		17		17	
	Barley ...	17 0	17 0	17 0	19 0	17 0	17 0	17 0	16 0	16 0	16 0
		30		30		29		28		27	
	Jowár (Great millet) ...	14 0	14 0	14 0	14 0	13 0	13 0	13 0	13 0	14 0	14 0
		27		27		26		24		26	
Bájra (Bulrush millet) ...	14 0	14 0	14 0	14 0	14 0	13 0	13 0	13 0	13 0	13 0	
	21		21		21		19		21		
Gram ...	20 0	19 0	18 0	19 0	19 0	17 0	18 0	18 0	18 0	17 0	
	28		29		28		27		27		
Maize ...	20 0	20 0	20 0	20 0	16 0	16 0	16 0	10 0	12 0	14 0	
	20		21		20		19		19		
GURGAON.	Wheat ...	14 0	14 0	14 0	14 0	14 0	14 0	13 0	13 0	13 0	13 0
		19		20		19		18		18	
	Barley ...	18 0	18 0	17 0	17 0	17 0	17 0	16 0	16 0	16 0	16 0
		30		29		28		27		27	
	Jowár (Great millet) ...	16 0	15 0	14 0	14 0	14 0	14 0	14 0	16 0	16 0	16 0
		26		25		22		21		23	
Bájra (Bulrush millet) ...	15 0	15 0	14 0	14 0	14 0	14 0	13 0	15 0	14 0	14 0	
	22		22		20		20		20		
Gram ...	18 0	18 0	17 0	17 0	17 0	17 0	17 0	16 0	16 0	16 0	
	28		27		27		26		26		
Maize ...	15 0	14 0	14 0	14 0	14 0	13 0	12 0	12 0	13 0	13 0	
	21		20		19		19		20		

\* Normal prices are the average prices of

No. III.

of principal food-grains for the fortnights ending—  
printed in antique type.]

### III. Prices Current.

SEPTEMBER 1896.		OCTOBER 1896.		NOVEMBER 1896.		DECEMBER 1896.		REMARKS.
15th.	30th.	15th.	31st.	15th.	30th.	15th.	31st.	
S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	
12 0	9 0	9 0	9 0	8 0	7 12	8 0	8 8	
17		17		17		17		
13 0	10 0	10 0	10 0	9 0	9 0	9 0	10 0	
27		28		30		29		
14 0	11 0	10 0	10 0	9 0	9 0	10 12	10 8	
27		27		27		29		
12 0	9 0	9 0	9 0	8 0	8 4	8 8	9 8	
21		21		22		22		
14 0	11 0	10 0	10 0	9 0	9 4	9 8	10 8	
28		30		30		28		
†	†	†	†	†	†	†	†	† Not produced.
11 0	8 0	9 0	9 0	7 0	7 4	8 0	8 0	
17		17		17		16		
14 0	12 0	9 0	8 0	9 0	8 0	8 0	8 0	
28		27		25		24		
13 0	10 0	10 0	10 0	9 0	9 0	9 4	9 4	
27		27		27		27		
12 0	9 0	9 0	9 0	8 0	8 0	8 4	8 8	
22		21		21		20		
14 0	10 0	10 0	10 0	9 0	8 8	9 4	9 8	
27		27		26		26		
14 0	10 0	10 0	10 0	9 0	9 8	10 0	10 0	
19		20		20		21		
11 0	8 0	8 0	8 0	8 0	7 8	8 1	8 2	
18		17		17		16		
14 0	10 0	10 0	10 0	9 0	8 4	9 0	9 4	
27		26		26		26		
13 0	10 0	10 0	11 0	10 0	9 4	10 0	10 8	
24		25		26		26		
13 0	10 0	10 0	10 0	9 0	8 8	9 4	9 8	
21		22		21		21		
14 0	10 0	10 0	10 0	9 0	8 12	9 0	9 8	
26		25		25		24		
12 0	10 0	10 0	11 0	10 0	9 8	11 0	10 8	
21		21		20		20		

the five years ending December 31st, 1895.

# III.

## Prices Current.

### STATEMENT

*Statement of Actual and Normal\* Prices Current*

[Normal prices are

DISTRICTS.	Food-grains.	APRIL 1896.		MAY 1896.		JUNE 1896.		JULY 1896.		AUGUST 1896.	
		15th.	30th.	15th.	31st.	15th.	30th.	15th.	31st.	15th.	31st.
		S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.
DRAWI.	Wheat ...	14 0	14 0	14 0	14 0	14 0	14 0	13 0	13 0	13 0	13 0
		17		18		17		17		17	
	Barley ...	18 0	18 0	17 0	17 0	17 0	17 0	15 0	15 0	15 0	15 0
		27		27		25		25		24	
	Jowár (Great millet) ...	15 0	13 0	13 0	13 0	14 0	14 0	15 0	15 0	16 0	16 0
		26		24		22		22		23	
Báira (Bulrush millet) ...	14 0	12 0	12 0	12 0	13 0	12 0	13 0	13 0	13 0	13 0	
	21		20		19		19		19		
Gram ...	19 0	18 0	17 0	17 0	18 0	18 0	16 0	15 0	16 0	16 0	
	26		26		25		24		24		
Maize ...	20 0	20 0	20 0	20 0	18 0	16 0	17 0	17 0	16 0	16 0	
	22		21		17		18		19		
KARNAL.	Wheat ...	14 0	16 0	15 0	14 0	14 0	14 0	13 0	13 0	13 0	13 0
		17		18		18		17		17	
	Barley ...	19 0	18 0	18 0	18 0	18 0	18 0	16 0	15 0	16 0	16 0
		28		29		27		25		26	
	Jowár (Great millet) ...	18 0	15 0	15 0	15 0	15 0	15 0	15 0	15 0	14 0	14 0
		25		25		23		21		21	
Báira (Bulrush millet) ...	14 0	12 0	12 0	12 0	12 0	12 0	12 0	10 0	12 0	10 0	
	20		19		18		16		15		
Gram ...	20 0	17 0	18 0	17 0	17 0	17 0	16 0	15 0	16 0	15 0	
	28		29		28		27		27		
Maize ...	18 0	15 0	15 0	15 0	15 0	15 0	15 0	15 0	15 0	15 0	
	25		25		22		19		17		
UMBALLA.	Wheat ...	16 0	15 0	15 0	15 0	15 0	15 0	14 0	14 0	14 0	14 0
		18		21		21		20		19	
	Barley ...	24 0	20 0	18 0	17 0	17 0	17 0	17 0	17 0	17 0	17 0
		27		28		27		27		26	
	Jowár (Great millet) ...	16 0	16 0	16 0	16 0	14 0	12 0	16 0	16 0	16 0	16 0
		26		25		21		20		22	
Báira (Bulrush millet) ...	15 0	15 0	14 0	14 0	14 0	14 0	14 0	14 0	13 0	13 0	
	19		18		18		19		15		
Gram ...	21 0	19 0	18 0	18 0	18 0	18 0	17 0	15 0	16 0	16 0	
	28		29		28		26		26		
Maize ...	20 0	21 0	21 0	20 0	19 0	16 0	18 0	16 0	16 0	16 0	
	27		28		27		24		21		

\* Normal prices are the average prices of



NO. III—CONTINUED.

of principal food-grains for the fortnights ending—  
[printed in antique type.]

III.  
Prices Current.

SEPTEMBER 1896.		OCTOBER 1896.		NOVEMBER 1896.		DECEMBER 1896.		REMARKS.
15th.	30th.	15th.	31st.	15th.	30th.	15th.	31st.	
S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	
11 0	8 0	8 0	8 0	8 0	7 8	8 2	8 2	
17		17		17		16		
13 0	10 0	9 0	9 0	8 0	8 4	9 0	9 4	
25		25		25		23		
13 0	11 0	10 0	10 0	9 0	8 8	9 8	9 8	
24		25		25		24		
13 0	10 0	9 0	9 0	8 0	7 12	8 8	8 12	
20		21		20		20		
14 0	9 0	9 0	9 0	9 0	8 4	9 0	9 4	
24		24		24		24		
13 0	11 0	11 0	11 0	9 0	9 0	10 0	10 0	
20		21		22		21		
11 0	10 0	9 0	9 0	8 0	7 0	8 0	7 12	
17		17		16		16		
14 0	10 0	10 0	8 0	8 0	7 8	8 0	8 8	
26		25		25		24		
14 0	11 0	12 0	11 0	9 0	8 8	9 0	9 0	
22		24		26		25		
11 0	10 0	10 0	10 0	8 0	7 8	8 0	8 0	
16		16		17		18		
13 0	10 0	10 0	10 0	9 0	8 0	8 12	8 8	
27		27		27		25		
14 0	11 0	12 0	12 0	10 0	9 4	10 0	9 8	
21		25		26		24		
12 0	9 0	9 0	9 0	7 0	7 8	7 12	7 14	
20		19		19		19		
15 0	11 0	10 0	10 0	8 0	8 0	8 12	8 8	
26		25		24		25		
10 0	14 0	13 0	13 0	10 0	10 0	10 8	10 8	
23		24		26		26		
13 0	10 0	10 0	10 0	9 0	8 0	9 4	8 12	
18		17		17		18		
14 0	10 0	10 0	10 0	8 0	8 8	9 0	9 4	
27		26		26		25		
16 0	13 0	12 0	13 0	10 0	9 8	10 0	6 10	
24		26		25		26		

# III.

## Prices Current.

### STATEMENT

#### Statement of Actual and Normal\* Prices Current

[Normal prices are

DISTRICTS.	Food-grains.	APRIL 1896.		MAY 1896.		JUNE 1896.		JULY 1896.		AUGUST 1896.	
		15th.	30th.	15th.	31st.	15th.	30th.	15th.	31st.	15th.	31st.
		S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.
FEROZEPUR.	Wheat ...	15 0	15 0	14 0	15 0	14 0	14 0	14 0	13 0	13 0	14 0
		18		18		18		18		18	
	Barley ...	24 0	24 0	22 0	22 0	20 0	20 0	18 0	18 0	18 0	17 0
		33		31		31		31		30	
	Jowár (Great millet) ...	19 0	18 0	17 0	17 0	15 0	13 0	14 0	17 0	17 0	17 0
		23		23		20		20		21	
Bájra (Bulrush millet) ...	12 0	12 0	12 0	12 0	11 0	11 0	10 0	10 0	10 0	10 0	
	21		20		18		16		16		
Gram ...	22 0	22 0	21 0	21 0	20 0	20 0	19 0	17 0	17 0	17 0	
	28		28		29		28		28		
Maize ...	22 0	22 0	20 0	21 0	20 0	16 0	16 0	16 0	16 0	16 0	
	23		24		22		18		18		
LAHORE.	Wheat ...	16 0	18 0	17 0	16 0	16 0	16 0	15 0	14 0	14 0	14 0
		16		18		18		18		18	
	Barley ...	25 0	24 0	24 0	22 0	22 0	21 0	21 0	18 0	19 0	19 0
		28		29		29		30		30	
	Jowár (Great millet) ...	16 0	16 0	16 0	16 0	22 0	13 0	15 0	16 0	16 0	17 0
		21		21		20		22		23	
Bájra (Bulrush millet) ...	14 0	14 0	13 0	13 0	13 0	13 0	13 0	15 0	11 0	11 0	
	18		19		17		16		16		
Gram ...	21 0	21 0	19 0	19 0	19 0	19 0	18 0	16 0	17 0	17 0	
	26		26		26		26		26		
Maize ...	19 0	18 0	18 0	18 0	14 0	14 0	16 0	16 0	15 0	15 0	
	24		23		21		19		20		
GUJRAT.	Wheat ...	15 0	16 0	16 0	16 0	16 0	16 0	16 0	15 0	16 0	15 0
		19		20		20		19		19	
	Barley ...	23 0	26 0	23 0	23 0	23 0	23 0	20 0	19 0	19 0	16 0
		28		30		31		28		26	
	Jowár (Great millet) ...	18 0	18 0	18 0	18 0	18 0	18 0	16 0	15 0	16 0	15 0
		21		21		20		19		19	
Bájra (Bulrush millet) ...	16 0	16 0	16 0	16 0	16 0	16 0	16 0	15 0	16 0	15 0	
	20		19		19		18		17		
Gram ...	20 0	20 0	19 0	18 0	18 0	18 0	17 0	17 0	17 0	15 0	
	25		24		24		25		24		
Maize ...	18 0	18 0	18 0	18 0	18 0	18 0	16 0	15 0	15 0	15 0	
	21		20		20		18		17		

\* Normal prices are the average prices of

NO. III—CONTINUED:

of principal food-grains for the fortnights ending—  
printed in antique type.]

III.  
Prices Current.

SEPTEMBER 1896.		OCTOBER 1896.		NOVEMBER 1896.		DECEMBER 1896.		REMARKS.
15th.	30th.	15th.	31st.	15th.	30th.	15th.	31st.	
S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	
11 0	9 0	9 0	9 0	7 0	8 0	7 14	8 0	
18		18		17		17		
14 0	12 0	11 0	11 0	10 0	8 12	9 12	10 8	
29		29		28		27		
14 0	12 0	12 0	12 0	10 0	9 4	9 8	10 8	
22		25		25		24		
10 0	10 0	10 0	10 0	9 0	7 12	8 4	9 8	
16		17		18		18		
14 0	11 0	10 0	10 0	9 0	9 8	9 8	9 8	
28		27		27		26		
16 0	12 0	11 0	11 0	10 0	9 4	10 8	10 8	
21		25		26		24		
12 0	10 0	10 0	9 0	8 0	8 4	8 8	8 8	
18		17		17		16		
19 0	16 0	12 0	11 0	10 0	9 8	9 8	9 8	
30		28		28		26		
16 0	12 0	12 0	12 0	9 0	10 4	10 4	10 0	
26		25		25		25		
12 0	11 0	11 0	9 0	9 0	8 10	8 10	8 10	
16		16		17		16		
14 0	11 0	11 0	10 0	9 0	10 4	9 12	10 0	
26		26		25		24		
14 0	12 0	12 0	12 0	10 0	11 0	11 2	10 10	
20		22		23		22		
12 0	12 0	11 0	9 0	8 0	8 8	8 8	8 0	
18		18		18		17		
14 0	14 0	11 0	11 0	10 0	9 8	9 8	9 8	
28		27		27		26		
14 0	14 0	13 0	11 0	10 0	10 0	10 0	10 0	
20		21		22		22		
14 0	13 0	12 0	11 0	10 0	9 8	9 8	9 8	
18		20		20		20		
14 0	12 0	11 0	10 0	10 0	9 4	9 0	9 0	
24		24		24		23		
14 0	13 0	12 0	11 0	10 0	9 8	9 8	10 0	
19		20		22		21		

the five years ending December 31st, 1895.

# III.

## Prices Current.

### STATEMENT

#### Statement of Actual and Normal\* Prices Current

[Normal prices are

DISTRICTS.	Food-grains.	JANUARY 1897.		FEBRUARY 1897.		MARCH 1897.		APRIL 1897.		MAY 1897.	
		15th.	31st.	15th.	28th.	15th.	31st.	15th.	30th.	15th.	31st.
HISSAR.	Wheat ...	S. C. 9 0	S. C. 10 0	S. C. 9 0	S. C. 8 12	S. C. 8 12	S. C. 9 8	S. C. 9 8	S. C. 10 0	S. C. 10 12	S. C. 11 4
		17		17		17		18		19	
	Barley ...	9 8	10 0	10 12	10 12	9 8	11 0	10 8	12 0	12 12	12 8
		29		29		31		32		33	
	Jowár ... (Great millet)	11 0	11 8	10 8	10 12	10 0	10 10	10 8	10 12	11 4	11 0
		28		29		29		29		27	
Báira ... (Bulrush millet)	10 0	10 0	9 4	9 4	9 8	9 4	9 8	9 12	9 8	9 0	
	24		24		24		24		29		
Gram ...	11 0	11 8	10 12	10 4	10 0	11 0	11 0	11 0	11 0	11 4	
	29		30		30		31		32		
Maize ...	†	†	10 8	10 0	10 8	10 0	10 0	10 0	10 0	10 0	
	18		18		17		17		17		
ROHTAK.	Wheat ...	8 8	9 8	8 8	8 4	8 4	8 4	9 4	10 0	10 0	10 0
		16		17		17		18		19	
	Barley ...	8 0	8 0	9 0	9 0	9 0	10 0	12 0	13 0	13 0	13 0
		24		26		26		30		30	
	Jowár ... (Great millet)	9 12	10 0	9 8	9 8	9 8	9 4	9 8	9 8	10 0	10 0
		27		27		26		27		27	
Báira ... (Bulrush millet)	9 4	10 0	9 4	8 12	9 0	8 8	8 0	8 0	8 0	8 0	
	22		22		22		21		21		
Gram ...	10 0	11 0	10 0	9 12	9 8	9 4	10 0	10 0	10 0	10 0	
	26		27		27		28		29		
Maize ...	11 0	11 0	11 0	10 0	10 0	9 8	9 0	10 0	9 0	9 0	
	20		21		21		20		21		
GURGAON.	Wheat ...	8 8	8 12	8 0	8 6	8 2	8 6	10 8	10 12	11 0	11 4
		17		17		17		19		20	
	Barley ...	9 8	10 8	10 4	10 8	11 0	11 12	13 12	14 0	14 0	14 4
		26		28		29		30		29	
	Jowár ... (Great millet)	10 12	11 0	10 0	10 0	10 8	10 8	11 0	11 0	11 0	11 0
		26		26		26		26		25	
Báira ... (Bulrush millet)	9 8	10 8	9 8	9 0	9 4	9 4	9 0	9 0	9 0	9 0	
	22		23		22		22		22		
Gram ...	10 0	10 12	9 6	9 8	9 8	9 8	10 12	10 12	10 12	11 0	
	25		26		27		28		27		
Maize ...	10 8	11 0	10 0	10 0	10 0	10 8	10 8	11 0	11 0	11 0	
	20		20		20		21		20		

\* Normal prices are the average prices of

No. III—CONTINUED.

of principal food-grains for the fortnights ending—  
printed in antique type.]

III.  
Prices Current.

JUNE 1897.		JULY 1897.		AUGUST 1897.		SEPTEMBER 1897.		OCTOBER 1897.		REMARKS.
15th.	30th.	15th.	31st.	15th.	31st.	15th.	30th.	15th.	31st.	
S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	
10 12	10 12	11 0	10 12	9 8	9 12	9 12	10 8	11 0	11 8	
18		18		18		17		17		
12 12	12 12	13 8	12 0	12 0	12 0	11 12	14 0	14 0	14 8	
29		28		28		27		28		
11 4	11 0	11 4	11 0	10 8	10 4	10 8	15 0	17 0	16 0	
25		23		26		27		27		
9 4	8 12	9 4	9 4	9 4	9 4	10 0	15 0	15 8	18 8	
22		20		21		21		21		
10 8	10 12	11 0	10 2	9 4	9 0	10 0	10 8	10 0	12 8	
31		29		29		28		30		
10 0	10 0	10 0	10 0	9 0	9 0	10 0	10 0	10 0	15 0	† Not produced.
10 0	9 10	9 12	9 8	9 4	9 8	9 8	10 0	10 0	9 12	
18		17		17		17		17		
12 12	11 0	11 0	11 0	11 0	12 0	11 0	13 0	12 0	13 0	
29		28		27		28		27		
10 0	10 0	10 0	8 0	10 0	10 0	10 0	11 0	12 0	20 0	
26		24		26		27		27		
7 8	7 8	7 8	7 4	8 0	10 0	11 0	13 0	15 0	17 0	
21		19		21		22		21		
10 0	9 8	9 8	9 12	9 4	9 4	9 4	11 0	11 0	11 0	
28		27		27		27		27		
9 0	9 0	9 0	9 0	9 0	9 0	9 0	9 0	9 0	12 0	
20		19		19		19		20		
10 12	10 4	10 4	10 4	10 0	10 4	10 4	10 8	10 12	10 12	
19		18		18		18		17		
13 4	12 12	12 14	13 2	13 2	13 10	13 10	15 4	16 4	17 0	
28		27		27		27		26		
9 0	9 0	8 0	9 0	11 0	12 0	12 0	13 0	13 0	14 0	
22		21		23		24		25		
9 0	9 0	9 0	9 0	10 0	10 8	11 0	14 8	15 0	17 8	
20		20		20		21		22		
10 8	10 0	9 8	9 10	9 4	8 12	9 0	9 4	10 4	10 8	
27		26		26		26		25		
9 0	9 0	8 0	9 0	10 0	11 0	11 0	12 0	13 0	14 0	
19		19		20		21		21		

the five years ending December 31st, 1895.

# III.

## Prices Current.

### STATEMENT

#### Statement of Actual and Normal\* Prices Current

[Normal prices are

DISTRICTS.	Food-grains.	JANUARY 1897.		FEBRUARY 1897.		MARCH 1897.		APRIL 1897.		MAY 1897.		
		15th.	31st.	15th.	28th.	15th.	31st.	15th.	30th.	15th.	31st.	
		S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	
DELHI.	Wheat ...	8 6	9 2	8 10	8 8	8 8	8 8	10 8	10 12	10 14	10 14	
		16		16		16		17		18		
	Barley ...	10 0	10 8	9 8	9 8	10 0	12 8	13 8	13 0	13 8	13 8	
		24		26		27		27		27		
	Jowár (Great millet) ...	9 8	10 8	10 0	9 8	10 0	10 0	10 0	10 0	10 0	10 0	10 0
		25		25		26		26		24		
Bájra (Bulrush millet) ...	9 8	10 8	9 0	8 8	8 12	8 4	8 12	8 8	8 4	8 8		
	20		21		22		21		20			
Gram ...	9 8	10 12	9 8	9 8	9 8	9 8	10 8	10 4	10 12	10 4		
	24		25		26		26		26			
Maize ...	10 0	11 8	10 4	9 12	10 0	10 8	10 0	10 0	10 0	9 0		
	21		22		23		22		21			
KARNAL.	Wheat ...	8 0	9 8	8 12	8 4	8 0	8 8	11 0	12 0	12 0	12 0	
		16		16		17		17		18		
	Barley ...	9 0	11 0	10 0	10 0	10 0	12 0	13 0	14 0	14 0	14 0	
		23		23		27		28		29		
	Jowár (Great millet) ...	9 8	11 0	10 0	10 0	9 8	9 0	9 0	8 0	8 0	8 0	
		24		24		25		25		25		
Bájra (Bulrush millet) ...	8 8	10 0	10 0	9 0	8 0	8 0	8 0	8 0	8 0	8 0		
	19		21		21		20		19			
Gram ...	9 0	12 0	10 8	9 8	9 8	9 8	10 0	10 4	10 0	11 0		
	25		26		28		28		29			
Maize ...	9 8	12 0	10 8	10 0	9 8	9 0	9 0	8 0	9 0	8 0		
	23		24		26		25		25			
UMBALLA.	Wheat ...	9 0	9 12	9 0	8 4	8 8	9 0	10 0	11 4	11 8	12 0	
		13		18		18		18		21		
	Barley ...	9 0	10 0	10 8	10 0	9 8	10 0	11 0	11 0	12 0	14 0	
		24		25		25		27		28		
	Jowár (Great millet) ...	11 0	11 0	11 4	10 12	10 8	11 0	11 0	10 0	12 0	9 0	
		25		26		27		26		25		
Bájra (Bulrush millet) ...	9 0	9 8	10 8	9 8	9 4	10 0	8 8	9 7	10 0	8 0		
	19		19		19		19		18			
Gram ...	9 8	11 0	9 10	9 12	9 8	10 0	10 8	10 4	11 0	11 8		
	25		26		27		28		29			
Maize ...	10 10	11 14	10 12	10 4	9 12	10 0	11 0	11 4	12 0	11 0		
	25		26		26		27		28			

\* Normal prices are the average prices of

No. III—CONTINUED.

of principal food-grains for the fortnights ending—  
printed in antique type.]

### III. Prices Current.

JUNE 1897.		JULY 1897.		AUGUST 1897.		SEPTEMBER 1897.		OCTOBER 1897.		REMARKS.
15th	30th.	15th.	31st.	15th.	31st.	15th.	30th.	15th.	31st.	
S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	
10 4	10 0	10 0	10 0	9 14	10 0	9 14	10 10	10 10	10 4	
17		17		17		17		17		
12 0	12 0	12 8	12 8	12 0	12 0	12 8	14 0	15 0	15 0	
25		25		24		25		25		
9 0	9 0	9 8	10 8	10 0	10 0	10 0	12 0	11 8	11 8	
22		22		23		24		25		
8 0	8 0	8 12	9 0	9 4	10 8	10 8	13 8	14 0	15 8	
19		19		19		20		21		
10 0	10 0	10 0	9 12	9 4	8 8	8 12	9 0	9 8	10 0	
25		24		24		24		24		
9 0	8 8	9 0	10 8	10 0	10 8	10 8	13 8	15 0	15 8	
17		18		19		20		21		
11 0	11 0	11 0	10 0	9 8	9 4	10 0	11 0	11 0	11 0	
18		17		17		17		17		
13 0	13 0	13 0	13 0	12 0	11 0	12 0	12 0	13 0	14 0	
27		25		26		26		25		
8 0	8 0	8 0	8 0	10 0	10 0	10 0	12 0	12 0	16 0	
23		21		21		22		24		
8 0	5 0	5 0	5 0	5 0	5 0	7 0	12 0	13 0	16 0	
18		16		15		16		16		
10 0	10 0	10 0	10 0	8 12	8 8	8 8	9 0	9 0	9 0	
28		27		27		27		27		
8 0	8 0	9 0	8 0	10 0	10 0	12 0	14 0	18 0	16 0	
22		19		17		21		25		
11 4	11 0	10 8	10 0	9 12	9 12	10 8	10 12	11 4	11 12	
21		20		19		20		19		
13 0	12 12	12 8	12 0	14 0	11 0	11	11 0	12 6	13 8	
27		27		26		26		25		
8 4	8 8	8 8	10 0	9 0	11 0	11 0	12 0	15 0	15 0	
21		20		22		23		24		
7 8	8 8	7 0	7 0	7 0	9 0	10 0	10 0	11 0	11 0	
18		19		15		18		17		
11 0	10 5	10 0	9 14	9 12	9 0	9 0	9 8	10 12	10 8	
28		26		26		27		26		
11 8	11 0	11 0	11 0	10 8	11 0	11 0	15 0	10 8	19 8	
27		24		21		24		26		

the five years ending December 31st, 1895.

# III.

## Prices Current.

### STATEMENT

#### Statement of Actual and Normal\* Prices Current

[Normal prices are

DISTRICTS.	Food grains.	JANUARY 1897.		FEBRUARY 1897.		MARCH 1897.		APRIL 1897.		MAY 1897.	
		15th.	31st.	15th.	28th.	15th.	31st.	15th.	30th.	15th.	31st.
FEROZEPORE.		S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.
	Wheat ...	9 0	11 4	8 12	8 12	7 12	8 12	9 4	10 14	11 4	11 12
		17		18		18		18		18	
	Barley ...	10 12	13 8	11 0	11 12	10 8	12 12	14 8	13 12	12 12	12 12
		30		31		32		33		31	
	Jowár (Great millet) ...	10 12	13 12	10 12	10 12	10 4	10 12	10 12	9 12	9 12	9 12
		25		23		23		23		23	
Bájra (Bulrush millet) ...	10 0	11 12	10 4	9 12	9 12	9 12	8 12	8 12	8 12	8 12	
	21		20		20		21		20		
Gram ...	11 4	13 12	10 12	10 12	10 4	9 14	12 0	11 8	11 4	11 4	
	27		29		30		28		28		
Maize ...	10 12	13 12	11 8	10 12	10 4	9 12	11 4	9 12	9 12	10 4	
	21		26		24		23		24		
LAHORE.	Wheat ...	9 8	10 4	8 6	8 8	7 10	8 5	9 4	11 6	12 2	12 0
		16		17		17		16		18	
	Barley ...	10 0	12 4	11 0	11 0	10 0	9 12	15 0	†	15 4	12 8
		27		29		30		28		29	
	Jowár (Great millet) ...	10 8	12 4	11 4	10 12	10 0	10 12	10 12	10 6	10 0	10 8
		24		23		22		21		21	
Bájra (Bulrush millet) ...	10 0	10 4	10 0	9 12	9 4	9 14	8 0	7 12	9 2	8 8	
	18		19		19		18		19		
Gram ...	10 12	12 4	10 2	10 8	9 12	10 2	11 10	11 14	11 14	11 11	
	24		26		26		26		26		
Maize ...	10 8	11 8	11 0	11 0	9 8	10 12	10 8	†	7 4	7 4	
	23		24		24		24		23		
GUJRAT.	Wheat ...	8 0	9 4	9 0	8 8	8 0	8 0	8 0	9 10	12 0	12 0
		18		18		18		19		20	
	Barley ...	9 8	9 8	10 8	10 0	10 0	9 8	10 0	15 0	16 0	16 0
		26		26		26		28		30	
	Jowár (Great millet) ...	10 0	11 0	11 0	10 8	10 0	9 8	9 8	8 0	7 0	7 0
		24		23		22		21		21	
Bájra (Bulrush millet) ...	9 8	10 0	11 0	10 0	10 0	9 8	9 0	8 0	7 0	7 0	
	21		21		21		20		19		
Gram ...	9 4	10 8	10 8	10 0	9 8	9 4	9 8	11 0	12 0	12 0	
	23		24		23		25		24		
Maize ...	10 0	10 8	11 0	10 0	10 0	9 8	9 8	9 0	9 0	9 0	
	22		22		21		21		20		

\* Normal prices are the average prices of



NO. III—CONCLUDED.

of principal food-grains for the fortnights ending—  
printed in antique type.]

III.  
Prices Current.

JUNE 1897.		JULY 1897.		AUGUST 1897.		SEPTEMBER 1897.		OCTOBER 1897.		REMARKS.
15th.	30th.	15th.	31st.	15th.	31st.	15th.	30th.	15th.	31st.	
S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	S. C.	
11 4	11 0	10 12	10 0	9 4	10 4	9 8	10 12	11 0	10 4	
18		18		18		18		18		
13 4	13 12	13 12	12 4	12 0	11 14	11 8	11 8	12 12	13 0	
31		31		30		29		29		
9 12	9 12	9 12	10 12	10 4	11 12	11 8	11 12	13 12	12 12	
20		20		21		22		25		
8 12	8 4	7 12	8 4	7 8	7 12	7 12	9 12	13 8	15 12	
18		16		16		16		17		
11 0	10 4	10 12	10 4	9 4	9 0	8 12	8 12	10 0	10 0	
29		28		28		28		27		
9 12	10 0	10 4	10 0	9 12	9 12	12 8	11 12	15 12	16 4	
22		18		18		21		25		
11 12	11 13	11 0	10 0	10 2	10 0	10 9	11 6	11 7	11 2	
18		18		18		18		17		
14 8	14 14	14 4	13 12	12 10	12 8	13 10	15 0	15 12	15 8	† Not sold.
29		30		30		30		28		
10 8	10 0	9 14	11 8	10 14	11 8	11 12	11 8	15 8	17 0	
20		22		23		26		25		
8 8	7 12	8 4	8 4	8 4	7 4	6 12	7 4	10 4	14 8	
17		16		16		16		16		
11 2	10 9	10 7	9 14	9 0	8 7	8 10	9 14	10 8	10 7	
26		26		26		26		26		
7 12	7 12	8 12	9 4	8 4	8 12	11 4	11 4	15 0	16 0	Not sold.
21		19		20		20		22		
12 0	11 8	11 0	11 0	10 0	10 0	11 0	10 8	11 0	10 8	
20		19		19		18		18		
15 0	14 0	14 0	13 0	12 0	12 0	13 0	12 0	14 0	14 0	
29		28		26		28		27		
8 0	8 0	7 0	7 0	7 0	8 0	8 0	8 0	9 0	10 0	
20		19		19		20		21		
7 0	7 0	7 0	7 0	7 0	8 0	8 0	8 0	10 0	11 0	
19		18		17		18		20		
11 0	11 0	11 0	11 0	9 8	9 8	8 8	9 0	9 0	9 8	
24		25		24		24		24		
8 0	8 0	8 0	7 0	7 0	8 0	8 0	8 0	10 0	11 0	
20		18		17		19		20		

the five years ending December 31st, 1895.

# IV.

## Movements of Food-grains.

*Movements (by Rail) of Food-grains  
fortnights*

DISTRICTS.	FEBRUARY.				MARCH.			
	13th.		27th.		13th.		27th.	
	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.
Hissar ... ..	350	19	665	18	835	28	601	7
Rohtak ... ..	3	11	7	11	4	6	3	...
Gurgaon ... ..	53	87	148	90	142	22	163	18
Delhi ... ..	424	132	1,128	123	676	163	468	109
Karnál ... ..	38	15	164	12	38	4	67	2
Umballa ... ..	287	40	595	97	268	19	225	69
Simla ... ..	14	1	35	1	40	...	46	...
Jullundur ... ..	20	152	31	356	20	315	32	98
Ludhiána ... ..	107	472	105	727	68	598	57	524
Ferozepore ... ..	68	596	191	454	190	675	176	756
Mooltan ... ..	135	68	127	45	216	91	261	71
Jhang ... ..	29	1	15	4	9	7	79	...
Montgomery ... ..	112	4	63	18	184	8	243	6
Lahore ... ..	377	76	281	84	522	14	757	66
Amritsar ... ..	111	132	78	195	275	92	292	110
Gurdáspur ... ..	19	107	9	159	81	148	132	77
Siálkot ... ..	6	41	25	108	75	57	81	45
Gujrát ... ..	151	7	142	105	226	1	231	14
Gujránwála ... ..	41	62	30	69	228	29	302	52
Shahpur ... ..	28	3	90	16	95	16	146	9
Jhelum ... ..	219	9	295	13	240	17	262	9
Ráwalpindi ... ..	391	34	552	43	380	95	481	59
Pesháwar ... ..	43	218	288	394	203	224	193	195
Bannu ... ..	2	61	1	162	5	188	...	137
Dera Ismail Khan ... ..	12	92	13	130	13	162	16	153
Muzaffargarh ... ..	9	34	2	76	19	71	1	52
<b>Total</b> ... ..	<b>3,049</b>	<b>2,474</b>	<b>5,080</b>	<b>3,510</b>	<b>5,052</b>	<b>3,050</b>	<b>5,315</b>	<b>2,638</b>

Figures for Kangra, Hoshiárpur, Hazára, Kohát and Dera Gházi Khan

No. IV.

and Pulses (in hundreds of maunds) for  
ending—

# IV.

## Movements of Food-grains

APRIL.				MAY.				JUNE.			
10th.		24th.		8th.		22nd.		5th.		19th.	
Imports.	Exports.	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.
628	5	530	23	751	22	922	18	1,298	34	1,095	32
4	5	5	1	4	1	6	...	1	...	2	2
48	46	106	42	55	222	66	196	23	137	38	368
813	82	526	158	627	156	499	188	524	194	595	472
19	5	6	13	6	20	13	32	17	58	19	155
123	44	132	30	254	33	274	14	330	31	261	57
10	...	17	...	85	...	103	...	77	...	76	...
67	31	76	81	63	556	162	1,092	37	1,125	163	1,842
62	392	84	115	111	221	72	72	59	306	94	878
177	298	83	147	90	253	100	403	127	458	312	422
184	46	110	25	96	21	175	70	97	157	88	241
66	1	18	13	13	42	12	195	3	127	3	372
101	16	13	8	17	...	12	5	19	7	25	11
276	68	82	91	230	279	177	357	166	479	65	671
185	88	180	210	143	655	127	910	124	702	268	714
43	52	21	92	26	270	24	720	20	705	17	554
81	6	132	16	56	42	81	113	63	85	76	5
72	18	23	3	13	18	12	18	21	35	49	35
109	35	32	129	42	369	33	373	25	887	21	906
76	38	38	74	23	65	29	87	23	67	25	59
114	12	81	14	91	20	32	72	105	12	79	16
424	23	490	46	581	94	656	31	841	53	971	75
240	65	237	42	249	35	209	59	144	105	143	215
2	23	2	40	7	70	16	102	6	78	10	115
7	18	5	15	9	26	22	62	9	203	10	227
6	34	13	8	4	2	9	37	3	184	4	264
3,937	1,451	3,042	1,436	3,646	3,492	3,843	5,226	4,162	6,229	4,509	8,708

not reported as there are no Railway Stations in those districts.

# IV.

## Movements of Food-grains.

STATEMENT  
*Movements (by Rail) of Food-grains  
for fortnights*

DISTRICTS.	JULY.						AUGUST.			
	3rd.		17th.		31st.		14th.		28th.	
	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.
Hissar ...	817	82	931	84	302	90	377	164	396	134
Rohtak ...	3	1	2	...	2	..	5	...	...	...
Gurgaon ...	17	108	24	78	22	46	24	186	43	129
Delhi ...	533	564	362	377	146	340	372	415	274	371
Karnál ...	4	95	20	48	30	34	23	8	21	15
Umballa ...	204	32	200	44	240	38	316	15	185	19
Simla ...	62	...	27	...	28	...	41	...	9	...
Jullundur ...	123	900	52	521	39	278	44	344	26	333
Ludhiána ...	97	821	63	671	24	418	104	300	37	295
Ferozepore ...	381	436	408	539	291	189	533	429	202	488
Mooltan ...	48	529	51	114	32	76	80	219	44	82
Jhang ...	4	371	5	114	...	10	6	246	6	90
Montgomery ...	24	9	30	28	22	59	36	19	37	20
Lahore ...	249	544	182	479	170	266	227	287	196	182
Amritsar ...	254	511	270	334	128	201	105	240	124	250
Gurdáspur ...	46	341	48	349	11	194	2	122	13	95
Síálkot ...	198	14	99	19	66	16	141	12	63	27
Gujrát ...	46	47	43	37	64	28	132	7	104	17
Gujránwála ...	39	859	27	558	81	295	46	195	154	301
Shahpur ...	42	95	29	29	29	16	21	54	19	46
Jhelum ...	89	11	112	11	94	14	61	18	58	19
Ráwalpindi ...	940	85	535	27	380	52	273	145	737	147
Peoháwar ...	166	284	113	179	51	269	70	195	208	260
Bannu ...	6	72	5	46	4	42	4	57	4	43
Dera Ismail Khan	7	173	26	299	13	231	17	149	17	181
Muzaffargarh ...	4	231	3	187	47	91	2	126	2	77
<b>Total ...</b>	<b>4,403</b>	<b>7,215</b>	<b>3,667</b>	<b>5,172</b>	<b>2,316</b>	<b>3,293</b>	<b>3,062</b>	<b>3,952</b>	<b>2,979</b>	<b>3,621</b>

Figures for Kangra, Hoshiárpur, Hazára, Kohát and Dera Gházi Khan

No. IV.

and Pulses (in hundreds of maunds)  
ending.—IV.  
Movements of Food-grains

SEPTEMBER.				OCTOBER.				NET RESULTS.		DISTRICTS.
11th.		25th.		9th.		23rd.		Imports.	Exports.	
Imports.	Exports.	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.			
222	176	104	86	126	142	170	200	9,756	...	Hissar.
5	3	11	7	22	24	6	36	...	13	Rohtak.
45	250	46	196	29	308	28	230	...	1,639	Gurgaon.
255	346	324	285	167	251	319	220	4,086	...	Delhi.
31	10	26	18	4	12	24	22	...	8	Karnál.
110	41	174	47	232	57	208	126	3,765	...	Umballa.
63	...	22	...	52	...	46	1	850	...	Simla.
25	493	58	544	110	397	28	442	...	8,724	Jullundur.
39	390	42	458	44	378	66	417	...	7,118	Ludhiána.
78	757	124	567	138	90	30	223	...	4,481	Ferozepore.
21	103	112	84	121	138	32	110	...	260	Mooltan.
13	122	7	56	6	39	6	134	...	1,650	Jhang.
45	16	55	24	35	28	24	34	777	...	Montgomery.
326	195	338	220	166	419	129	325	...	126	Lahore.
157	332	169	259	128	261	124	321	...	3,275	Amritsar.
63	73	9	94	1	95	23	146	...	3,785	Gurdáspur.
55	40	39	13	13	21	91	24	737	...	Síáikot.
29	35	30	28	44	21	47	6	999	...	Gujrát.
42	175	14	78	32	105	27	159	...	4,311	Gujránwála.
6	36	20	77	11	35	21	56	...	107	Shahpur.
53	15	59	25	33	28	33	17	1,758	...	Jhelum.
1,418	60	450	57	875	54	1,524	97	11,622	...	Ráwalpindi
266	326	93	193	120	122	179	199	...	364	Pesháwar.
3	71	5	63	2	11	1	7	...	1,303	Bannu.
6	83	10	87	16	83	21	130	...	2,255	Dera Ismail Khan.
1	65	2	52	7	98	2	78	...	1,627	Muzaffargarh.
3,377	4,213	2,337	3,618	2,534	3,217	3,269	3,760	34,350	41,046	
								...	6,696	

not reported as there are no Railway Stations in those districts.

V.  
Hissar District.

STATEMENT  
General Statement of Relief

Week ending	DAILY AVERAGE NUMBER OF PERSONS											
	On relief works.				As non-working children and dependants on relief works.				Gratuitously in villages.			
	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13
1896.												
November 14th ...	877	590	342	1,809	...	...	...	...	...	...	...	...
" 21st ...	782	523	394	1,699	...	...	...	...	...	...	...	...
" 28th ...	905	620	469	1,994	...	...	...	...	...	...	...	...
December 5th ...	599	344	242	1,185	...	...	...	...	...	...	...	...
" 12th ...	888	531	412	1,831	...	...	...	...	...	...	...	...
" 19th ...	1,255	830	595	2,681	...	...	67	67	...	...	...	...
" 26th ...	3,125	2,425	2,086	7,636	...	...	654	654	...	...	...	...
1897.												
January 2nd ...	4,433	3,499	3,117	11,049	10	9	1,937	1,956	...	...	...	...
" 9th ...	6,186	5,151	3,442	14,779	17	15	2,718	2,750	...	...	...	...
" 16th ...	6,898	5,656	3,765	16,319	34	39	3,783	3,856	...	...	...	...
" 23rd ...	7,785	6,033	4,616	18,434	86	99	4,460	4,645	...	...	...	...
" 30th ...	10,032	7,648	5,814	23,494	141	137	5,427	5,705	...	...	...	...
February 6th ...	13,393	10,435	8,234	32,062	179	251	6,719	7,149	99	145	143	387
" 13th ...	13,551	10,741	8,236	32,528	218	290	6,734	7,242	222	321	241	784
" 20th ...	14,678	12,445	9,053	36,176	307	379	8,466	9,152	830	942	442	2,214
" 27th ...	15,258	13,027	8,973	37,258	414	468	8,960	9,842	1,017	1,121	642	2,780
March 6th ...	14,223	12,309	7,940	34,472	374	466	7,287	8,127	1,122	1,258	728	3,108
" 13th ...	17,737	15,467	10,421	43,625	616	746	9,276	10,638	1,412	1,600	914	3,976
" 20th ...	16,327	14,292	9,751	39,870	606	776	9,640	11,022	1,622	1,988	1,461	5,071
" 27th ...	17,025	15,798	8,853	41,676	679	865	11,084	12,628	1,776	2,163	1,682	5,621
April 3rd ...	16,254	15,621	7,375	39,250	617	1,077	9,887	11,580	1,902	2,368	1,872	6,142
" 10th ...	17,747	16,596	8,192	42,535	506	646	8,769	9,921	1,975	2,483	1,978	6,436
" 17th ...	17,792	17,091	8,668	43,551	245	287	6,815	7,347	1,975	2,509	2,056	6,540
" 24th ...	17,304	16,524	8,127	41,955	266	291	7,204	7,761	2,053	2,625	2,208	6,886
May 1st ...	18,707	17,935	8,906	45,548	310	319	7,410	8,039	2,098	2,681	2,286	7,065
" 8th ...	18,340	17,702	8,616	44,658	286	301	6,928	7,515	2,157	2,766	2,425	7,348
" 15th ...	18,153	17,325	8,773	44,251	175	197	6,193	6,565	2,242	2,860	2,557	7,659
" 22nd ...	18,625	17,547	8,752	44,924	147	178	6,104	6,429	2,240	2,858	2,627	7,725
" 29th ...	19,826	18,206	11,416	49,448	133	169	4,114	4,416	2,458	3,145	2,776	8,379

No. V.

Operations { District—Hissar.  
Area\*—3,763 square miles.  
Population\*—543,834.

V.  
Hissar District.

RELIEVED.								Ratio of numbers in column 21 to population of affected tract.	MORTALITY OF DISTRICT.		REMARKS.
In poor-houses.	In kitchens.	Otherwise.	Total.				Grand Total.		For the week.	Normal of the month.	
			Men.	Women.	Children.	Not specified.					
14	15	16	17	18	19	20	21	22	23	24	25
...	...	...	877	590	342	..	1,809	0'3	} 27	} 31	† Monthly rate as the weekly rate is not available.
...	...	...	782	523	394	...	1,699	0'3			
...	...	...	905	620	469	...	1,994	0'3			
...	...	...	599	344	242	...	1,185	0'2	} 27	} 28	
...	...	...	886	531	412	...	1,831	0'3			
...	...	...	1,255	830	663	..	2,748	0'5			
...	...	...	3,125	2,425	2,740	...	8,290	1'5			
...	...	...	4,443	3,508	5,054	...	13,005	2'2	} 27'4	} 27	
...	...	...	6,203	5,166	6,160	...	17,529	3'2			
...	...	...	6,932	5,695	7,548	...	20,175	3'7			
...	...	...	7,871	6,132	9,076	...	23,079	4'2	} 23'3	} 26	† The figures in this column show the numbers relieved by spinning.
10	...	...	10,173	7,785	11,241	10	29,209	5'3			
57	...	...	13,671	10,831	15,096	57	39,655	7'2			
92	...	16	13,991	11,352	15,211	108	40,662	7'4	} 18'9	} 26	
117	...	25	15,815	13,766	17,961	142	47,684	8'7			
108	...	40	16,689	14,616	18,575	148	50,028	9'1			
150	152	68	15,719	14,933	15,955	370	46,077	8'4	} 20'2	} 26	
180	820	65	19,765	17,863	20,611	1,065	59,304	10'9			
205	496	93	18,555	17,056	20,352	794	56,757	10'4			
216	514	103	19,480	18,826	21,619	833	60,758	11'1	} 23'2	} 26	
242	464	142	18,773	19,066	19,134	848	57,821	10'6			
307	761	200	20,228	19,725	18,939	1,268	61,060	11'0			
428	1,789	221	20,012	19,887	17,539	2,438	59,876	11'0	} 29'4	} 29	
518	2,273	195	19,623	19,440	17,539	2,986	59,588	10'9			
584	2,753	243	21,115	20,935	18,602	3,580	64,232	11'8			
714	3,165	278	20,783	20,769	17,969	4,157	63,678	11'7	} 33'9	} 37	
894	3,964	308	20,570	20,382	17,523	5,066	63,541	11'6			
770	4,149	294	21,012	20,583	17,483	5,213	64,291	11'8			
687	4,041	276	22,417	21,520	18,306	5,004	67,247	12'3	} 41'2		

tract.

V.  
Hissar District.

## General Statement of Relief

Week ending	DAILY AVERAGE NUMBER OF PERSONS												
	On relief works.				As non-working children and dependants on relief works.				Gratuitously in villages.				
	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.	
1	2	3	4	5	6	7	8	9	10	11	12	13	
1897—concluded.													
June 5th ...	23,159	20,388	10,002	53,549	109	108	5,258	5,475	2,414	2,999	2,438	7,851	
" 12th ...	25,744	22,715	11,227	59,686	83	112	3,756	3,951	2,343	2,889	2,299	7,531	
" 19th ...	25,864	32,907	10,031	68,802	93	133	3,125	3,351	2,347	2,888	2,252	7,487	
" 26th ...	28,276	25,111	11,156	64,543	127	172	3,414	3,713	2,283	2,831	2,220	7,334	
July 3rd ...	28,386	24,928	10,133	63,447	147	217	3,688	4,052	2,280	2,663	2,077	7,020	
" 10th ...	24,537	21,769	8,619	54,925	155	232	4,102	4,489	2,318	2,778	2,145	7,241	
" 17th ...	15,621	15,034	5,334	35,989	52	96	3,065	3,213	2,251	2,714	2,128	7,093	
" 24th ...	9,112	9,056	3,422	21,590	28	43	2,539	2,610	2,193	2,656	2,076	6,925	
" 31st ...	8,033	8,292	2,941	19,266	31	40	2,539	2,610	2,270	2,745	2,113	7,128	
August 7th ...	5,931	6,725	1,799	14,455	15	19	2,048	2,082	2,132	2,622	2,055	6,809	
" 14th ...	5,375	6,258	1,661	13,294	15	19	1,879	1,913	2,106	2,596	2,064	6,766	
" 21st ...	3,054	3,619	1,288	7,951	8	10	1,249	1,267	2,143	2,640	2,051	6,834	
" 28th ...	2,696	3,201	941	6,838	8	8	1,499	1,515	2,198	2,707	2,078	6,983	
September 4th ...	1,906	2,379	522	4,807	7	6	1,151	1,164	2,142	2,702	2,058	6,902	
" 11th ...	1,925	2,178	426	4,529	7	6	883	896	...	...	...	†	
" 18th ...	1,329	1,635	379	3,343	6	8	708	722	...	...	...	...	
" 25th ...	1,166	1,297	360	2,823	12	4	715	731	...	...	...	...	
One-man-one-day units.	3,785,733	3,502,828	1,787,254	9,075,815	50,883	64,666	1,345,778	1,461,327	410,340	506,191	399,644	1,316,175	



No. V.

Operations { District—Hissar.  
Area\*—3,763 square miles.  
Population\*—543,834.

V.  
Hissar District.

RELIEVED.								Ratio of numbers in column 21 to population of affected tract	MORTALITY OF DISTRICT.		REMARKS.
In poor-houses.	In kitchens.	Otherwise.	Total						For the week.	Normal of the month.	
			Men.	Women.	Children.	Not specified.	Grand Total.				
14	15	16	17	18	19	20	21	22	23	24	25
500	4,095	292	25,682	23,495	17,698	4,887	71,762	13.1	39.5	36	
517	2,575	275	28,170	25,716	17,282	3,387	74,555	13.7	36.4		
509	2,114	242	28,304	35,928	15,408	2,865	82,505	15.1	40.3		
527	1,756	242	30,686	28,114	16,790	2,525	78,115	14.3	44.4		
531	5,611	232	30,813	27,808	15,898	6,374	80,893	14.8	38.5		
592	1,450	242	27,010	24,779	14,866	2,284	68,939	12.6	43.7		
573	1,176	239	17,924	17,844	10,527	1,988	48,283	8.8	43.4		27
458	497	241	11,333	11,755	8,037	1,106	32,321	5.9	38.8		
432	182	197	10,334	11,077	7,593	811	29,815	5.4	36.6		
400	...	200	8,078	9,366	5,902	600	23,946	4.4	41.1		
397	...	200	7,496	8,873	5,604	597	22,570	4.1	47.1	27	
372	...	199	5,205	6,269	4,588	571	16,633	3.0	43.1		
331	...	196	4,902	5,916	4,518	527	15,863	2.9	54.1		
170	...	159	4,055	5,087	3,731	329	13,202	2.4	53.6		
17	...	...	1,932	2,184	1,309	17	5,442	0.9	55.8	35	Distribution of gratuitous relief taken over by the District Charitable Fund Committee.
...	...	...	1,335	1,643	1,087	...	4,055	0.7	66.8		
...	...	...	1,178	1,301	1,075	...	3,554	0.6	81.1		
87,535	313,579	40,201	4,246,956	4,073,685	3,532,676	441,315	12,294,632				

# V.

## Rohtak District.

### General Statement of Relief

Week ending	DAILY AVERAGE NUMBER OF PERSONS													
	On relief works.				As non-working children and dependants on relief works.				Gratuitously in villages.				In poor-houses.	
	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
1897.														
January 9th ...	502	320	358	1,180	...	...	...	...	...	...	...	...	...	...
" 16th ...	484	406	476	1,366	...	...	22	22	43	75	26	144	...	
" 23rd ...	688	699	758	2,145	3	6	144	153	404	856	337	1,597	...	
" 30th ...	1,027	1,198	1,389	3,614	11	14	379	404	471	887	423	1,781	...	
February 6th ...	1,135	1,443	1,629	4,207	15	32	486	533	502	882	446	1,830	...	
" 13th ...	1,021	1,340	1,337	3,698	19	46	531	596	641	1,230	542	2,413	...	
" 20th ...	830	1,171	881	2,882	18	37	626	681	1,122	1,264	564	2,950	...	
" 27th ...	761	1,123	830	2,714	9	14	686	709	1,153	1,258	581	2,992	...	
March 6th ...	1,088	1,599	1,146	3,833	15	22	956	993	1,161	1,271	589	3,021	...	
" 13th ...	1,409	1,989	1,450	4,848	24	33	1,328	1,385	1,185	1,292	617	3,094	...	
" 20th ...	1,820	2,209	1,576	5,605	42	44	1,539	1,625	854	1,299	622	2,775	...	
" 27th ...	1,635	2,177	1,662	5,474	43	78	402	1,616	635	1,289	622	2,546	...	
April 13rd ...	1,795	2,187	1,467	5,449	46	56	1,368	1,490	611	1,285	612	2,508	...	
" 10th ...	1,612	2,103	1,419	5,134	25	34	1,310	1,369	604	1,264	595	2,463	...	
" 17th ...	1,415	1,813	1,243	4,471	27	29	1,053	1,109	605	1,252	577	2,434	...	
" 24th ...	1,339	1,936	1,127	4,393	26	31	1,185	1,242	564	1,111	539	2,214	...	
May 1st ...	1,644	2,066	1,344	5,054	36	40	1,267	1,343	547	1,069	518	2,134	...	
" 8th ...	1,416	2,069	1,259	4,744	36	37	1,290	1,363	533	1,039	480	2,052	...	
" 15th ...	1,936	2,624	1,549	6,089	41	45	1,551	1,637	547	1,144	497	2,188	...	
" 22nd ...	2,160	2,966	1,736	6,862	48	55	1,614	1,717	549	1,143	486	2,178	...	
" 29th ...	2,168	2,827	1,683	6,678	50	66	1,424	1,540	548	1,154	491	2,193	...	

No. V.

Operations { District Rohtak.  
Area\* 1,467  
Population\* 451,920.

V.  
Rohtak District.

RELIEVED.							Ratio of numbers in column 21 to population of affected tract.	MORTALITY OF DISTRICT.		REMARKS.
in kitchens.	Otherwise.	Total.						For the week.	Normal of the month.	
		Men.	Women.	Children.	Not specified.	Grand Total.				
15	16	17	18	19	20	21	22	23	24	25
..	..	502	320	358	..	1,180	0'23	26'7	} 29	
..	..	527	481	524	..	1,532	0'33	27'1		
..	..	1,095	1,561	1,239	..	3,895	0'86	23'3		
..	..	1,509	2,099	2,191	..	5,799	1'28	20'7		
..	..	1,652	2,357	2,561	..	6,570	1'45	19'3	} 25	
..	..	1,681	2,616	2,410	..	6,707	1'48	19'3		
..	..	1,970	2,472	2,071	..	6,513	1'44	18'6		
..	..	1,923	2,395	2,097	..	6,415	1'41	19'4		
..	..	2,264	2,892	2,691	..	7,847	1'73	18'1	} 27	
..	..	2,618	3,314	3,395	..	9,327	2'06	17'6		
..	..	2,716	3,552	3,737	..	10,005	2'21	17'8		
..	..	2,702	4,248	2,686	..	9,636	2'13	19'2		
..	..	2,452	3,528	3,467	..	9,447	2'09	19'9	} 29	
..	..	2,241	3,401	3,324	..	8,966	1'98	19'7		
..	..	2,047	3,094	2,873	..	8,014	1'77	20'4		
..	..	1,920	3,078	2,851	..	7,849	1'73	21'3		
..	..	2,227	3,175	3,129	..	8,531	1'88	22'3	} 40	
..	..	1,985	3,145	3,029	..	8,159	1'80	22'9		
..	..	2,524	3,793	3,597	..	9,914	2'19	24'3		
..	..	2,757	4,164	3,836	..	10,757	2'38	26'6		
..	..	2,766	4,047	3,598	..	10,411	2'30	27'6		

tract.

# V.

## Rohtak District.

### General Statement of Relief

Week ending	DAILY AVERAGE NUMBER OF PERSONS													
	On relief works.				As non-working children and dependants on relief works.				Gratisously in villages.				In poor-houses.	
	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
<i>1897—concluded.</i>														
June 5th	2,114	2,656	1,615	6,385	45	79	1,430	1,554	522	1,040	465	2,027	...	
" 12th	3,128	3,379	2,080	8,547	47	64	1,838	1,949	557	1,241	487	2,285	...	
" 19th	2,731	2,977	1,735	7,443	42	68	1,559	1,669	530	1,128	479	2,137	...	
" 26th	2,680	3,104	1,752	7,545	46	65	1,554	1,665	529	1,226	471	2,126	...	
July 3rd	2,359	2,848	1,523	6,730	62	77	1,354	1,493	534	1,120	481	2,135	...	
" 10th	1,774	2,607	1,306	5,687	54	62	1,182	1,298	537	1,125	486	2,148	...	
" 17th	818	1,308	681	2,807	37	54	610	701	537	1,135	493	2,165	...	
" 24th	26	3	...	29	...	...	...	...	532	1,130	490	2,152	...	
" 31st	32	13	...	45	...	...	...	...	517	1,112	489	2,118	...	
August 7th	45	27	...	72	...	...	...	...	461	968	432	1,861	...	
" 14th	...	...	...	...	...	...	...	...	369	775	313	1,457	...	
" 21st	...	...	...	...	...	...	...	...	135	303	131	569	...	
" 28th	...	...	...	...	...	...	...	...	19	22	20	61	...	
Number of one-man-one-day units.	305,144	385,889	259,077	950,110	8,792	13,244	200,956	222,992	133,406	240,023	107,807	481,236	...	

NO. V—CONCLUDED.

V.  
Rohtak District.

Operations { District—Rohtak.  
Area\*—1,467  
Population\*—451,920.

RELIEVED.							Ratio of numbers in column 21 to population of affected tract.	MORTALITY OF DISTRICT.		REMARKS.
In Kitchens.	Otherwise.	Total.						For the week.	Normal of the month.	
		Men.	Women.	Children.	Not specified.	Grand Total.				
15	16	17	18	19	20	21	22	23	24	25
...	...	2,681	3,775	3,510	...	9,966	2'20	27'1	34	
...	...	3,732	4,644	4,405	...	12,781	2'82	27'8		
...	...	3,303	4,173	3,773	...	11,249	2'48	30'1		
...	...	3,264	4,295	3,777	...	11,336	2'50	30'8		
...	...	2,955	4,045	3,358	...	10,358	2'29	29'1	24	
...	...	2,365	3,794	2,974	...	9,133	2'02	27'4		
...	...	1,392	2,497	1,784	...	5,673	1'25	28'3		
...	...	558	1,133	490	...	2,181	0'48	28'0		
...	...	549	1,125	489	...	2,163	0'47	26'9	26	
...	...	506	995	432	...	1,933	0'42	27'1		
...	...	369	775	313	...	1,457	0'32	30'0		
...	...	135	303	131	...	569	0'12	28'2		
...	...	19	22	20	...	61	0'01	29'6		
...	...	447,342	639,156	567,840	...	1,654,338	17	...	...	

# V.

## Gurgaon District.

### STATEMENT

### General Statement of Relief

Week ending	DAILY AVERAGE NUMBER OF PERSONS													
	On relief works.				As non-working children and dependents on relief works.				Gratuitously in villages.				In poor-houses.	
	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
1897.														
January 23rd	...	461	564	454	1,479	...	...	...	31	...	...	...	...	...
Do. 30th	...	493	589	488	1,570	...	...	...	37	...	...	...	...	...
February 6th	...	528	627	481	1,636	...	...	...	38	...	...	...	...	...
Do. 13th	...	489	588	448	1,525	...	...	...	43	...	...	...	...	...
Do. 20th	...	524	611	467	1,602	...	...	...	61	...	...	...	...	...
Do. 27th	...	841	953	608	2,402	...	...	...	81	...	...	...	...	...
March 6th	...	811	969	683	2,463	...	...	...	85	...	...	...	...	...
Do. 13th	...	944	1,131	891	2,966	...	...	...	105	...	...	...	...	...
Do. 20th	...	754	963	706	2,423	...	...	...	159	...	...	...	...	...
Do. 27th	...	486	606	371	1,463	...	...	...	150	...	...	...	...	...
April 3rd	...	373	423	274	1,070	...	...	...	166	...	...	...	...	...
Do. 10th	...	341	405	184	930	...	...	...	179	...	...	...	...	...
Do. 17th	...	216	229	76	521	...	...	...	183	...	...	...	...	...
Do. 24th	...	278	310	107	695	...	...	...	179	...	...	...	...	...
May 1st	...	196	186	61	443	...	...	...	74	...	...	...	...	...
Do. 8th	...	22	11	...	33	...	...	...	...	...	...	...	...	...
Number of one man one day units.		54,299	64,155	44,093	162,547	...	...	...	10,997	...	...	...	...	...

No. V.

V.  
Gurgaon District.

Operations { District—Gurgaon.  
Area\*—558 square miles.  
Population\*—197,928.

RELIEVED.							Ratio of numbers in column 21 to population of affected tract.	MORTALITY OF DISTRICT.		REMARKS.
In kitchens.	Otherwise.	Total.						For the week.	Normal of the month.	
		Men.	Women.	Children.	Not specified.	Grand Total.				
15	16	17	18	19	20	21	22	23	24	25
..	..	461	564	452	31	1,510	0.76	19.5	36	
..	..	493	589	488	37	1,607	0.81	20.7		
..	..	528	627	481	38	1,674	0.84	18.7	32	
..	..	489	588	448	43	1,568	0.79	18.5		
..	..	524	611	467	61	1,663	0.84	19.8	31	
..	..	841	953	608	81	2,483	1.25	17.9		
..	..	811	969	683	85	2,548	1.28	15.0	31	Maximum.
..	..	944	1,131	891	105	3,071	1.99	22.1		
..	..	754	963	706	159	2,582	1.36	17.0	35	
..	..	486	606	371	150	1,613	0.81	20.0		
..	..	373	423	274	166	1,236	0.62	21.5	37	
..	..	341	405	184	179	1,109	0.56	18.5		
..	..	216	229	76	183	704	0.35	22.3	37	
..	..	278	310	107	179	874	0.44	21.1		
..	..	196	186	61	74	517	0.26	24.2	37	
..	..	22	11	..	..	33	0.01	22.8		
..	..	54,299	64,155	44,093	10,997	173,544	..	..	..	

V.  
Delhi District.

## STATEMENT

## General Statement of Relief

Week ending	DAILY AVERAGE NUMBER OF PERSONS												
	On relief works.				As non-working children and dependants on relief works.				Gratuitously in villages.				In poor-houses.
	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1896.													
December 12th ... ..	43	32	23	98	...	...	...	...	...	...	...	...	...
Do. 19th ... ..	49	24	22	95	...	...	...	...	...	...	...	...	...
Do. 26th ... ..	72	32	38	142	...	...	...	...	...	...	...	...	...
1897.													
January 2nd ... ..	76	36	40	152	...	...	...	...	...	...	...	...	...
Do. 9th ... ..	341	295	246	882	...	...	...	...	...	...	...	...	151
Do. 16th ... ..	612	562	281	1,455	...	...	...	...	...	...	...	...	375
Do. 23rd ... ..	593	783	419	1,795	...	...	...	...	...	...	...	...	597
Do. 30th ... ..	981	1,409	712	3,102	...	...	...	...	48	14	...	62	634
February 6th ... ..	1,104	1,453	711	3,268	...	...	...	...	56	89	32	177	685
Do. 13th ... ..	798	1,006	490	2,304	...	...	...	...	62	59	28	149	799
Do. 20th ... ..	881	1,116	460	2,457	...	...	...	...	61	69	37	167	827
Do. 27th ... ..	959	1,190	454	2,603	...	...	...	...	...	...	...	...	959
March 6th ... ..	889	1,092	404	2,385	...	...	...	...	...	...	...	...	923
Do. 13th ... ..	716	949	331	1,996	...	...	...	...	...	...	...	...	913
Do. 20th ... ..	391	582	163	1,136	...	...	119	119	...	...	...	...	862
Do. 27th ... ..	345	484	171	1,000	...	...	84	84	...	...	...	...	840
April 3rd ... ..	312	506	206	1,024	...	...	116	116	...	...	...	...	724
Do. 10th ... ..	194	294	116	604	...	...	32	32	...	...	...	...	775
Do. 17th ... ..	172	306	114	592	...	...	43	43	...	...	...	...	705
Do. 24th ... ..	167	315	143	625	...	...	...	...	...	...	...	...	726
May 1st ... ..	324	396	238	958	...	...	87	87	...	...	...	...	675
Do. 8th ... ..	216	355	193	764	...	...	107	107	...	...	...	...	699
Do. 15th ... ..	250	384	195	829	...	...	166	166	...	...	...	...	743
Do. 22nd ... ..	299	413	210	922	20	17	150	187	...	...	...	...	769
Do. 29th ... ..	264	235	268	767	19	23	164	206	...	...	...	...	838
June 5th ... ..	211	288	171	670	20	16	156	192	...	...	...	...	836
Do. 12th ... ..	239	285	172	696	32	26	228	286	...	...	...	...	829
Do. 19th ... ..	363	336	159	858	42	32	269	343	...	...	...	...	901
Do. 26th ... ..	336	336	159	831	42	32	269	343	...	...	...	...	901



Operations { District Delhi.  
Area\* 630 square miles.  
Population\* 380,715.

RELIEVED.							Ratio of numbers in column 21 to population of affected tract.	MORTALITY OF DISTRICT.		REMARKS.
In kitchens.	Otherwise.	Total.						For the week.	Normal of the month.	
		Men.	Women.	Children.	Not specified.	Grand Total.				
15	16	17	18	19	20	21	22	23	24	25
...	...	43	32	23	...	98	'023	} 33'0	} 57	
...	...	49	24	22	...	95	'022			
...	...	72	32	38	...	142	'037			
...	...	76	36	40	...	152	'040	30'3	} 44	
...	...	341	295	246	151	1,033	'270	30'5		
...	...	612	562	281	375	1,830	'450	21'3		
...	...	593	783	419	597	2,392	'600	25'3		
...	...	1,029	1,423	712	634	3,798	'990	22'0	} 36	
...	...	1,160	1,542	743	685	4,130	'1080	20'5		
...	...	860	1,065	518	799	3,242	'850	21'0		
...	...	942	1,185	497	827	3,451	'900	21'5		
...	...	959	1,190	454	959	3,562	'930	18'7	} 34	
...	...	889	1,092	404	923	3,308	'860	21'3		
...	...	716	949	331	913	2,909	'760	22'8		
...	...	391	582	282	862	2,117	'350	19'0		
...	...	345	484	255	840	1,924	'500	21'7	} 40	
...	...	312	506	322	724	1,864	'480	24'1		
...	...	194	294	148	775	1,411	'370	22'2		
...	...	172	306	157	705	1,340	'350	22'6		
...	...	167	315	143	726	1,351	'350	25'3	} 44	
...	...	324	396	325	675	1,720	'450	27'1		
...	...	216	355	300	699	1,570	'410	29'0		
...	...	250	384	361	743	1,738	'450	28'2		
...	...	319	430	360	769	1,878	'480	31'6	} 42	
...	...	283	258	432	838	1,811	'470	29'7		
...	...	231	304	327	836	1,698	'440	32'4		
...	...	271	311	400	829	1,811	'470	31'8		
...	...	405	368	428	901	2,102	'550	26'4	} 42	
...	...	378	368	428	901	2,075	'540	25'9		

# V.

Delhi District.

General Statement of Relief

Week ending:	DAILY AVERAGE NUMBER OF PERSON												
	On relief works.				As non-working children and dependants on relief works.				Gratuitously in villages.				In poor-houses.
	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.	
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.
1897—(concluded).													
July 3rd. ... ..	392	435	242	1,070	38	48	372	458	...	...	...	...	945
Do. 10th ... ..	431	491	243	1,170	42	48	471	561	...	...	...	...	946
Do. 17th ... ..	472	566	252	1,290	47	63	565	675	...	...	...	...	892
Do. 24th ... ..	...	...	...	...	...	...	...	...	...	...	...	...	784
Do. 31st ... ..	...	...	...	...	...	...	...	...	...	...	...	...	690
August 7th ... ..	...	...	...	...	...	...	...	...	...	...	...	...	642
Do. 14th ... ..	...	...	...	...	...	...	...	...	...	...	...	...	653
Do. 21st ... ..	...	...	...	...	...	...	...	...	...	...	...	...	642
Do. 28th ... ..	...	...	...	...	...	...	...	...	...	...	...	...	650
September 4th ... ..	...	...	...	...	...	...	...	...	...	...	...	...	623
Do. 11th ... ..	...	...	...	...	...	...	...	...	...	...	...	...	650
Do. 18th ... ..	...	...	...	...	...	...	...	...	...	...	...	...	654
Do. 25th ... ..	...	...	...	...	...	...	...	...	...	...	...	...	660
Number of one-man-one-day units.	94,444	118,909	56,357	269,710	2,114	2,135	23,786	28,035	1,589	1,617	679	3,885	196,903

No. V.

Operations { District Delhi.  
Area\* 630 square miles.  
Population\* 380,715.

V.  
Delhi District.

RELIEVED.							Ratio of numbers in column 21 to population of affected tract.	MORTALITY OF DISTRICT.		REMARKS.		
In kitchens.	Otherwise.	Total.						For the week.	Normal of the month.			
		Men.	Women.	Children.	Not specified.	Grand Total.						
15	16	17	18	19	20	21	22	23	24	25		
...	...	430	484	614	945	2,473	'640	22'8	}			
...	...	473	539	719	946	2,677	'700	26'3				
...	...	519	629	817	892	2,857	'750	24'2			29	
...	...	...	...	...	784	784	'200	22'7				
...	...	...	...	...	691	691	'180	22'2				
...	...	...	...	...	642	642	'160	}	}			
...	...	...	...	...	653	653	'170				28'0	30
...	...	...	...	...	642	642	'160					
...	...	...	...	...	651	651	'170	}	}			
...	...	...	...	...	633	633	'160					
...	...	...	...	...	650	650	'170				38'0	42
...	...	...	...	...	654	654	'170	}	}			
...	...	...	...	...	660	660	'170					
...	...	98,147	122,661	80,822	196,903	498,533	...	...	...			

tract.

# V.

## Karnal District.

### General Statement of Relief

Week ending	DAILY AVERAGE NUMBER OF PERSONS												
	On relief works.				As non-working children and dependants on relief works.				Gratuitously in villages.				In poor-houses.
	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1896.													
November 14th ...	127	117	84	328	...	...	13	13	...	...	...	...	...
" 21st ...	202	203	158	563	...	...	27	27	...	...	...	...	...
" 28th ...	317	329	252	898	...	...	31	31	...	...	...	...	...
December 5th ...	370	384	298	1,052	...	...	37	37	...	...	...	...	...
" 12th ...	519	507	393	1,419	...	...	68	68	...	...	...	...	...
" 19th ...	879	824	505	2,208	...	...	77	77	...	...	...	...	...
" 26th ...	1,080	1,063	567	2,710	...	...	99	99	...	...	...	...	...
1897.													
January 2nd ...	1,330	1,003	617	2,950	...	...	59	59	...	...	...	...	...
" 9th ...	1,619	1,107	679	3,405	...	...	92	92	...	...	...	...	...
" 16th ...	910	591	321	1,822	...	...	65	65	...	...	...	...	...
" 23rd ...	1,109	724	490	2,323	...	...	97	97	...	...	...	...	...
" 30th ...	1,112	725	514	2,351	...	...	114	114	...	...	...	...	...
February 6th ...	999	590	375	1,964	...	...	111	111	4	6	14	24	...
" 13th ...	1,241	714	526	2,481	...	...	147	147	1	2	5	8	...
" 20th ...	659	529	399	1,587	...	...	112	112	1	2	3	6	...
" 27th ...	706	791	494	1,991	...	...	161	161	...	...	...	...	...
March 6th ...	1,247	1,313	851	3,411	...	...	573	573	299	572	235	1,106	...
" 13th ...	2,481	2,576	1,674	6,731	...	159	1,618	1,777	202	366	167	735	...
" 20th ...	2,772	2,393	1,652	6,817	2	15	2,368	2,405	559	1,237	673	2,469	...
" 27th ...	3,321	2,657	1,338	7,316	28	73	3,188	3,289	399	867	476	1,742	...
April 3rd ...	2,735	2,056	1,049	5,840	...	129	3,192	3,321	340	795	475	1,610	...
" 10th ...	1,785	1,295	736	3,816	...	70	1,952	2,022	352	854	523	1,729	...
" 17th ...	1,235	942	468	2,645	...	52	1,426	1,478	292	731	470	1,493	...
" 24th ...	843	674	341	1,858	50	74	1,370	1,494	364	805	498	1,667	...
May 1st ...	1,335	1,036	668	3,039	...	21	1,254	1,285	111	307	202	620	...
" 8th ...	1,732	1,351	821	3,904	...	28	2,105	2,133	504	1,025	673	2,202	...
" 15th ...	1,842	1,488	803	4,133	...	71	2,104	2,175	252	624	427	1,303	...
" 22nd ...	1,684	1,419	747	3,850	...	52	1,562	1,614	313	768	490	1,571	...
" 29th ...	1,775	1,447	662	3,884	...	37	2,236	2,273	275	651	31	1,357	...

\*Of affected.

No. V.

V.

Operations { District—Karnal.  
Area\*—2,123 square miles.  
Population\*—498,862.

Karnal District.

RELIEVED.							Ratio of numbers in column 21 to population of affected tract.	MORTALITY OF DISTRICT.		REMARKS.
In kitchens.	Otherwise.	Total.						For the week.	Normal of the month.	
		Men.	Women.	Children.	Not specified.	Grand Total.				
15	16	17	18	19	20	21	22	23	24	25
..	...	127	117	97	...	341	0'06	} †38	48	†Monthly rates as the weekly rates are not available.
...	...	202	203	185	...	590	0'11			
...	...	317	329	283	...	929	0'18			
...	...	370	384	335	...	1,089	0'21	} †29	42	
...	...	519	507	461	...	1,487	0'29			
...	...	879	824	582	...	2,285	0'45			
...	9	1,080	1,063	666	9	2,818	0'56			
...	3	1,330	1,003	676	3	3,012	0'60	29'0	} 36	
...	1	1,619	1,107	771	1	3,498	0'69	30'3		
...	15	910	591	386	15	1,902	0'38	26'9		
...	8	1,109	724	587	8	2,428	0'48	24'4	} 32	
...	5	1,112	725	628	5	2,470	0'49	25'2		
...	...	1,003	596	500	...	2,099	0'42	22'7		
...	10	1,242	716	678	10	2,646	0'53	20'5	} 32	
...	...	660	531	514	...	1,705	0'34	22'0		
...	4	706	791	655	4	2,156	0'43	20'7		
...	...	1,546	1,885	1,659	...	5,090	1'02	23'6	} 32	
...	...	2,683	3,101	3,459	...	9,243	1'85	21'8		
...	3	3,333	3,645	4,713	3	11,694	2'34	21'9		
...	14	3,748	3,597	5,002	14	12,361	2'47	21'6	} 35	
...	49	3,075	2,980	4,716	49	10,820	2'17	17'4		
...	17	2,137	2,219	3,211	17	7,584	1'52	22'6		
...	...	1,527	1,725	2,364	...	5,616	1'12	24'9	} 51	
...	...	1,257	1,553	2,209	...	5,019	1'00	26'2		
...	...	1,446	1,364	2,134	...	4,944	0'99	28'4		
...	1	2,236	2,404	3,599	1	8,240	1'64	25'7	} 51	
...	1	2,094	2,183	3,334	1	7,612	1'52	27'8		
...	...	1,997	2,239	2,799	...	7,035	1'41	30'2		
...	...	2,050	2,135	3,329	...	7,514	1'51	32'1		

tract.

V.  
Karnal District.

General Statement of Relief

Week ending	DAILY AVERAGE NUMBER OF PERSONS													
	On relief works.				As non-working children and dependents on relief works.				Gratuitously in villages.				In poor-houses.	
	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
1897—concluded.														
June 5th	...	1,327	1,123	647	3,097	...	17	2,402	2,419	283	717	452	1,452	...
" 12th	...	1,242	1,019	633	2,894	...	14	1,611	1,625	239	633	432	1,304	...
" 19th	...	902	693	395	1,990	...	14	1,162	1,176	219	607	394	1,220	...
" 26th	...	902	709	452	2,063	...	2	953	955	300	793	489	1,582	...
July 3rd	...	1,176	946	554	2,676	...	...	1,150	1,150	254	677	439	1,370	...
" 10th	...	49	58	13	{ 120 } 2,143†	...	...	11	11	243	647	440	1,330	...
" 17th	...	44	55	11	{ 110 } 576†	...	...	10	10	260	697	473	1,430	...
" 24th	...	...	...	...	1,442†	...	...	...	...	192	540	403	1,135	...
" 31st	...	...	...	...	948†	...	...	...	...	130	414	338	882	...
August 7th	...	...	...	...	1,078†	...	...	...	...	171	516	395	1,082	...
" 14th	...	...	...	...	1,261†	...	...	...	...	8	93	107	208	...
" 21st	...	...	...	...	1,286†	...	...	...	...	136	407	323	866	...
" 28th	...	...	...	...	1,116†	...	...	...	...	10	92	107	209	...
September 4th	...	...	...	...	902†	...	...	...	...	10	93	107	210	...
" 11th	...	...	...	...	1,206†	...	...	...	...	10	93	107	210	...
" 18th	...	...	...	...	1,064†	...	...	...	...	10	93	107	210	...
" 25th	...	...	...	...	1,214†	...	...	...	...	10	93	107	210	...
October 2nd	...	...	...	...	1,700†	...	...	...	...	10	93	107	210	...
Number of one-man-one-day units	305,256	248,157	148,309	{ 791,722 } 111,552† 813,274	560	5,796	235,109	241,465	47,341	118,370	77,623	245,334	...	

† Piece-workers.

\* Of affected

la. V.

Operations { District—Karnal.  
Area\*—2,123 square miles.  
Population\*—498,862.

V.  
Karnal District.

RELIEVED.							Ratio of numbers in column 21 to population of affected tract.	MORTALITY OF DISTRICT.		REMARKS.
In kitchens.	Otherwise.	Total.						For the week.	Normal of the month.	
		Men.	Women.	Children.	Not specified.	Grand Total.				
15	16	17	18	19	20	21	22	23	24	25
-	1	1,610	1,857	3,501	1	6,969	1.39	351	45	From the week ending 10th July the work was carried out on the petty contract system. The larger numbers indicate labourers working on that system.
-	-	1,481	1,666	2,676	-	5,823	1.16	288		
-	-	1,121	1,314	1,951	-	4,386	0.87	297		
-	-	1,202	1,504	1,894	-	4,600	0.92	356		
-	3	1,430	1,623	2,143	3	5,199	1.04	360	34	
-	1	892	705	464	2,144	3,605	0.72	342		
-	17	304	752	494	593	2,143	0.43	279		
-	12	192	540	403	1,454	2,589	0.51	268		
-	1	130	414	338	949	1,831	0.36	268		
-	-	171	516	395	1,078	2,160	0.43	305	34	
-	-	8	93	107	1,261	1,469	0.29	312		
-	-	136	407	323	1,286	2,152	0.43	348		
-	-	10	92	107	1,116	1,325	0.26	372	45	
-	-	10	96	107	902	1,112	0.22	350		
-	-	10	93	107	1,206	1,416	0.28	398		
-	-	10	93	107	1,064	1,274	0.25	438		
-	-	10	93	107	1,214	1,424	0.28	482		
-	-	10	93	107	1,700	1,910	0.38	870	51 {For the month.	
-	1,225	353,157	372,323	461,041	112,771	1,299,298	-	-	-	This is the total of the piece-workers (column 9) and those otherwise relieved (column 16).

# V.

## Umballa District

## STATEMENT

## General Statement of Relief

Week ending	DAILY AVERAGE NUMBER OF PERSONS												
	On relief works.				As non working children and dependants on relief works.				Gratuitously in villages.				In poor-houses.
	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1897.													
January 23rd	722	259	110	1,091	...	...	...	...	...	...	...	...	...
Do. 30th	605	27	80	892	...	...	...	...	...	...	...	...	...
February 6th	440	135	68	643	...	...	...	...	...	...	...	...	...
Do. 13th	1,093	731	374	2,198	...	...	...	...	...	...	...	...	...
Do. 20th	1,885	1,561	433	3,879	...	...	174	174	...	...	...	...	...
Do. 27th	1,770	1,527	420	3,726	10	3	291	304	...	...	...	...	...
March 6th	2,169	1,842	470	4,481	11	9	447	467	...	...	...	...	...
Do. 13th	2,306	2,016	447	4,769	9	9	339	357	...	...	...	...	...
Do. 20th	2,341	1,969	389	4,699	13	9	397	419	...	...	...	...	...
Do. 27th	1,600	1,287	285	3,172	12	5	318	335	...	...	...	...	...
April 3rd	907	760	180	1,847	16	3	165	184	...	...	...	...	...
Do. 10th	267	199	46	512	9	2	85	96	66	95	36	197	...
Do. 17th	128	80	21	229	1	...	22	23	157	203	58	418	...
Do. 24th	204	89	36	329	1	...	19	20	228	264	76	568	...
May 1st	309	97	58	464	...	...	17	17	281	348	74	705	...
Do. 8th	491	217	96	804	...	...	26	26	309	358	87	754	...
Do. 15th	465	158	47	670	...	...	6	6	362	448	105	915	...
Do. 22nd	675	426	161	1,262	...	...	...	...	600	693	166	1,459	...
Do. 29th	1,106	710	315	2,131	...	...	...	...	699	867	218	1,784	...
June 5th	879	581	277	1,737	...	...	...	...	723	911	230	1,864	...
Do. 12th	877	662	247	1,786	...	...	...	...	730	914	234	1,878	...
Do. 19th	608	409	155	1,172	...	...	...	...	724	919	234	1,877	...
Do. 26th	334	115	42	491	...	...	...	...	715	899	231	1,845	...
July 3rd	297	117	46	460	...	...	...	...	152	174	65	391	...
Do. 10th	310	88	23	421	...	...	...	...	187	193	67	447	...
Do. 17th	50	23	18	91	...	...	...	...	161	173	65	399	...
Do. 24th	...	...	...	...	...	...	...	...	125	366	47	538	...
Do. 31st	...	...	...	...	...	...	...	...	110	380	60	550	...
August 7th	...	...	...	...	...	...	...	...	148	383	62	593	...
Do. 14th	...	...	...	...	...	...	...	...	57	268	6	331	...
Do. 21st	...	...	...	...	...	...	...	...	...	261	...	261	...
Do. 28th	...	...	...	...	...	...	...	...	...	147	...	147	...
Number of one-man-one-day units	159,929	113,855	33,908	307,692	574	280	16,142	16,996	45,752	64,848	14,847	125,447	...



No. V.

V.  
Umballa District.

Operations { District Umballa.  
Area\* 1,755 square miles.  
Population\* 717,969.

RELIEVED.							Ratio of numbers in column 21 to population of affected tract.	MORTALITY OF DISTRICT.		REMARKS.
In kitchens.	Otherwise.	Total.						For the week.	Normal of the month.	
		Men.	Women.	Children.	Not specified.	Grand Total.				
15	16	17	18	19	20	21	22	23	24	25
...	123	722	259	110	123	1,214	'16	27'0	} 35	
...	129	605	207	80	129	1,021	'14	25'3		
...	127	440	135	68	127	770	'10	26'3	} 34	
...	131	1,093	731	374	131	2,329	'32	25'5		
...	110	1,885	1,561	607	110	4,163	'57	28'7	} 30	
...	103	1,789	1,530	711	103	4,133	'57	26'0		
...	118	2,180	1,851	917	118	5,066	'70	22'5	} 30	
...	148	2,315	2,025	786	148	5,274	'73	25'1		
...	161	2,354	1,978	786	161	5,279	'73	25'1	} 36	
...	162	1,612	1,292	603	162	3,669	'51	21'2		
...	166	923	763	345	166	2,197	'30	23'6	} 30	
...	166	342	296	167	166	971	'13	18'6		
...	172	286	283	101	172	842	'11	22'2	} 35	
...	181	433	353	131	181	1,098	'15	24'7		
...	203	592	445	149	203	1,389	'19	24'2	} 36	
...	202	800	575	209	202	1,786	'24	22'3		
...	204	827	606	158	204	1,795	'25	22'5	} 35	
...	219	1,275	1,119	327	219	2,940	'40	22'2		
...	229	1,805	1,577	533	229	4,144	'57	24'5	} 35	
...	231	1,602	1,492	507	231	3,832	'53	25'7		
...	231	1,607	1,576	481	231	3,895	'54	21'8	} 26	
...	259	1,332	1,328	389	259	3,308	'46	14'2		
...	252	1,049	1,014	273	252	2,588	'36	23'4	} 28	
...	256	449	291	111	256	1,107	'15	25'5		
...	262	497	281	90	262	1,130	'15	22'7	} 26	
...	263	211	196	83	263	753	'10	22'8		
...	...	125	366	47	...	538	'07	22'3	} 28	
...	...	110	380	60	...	530	'07	21'1		
...	...	148	383	62	...	593	'08	} 26		
...	...	57	268	6	...	331	'04			
...	...	...	261	...	...	261	'03	} 28		
...	...	...	147	...	...	147	'02			
...	33,656	206,255	178,983	64,897	33,656	483,791	...	...	...	

V.  
Ferozepore District.

## General Statement of Relief

Week ending.		DAILY AVERAGE NUMBER OF PERSONS												
		On relief works.				As non-working children and dependants on relief works.				Gratuitously in villages.				In poor-houses.
		Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
1896.														
December	19th	...	1,083	606	453	2,142	1	...	661	662	...	...	...	...
"	26th	...	1,533	941	573	3,047	92	100	822	1,014	...	...	...	...
1897.														
January	2nd	...	1,523	915	1,013	3,451	51	71	151	273	...	...	...	...
"	9th	...	606	542	359	1,507	28	88	166	282	...	...	...	...
"	16th	...	949	780	530	2,259	...	...	276	276	...	...	...	...
"	23rd	...	1,404	970	733	3,107	4	14	285	303	...	...	...	...
"	30th	...	1,457	1,112	763	3,332	3	...	266	269	...	...	...	...
February	6th	...	1,386	1,113	829	3,328	6	...	282	288	...	...	...	...
"	13th	...	1,091	914	711	2,716	14	...	255	269	...	...	...	...
"	20th	...	395	507	309	1,211	...	...	141	141	...	...	...	...
"	27th	...	688	806	511	2,005	...	...	246	246	...	...	...	...
March	6th	...	754	840	548	2,142	...	...	470	470	...	...	...	...
"	13th	...	830	822	555	2,207	...	...	179	179	...	...	...	...
"	20th	...	667	718	450	1,835	...	...	220	220	...	...	...	...
"	27th	...	717	758	544	2,019	...	...	160	160	...	...	...	...
April	3rd	...	620	571	611	1,802	...	...	31	31	...	...	...	...
"	10th	...	314	264	292	870	...	...	...	...	...	...	...	...
"	17th	...	97	97	96	290	...	...	...	...	...	...	...	...
"	24th	...	83	53	23	159	...	...	...	...	...	...	...	...

No. V.

Operations { District—Ferozepore.  
Area\*—407 square miles.  
Population\*—122,810.

V.  
Ferozepore District.

RELIEVED.							Ratio of numbers in column 21 to population of affected tract.	MORTALITY OF DISTRICT.		REMARKS.	
In kitchens.	Other wise.	Total.						For the week.	Normal of the month.		
		Men.	Women.	Children.	Not specified.	Grand Total.					
15	16	17	18	19	20	21	22	23	24	25	
...	57	1,084	606	1,114	57	2,861	2'3	} 22 0	41		
..	88	1,625	1,041	1,395	88	4,149	3'3				
...	...	1,574	986	1,164	...	3,724	3'03	20'1	} 33		
...	...	634	630	525	...	1,789	1'40	21'5			
...	...	949	780	806	...	2,535	2'06	18 6			
...	...	1,408	984	1,018	...	3,410	2'70	19 5			
...	...	1,460	1,112	1,029	...	3,601	2'90	19'8			
...	...	1,392	1,113	1,111	...	3,616	2'90	21'4			
...	...	1,105	914	966	...	2,985	2'40	20'6			
...	...	395	507	450	...	1,352	1 10	21'1		} 31	
...	...	688	806	757	...	2,251	1'80	21'9			
...	...	754	840	1,018	...	2,612	2'10	20'8		} 27	
...	...	830	822	734	...	2,386	1'90	27'6			
...	...	667	718	670	...	2,055	1'60	27'5			
...	...	717	758	704	...	2,179	1'70	28'0			
...	...	620	571	642	...	1,833	1'40	24'3	} 28		
...	...	314	264	292	9	879	0'71	24'2			
...	...	97	97	96	10	300	0'24	22'8			
...	...	83	53	23	8	167	0'13	26'0			

tract.

V.  
Ferozepore District.

## STATEMENT

## General Statement of Relief

Week ending				DAILY AVERAGE NUMBER OF PERSONS										In poor-houses.		
				On relief works.				As non-working children and dependents on relief works.				Gratuitously in villages.				
				Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.	Men.	Women.		Children.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14			
<i>1897—concluded.</i>																
May	1st	...	...	34	26	13	73	...	...	...	...	...	...	11		
"	8th	...	...	58	63	22	143	...	...	...	...	...	...	9		
"	15th	...	...	81	59	35	175	...	...	...	...	...	...	3		
"	22nd	...	...	135	107	58	300	...	...	...	...	...	...	19		
"	29th	...	...	157	129	74	360	...	...	...	...	...	...	2		
June	5th	...	...	121	95	54	270	...	...	...	...	...	...	2		
"	12th	...	...	181	171	106	458	...	...	...	...	...	...	3		
"	19th	...	...	193	165	96	454	...	...	...	...	...	...	3		
"	26th	...	...	192	171	53	416	...	...	...	...	...	...	3		
July	3rd	...	...	243	207	85	535	...	...	...	...	...	...	3		
"	10th	...	...	306	261	123	690	...	...	...	...	...	...	3		
"	17th	...	...	289	273	161	723	...	...	...	...	...	...	3		
"	24th	...	...	234	234	161	629	...	...	...	...	...	...	3		
"	31st	...	...	179	199	131	509	...	...	...	...	...	...	3		
August	7th	...	...	190	212	130	532	...	...	...	...	...	...	8		
"	14th	...	...	138	149	93	380	...	...	...	...	...	...	2		
"	21st	...	...	87	110	69	266	...	...	...	...	...	...	2		
Number of	one man-one-day			133,105	111,720	79,569	324,394	1,393	1,911	32,277	35,581	...	...	763		

No. V.—CONCLUDED.

Operations { District—Ferozepore.  
Area\*—107 square miles.  
Population\*—122,810.

V.  
Ferozepore District.

RELIEVED.							Ratio of numbers in column 21 to population of affected tract.	MORTALITY OF DISTRICT.		REMARKS.
In kitchens.	Otherwise.	Total.						For the week.	Normal of the month.	
		Men.	Women.	Children.	Not specified.	Grand Total.				
15	16	17	18	19	20	21	22	23	24	25
...	...	34	26	13	11	84	0.06	27.2	34	
...	...	58	63	22	9	152	0.12	25.2		
...	...	81	59	35	3	178	0.14	24.1		
...	...	135	107	58	19	319	0.25	28.4		
...	...	157	129	74	2	362	0.29	29.6		
...	...	121	95	54	2	272	0.22	30.7	32	
...	...	181	171	106	3	461	0.37	26.8		
...	...	193	165	96	3	457	0.37	27.4		
...	...	192	171	53	3	419	0.34	27.4		
...	...	243	207	85	3	538	0.43	26.8		
...	...	306	261	123	3	693	0.56	28.4	28	
...	...	289	273	161	3	726	0.59	26.6		
...	...	234	234	161	3	632	0.51	25.5		
...	...	179	199	131	3	512	0.41	22.1		
...	...	190	212	130	8	540	0.43	25.1		
...	...	138	149	93	2	382	0.31	26.5	27	
...	...	87	110	69	2	268	0.21	24.7		
...	1,015	134,498	113,631	111,846	1,778	361,753				

tract.

# V.

## Lahore District.

## STATEMENT

## General Statement of Relief Operations,

Week ending				DAILY AVERAGE NUMBER OF PERSONS												
				On relief works.				As non-working children and dependants on relief works.				Gratuitously in villages.				In poor houses.
				Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.	
2	3	4	5	6	7	8	9	10	11	12	13	14				
1896.																
April 11th	...	...	...	804	561	571	1,936	...	...	...	178	...	...	...	...	
Do. 18th	...	...	...	625	523	454	1,602	...	...	...	203	...	...	...	...	
Do. 25th	...	...	...	981	839	750	2,570	...	...	...	411	...	...	...	...	
May 2nd	...	...	...	1,182	1,020	1,046	3,248	...	...	...	361	...	...	...	...	
Do. 9th	...	...	...	1,282	1,169	1,045	3,496	...	...	...	586	...	...	...	...	
Do. 16th	...	...	...	2,250	2,135	2,198	6,583	...	...	...	861	...	...	...	...	
Do. 23rd	...	...	...	2,447	2,230	2,015	6,692	...	...	...	1,048	...	...	...	...	
Do. 30th	...	...	...	2,064	1,711	1,382	5,157	...	...	...	1,176	...	...	...	...	
June 6th	...	...	...	2,545	2,158	1,794	6,497	...	...	...	1,599	...	...	...	...	
Do. 13th	...	...	...	3,161	2,885	2,264	8,310	...	...	...	2,115	...	...	...	...	
Do. 20th	...	...	...	2,583	2,256	1,840	6,679	...	...	...	1,673	...	...	...	...	
Do. 27th	...	...	...	37	30	24	91	...	...	...	16	...	...	...	...	
July 4th	...	...	...	123	48	45	216	...	...	...	13	...	...	...	...	
Do. 11th	...	...	...	144	51	38	233	...	...	...	12	...	...	...	...	
Do. 18th	...	...	...	148	43	38	229	...	...	...	...	...	...	...	...	
Do. 25th	...	...	...	199	69	41	309	...	...	...	...	...	...	...	...	
August 1st	...	...	...	149	45	30	224	...	...	...	...	...	...	...	...	
Do. 8th	...	...	...	139	45	27	211	...	...	...	3	...	...	...	...	
Do. 15th	...	...	...	45	8	11	64	...	...	...	3	...	...	...	...	
Number of one-man one-day units for first period.				146,356	124,782	109,291	380,429	...	...	...	71,806	...	...	...	...	

No. V.

District Lahore { Area\*  
Population\*

{ For 1st period of famine—521 square miles.  
Do. 2nd ditto 174 ditto.  
Do. 1st ditto 50,010.  
Do. 2nd ditto 88,125.

V.  
Lahore District.

RELIEVED.							Ratio of numbers in column 21 to population of affected tract.	MORTALITY OF DISTRICT.		REMARKS.
In kitchens.	Otherwise.	Total.						For the month.	Normal of the month.	
		Men.	Women.	Children.	Not specified.	Grand Total.				
15	16	17	18	19	20	21	22	23	24	25
..	..	804	561	571	178	2,114	4'2	} 26	} 25	
..	..	625	523	454	203	1,805	3'6			
..	..	981	839	750	411	2,981	5'9			
..	..	1,182	1,020	1,046	361	3,609	7'2	} 34	} 35	
..	..	1,282	1,169	1,045	586	4,082	8'1			
..	..	2,250	2,135	2,198	861	7,444	14'8			
..	..	2,447	2,230	2,015	1,048	7,740	15'4	} 36	} 39	
..	..	2,064	1,711	1,382	1,176	6,333	12'6			
..	..	2,545	2,158	1,794	1,599	8,096	16'3			
..	..	3,161	2,885	2,264	2,115	10,425	20'8	} 31	} 29	
..	..	2,583	2,256	1,840	1,673	8,352	16'7			
..	..	37	30	24	16	107	0'21			
..	..	123	48	45	13	229	0'45	} 31	} 29	
..	..	144	51	38	12	245	0'48			
..	..	148	43	38	..	229	0'45			
..	..	199	69	41	..	309	0'61	} 31	} 30	
..	..	149	45	30	..	224	0'44			
..	..	139	45	27	3	214	0'40			
..	..	45	8	11	3	67	0'13			
..	..	146,356	124,782	109,291	71,806	452,235	..	..	..	

# V.

## Lahore District.

### General Statement of Relief Operations,

Week ending	DAILY AVERAGE NUMBER OF PERSONS												
	On relief works.				As non-working children and dependants on relief works.				Gratisously in villages.				In poor-houses.
	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1897.													
January 23rd ... ..	441	142	260	843	...	...	...	...	...	...	...	...	...
Do. 30th ... ..	1,042	476	645	2,163	...	...	...	...	...	...	...	...	...
February 6th ... ..	1,255	584	732	2,571	...	...	...	...	...	...	...	...	...
Do. 13th ... ..	1,033	509	519	2,061	...	...	...	...	...	...	...	...	...
Do. 20th ... ..	947	538	423	1,908	...	...	...	...	...	...	...	...	...
Do. 27th ... ..	1,036	520	434	1,990	...	...	...	...	...	...	...	...	...
March 6th ... ..	1,058	537	479	2,074	...	...	...	...	...	...	...	...	...
Do. 13th ... ..	1,138	596	490	2,224	...	...	...	...	...	...	...	...	...
Do. 20th ... ..	1,046	588	403	2,037	...	...	...	...	...	...	...	...	...
Do. 27th ... ..	1,122	589	368	2,079	...	...	...	...	...	...	...	...	...
April 3rd ... ..	1,016	488	332	1,836	...	...	...	...	...	...	...	...	...
Do. 10th ... ..	772	388	248	1,408	...	...	...	...	...	...	...	...	...
Do. 17th ... ..	281	87	30	398	...	...	...	...	...	...	...	...	...
Do. 24th ... ..	141	55	22	218	...	...	...	...	...	...	...	...	...
May 1st ... ..	35	18	21	74	...	...	...	...	...	...	...	...	...
Number of one-man-one-day units for the <i>second</i> period.	86,541	42,805	37,842	167,188	...	...	...	...	...	...	...	...	...
Number of one-man-one-day units for <i>both</i> periods.	132,897	167,587	147,133	547,617	...	...	...	71,806	...	...	...	...	...



No. V.

District Lahore

Area \*  
Population \*

{ For 1st period of famine—521 square miles.  
{ Do. 2nd ditto 174 ditto.  
{ Do. 1st ditto 50,010.  
{ Do. 2nd ditto 88,125.

V.  
Lahore District.

RELIEVED.							Ratio of numbers in column 21 to population of affected tract.	MORTALITY OF DISTRICT.		REMARKS.
In kitchens.	Otherwise.	Total.						For the week.	Normal of the month.	
		Men.	Women.	Children.	Not specified.	Grand Total.				
15	16	17	18	19	20	21	22	23	24	25
...	...	441	142	260	...	843	0'95	27'4	} 38	† Not reported.
...	...	1,042	476	645	...	2,163	2'4	24'4		
...	...	1,255	584	732	...	2,571	2'9	†		
...	...	1,033	509	519	...	2,061	2'3	20'2	} 30	
...	...	947	538	423	...	1,908	2'1	21'0		
...	...	1,036	520	434	...	1,990	2'2	†		
...	...	1,058	537	479	...	2,074	2'3	20'3	} 25	
...	...	1,138	596	490	...	2,224	2'5	19'1		
...	...	1,046	588	403	...	2,037	2'3	21'8		
...	...	1,122	589	368	...	2,079	2'3	18'7		
...	...	1,016	488	332	...	1,836	2'08	20'7	} 23	
...	...	772	388	248	...	1,408	1'5	20'7		
...	...	281	87	30	...	398	0'40	16'0		
...	...	141	55	22	...	218	0'24	16'0		
...	...	35	18	21	...	74	0'07	22'1	32	
...	...	86,541	42,805	37,842	...	167,188	...	...	...	
...	...	232,897	167,587	147,133	71,806	619,423	...	...	...	

V.  
Gujrat District.

## General Statement of Relief

Week ending	DAILY AVERAGE NUMBER OF PERSONS												
	On relief works.				As non-working children and dependents on relief works.				Gratuitously in villages.				In poor-houses.
	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.	
1	3	4	5	6	7	8	9	10	11	12	13	14	
1896.													
August 15th	678	414	98	1,190	...	...	...	335	...	...	...	...	...
" 22nd	991	708	186	1,885	...	...	...	736	...	...	...	...	...
" 29th	1,145	902	231	2,278	...	...	...	934	...	...	...	...	...
September 5th	...	...	...	...	...	...	...	...	...	...	...	...	...
" 12th	258	196	53	507	...	...	...	242	...	...	...	...	...
" 19th	893	765	230	1,888	...	...	...	974	...	...	...	...	...
" 26th	1,113	1,021	333	2,467	...	...	...	1,342	...	...	...	...	...
October 3rd	1,352	1,231	364	2,947	...	...	...	1,615	...	...	...	...	...
" 10th	1,385	1,299	402	3,081	...	...	...	1,713	...	...	...	...	...
" 17th	1,302	1,262	399	2,963	...	...	...	1,642	...	...	...	...	...
" 24th	1,172	1,222	377	2,771	...	...	...	1,487	...	...	...	...	...
" 31st	1,376	1,447	468	3,291	...	...	...	1,788	...	...	...	...	...
November 7th	1,529	1,507	515	3,551	...	...	...	1,841	...	...	...	...	...
" 14th	1,882	1,820	622	4,324	...	...	...	2,178	...	...	...	...	...
" 21st	2,500	2,387	758	5,645	...	...	...	2,904	...	...	...	...	...
" 28th	3,012	2,856	884	6,752	...	...	...	3,319	...	...	...	...	...
December 5th	3,419	3,229	1,132	7,780	...	...	...	3,584	...	...	...	...	...
" 12th	4,099	3,948	1,409	9,456	...	...	...	4,381	...	...	...	...	...
" 19th	4,626	4,519	1,492	10,637	...	...	...	4,806	...	...	...	...	...
" 26th	6,785	6,273	2,050	15,108	...	...	...	6,729	...	...	...	...	...
1897.													
January 2nd	8,902	7,817	2,552	19,271	...	...	...	8,321	...	...	...	...	...
" 9th	10,263	9,111	3,029	22,403	...	...	...	9,521	...	...	...	...	...
" 16th	12,159	10,760	3,636	26,555	...	...	...	11,606	...	...	...	...	...
" 23rd	13,579	12,394	4,145	30,118	...	...	...	13,270	...	...	...	...	...
" 30th	14,984	13,460	4,336	32,780	...	...	...	15,177	...	...	...	...	...
February 6th	14,207	13,308	4,495	32,010	...	...	...	16,180	...	...	...	...	...
" 13th	14,045	13,194	4,114	31,353	...	...	...	18,658	...	...	...	...	...
" 20th	13,785	13,387	3,936	31,108	...	...	...	19,582	...	...	...	...	...
" 27th	13,374	12,670	3,669	29,713	...	...	...	19,669	...	...	...	...	...

No. V.

Operations { District—Gujrat.  
Area\*—562 square miles.  
Population\*—154,857.

V.  
Gujrat District.

RELIEVED.							Ratio of numbers in column 21 to population of affected tract.	MORTALITY OF DISTRICT.		REMARKS.
In kitchens.	Otherwise.	Total.						For the week.	Normal of the month.	
		Men.	Women.	Children.	Not specified.	Grand Total.				
15	16	17	18	19	20	21	22	23	24	25
...	...	678	414	98	335	1,525	0.98	} 24.0	28	† Actuals for the month are given as the weekly rates are not available.
...	...	991	708	186	736	2,621	1.69			
...	...	1,145	902	231	934	3,212	2.07	} 25.0	55	The works were practically closed during this week. † Actuals for the month are given as the weekly rates are not available.
...	...	258	196	53	242	749	0.35			
...	...	893	765	230	974	2,852	1.84	} 24.0	69	
...	...	1,113	1,021	333	1,342	3,809	2.45			
...	...	1,352	1,231	364	1,615	4,562	2.94	} 22.0	49	
...	...	1,380	1,299	402	1,713	4,794	3.09			
...	...	1,302	1,262	399	1,642	4,605	2.97	} 19.0	36	
...	...	1,172	1,222	377	1,487	4,258	2.74			
...	...	1,376	1,447	468	1,788	5,079	3.27	} 19.7		
...	...	1,529	1,507	515	1,841	5,392	3.48			
...	...	1,882	1,820	622	2,178	6,502	4.19	} 28		
...	...	2,500	2,387	758	2,904	8,549	5.53			
...	...	3,012	2,856	884	3,319	10,071	6.50	} 19.2		
...	...	3,419	3,229	1,132	3,584	11,364	7.33			
...	...	4,099	3,948	1,409	4,381	13,837	8.93	} 18.3		
...	...	4,626	4,519	1,492	4,806	15,443	9.97			
...	...	6,785	6,273	2,050	6,729	21,837	14.10	} 24		
...	...	8,902	7,817	2,552	8,321	27,592	17.81			
...	...	10,263	9,111	3,029	9,521	31,924	20.61	} 18.4		
...	...	12,159	10,760	3,636	11,606	38,161	24.64			
...	...	13,579	12,394	4,145	13,270	43,388	28.01	} 17.0		
...	...	14,984	13,460	4,336	15,177	47,957	30.96			
...	...	14,207	13,308	4,495	16,180	48,190	31.11	} 18.4		
...	...	14,045	13,191	4,114	18,658	50,011	32.29			
...	...	13,785	13,387	3,936	19,582	50,690	32.73	} 18.4		
...	...	13,374	12,670	3,669	19,669	49,382	31.88			

tract.

V.  
Gujrat District.

## General Statement of Relief

Week ending	DAILY AVERAGE NUMBER OF PERSONS												
	On relief works.				As non-working children and dependants on relief works.				Gratuitously in villages.				In poor-houses.
	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1897—concluded.													
March 6th	9,990	11,302	3,414	24,706	...	...	...	14,962	...	...	...	...	...
" 13th	9,646	11,116	3,441	24,203	...	...	...	6,984	...	...	...	...	...
" 20th	7,864	9,025	2,506	19,395	...	...	...	2,975	...	...	...	...	...
" 27th	5,874	6,971	1,774	13,719	...	...	...	1,702	...	...	...	...	...
April 3rd	5,633	5,270	1,356	12,259	...	...	...	1,467	...	...	...	...	...
" 10th	4,470	4,045	907	9,422	...	...	...	1,367	...	...	...	...	...
" 17th	3,837	3,473	681	7,991	...	...	...	706	...	...	...	...	...
" 24th	2,459	2,331	594	5,384	...	...	...	595	...	...	...	...	...
May 1st	2,130	2,095	563	4,788	...	...	...	539	...	...	...	...	...
" 8th	2,057	2,042	581	4,680	...	...	...	540	...	...	...	...	...
" 15th	1,406	1,441	471	3,318	...	...	...	528	...	...	...	...	...
" 22nd	1,663	1,796	530	3,989	...	...	...	514	...	...	...	...	...
" 29th	1,573	1,721	513	3,807	...	...	...	469	...	...	...	...	...
June 5th	1,462	1,613	497	3,572	...	...	...	441	...	...	...	...	...
" 12th	1,258	1,353	451	3,062	...	...	...	381	...	...	...	...	...
" 19th	1,157	1,255	386	2,798	...	...	...	196	...	...	...	...	...
Number of one-man-one-day units.	1,521,023	1,463,392	452,060	3,436,475	...	...	...	1,462,300	...	...	...	...	...

No. V—CONCLUDED.

Operations { District—Gujrat.  
Area\*—562 square miles.  
Population\*—154,857.

V.  
Gujrat District.

RELIEVED.							Ratio of numbers in column 21 to population of affected tract.	MORTALITY OF DISTRICT.		REMARKS.
In kitchens.	Otherwise.	Total.						For the week.	Normal of the month.	
		Men.	Women.	Children.	Not specified.	Grand Total.				
15	16	17	18	19	20	21	22	23	24	25
729	...	9,990	11,302	3,414	15,691	40,397	26.08	15.3	} 20	
2,841	...	9,646	11,116	3,441	9,825	34,020	21.97	17.5		
4,288	...	7,864	9,025	2,506	7,263	26,658	17.21	16.4		
4,781	...	5,874	6,071	1,774	6,483	20,202	13.04	15.5		
2,494	...	5,633	5,270	1,356	3,961	16,228	10.47	18.0	} 20	
1,313	...	4,470	4,045	907	2,680	12,102	7.81	17.8		
654	...	3,837	3,473	681	1,360	9,351	6.03	17.4		
576	...	2,459	2,331	594	1,171	6,555	4.23	17.5		
816	...	2,130	2,095	563	1,355	6,143	3.96	20.4	} 25	
869	...	2,057	2,042	581	1,409	6,089	3.93	20.6		
799	...	1,406	1,441	471	1,327	4,645	2.99	19.3		
713	...	1,663	1,796	530	1,227	5,216	3.36	18.9		
787	...	1,573	1,721	513	1,256	5,063	3.26	21.1	} 24	
895	...	1,462	1,613	497	1,336	4,908	3.16	22.3		
886	...	1,258	1,353	451	1,267	4,329	2.79	15.2		
733	...	1,157	1,255	386	929	3,727	2.40	18.0		
169,218	...	1,521,023	1,463,392	452,060	1,631,518	5,067,993	...	...	...	

tract.

# VI.

## Consolidated Statement of Relief Operations.

## STATEMENT

### Consolidated Statement

DISTRICT.	Duration of relief operations.	TOTAL NUMBER OF UNITS (IN							
		On relief works.				Non-working children and dependents on relief works.			
		Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.
1	2	3	4	5	6	7	8	9	10
Hissar ...	14th November 1896 to 25th September 1897, 46 weeks.	3,785,733	3,502,828	1,787,254	9,075,815	50,883	64,666	1,345,778	1,461,327
Rohtak ...	9th January 1897 to 28th August 1897, 34 weeks.	305,144	385,889	259,077	950,110	8,792	13,244	200,956	222,992
Gurgaon ...	23rd January 1897 to 8th May 1897, 16 weeks.	54,299	64,155	44,093	162,547	...	...	...	10,997
Delhi ...	12th December 1896 to 25th September 1897, 42 weeks.	94,444	118,909	56,357	269,710	2,114	2,135	23,786	28,035
Karnal ...	14th November 1896 to 2nd October 1897, 47 weeks.	305,256	248,157	148,309	$\left. \begin{array}{l} 701,722 \\ 111,552^* \end{array} \right\}$	560	5,796	235,109	241,465
Umballa ...	23rd January 1897 to 28th August 1897, 32 weeks.	159,929	113,855	33,908	307,692	574	280	16,142	16,996
Ferozepore ...	19th December 1896 to 21st August 1897, 36 weeks.	133,105	111,720	79,569	324,394	1,393	1,911	32,277	35,581
Lahore (1st period)	11th April 1896 to 15th August 1896, 19 weeks.	146,356	124,782	109,291	380,429	...	...	...	71,806
Do. (2nd period)	23rd January 1897 to 1st May 1897, 15 weeks.	86,541	42,805	37,842	167,188	...	...	...	...
Gujrat ...	15th August 1896 to 6th March 1897, 45 weeks.	1,521,023	1,463,392	452,060	3,436,475	...	...	...	1,462,300
Provincial Total	11th April 1896 to 2nd October 1897, 63 weeks	6,591,830	6,176,492	3,007,760	$\begin{array}{l} 15,776,082 \\ 111,552^* \\ 15,887,634 \end{array}$	64,316	88,032	1,854,048	$\begin{array}{l} 2,006,396 \\ 1,545,103^\dagger \\ 3,551,499 \end{array}$

\* Piece-workers.

† Total of 10,997, 71,806 and 1,462,300

‡ Total of Piece-workers in column 6

§ Total of Piece-workers in column 6(\*)

No. VI.

*of Relief Operations.*

VI.

**Consolidated Statement  
of Relief Operations.**

TERMS OF ONE DAY) RELIEVED.

<i>Gratuitously in villages.</i>				<i>In poor houses.</i>	<i>In kitchens.</i>	<i>Otherwise.</i>	<i>Total</i>				
<i>Men.</i>	<i>Women.</i>	<i>Children.</i>	<i>Total.</i>				<i>Men.</i>	<i>Women.</i>	<i>Children.</i>	<i>Not specified.</i>	<i>Total.</i>
11	12	13	14	15	16	17	18	19	20	21	22
410,340	506,191	399,644	1,316,175	87,535	313,579	40,201	4,246,956	4,073,685	3,532,676	441,315	12,294,632
133,406	240,023	107,807	481,236	...	...	...	447,342	639,156	567,840	...	1,654,338
...	...	...	...	...	...	...	54,299	64,155	44,093	10,997	173,544
1,589	1,617	679	3,885	196,903	...	...	98,147	122,661	80,822	196,903	498,533
47,341	118,370	77,623	243,334	...	...	1,285	353,157	372,323	461,041	112,777	1,299,298
45,752	64,848	14,847	125,447	...	...	33,656	206,255	178,993	64,897	33,656	483,791
...	...	...	...	763	...	1,015	134,498	113,631	111,846	1,778	361,753
...	...	...	...	...	...	...	146,356	124,782	109,291	71,806	452,235
...	...	...	...	...	...	...	86,541	42,805	37,842	...	167,188
...	...	...	...	...	169,218	...	1,521,023	1,463,392	452,060	1,631,518	5,067,993
638,428	931,049	600,600	2,170,077	285,201	482,797	76,097	7,294,574	7,195,573	5,462,408	2,500,750	22,453,305

above.  
and of those otherwise relieved in column 17.  
those not specified in column 10 (f) and columns 15, 16 and 17.

## STATEMENT

# VII.

Average numbers relieved  
at the end of each month.

(Average) numbers in receipt of relief at the

Month.	District.	Area.	Population.	Affected area.	Population of affected area.
1	2	3	4	5	6
April 1896 ... ..	Lahore ... ..	3,678	1,075,319	521	50,010
May 1896 ... ..	Lahore ... ..	3,678	1,075,319	521	50,010
June 1896 ... ..	Lahore ... ..	3,678	1,075,319	521	50,010
July 1896 ... ..	Lahore ... ..	3,678	1,075,319	521	50,010
August 1896 ... ..	Gujrát ... ..	2,051	760,875	562	154,857
September 1896 ... ..	Gujrát ... ..	2,051	760,875	562	154,857
October 1896 ... ..	Gujrát ... ..	2,051	760,875	562	154,857
November 1896 ... ..	Hissar ... ..	5,163	776,006	3,763	543,834
	Karnál ... ..	2,440	683,718	2,123	498,862
	Gujrát ... ..	2,051	760,875	562	154,857
	Provincial total for November.	9,654	2,220,599	6,448	1,197,553
December 1896 ... ..	Hissar ... ..	5,163	776,006	3,763	543,834
	Delhi ... ..	1,290	638,689	630	380,715
	Karnál ... ..	2,440	683,718	2,123	498,862
	Ferozepore ... ..	4,302	886,676	407	122,810
	Gujrát ... ..	2,051	760,875	562	154,857
	Provincial total for December.	15,246	3,745,964	7,485	1,701,078
January 1897 ... ..	Hissar ... ..	5,163	776,006	3,763	543,834
	Rohtak ... ..	1,797	590,475	1,467	451,920
	Gurgaon ... ..	1,984	668,929	558	197,928
	Delhi ... ..	1,290	638,689	630	380,715
	Karnál ... ..	2,440	683,718	2,123	498,862
	Umballa ... ..	2,754	1,033,427	1,755	717,969
	Ferozepore ... ..	4,302	886,676	407	122,810
	Lahore ... ..	3,678	1,075,319	174	88,125
	Gujrát ... ..	2,051	760,875	562	154,857
	Provincial total for January.	25,459	7,114,114	11,439	3,157,020



No. VII.

*end of each month in each affected District.*

## VII.

**Average numbers relieved  
at the end of each month.**

RELIEF WORKS.		In poor-houses.	Relieved at their homes.	In receipt of special relief to weavers and artisans.	Otherwise relieved.	Total relieved.	Percentage of affected population on relief (column 13 on column 6).
Workers.	Dependents.						
7	8	9	10	11	12	13	14
2,570	411	...	...	...	...	2,981	5'9
5,157	1,176	...	...	...	...	6,333	12'6
91	16	...	...	...	...	107	0'21
309	...	...	...	...	...	309	0'61
2,278	934	...	...	...	...	3,212	2'07
2,467	1,342	...	...	...	...	3,809	2'45
3,291	1,788	...	...	...	...	5,079	3'2
1,994	...	...	...	...	...	1,994	0'3
898	31	...	...	...	...	929	0'18
6,752	3,319	...	...	...	...	10,071	6'5
9,644	3,350	...	...	...	...	12,994	1'1
7,636	654	...	...	...	...	8,290	1'5
142	...	...	...	...	...	142	0'03
2,710	99	...	...	...	9	2,818	0'55
3,047	1,014	...	...	...	88	4,149	3'3
15,108	6,729	...	...	...	...	21,837	14'1
28,643	8,496	...	...	...	97	37,236	2'1
23,494	5,705	10	...	...	...	29,209	5'3
3,614	404	...	1,781	...	...	5,799	1'2
1,570	37	...	...	...	...	1,607	0'8
3,102	...	634	62	...	...	3,798	0'99
2,351	114	...	...	...	5	2,470	0'49
892	...	...	...	129	...	1,021	0'14
3,332	269	...	...	...	...	3,601	2'9
3,006	...	...	...	...	...	3,006	3'3
32,780	15,177	...	...	...	...	47,957	30'9
74,141	21,706	644	1,843	129	5	98,468	3'1

## VII.

Average numbers relieved  
at the end of each month.*(Average) numbers in receipt of  
affected*

Month.	District.	Area.	Population.	Affected area.	Population of affected area.
1	2	3	4	5	6
February 1897	Hissar	5,163	776,006	3,763	543,834
	Rohtak	1,797	590,475	1,467	451,920
	Gurgaon	1,984	668,929	558	197,928
	Delhi	1,290	638,689	630	380,715
	Karnál	2,440	683,718	2,123	498,862
	Umballa	2,754	1,033,427	1,755	717,969
	Ferozepore	4,302	886,676	407	122,810
	Lahore	3,678	1,075,319	174	88,125
	Gujrát	2,051	760,875	562	154,857
	Provincial total for February.		25,459	7,114,114	11,439
March 1897	Hissar	5,163	776,006	3,763	543,834
	Rohtak	1,797	590,475	1,467	451,920
	Gurgaon	1,984	668,929	558	197,928
	Delhi	1,290	638,689	630	380,715
	Karnál	2,440	683,718	2,123	498,862
	Umballa	2,754	1,033,427	1,755	717,969
	Ferozepore	4,302	886,676	407	122,810
	Lahore	3,678	1,075,319	174	88,125
	Gujrát	2,051	760,875	562	154,857
	Provincial total for March.		25,459	7,114,114	11,439
April 1897	Hissar	5,163	776,006	3,763	543,834
	Rohtak	1,797	590,475	1,467	451,920
	Gurgaon	1,984	668,929	558	197,928
	Delhi	1,290	638,689	630	380,715
	Karnál	2,440	683,718	2,123	498,862
	Umballa	2,754	1,033,427	1,755	717,969
	Ferozepore	4,302	886,676	407	122,810
	Lahore	3,678	1,075,319	174	88,125
	Gujrát	2,051	760,875	562	154,857
	Provincial total for April.		25,459	7,114,114	11,439

No. VII—CONTINUED.

## VII.

relief at the end of each month in each District—continued.

Average numbers relieved at the end of each month.

RELIEF WORKS.		In poor-houses.	Relieved at their homes.	In receipt of special relief to weavers and artizans.	Otherwise relieved.	Total relieved.	Percentage of affected population on relief (column 13 on column 6).
Workers.	Dependents.						
7	8	9	10	11	12	13	14
37,258	9,842	108	2,780	40	...	50,028	9'1
2,714	709	...	2,992	...	...	6,415	1'4
2,402	81	...	...	...	...	2,483	1'2
2,603	...	959	...	...	...	3,562	0'93
1,991	161	...	...	...	4	2,156	0'43
3,726	304	...	...	103	...	4,133	0'57
2,005	246	...	...	...	...	2,251	1'80
8,530	...	...	...	...	...	8,530	9'5
29,713	19,659	...	...	...	...	49,382	31'8
90,942	31,012	1,067	5,772	143	4	128,940	4'1
41,676	12,628	216	5,621	103	514	60,758	11'1
5,474	1,616	...	2,546	...	...	9,636	2'1
1,463	150	...	...	...	...	1,613	0'8
1,000	84	840	...	...	...	1,924	0'5
7,316	3,289	...	1,742	...	12	12,361	2'4
3,172	335	...	...	162	...	3,669	0'51
2,019	160	...	...	...	...	2,179	1'7
8,414	...	...	...	...	...	8,414	9'4
13,719	6,483	...	...	...	...	20,202	13'0
84,253	24,745	1,056	9,909	265	528	120,756	3'8
41,955	7,761	518	6,886	195	2,273	59,588	10'9
4,393	1,242	...	2,214	...	...	7,849	1'7
695	179	...	...	...	...	874	0'4
625	...	726	...	...	...	1,351	0'3
1,858	1,494	...	1,667	...	...	5,019	1'00
329	20	...	568	181	...	1,098	0'15
159	...	8	...	...	...	167	0'13
3,934	...	...	...	...	...	3,934	4'2
5,384	1,171	...	...	...	...	6,555	4'2
59,332	11,867	1,252	11,335	376	2,273	86,435	2'1

## VII.

**Average numbers relieved  
at the end of each month.**

*(Average) numbers in receipt of  
affected*

Month.	District.	Area.	Population.	Affected area.	Population of affected area.
1	2	3	4	5	6
May 1897	Hissar	5,163	776,006	3,763	543,834
	Rohtak	1,797	590,475	1,467	451,920
	Delhi	1,290	638,689	630	380,715
	Karnál	2,440	683,718	2,123	498,862
	Umballa	2,754	1,033,427	1,755	717,969
	Ferozepore	4,302	886,676	407	122,810
	Gujrát	2,051	760,875	562	154,857
	Provincial total for May.		19,797	5,369,866	10,707
June 1897	Hissar	5,163	776,006	3,763	543,834
	Rohtak	1,797	590,475	1,467	451,920
	Delhi	1,290	638,689	630	380,715
	Karnál	2,440	683,718	2,123	498,862
	Umballa	2,754	1,033,427	1,755	717,969
	Ferozepore	4,302	886,676	407	122,810
	Provincial total for June.		17,746	4,608,991	10,145
July 1897	Hissar	5,163	776,006	3,763	543,834
	Rohtak	1,797	590,475	1,467	451,920
	Delhi	1,290	638,689	630	380,715
	Karnál	2,440	683,718	2,123	498,862
	Umballa	2,754	1,033,427	1,755	717,969
	Ferozepore	4,302	886,676	407	122,810
	Provincial total for July.		17,746	4,608,991	10,145

VII—CONTINUED.

relief at the end of each month in each District—continued.

## VII.

### Average numbers relieved at the end of each month.

RELIEF WORKS.		In poor-houses.	Relieved at their homes.	In receipt of special relief to weavers and artisans.	Otherwise relieved.	Total relieved.	Percentage of affected population on relief (column 13 on column 6).
Workers.	Dependents.						
7	8	9	10	11	12	13	14
49,448	4,416	687	8,379	276	4,041	67,247	12.3
6,678	1,540	...	2,193	...	...	10,411	2.3
767	205	838	...	...	...	1,811	0.4
3,884	2,273	...	1,357	...	...	7,514	1.51
2,131	...	...	1,784	229	...	4,144	0.57
360	...	2	...	...	...	362	0.29
3,807	1,256	...	...	...	...	5,063	3.2
67,975	9,691	1,527	13,713	505	4,041	96,552	3.3
64,543	3,713	527	7,334	242	1,756	78,115	14.3
7,545	1,665	...	2,126	...	...	11,336	2.5
831	343	901	...	...	...	2,075	0.5
2,063	955	...	1,582	...	...	4,600	0.92
491	...	...	1,845	252	...	2,588	0.36
416	...	3	...	...	...	419	0.34
75,889	6,676	1,431	12,887	494	1,756	99,133	3.6
19,266	2,610	432	7,128	197	182	29,815	5.4
45	...	...	2,118	...	...	2,163	0.47
...	...	691	...	...	...	691	0.18
948	...	...	882	...	1	1,831	0.36
...	...	...	550	...	...	550	0.07
509	...	3	...	...	...	512	0.41
20,768	2,610	1,126	10,678	197	183	35,562	1.3

## STATEMENT

# VII.

Average numbers relieved  
at the end of each month.

(Average) numbers in receipt of  
affected

Month:	District:	Area.	Population.	Affected area:	Population of affected area.
1	2	3	4	5	6
August 1897 ...	Hissar ...	5,163	776,006	3,763	543,834
	Rohtak ...	1,797	590,475	1,467	451,920
	Delhi ...	1,290	638,689	630	380,715
	Karnál ...	2,440	683,718	2,123	498,862
	Umballá ...	2,754	1,033,427	1,755	717,969
	Provincial total for August.		13,444	3,722,315	9,738
September 1897 ...	Hissar ...	5,163	776,006	3,763	543,834
	Delhi ...	1,290	8,690	630	380,715
	Karnál ...	2,440	682,718	2,123	498,862
	Provincial total for September.		8,893	2,098,413	6,516

# VII.

relief at the end of each month in each District—concluded.

Average numbers relieved at the end of each month.

RELIEF WORKS.		In poor-houses.	Relieved at their homes.	In receipt of special relief to weavers and artisans.	Otherwise relieved.	Total relieved.	Percentage of affected population on relief (column 13 on column 6)
Workers.	Dependents.						
7	8	9	10	11	12	13	14
6,838	1,516	331	6,983	196	...	15,863	2'9
...	...	...	61	...	...	61	0'01
...	...	651	...	...	...	651	0'17
1,116	...	...	209	...	...	1,325	0'26
...	...	...	147	...	...	147	0'02
7,954	1,515	982	7,400	196	...	18,047	0'6
2,823	731	...	...	...	...	3,554	0'6
...	...	650	...	...	...	660	0'17
1,214	...	...	210	...	...	1,424	0'28
4,037	731	663	210	...	...	5,638	0'3

## VIII.

## STATEMENT

Total units relieved.

Total number of units (in terms of one day) relieved

District.	April 1896.	May 1896.	June 1896.	July 1896.	August 1896.	September 1896.	October 1896.	November 1896.	December 1896.	January 1897.
Hissar ...	...	...	...	...	...	...	...	36,514	98,378	720,979
Rohtak ...	...	...	...	...	...	...	...	...	...	86,842
Gurgaon ...	...	...	...	...	...	...	...	...	...	21,819
Delhi ...	...	...	...	...	...	...	...	...	2,345	64,435
Karnal ...	...	...	...	...	...	...	...	13,020	53,753	93,170
Umballa ...	...	...	...	...	...	...	...	...	...	15,645
Ferozepore ...	...	...	...	...	...	...	...	...	49,070	105,413
Lahore 1st period	48,300	204,456	188,860	7,084	3,535	...	...	...	...	...
and "	...	...	...	...	...	...	...	...	...	21,042
Gujrat ...	...	...	...	...	51,506	51,940	163,086	213,598	437,367	1,323,154
Provincial Total ...	48,300	204,456	188,860	7,084	55,041	51,940	163,086	265,132	640,913	2,452,499



## VIII.

No. VIII.

in each District from beginning to end of operations.

Total units relieved.

February 1897.	March 1897.	April 1897.	May 1897.	June 1897.	July 1897.	August 1897.	September 1897.	Total.	REMARKS.
1,246,203	1,560,272	1,662,122	2,260,923	2,148,559	1,821,757	553,084	183,841	12,294,632	NOTE.—The figures for September 1897 include those for the week ending 2nd October 1897.
183,435	257,705	239,932	334,404	317,324	206,556	28,140	...	1,654,338	
51,716	68,698	27,461	3,850	...	...	...	...	173,544	
100,695	71,806	41,762	61,019	53,802	66,374	18,116	18,179	498,533	
60,242	268,716	203,273	247,415	152,446	107,569	49,742	49,952	1,299,298	
79,765	135,016	35,756	84,378	95,361	28,546	9,324	...	483,791	
71,428	64,624	22,253	7,665	11,263	21,707	8,330	...	361,753	
...	...	...	...	...	...	...	...	452,235	
59,710	58,898	27,020	518	...	...	...	...	167,188	
1,387,911	848,995	309,596	190,092	90,748	...	...	...	5,067,993	
3,241,105	3,334,730	2,569,175	3,190,264	2,869,503	2,252,509	666,736	251,972	22,453,305	

# IX.

## Consolidated statement of Famine expenditure.

## STATEMENT

### *Consolidated Statement of*

DISTRICT.	I.—RELIEF WORKS.			II.—GRATUITOUS		
	Under Public Works Department Of- ficers.	Under Civil Officers	Total.	In villages under Chapter V.	In Poor houses under Chapter VIII.	To weavers and in other ways.
	2	3	4	5	6	7
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Hissar ... ..	6,79,441	4,07,610	10,87,051	81,551	8,741	2,927
Rohtak ... ..	2,815	65,945	68,760	26,921	7	...
Gurgaon ... ..	...	14,070	14,070	...	...	...
Delhi ... ..	14,189	24,788	38,977	248	10,479	...
Karnál ... ..	1,05,123	30,908	1,36,031	12,878	...	...
Umbaila ... ..	21,498	22,651	44,149	7,331	...	2,424
Ferozepore ... ..	15,248	17,178	32,426	...	64	...
Lahore ... ..	...	65,658	63,658	...	...	...
Gujrát ... ..	3,86,493	81,428	4,67,921	...	...	...
Total ...	12,24,807	7,28,236	19,53,043	1,28,929	19,291	5,351

No. IX.

*Famine expenditure.*

# IX.

## Consolidated Statement of Famine expenditure.

RELIEF.		III.—Establishment not included in columns 2, 3 and 8.	IV.—Miscellaneous not included in previous columns.	Total of columns 4, 9, 10 and 11.	DISTRIBUTION OF AMOUNT IN COLUMN 12.			
Miscellaneous.	Total.				Government (Imperial or Provincial).	District Funds.	Municipal.	Total.
8	9	10	11	12	13	14	15	16
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
4,466	97,685	17,874	24,000	12,26,610	9,35,189	2,49,047	42,374	12,26,610
1,006	27,934	3,304	...	99,998	2,979	92,995	4,024	99,998
...	...	197	41	14,308	171	12,845	1,292	14,308
...	10,727	...	231	49,935	14,189	14,777	20,969	49,935
...	12,878	5,466	43,387	1,97,762	1,67,161	30,601	...	1,97,762
...	9,755	2,464	2,101	58,469	23,625	34,844	...	58,469
...	64	2,731	3,011	38,232	2,511	29,922	5,799	38,232
...	...	445	...	64,103	25,124	28,117	10,862	64,103
...	...	6,166	10,500	4,84,587	4,54,576	30,011	...	4,84,587
5,472	1,59,043	38,647	83,271	22,34,004	16,25,525	5,23,159	85,320	22,34,004

# X.

## Suspensions and Remissions.

## STATEMENT

*Suspensions and Remissions of Land Revenue for*

DISTRICTS.				SUSPENSIONS.		
				Khálsa.	Jágfr.	Total.
				2	3	4
				Rs.	Rs.	Rs.
Hissar	...	...	{ Kharff 1896	3,14,951	4,781	3,19,732
			{ Rabi 1897	65,561	3,781	69,342
			Total	3,80,512	8,562	3,89,074
Rohtak	...	...	{ Kharff 1896	1,41,622	310	1,41,932
			{ Rabi 1897	1,99,701	...	1,99,701
			Total	3,41,323	310	3,41,633
Gurgaon	...	...	{ Kharff 1896	30,830	584	31,414
			{ Rabi 1897	25,362	653	26,015
			Total	56,192	1,237	57,429
Delhi	...	...	{ Kharff 1896	14,513	...	14,513
			{ Rabi 1897	70,111	3,712	73,823
			Total	84,624	3,712	88,336
Karnál	...	...	{ Kharff 1896	54,465	15,134	69,600
			{ Rabi 1897	48,805	14,432	63,237
			Total	1,03,271	29,566	1,32,837
Umballa	...	...	{ Kharff 1896	21,431	13,878	35,309
			{ Rabi 1897	40,534	33,185	73,719
			Total	61,965	47,063	1,09,028
Simla	...	...	{ Kharff 1896	...	...	...
			{ Rabi 1897	...	...	...
			Total	...	...	...
Kángra	...	...	{ Kharff 1896	...	...	...
			{ Rabi 1897	...	...	...
			Total	...	...	...
Hoshiápur	...	...	{ Kharff 1896	...	...	...
			{ Rabi 1897	...	...	...
			Total	...	...	...
Jullundur	...	...	{ Kharff 1896	919	...	919
			{ Rabi 1897	...	...	...
			Total	919	...	919
Ludhiána	...	...	{ Kharff 1896	611	637	1,248
			{ Rabi 1897	2,835	16,635	19,470
			Total	3,446	17,272	20,718

No. X.

Kharif 1896 and Rabi 1897.

# X.

## Suspensions and Remissions.

REMISSIONS.			TOTAL.		Total.
Khalsa.	Jágfr.	Total.	Khalsa.	Jágfr.	
5	6	7	8	9	10
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
...	...	...	3,14,951	4,781	3,19,732
...	...	...	65,561	3,781	69,342
...	...	...	3,80,512	8,562	3,89,074
...	...	...	1,41,622	310	1,41,932
...	...	...	1,99,701	...	1,99,701
...	...	...	3,41,323	310	3,41,633
...	...	...	30,810	584	31,414
...	...	...	25,362	653	26,015
...	...	...	56,192	1,237	57,429
...	...	...	14,513	...	14,513
...	...	...	70,111	3,712	73,823
...	...	...	84,674	3,712	88,386
...	...	...	54,466	15,134	69,600
30	...	30	48,835	14,432	63,267
30	...	30	1,01,301	29,566	1,32,867
...	...	...	21,431	13,878	35,309
...	...	...	40,534	33,185	73,719
...	...	...	61,065	47,063	1,09,028
...	...	...	...	...	...
...	...	...	...	...	...
...	...	...	...	...	...
46	...	46	46	...	46
132	...	132	132	...	132
178	...	178	178	...	178
...	...	...	...	...	...
...	...	...	...	...	...
...	...	...	...	...	...
...	...	...	919	...	919
105	...	105	105	...	105
105	...	105	1,024	...	1,024
...	...	...	611	637	1,248
...	...	...	2,835	16,635	19,470
...	...	...	3,446	17,272	20,718

# X.

## Suspensions and Remissions.

## STATEMENT

*Suspensions and Remissions of Land Revenue for*

DISTRICTS.				SUSPENSIONS.		
				Khálsa.	Jégr.	Total.
1				2	3	4
				Rs.	Rs.	Rs.
Ferozepore	...	...	{ Kharff 1896	43,663	2,493	46,156
			{ Rabi 1897	31,163	2,035	33,198
			Total	74,826	4,528	79,354
Meolta	...	...	{ Kharff 1896	1,648	...	1,648
			{ Rabi 1897	...	...	...
			Total	1,648	...	1,648
Jhang	...	...	{ Kharff 1896	50	...	50
			{ Rabi 1897	...	...	...
			Total	50	...	50
Montgomery	...	...	{ Kharff 1896	13,025	138	13,163
			{ Rabi 1897	30,664	274	30,938
			Total	43,689	412	44,101
Lahore	...	...	{ Kharff 1896	40,601	5,517	46,118
			{ Rabi 1897	1,891	1,012	9,103
			Total	48,692	6,529	55,221
Amritsar	...	...	{ Kharff 1896	564	...	564
			{ Rabi 1897	8,568	416	8,984
			Total	9,132	416	9,548
Gurdáspur	...	...	{ Kharff 1896	13,747	257	14,004
			{ Rabi 1897	20,300	521	20,821
			Total	34,047	778	34,825
Siáikot	...	...	{ Kharff 1896	15,122	555	15,677
			{ Rabi 1897	20,954	420	21,374
			Total	36,076	975	37,051
Gujrát	...	...	{ Kharff 1896	1,17,300	11,160	1,28,460
			{ Rabi 1897	73,554	4,239	77,793
			Total	1,90,854	15,399	2,06,253
Gujránwála	...	...	{ Kharff 1896	15,067	9,766	24,833
			{ Rabi 1897	2,003	319	2,322
			Total	17,070	10,085	27,155
Shahpur	...	...	{ Kharff 1896	65,908	8,389	74,297
			{ Rabi 1897	59,935	1,979	61,914
			Total	1,25,843	10,368	1,36,211

No. X.

Kharif 1896 and Rabi 1897—continued.

## X.

### Suspensions and Remissions.

REMISSIONS.			TOTAL.		Total.
Khálsa.	Jágfrs.	Total.	Khálsa.	Jágfr.	
5	6	7	8	9	10
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
...	...	...	43,663	2,493	46,156
...	...	...	31,163	2,035	33,198
...	...	...	74,826	4,528	79,354
...	...	...	1,648	...	1,648
...	...	...	1,648	...	1,648
96	...	96	146	...	146
96	...	96	146	...	146
...	...	...	13,025	138	13,163
...	...	...	30,664	274	30,938
...	...	...	43,689	412	44,101
5,017	1,199	6,216	45,618	6,716	52,334
41,864	6,354	48,218	49,955	7,366	57,321
46,881	7,553	54,434	95,573	14,082	1,09,655
250	...	250	823	...	823
28	...	28	8,596	416	9,012
287	...	287	9,419	416	9,835
1,633	...	1,633	13,747	257	14,004
1,633	...	1,633	21,933	521	22,454
1,633	...	1,633	35,680	778	36,458
11,519	231	11,750	26,641	786	27,427
4,102	116	4,218	25,056	536	25,592
15,621	347	15,968	51,697	1,322	53,019
...	...	...	1,17,300	11,160	1,28,460
...	...	...	73,554	4,239	77,793
...	...	...	1,90,854	15,399	2,06,253
...	...	...	15,067	9,766	24,833
...	...	...	2,003	319	2,322
...	...	...	17,070	10,085	27,155
...	...	...	65,908	8,389	74,297
...	...	...	59,935	1,979	61,914
...	...	...	1,25,843	10,368	1,36,211

# X.

## Suspensions and Remissions.

## STATEMENT

### Suspensions and Remissions of Land Revenue for

DISTRICTS.				SUSPENSIONS.		
				Khálsa.	Jágfr.	Total.
1				2	3	4
				Rs.	Rs.	Rs.
Jhelum	...	...	{ Kharff 1896 ...	63,006	1,903	64,909
			{ Rabi 1897 ...	61,352	2,411	63,763
			Total ...	1,24,358	4,404	1,28,762
Ráwalpindi	...	...	{ Kharff 1896 ...	66,709	2,081	68,880
			{ Rabi 1897 ...	32,305	2,401	34,706
			Total ...	99,104	4,482	1,03,586
Hazára	...	...	{ Kharff 1896 ...	2,472	80	2,552
			{ Rabi 1897 ...	65	...	65
			Total ...	2,537	80	2,617
Pesháwar	...	...	{ Kharff 1896 ...	23,440	342	23,782
			{ Rabi 1897 ...	...	...	...
			Total ...	23,440	342	23,782
Kohát	...	...	{ Kharff 1896 ...	18,842	...	18,842
			{ Rabi 1897 ...	960	...	960
			Total ...	19,802	...	19,802
Bannu	...	...	{ Kharff 1896 ...	5,640	82	5,722
			{ Rabi 1897 ...	12,874	...	12,874
			Total ...	18,514	82	18,596
Dera Ismail Khan	...	...	{ Kharff 1896 ...	13,116	6,842	19,958
			{ Rabi 1897 ...	14,000	8,332	22,332
			Total ...	27,116	15,174	42,290
Dera Ghási Khan	...	...	{ Kharff 1896 ...	6,161	463	6,624
			{ Rabi 1897 ...	...	...	...
			Total ...	6,161	463	6,624
Muzaffargarh	...	...	{ Kharff 1896 ...	963	...	963
			{ Rabi 1897 ...	744	...	744
			Total ...	1,707	...	1,707
GRAND TOTAL	...	...	{ Kharff 1896 ...	11,04,779	85,482	11,90,261
			{ Rabi 1897 ...	8,32,139	96,757	9,28,896
			Total ...	19,36,918	1,82,239	21,19,157



No. X.

Kharif 1896 and Rabi 1897—concluded.

## X. Suspensions and Remissions.

REMISSIONS.			TOTAL.		Total
Khalsa.	Jagfr.	Total.	Khalsa.	Jagfr.	
5	6	7	8	9	10
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
...	...	...	63,006	1,991	64,999
...	...	...	61,352	2,411	63,763
...	...	...	1,24,358	4,404	1,28,762
875	...	875	67,671	2,081	69,755
141	40	181	32,446	2,441	34,887
1,016	40	1,056	1,00,120	4,522	1,04,642
...	...	...	2,472	80	2,552
...	...	...	65	...	65
...	...	...	2,537	80	2,617
...	...	...	23,440	342	23,782
...	...	...	...	...	...
...	...	...	23,440	342	23,782
...	...	...	18,842	...	18,842
...	...	...	960	...	960
...	...	...	19,802	...	19,802
...	...	...	5,640	82	5,722
...	...	...	12,874	...	12,874
...	...	...	18,514	82	18,596
...	...	...	13,116	6,842	19,958
510	173	683	14,510	8,505	23,015
510	173	683	27,626	15,347	42,973
...	...	...	6,161	463	6,624
...	...	...	...	...	...
...	...	...	6,161	463	6,624
...	...	...	963	...	963
...	...	...	743	...	744
...	...	...	1,707	...	1,707
17,716	1,430	19,146	11,22,495	86,912	12,09,407
48,641	6,683	55,324	8,80,780	1,03,440	9,84,220
66,357	8,113	74,470	20,03,275	1,90,352	21,93,627

## XI.

## STATEMENT NO. XI.

Advances to  
Agriculturists.

*Loans to Agriculturists during the year ending 30th e.  
September 1897.*

Districts.	Advances under Act XIX of 1883.	Advances under Act XII of 1884.
1	2	3
	Rs.	Rs.
Hissar ... ..	990	4,78,107
Rohtak ... ..	1,400	4,760
Gurgaon ... ..	720	7,745
Delhi ... ..	230	30,856
Karnal ... ..	2,360	32,782
Umballa ... ..	4,738	17,854
Simla ... ..	...	...
Kangra ... ..	...	1,715
Hoshiarpur ... ..	700	...
Jullundur ... ..	6,220	168
Ludhiana ... ..	3,700	16,891
Ferozepore ... ..	9,580	56,171
Mooltan ... ..	8,801	2,878
Jhang ... ..	1,60,845	1,100
Montgomery ... ..	1,710	15,580
Lahore ... ..	3,600	50,345

## STATEMENT NO. XI—concluded.

Loans to Agriculturists during the year ending 30th  
September, 1897—concluded.

## XI.

Advances to  
Agriculturists.

Districts.	Advances under Act XIX of 1883.	Advances under Act XII of 1884.
1	2	3
	Rs.	Rs.
Amritsar ... ..	1,440	7,198
Gurdáspur ... ..	1,820	24,969
Sídikot ... ..	...	77,776
Gujrát ... ..	...	10,000
Gujránwála ... ..	800	31,520
Shahpar ... ..	...	24,782
Jhelum ... ..	...	53,248
Ráwalpindi ... ..	...	35,108
Harárá ... ..	400	18,008
Pesháwar ... ..	1,300	24,440
Kohát ... ..	2,360	29,080
Bannu ... ..	1,010	24,307
Dera Ismail Khan ... ..	1,720	53,099
Dera Gházi Khan ... ..	1,740	2,084
Musaffargarh ... ..	3,965	21,879
<b>Total</b> ... ..	<b>2,22,149</b>	<b>11,54,490</b>

# XII.

Cost and value of  
Relief Works.

## STATEMENT

Statement showing the Cost and

Serial No.	District.	Name of Work.	Under what Department.	Estimated value at ordinary rates.	Actual cost as carried out under the Famine Code.	DETAIL OF	
						Wages of workers.	Establishment.
1	2	3	4	5	6	7	8
				Rs.	Rs.	Rs.	Rs.
I.—IRRIGATION							
1	Gujrát	Jhelum Canal	P. W. D. and Civil.	91,949	3,86,493	2,56,364	21,252
2	Hissar	Ghagger Canals	P. W. D.	1,82,396	3,97,330	2,75,717	20,885
3	Karnál	Nardak Rájbaha	Do.	62,128	98,576	67,178	11,371
4	Do.	Kaithal Rájbaha	Civil	7,485	18,886	11,756	1,942
5	Umballa	"Cuts off", Western Jumna Canal.	P. W. D.	8,556	21,498	12,405	1,160
6	Hissar	Ditto ditto	Do.	67,735	124,429	86,224	18,862
7	Do.	Rangoi Cut	P. W. D. and Civil.	20,780	61,094	52,289	3,639
		Total Irrigation Works	...	4,41,029	11,08,306	7,61,933	79,111
II.—							
(The mileage is entered)							
1	Hissar	Bhiwáni-Toshám (12½)	Carried out by Civil Department under P. W. D. supervision.	3,911	6,077	5,046	586
2	Do.	Hánsi-Toshám (14)		5,517	10,904	9,748	647
3	Do.	Hissar-Barwála (15¼)		4,646	8,927	7,968	133
4	Do.	Fatahabad Tohána (32)		13,133	30,848	28,692	1,638
5	Do.	Dabwáli-Kalánwáli (5¼)		1,534	3,300	3,006	...
6	Rohtak	Two minor roads (14½)	Civil	2,272	2,456	1,966	110
7	Gurgaon	Kasan-Bahora (4)	Do.	2,534	4,677	3,521	156
8	Do.	Minor roads (½ mile)	Do.	528	616	553	52
9	Delhi	Minor roads (5)	Do.	547	598	621	150

No. XII.

Value of Relief Works.

## XII.

### Cost and value of Relief Works.

COLUMN 6.			Quantity of work done.	RATE PER 1,000 CUBIC FEET.			REMARKS AS TO UTILITY OF WORK.
Tools and Plant.	Miscellaneous.	Dependants.		Calculated on total outlay.	Calculated on wages only.	Normal (or estimated) rate.	
9	10	11	12	13	14	15	16
Rs.	Rs.	Rs.	Cubic feet.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
<b>WORKS.</b>							
43,099	6,181	59,597	28,292,000	13 10 8	9 1 0	3 4 0	See paragraph 70 of Report.
24,890	36,368	39,470	57,775,628	6 14 0	4 12 4	Various.	There was some expenditure on jungle-cutting and on masonry works. See paragraph 70 of Report.
7,144	4,881	8,002	25,543,700	3 13 8	2 10 1	2 6 11	See paragraph 70 of Report.
3,633	1,276	279	2,722,075	6 15 1	3 11 2	2 12 0	Ditto.
1,249	4,711	1,973	3,839,000	4 8 9	3 3 9	2 12 0	Ditto.
10,362	4,909	4,072	22,578,240	5 8 2	3 13 1	3 0 0	Ditto.
461	432	4,273	8,312,731	7 5 9	6 4 8	2 8 0	Ditto.
90,838	58,758	1,17,666	149,063,374	7 7 0	5 1 9	2 15 4	
<b>ROADS.</b>							
<i>in column 3.)</i>							
82	340	23	1,738,465	3 8 0	2 14 6	2 4 0	As regards all these road works, see paragraphs 71 to 73 of Report.
250	218	41	2,452,067	4 7 2	4 0 0	2 4 0	
236	583	7	2,065,189	4 5 2	3 12 3	2 4 0	
64	99	355	5,837,050	5 4 10	4 14 6	2 4 0	
44	102	148	682,714	4 13 6	4 6 5	2 4 0	
...	140	240	757,500	3 3 10	2 9 6	3 0 0	
584	...	416	{ 1,050,840 72,000 (Blasting) }	{ 4 2 8	{ 2 11 0	{ 2 0 0 6 0 0	
3	...	8	250,570	2 4 0	2 3 0	2 1 0	
203	23	1	201,967	4 15 0	3 1 0	2 11 0	

# XII.

Cost and value of Relief Works.

## STATEMENT

Statement showing the Cost and

Serial No.	District.	Name of Work.	Under what Department.	Estimated value at ordinary rates.	Actual cost as carried out under the Famine Code.	DETAIL OF	
						Wages of workers.	Establishment.
1	2	3	4	5	6	7	8
				Rs.	Rs.	Rs.	Rs.
II.—							
(The mileage is entered)							
10	Karnál	Karnál-Asaundh (25)	Civil and P. W. D.	4,464	18,162	14,292	577
11	Umballa	Umballa-Subáthú (24)	Civil	1,561	1,557	1,423	22
12	Ferozepore	Minor roads	Do.	4,858	7,993	7,455	89
13	Lahore (Sharakpur)	Four roads (102)	Do.	27,085	43,257	37,451	507
14	Gujrát	Phália-Maggowál (19)	Do.	11,574	13,990	11,163	94
15	Do.	Phália-Chillánwála (16½)	Do.	8,606	15,083	9,447	228
16	Do.	Kádirabad-Kothála (12½) Sheikhán	Do.	3,638	7,479	6,134	32
17	Do.	Kádirabad-Ranmal (15½)	Do.	4,388	12,034	9,615	231
18	Do.	Ranmal-Mung (28)	Do.	7,978	32,881	28,420	16
		Total		1,08,774	2,21,239	1,86,521	5,268
III.—							
(a). Large							
1	Hissar	2 Bhiwáni Water-Works Tanks	P. W. D.	29,152	26,863	22,922	2,542
2	Delhi	Shamsi Tank	Civil	5,294	10,572	9,188	715
3	Ferozepore	Kábul Shah	P. W. D.	3,661	4,751	3,965	220
4	Do.	Gulábewála	Do.	4,965	4,811	4,038	402
5	Lahore	Kána Kácha	Civil	7,055	9,543	7,583	506
		Total Large Tanks		50,127	56,540	47,696	4,385

No. XII.

Value of Relief Works—continued.

## XII.

### Cost and value of Relief Works.

COLUMN 6.			Quantity of work done.	RATE PER 1,000 CUBIC FEET.			REMARKS AS TO UTILITY OF WORK.
Tools and Plant.	Miscellaneous.	Dependents.		Calculated on total outlay.	Calculated on wages only.	Normal (or estimated) rate.	
9	10	11	12	13	14	15	16
Rs.	Rs.	Rs.	Cubic feet.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
<i>ROADS—concluded.</i>							
<i>in column 3.)</i>							
2,320	778	195	1,985,404	9 2 4	7 3 2	2 4 0	
9	71	32	692,711	2 4 0	2 1 0	2 4 0	
326	...	123	2,429,436	3 4 9	3 1 1	2 0 0	
3,041	...	2,258	8,234,210	5 4 1	4 8 9	3 4 0	Of the 102 miles two roads, 66 miles in length, were new roads.
575	358	1,800	5,144,407	2 11 6	1 13 1½	2 4 0	
577	3,178	1,653	3,825,211	3 14 9	2 2 3	2 4 0	
...	401	912	1,617,391	5 4 1	3 3 6	2 4 0	
...	769	1,419	1,949,334	6 2 6	3 12 4	2 4 0	
...	1,200	3,245	3,545,537	9 4 0	6 6 0	2 4 0	
8,314	8,260	12,876	44,532,003	4 15 5	4 3 0	2 7 1	
<i>TANKS.</i>							
<i>Tanks.</i>							
672	344	383	3,644,062	7 5 11	6 4 7	8 0 0	These two tanks, each 300 feet square and 17 feet deep, are part of the scheme for supplying the town of Bhiwani with filtered water. They would have been constructed in any case, and were not undertaken merely to employ relief labourers—Class III of Mr. Higham's paragraph 27.
464	129	76	1,713,643	6 2 8	5 5 9	3 1 5	Designed to supplement the somewhat deficient water-supply of the old town of Mahrauli.
566	...	...	732,242	6 7 10	5 6 8	5 0 0	These tanks are situated in a part of the Muktsar Tahsil, which suffers much from want of water. A proposal is under consideration to construct a channel from the Sirhind Canal to enable the tanks to be filled.
371	...	...	993,189	4 13 6	4 1 1	5 0 0	
466	988	...	1,411,454	6 11 4	5 6 0	5 0 0	Some irrigation by means of water-lift is carried on from this tank so long as water remains in it.
9,539	1,461	459	8,494,590	6 10 6	5 9 10	5 14 5	

# XII.

Cost and value of  
Relief Works.

## STATEMENT

Statement showing the Cost and

Serial No	District.	Name of Work.	Under what Department.	Estimated value at ordinary rates.	Actual cost as carried out under the Famine Code.	DETAIL OF	
						Wages of workers.	Establishment.
1	2	3	4	5	6	7	8
				Rs.	Rs.	Rs.	Rs.
							III.—
							(b). Small
1	Hissar	Village tanks	Civil	3,89,077	3,89,077	3,80,543	6,298
2	Rohtak	43 Village tanks	Do.	37,172	60,657	48,452	2,555
3	Gurgaon	{ 64 Village tanks 3 Municipal „	} Do.	6,542	8,778	8,284	209
4	Delhi	Asalatpur Tank	Do.	930	1,199	996	45
5	Karnál	Tank at Karnál	Do.	547	407	401	2
6	Umballa	38 Village tanks	Do.	23,017	22,511	20,046	596
7	Ferozepore	11 Village tanks	Do.	3,011	3,891	3,762	19
		Total Small Tanks		4,60,296	4,86,520	4,62,484	9,724
		Grand Total Tanks		5,10,423	5,43,060	5,10,180	14,109
							IV.—KANKAR
1	Hissar	Quarrying kankar	P. W. D.	2,226	3,134	2,466	436
2	Rohtak	Quarrying, cleaning and collecting kankar.	Civil	2,939	2,635	2,324	130
3	Do.	Quarrying kankar	P. W. D.	2,897	2,815	2,028	352
4	Ferozepore	Do.	Do.	1,711	5,686	4,841	200
		Total		9,773	14,270	11,659	1,118



No. XII.

Value of Relief Works—continued.

## XII.

### Cost and value of Relief Works.

COLUMN 6.			Quantity of work done.	RATE PER 1,000 CUBIC FEET.			REMARKS AS TO UTILITY OF WORK.
Tools and Plant.	Miscellaneous.	Dependants.		Calculated on total outlay.	Calculated on wages only.	Normal (or estimated) rate.	
9	10	11	12	13	14	15	16
Rs.	Rs.	Rs.	Cubic feet.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
<b>TANKS—concl'd.</b>							
<i>Tanks.</i>							
509	1,714	13	116,375,026	3 5 6	3 4 8	*Various.	* The Deputy Commissioner has returned as the normal rate in each case the rate calculated on the actual outlay, though this varied from under two to over five rupees per 1,000 cubic feet.
...	3,707	5,943	8,260,600	7 5 6	5 13 10	4 8 0	
204	1	80	2,180,208	4 0 0	3 13 0	3 0 0	
139	19	...	294,747	4 1 1	3 6 0	3 2 5	
1	3	...	219,422	1 13 8	1 13 3	2 8 0	The work was one of filling up a tank, not of excavation. It was useful on sanitary grounds.
1,398	466	5	8,370,454	2 11 0	2 6 0	2 12 0	
85	...	25	1,721,325	2 4 0	2 3 0	1 12 0	
2,336	5,910	6,066	137,422,382	3 8 8	3 7 11	3 7 7	
4,875	7,371	6,525	145,916,972	3 11 6	3 8 0	3 8 0	
<b>EXCAVATION.</b>							
121	62	49	111,299	2 13 0	2 3 5	2 0 0	The different rates are for the different processes of collecting, quarrying and cleaning.
...	180	1	90,030	3 13 2	3 4 0	4 0 0	
...	433	2	154,493	1 14 9	1 14 9	2 8 0	
...	363	55	85,560	0 15 4	0 15 4	1 8 0	
227	363	55	85,560	1 13 2	1 5 0	1 14 0	
348	1,038	107	441,382	6 10 3	5 10 7	2 0 0	
				3 3 8	2 10 3	2 3 5	

# XII.

Cost and value of  
Relief Works.

## STATEMENT

Statement showing the Cost and

Serial No.	District.	Name of Work.	Under what Department.	Estimated value at ordinary rates.	Actual cost as carried out under the Famine Code.	DETAIL OF	
						Wages of workers.	Establishment.
1	2	3	4	5	6	7	8
				Rs.	Rs.	Rs.	Rs.
							V.—MISCEL
1	Hissar	Bir Ditch	P. W. D.	11,005	25,068	16,528	3,022
2	Delhi	Delhi-Agra Railway	Do.	3,803	14,189	4,377	8,295
3	Do.	Filling up hollow	Civil	1,899	3,454	2,978	320
4	Do.	Extracting old bricks	Do.	2,866	4,695	3,683	208
5	Do.	Digging Kudsia Channel	Do.	3,197	3,756	3,590	119
6	Lahore	Earth-filling at Charing Cross...	Do.	1,328	7,666	5,091	478
7	Do.	7 Minor works	Do.	1,486	3,089	2,362	336
8	Ferozepore	Various minor works	Do.	3,060	5,294	4,579	20
		Total	...	28,644	67,211	43,188	12,798
		GRAND TOTAL OF CLASSES I, II, III, IV AND V.	...	10,98,643	19,54,086	15,13,481	1,12,404

No. XII.

## XII. Cost and value of Relief Works.

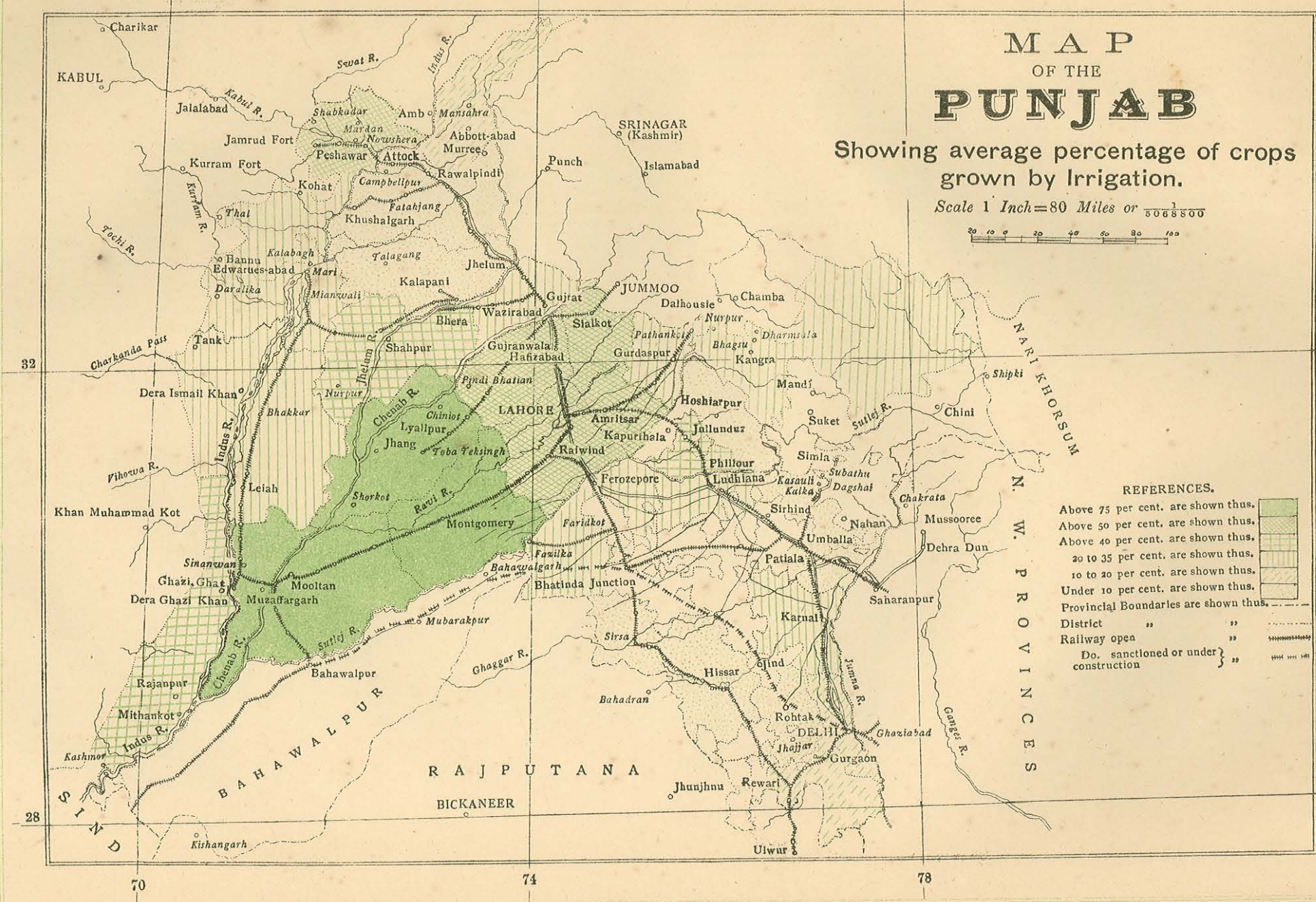
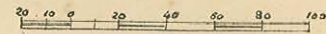
Value of Relief Works—concluded.

COLUMN G.			Quantity of work done.	RATE PER 1,000 CUBIC FEET.			REMARKS AS TO UTILITY OF WORK.
Tools and Plant.	Miscellaneous.	Dependents.		Calculated on total outlay.	Calculated on wages only.	Normal (or estimated) rate.	
9	10	11	12	13	14	15	16
Rs.	Rs.	Rs.	Cubic feet.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
<b>LANEWAYS WORKS.</b>							
699	3,248	1,571	4,402,187	5 11 1	3 12 1	2 8 0	See paragraph 78 of Report.
848	62	607	1,086,521	13 1 0	4 0 6	3 8 0	See paragraph 78 of Report.
156	...	...	222,000	8 3 0	7 0 10	4 8 0	
804	...	...	521,000	9 0 2	7 1 1	5 8 0	
47	...	...	1,279,000	2 14 11	2 12 11	2 8 0	See paragraph 78 of Report.
1,929	168	...	265,728	28 13 7	19 2 0	5 0 0	See paragraph 78 of Report.
288	103	...	318,127	9 11 5	9 7 0	Various	The works were mainly of the nature of filling up depressions and levelling; also extracting bricks from old ruins.
666	...	29	1,459,268	3 10 0	3 2 0	Do. ...	
5,437	3,581	2,207	9,753,831	6 14 3	4 7 1	2 15 0	
1,09,812	79,008	139,381	349,707,562	5 9 5	4 5 3	3 2 3	

# MAP OF THE PUNJAB

Showing average percentage of crops grown by Irrigation.

Scale 1 Inch = 80 Miles or  $\frac{1}{5068800}$



### REFERENCES.

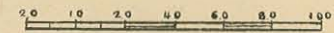
- Above 75 per cent. are shown thus.
- Above 50 per cent. are shown thus.
- Above 40 per cent. are shown thus.
- 20 to 35 per cent. are shown thus.
- 10 to 20 per cent. are shown thus.
- Under 10 per cent. are shown thus.
- Provincial Boundaries are shown thus.
- District " "
- Railway open " "
- Do. sanctioned or under construction " "



# MAP OF THE PUNJAB

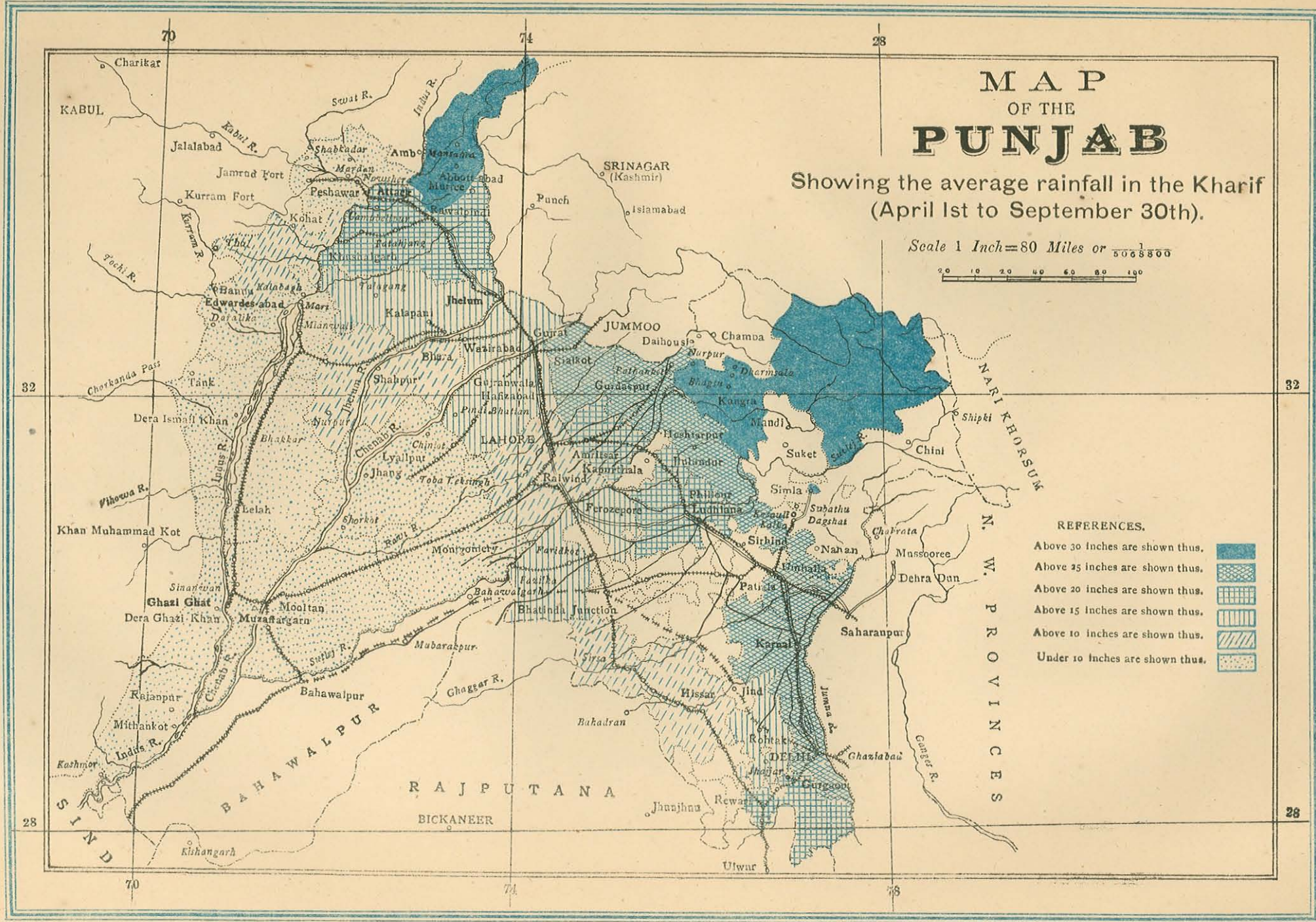
Showing the average rainfall in the Kharif  
(April 1st to September 30th).

Scale 1 Inch = 80 Miles or  $\frac{1}{5000000}$



### REFERENCES.

- Above 30 inches are shown thus.
- Above 25 inches are shown thus.
- Above 20 inches are shown thus.
- Above 15 inches are shown thus.
- Above 10 inches are shown thus.
- Under 10 inches are shown thus.



N. W. PROVINCES

SIND

BAHAWALPUR

RAJPUTANA  
BICKANEER

NARI KORSUM

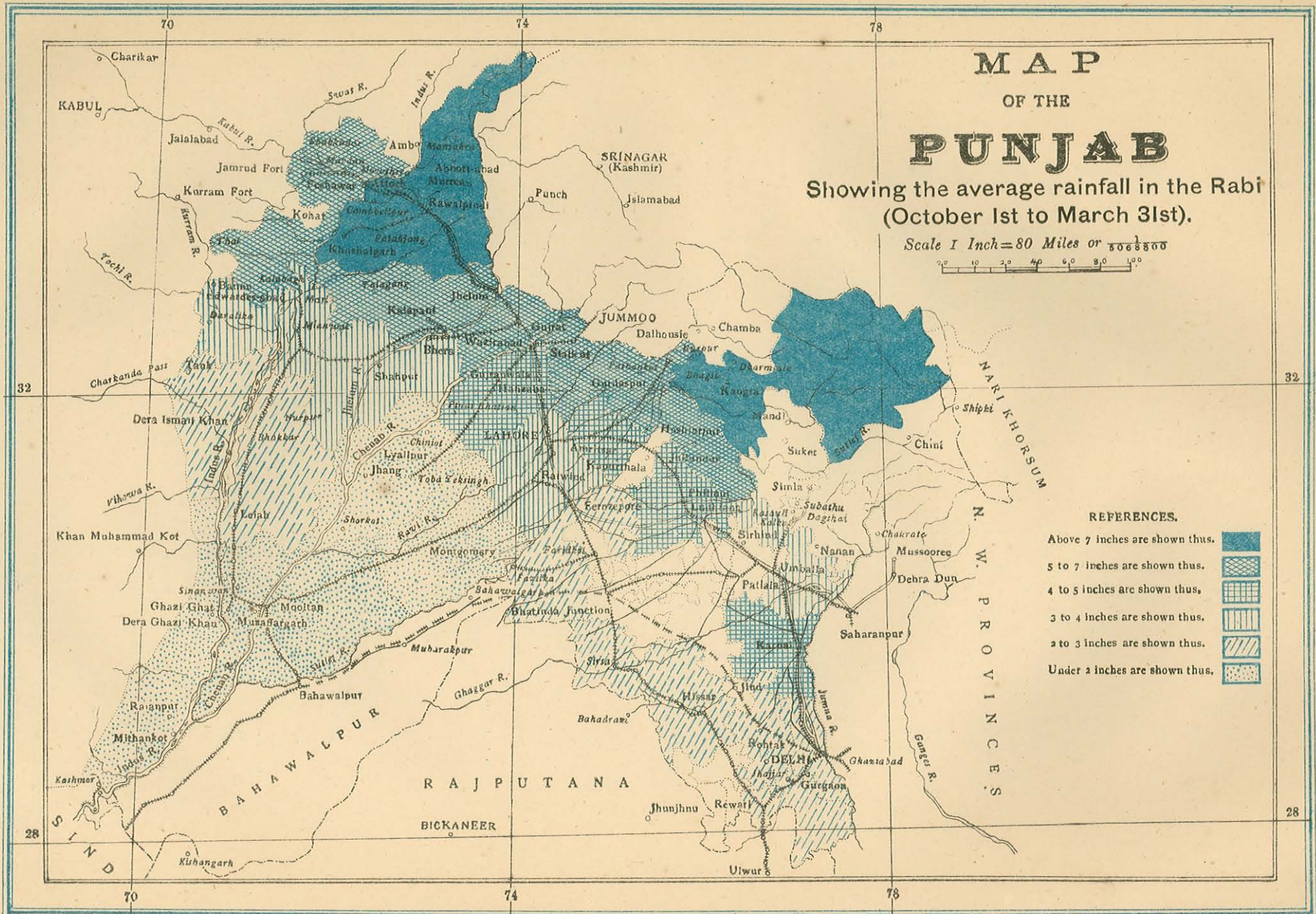
GURJAR



# MAP OF THE PUNJAB

Showing the average rainfall in the Rabi  
(October 1st to March 31st).

Scale 1 Inch = 80 Miles or 13000000



### REFERENCES.


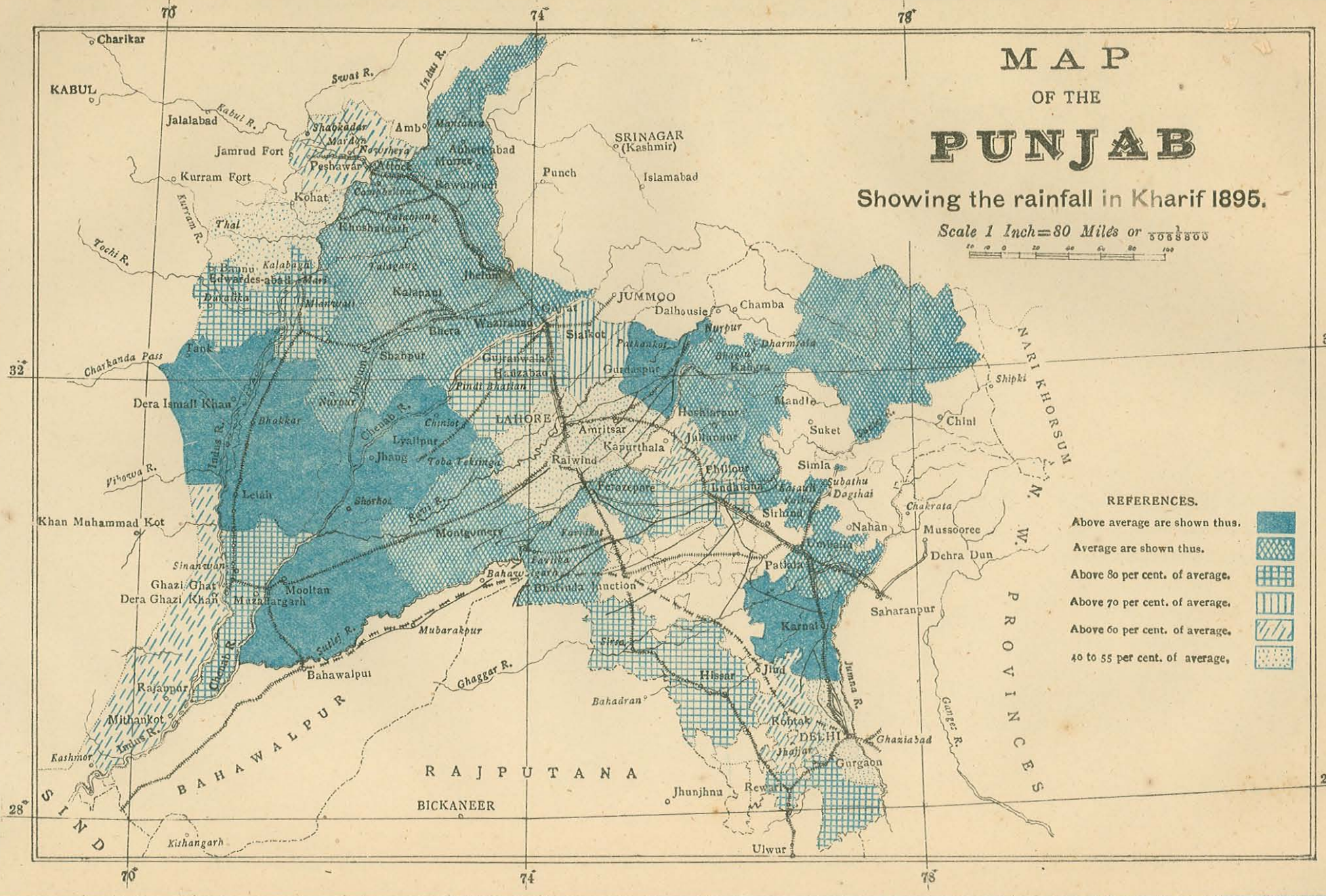
- Above 7 inches are shown thus.
- 5 to 7 inches are shown thus.
- 4 to 5 inches are shown thus.
- 3 to 4 inches are shown thus.
- 2 to 3 inches are shown thus.
- Under 2 inches are shown thus.



# MAP OF THE PUNJAB

Showing the rainfall in Kharif 1895.

Scale 1 Inch = 80 Miles or  $\frac{1}{80}$  Miles

**REFERENCES.**

Above average are shown thus.

Average are shown thus.

Above 80 per cent. of average.

Above 70 per cent. of average.

Above 60 per cent. of average.

40 to 55 per cent. of average.

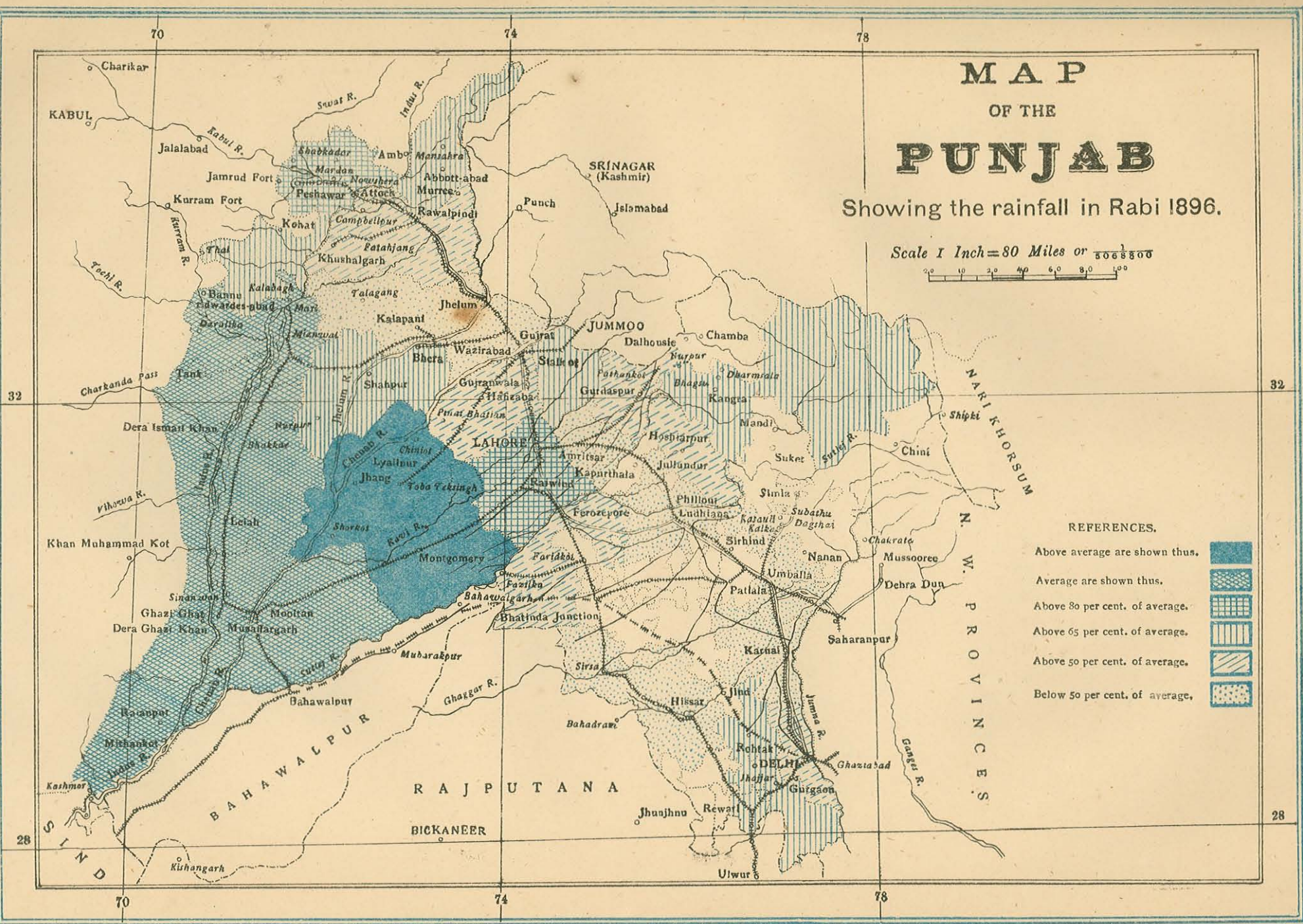




# MAP OF THE PUNJAB

Showing the rainfall in Rabi 1896.

Scale 1 Inch = 80 Miles or  $\frac{1}{5068800}$



### REFERENCES.

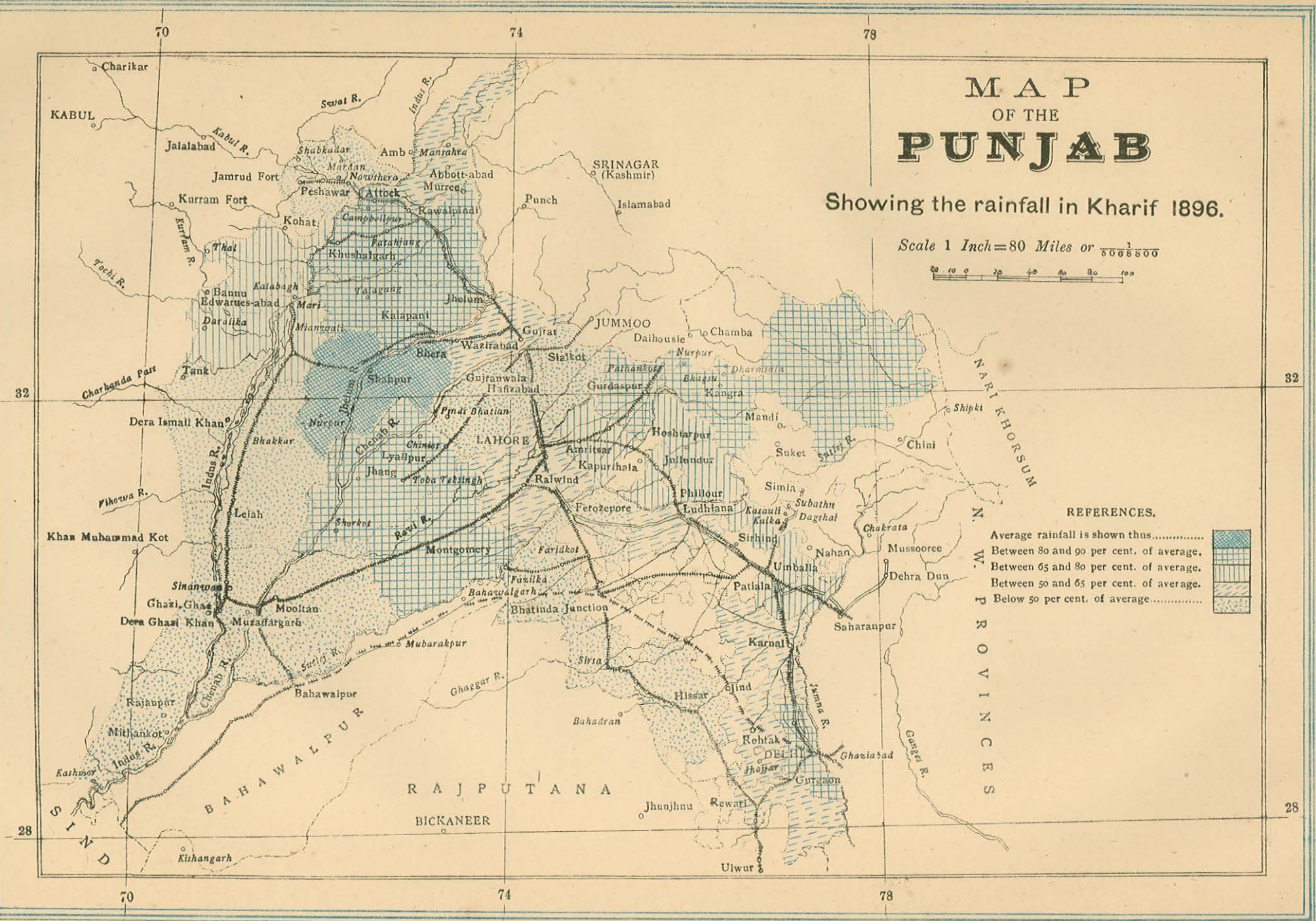
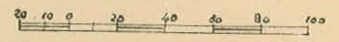
- Above average are shown thus.
- Average are shown thus.
- Above 80 per cent. of average.
- Above 65 per cent. of average.
- Above 50 per cent. of average.
- Below 50 per cent. of average.



# M A P OF THE PUNJAB

Showing the rainfall in Kharif 1896.

Scale 1 Inch = 80 Miles or  $\frac{1}{500000}$



### REFERENCES.

- Average rainfall is shown thus.....
- Between 80 and 90 per cent. of average.
- Between 65 and 80 per cent. of average.
- Between 50 and 65 per cent. of average.
- Below 50 per cent. of average.....

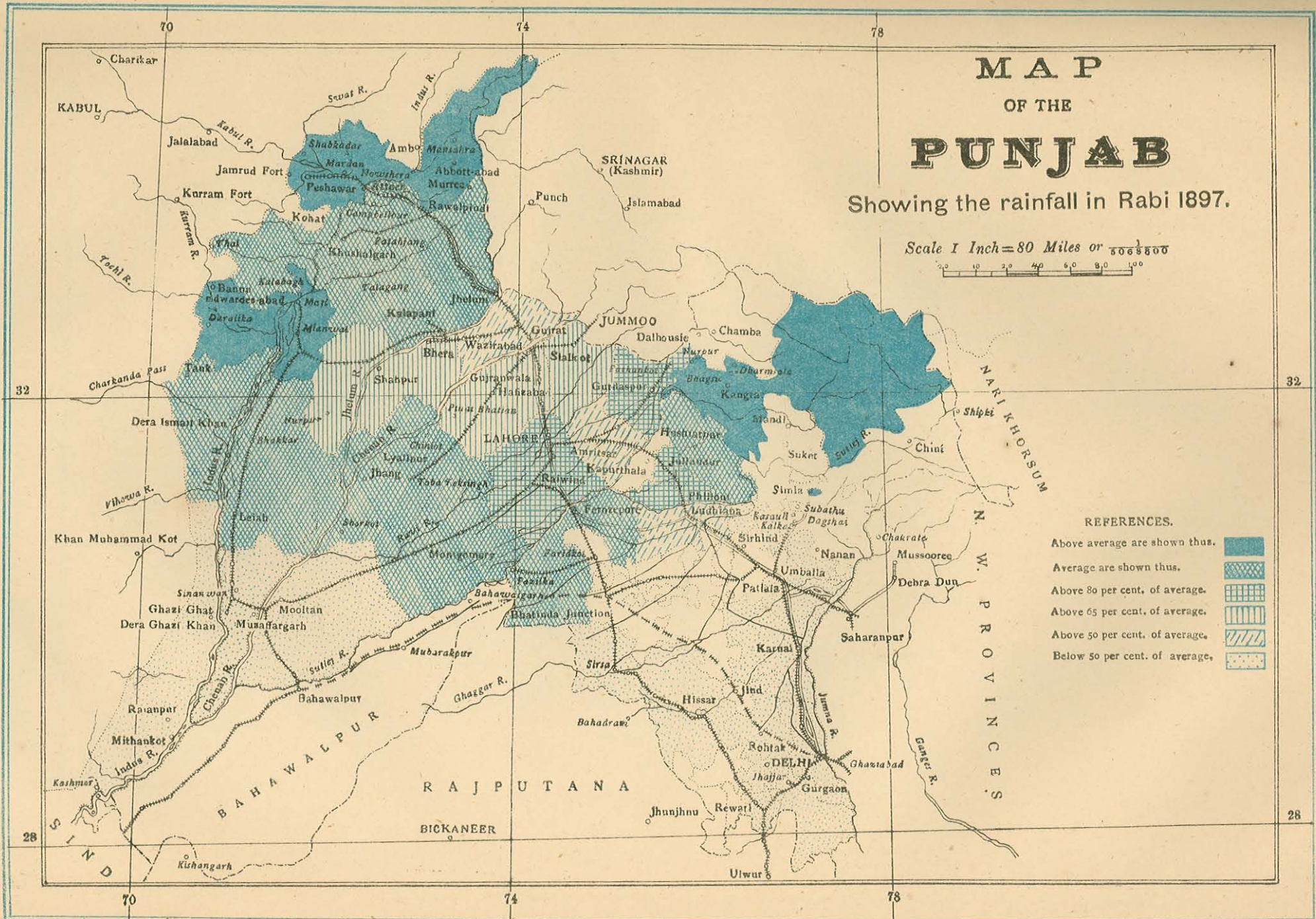




# MAP OF THE PUNJAB

Showing the rainfall in Rabi 1897.

Scale 1 Inch = 80 Miles or १०६६६००



### REFERENCES.

- Above average are shown thus.
- Average are shown thus.
- Above 80 per cent. of average.
- Above 65 per cent. of average.
- Above 50 per cent. of average.
- Below 50 per cent. of average.



# MAP OF THE PUNJAB

Showing the crop failures in Kharif 1895.

Scale 1 Inch = 80 Miles or  $\frac{1}{604800}$



### REFERENCES.

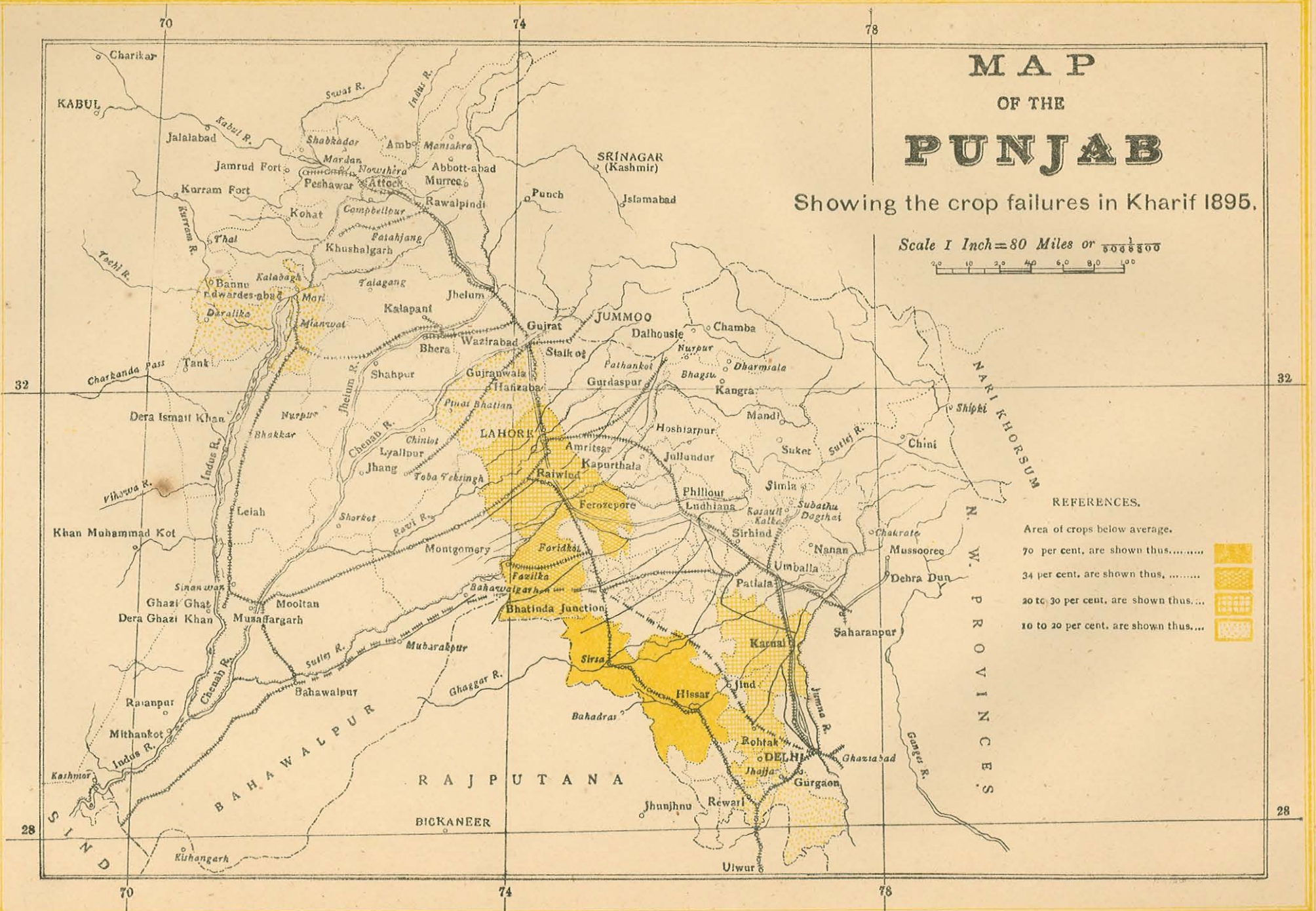
Area of crops below average.

70 per cent. are shown thus.....

34 per cent. are shown thus.....

20 to 30 per cent. are shown thus...

10 to 20 per cent. are shown thus...



N. W. PROVINCES.

NARI KHORSUM

32

32

28

28

70

74

78

70

74

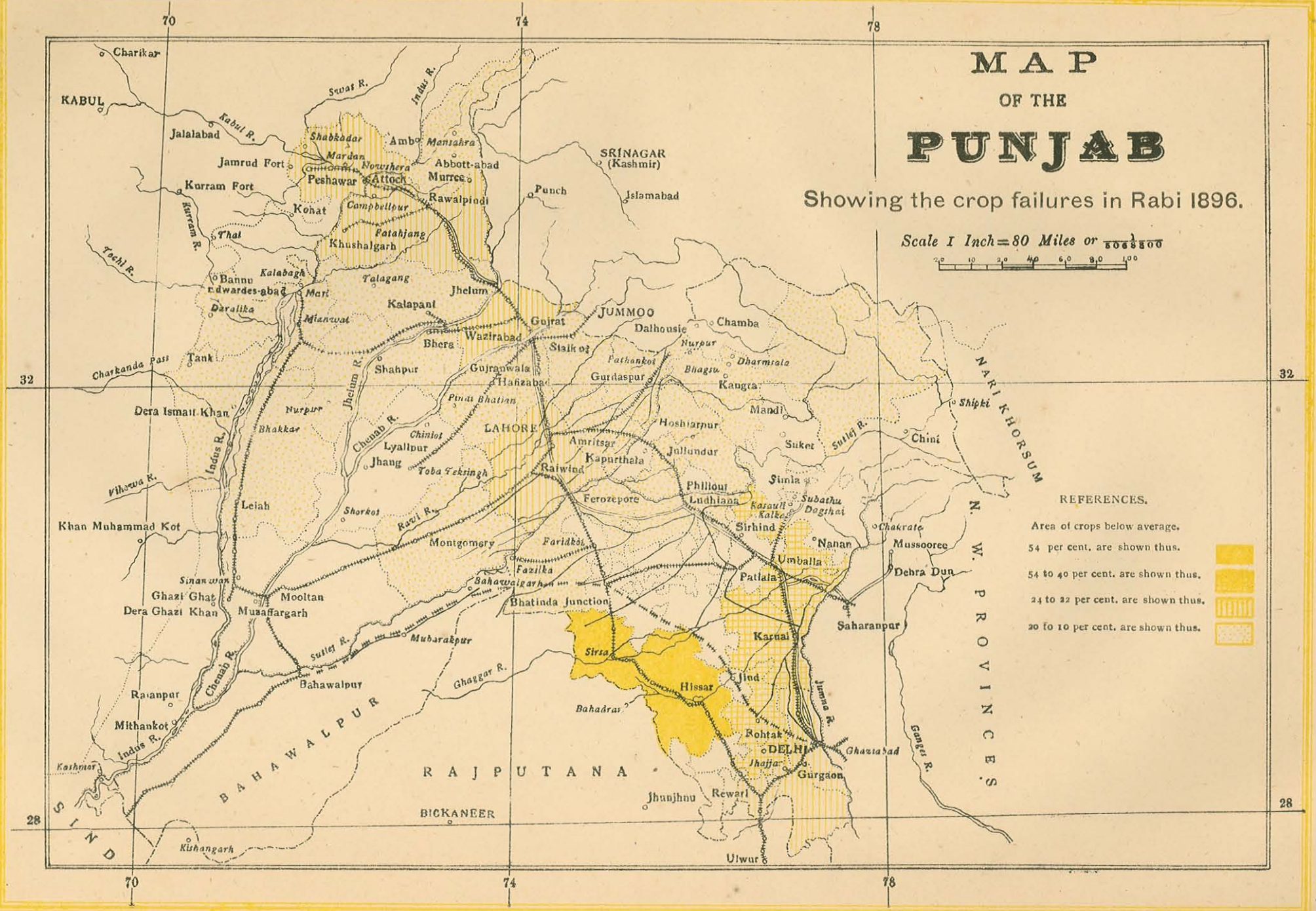
78



# MAP OF THE PUNJAB

Showing the crop failures in Rabi 1896.

Scale 1 Inch = 80 Miles or  $\frac{1}{1056000}$



REFERENCES.

- Area of crops below average.
- 54 per cent. are shown thus.
- 54 to 40 per cent. are shown thus.
- 24 to 22 per cent. are shown thus.
- 20 to 10 per cent. are shown thus.

32

32

28

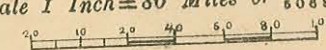
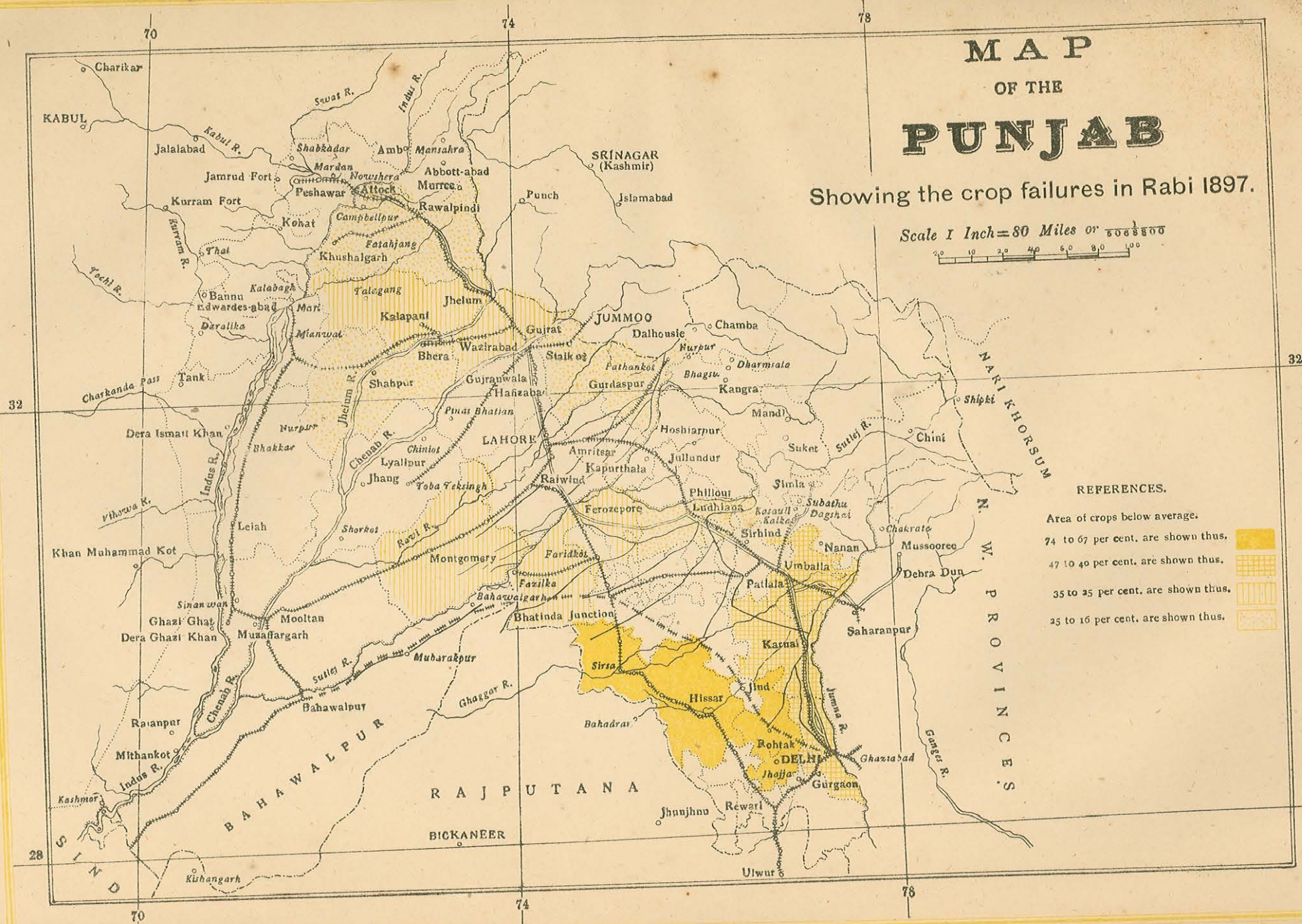
28







# MAP OF THE PUNJAB

Showing the crop failures in Rabi 1897.

Scale 1 Inch = 80 Miles or  $\frac{1}{1000000}$

### REFERENCES.

- Area of crops below average.
- 74 to 67 per cent. are shown thus, 
- 47 to 40 per cent. are shown thus, 
- 35 to 25 per cent. are shown thus, 
- 25 to 16 per cent. are shown thus, 

N.W. PROVINCES.

RAJPUTANA  
BICKANEER

BAHAWALPUR

NARI KHORSUM

KABUL

SRINAGAR (Kashmir)

KASHMIR

