# REPORT 

ON THE

# famine in thée puinjab 

IN

## 1896-9\%.

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1898.

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## Read-

(1) Circalars of the Government of India in the Revenue and Agricultural Department,
 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) Varinus reports from Commissioners, Deputy Commissioners and Public Works Officers.

## Introductory Note.

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 |
| :---: | :---: | :---: | :---: | :---: |
| Gujratt ... | ... | ... | $\cdots$ | 226 |
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| Lahore (Sharakpur) ... | ... | ... | ... | 20 |
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| Gurgaon | ... | ... | ... | 8 |
| Lahore (second period) | $\cdots$ | ... | ... | 7 |
|  |  |  |  | x,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 $22 \frac{2}{8}$ 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 $11 \frac{1}{8}$. 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.

Numerous extracts from the district reports are printed as Appendix 1 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 uhdertaken; 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 alnost 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 Phália Tahsíl 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 Ferozeporeand Lahore Districts.

## 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 7. R. Dunlop-Smith, Deputy Commissioner.

Rohtak.-Captain G. C. Beadon, Officiating Deputy Commissioner.
Delhr.-Captain H. S. P. Davies, Deputy Commissioner.
Karnal.-F. F. Connolly, Esquire, c. s., Officiating Deputy Commisssoner.

Unballa.-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 Ist of May till the $15^{\text {th }}$ of October barely $3 \frac{1}{2}$ inches were registered at head-quarters. The result of these five months of burning heat, varied onfy by light storms, local in their Sharif harreat of 8896. incidence and capricious boyond 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 :-

| $\pm$ |  |  |  | 2 | 3 | 4 | 5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Seamor, |  |  |  | Acreage sown. |  | Acmenom filled: |  |
|  |  |  |  | Acreage inatured. | Actual. | Per cent. or Columin 2. |
|  |  |  |  |  | Acres. | Acres | Acres: |  |
| Kharff re93 | $\cdots$ | $\cdots$ | $\cdots$ | 5,513,795 | 1255,144 | 258,653 | IT |
| .18894 | - | $\cdots$ | $\cdots$ | 1,435,467 | 933.800 | 501,667 | 35 |
| " 1895. | *** | $\cdots$ | ... | 7,432,578 | 251,614 | 3,170,964 | 88 |
| * 1896 | ** | $\cdots$ | $\cdots$ | 1,269,372 | 175,637 | 8,093,632 | . 86 |

Thus the comhined 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 jowár and one-third of the bájra were. only fil for fodder.

The owfturn of $8895-96$ according to the area statistics was reduced to barely 20 per cent of the district average, and that of the: Distress not due to rigidity of lend following year sank as low as 15 per cent. It would berevenue demend. superfluous: therefore to look for other causes of thecalamity. 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 can-not apply to Hissar; where the assessinents 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 (Sharakpury)

## (Lieutenant C. P. DOWN, Assistant Commissioner.)

The actual rains of 1895 ceased very early; with the result that the kharit crop of

## Cause of the fimine:

 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 oi the Rohi and Kallarathi, and the whole of the Bar Circle, depend mainly on theic 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 tahsil. On the 3 ist 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 nor thern part of the tahsil
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-ninecattle are reported to have died in December 1895 and 1,882 in the first three weeks of January from 'starvation and exhapustion; only qne-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 tahsil, but more especially in the Kallara hi Circle and that portion of the Roht Circle which lies west of the Grand Trunk Road. Lattle 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 aiready very poor. In mnst 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 crcp, 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 yillages virtually no rabi crop was harvested, and in the greater portion of the affected area only a very small percentage of the sowng. The kharff crop of 1895 having also failed by the end of Febuary 1896 , the inhabitanis 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 banifs. These latter, seeing their chances of repayment for some time to come to be small, became more and more chary of making advances, duing so only in return for mortgage of land, and in many cases refusing altogether During February the scarcity of grain and fodder became more severc. The grain stores in viliages were exhausted, emigration of people and mortality among cattle becime more marked, and the general condition of the tabsil was so bad that on the 28th February 1896 it was decided to start relief measurcs. .

## 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

## Stocks of grain with agriculturists,

 figures make of the extent to which the rural population generally lay up their surplus stock against a time of ecarcity. 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 al ttle over half the food-grain required by the people themselves was haryested in 1895-96, the greater portion of that was sent away. In 1896 -97 the outturn was only one-fitth 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 demapd 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 aud 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 ty every surplus grain for the next five harvests. 1 am of opinion, however, that it will take at least five good years before the focal stocks even approach their old figure.
## HISSAR.

Before the improvement in communications a succession of favourable years found

## Geaeral conclusions.

 the Hiscar farmer with his grain pits full and a large store of unsaleable material on his hands. Since the introduction of the railuay 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 bave 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, bave 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 villagehinds now generally insist upon a cash addition to their remuneration in kind and abtain it. * * * This satisfactory progress in economic stability has, however, not been checked by those causes, such as the contraction of avcrage holdings and the widespread increave of indebtedn ess, which have opera!ed so powerfully in other parts of the Province. It has certainly been qualified by the intricacy and uncertainty of our elaborate civil procedure, but suib qualification thuagh appreciable has hitherto been slight.

Another valuable means of lessening the liability of the propl: 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 larg ly 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 mill 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 gainfd by the spread of communications and the steady extension of othre protective measures have naturally her $n$ confined almost entirely to the prasant propriptors and the tenants who possess fixity of tenure. The share enioyed by the village menials has been restricted to certain addítions 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 fu:ure 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. Judg. ing 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 bas 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 dininishing 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 bas not been weakened.


#### Abstract

HISSAR. As the hot weather wore on and tank after tank was taken in hand, all traces of the cld feeling of distrust disappeared, and the complete Attitude of the peopie. absence of peculation or anything approaching to ishonesty on the part of the Lambardárs, who were in charge of these works, bears 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 recognie tion of benefits received were observed. Few of those who shared in the bounty dispensed on the anniversary of the 6oth year of the Queen Empress' reign appreciated the exact significance of the occasion, but the majority accepted it as a gracious indication cf 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 aisist 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 cistribution, 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 ol 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. CI,ARKE, Esquire, c. s., COMMISSIONER.)

Nothing has been more remarkable in the history of this famine than the increased The famine and the people. power of resistance exhibited. There was tro aimless. wandering, no rioting or grain-looting, and no increase in crime that could be with certainty ascribed to tte 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.

## FEROZEPORE,

I do not think that the people fully understood the motives of Government in regard Opinion of the peaple in regerd to to relirf measures except perhaps in Moga, where they relief measures. are somewhat more intelligent. There seemed to be a hazy sort of idea that the Sarkar was making use of the hard times to obtain work from the people at lower wages than they world 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.

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

## KARNAL.

The portion of the Karnal District which was affected by famine comprises the Description of distressed tract. 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 - motorious, and failure of crops reaches the level of famine every seven years. The water level averages $80^{\circ}$ or 100 feet below the surface, and in some it actually reaches i59 feet, which means that the cost of sinking weils is prohibitive, and men and animals alike depend for their drinhing water on tanks filled by rain. Muhammadan Rájpúts, whoie 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 uponmanual 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 Rarghars are the chief cultivatons, 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 gneat deai of water-logging and iswamping resalts 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 bumber rabi generally follows a bad kharff, 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 expenditureof two or three lakhs of rupees on schemes which would be at once drainage and. systematic inrigation, 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

## Power of resistance of the people

 hungry vagrants whose movements were a constant 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 tirae 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 ${ }^{\text { }}$ this is the opinion of all leading officials and non-officials whom. I have talked to on then subject.
#### Abstract

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 Resistance to famine. 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 $\mathbf{8} 86$ the people fearing a famine began tolessen 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 generaliy simply resigned themselves to events.


#### Abstract

UMBÄLLA. 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 necesyity for

\section*{General conclasions.} what they are, not be disturbed about the necessity ior rise to a price of about a rupee for to seers as long as. 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 cau 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 zamindárs 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 zamíndars 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 zamíndárs as well as kamíns. To this stage the majority of the zamindárs are progressing, as has been reported for many years. * $*$


But 1 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 zamíndár 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;

## Large proportion of menial castes in the district.

like chamárs, \&c. There are at some rural centres large colonies of them. This is due probably to the existence of so many Rajpút land-owners in the district: Rájpúts, Gujars and Játs form about to 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 Rájpúts. Hence it is that there are large numbers of field-helps 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. A famine of prices. . 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.

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,

## Nature of distress in Ferozepore District.

 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 Ját 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 Causes which mitigated the dis- the peopletress.
(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 ohtain 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 refased 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 suture of the tahsil, and nothing more need be said about it at present.

## LAHORE.

** As far as can be judged from circumstances, the people have borne the effects of Power of resistance displayed by the famine calmly and have shown considerable pluck and people. 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 $p$ revailed for a long period.

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 zamindar class; in the town things are taken more as a matter of course.


#### Abstract

KARNAL: Private charity was nuiversal. In September, when the rapid rise of prices began, two of the Mandal Chiefs, Khan Shamsher Ali Khán and Rustam Ali Khán, purchased 5 ,000 rupees Private charity. worth of wheat and gram, and a cheap shop was opened whe cheaper rates to the poorer classes generally. The Brauli fed the poor of his village daily, and many Banias 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.


## 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 Attitude of the Bania. 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 Kángra, would have been able to meet the requirements of the poorer classes without applying the provisions of the Famine Code.

## HISSAR.

It is not always easy to estimate what would have happened in any particular

What would have happened had land not been alienable. contingency bad 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. 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 bave had to open-relief works a few weeks earlier than was actually the case. But that would have been of trifing 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 Attitude of money-lezders. chary about advancing money except on the security became hard pressed, advantage was taken of the opportunity to get olddisputed 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 advariced 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

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

## R. Clarke.

 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.
## 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 commencernent of the famine, might be answered at What would have happened had land not been alienable. once by saying that for certain there would have been a rural tumult and large crowds of zamindárs 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 zamindárs quiẹt, as zamindars cannot makeshift to live as Kamins 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 $t 00$ wide to be traversed in a report of this kind.


## HOSHIARPUR.

## (Lieutenant-Colonel C. F. MASSY, Commmissioner.)

The rabi yield of 1897 has been about the best on record, and the zamindárs
have largely benefited by the high prices which they
Profits to agriculturists from the ramine. of surplus fodder to the people living south of the Land. 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 SubRegistrar at Hoshiárpur to refuse to receive fresh documents until bis 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 kharif harvest is now boing 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.

## LAHORE.

## *** The following figures will show the number of registrations (mortgages and Alienations of land. sales only) made during the last four years in this

 district:-|  |  |  | Morfgages. | Sales. |
| :---: | :---: | :---: | :---: | :---: |
| $1893-94$ | $\ldots$ | $\ldots$ | 3.236 | 1,244 |
| $1894-95$ | $\ldots$ | $\ldots$ | 3,104 | 1,308 |
| $1895-96$ | $\ldots$ | $\ldots$ | 3,473 | 1,584 |
| $1896-97$ | $\ldots$ | $\ldots$ | 4,086 | 1,816 |

The increase in the number of disuments 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 undoobtedly took advantage of the famine to secure the iminoveable property of the debtors. To obtain the means of keeping their families and themselves from starvation, the unfortunate zamindars were compelled to alienate their lands on any terms provided they could procure money or grain. Zamíndárs would undoubtedly have starved in some cases had land not been alienable.

HISSAR,
The great Jat tribe constitutes over ane-fourth of the entire population of the Castes of relief workers. district, and within the tribe the Bagri" sub-division is by far the largest. The Játs formed $15 \frac{1}{2}$ per cent. of all the admissions to relief works, and two-thirds of these were Bagris; $2 \mathrm{I} \cdot 6$ of the admissions were from the Mussalmán land-owning castes, nearly three-filths 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 oniy 25 I 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 Játs, the proportion the former bear to the total of the relief workers beng 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 KarnitCastes of relief workers. 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 KarnalAsandh road was finished and the Nardak Rajbaha started they came out with a rush, and with them Rors, Jits, \&c.; and in March the proportion of low and high castes as about half and half.

## FEROZEPORE.

The classes which attended the rélief works were principally kamins and towns-

## Castes of relief workers.

people. There were a good many Baurias and a number
of people who had wandered in search of food from Bikaner and Baháwalpur. The zamindars were in a minority, and the greater number of the zamíndárs 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 $\mathrm{r}, 600$ daily. They consisted chiefly of low-caste people, sweepers, Castes of relief workers. Chamárs, Purbias, Musallís and Mussalmans with some few Araíns and other caste Hindús, the zamindárs and Aráins 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 employmert 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, Castes of relief workers. Such as sweepers, Chamárs, Musallis and Mochís. There and professional labourers. The falling-off in attendance was due to the approach of the rabi harvest of $18 y 7$ when these labourers secured work in the fields.

## HISSAR.

When scarcity appeared
Effects of the fodder famine.
to be imminent my predecessor warned the zamindárs 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 daubt 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 kharif 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 cnly 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 lndia. Kảzi 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 ta 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 Tahsildars, 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
of estimating what proportion of the emigrated herds would return. The following table shows the mortality which was calculated to have occurred between the ist May 1896 and 3 Ist March 1897, a total of eleven months:-


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 i 895 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 18 g 6 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 zamíndárs 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 ilaqua in Loharu, and from those tracts in the Rájpútána 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. $2-8$-o per day for one yoke which was able to plough io kachha bigalis ( 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 hardiy be exaggerated. Effect of drought on cattle. Starving herds are driven off to the Swatiks 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. <br> (Lieutienant-Colonel C. F. MASSY, Commissioner.)

The people all through, and more especially the Jat 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

## Treatment of cattle.

 The animals that went to the wall and were sold orpensioners," past work, and allowed in ordinary years 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 bhusa, carried by the zamindárs on thei: 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 Statistics of seed and cattle lonns. advarces made in this way, and the leading facts are compared below with those of a similar statement for the charitable gifts :-


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


These figures give some idea of the work the distributing officers bad 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 Tahsîdárs.

On the whole, I think nothing is more striking than the fact that the increase in the Crime. 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.


Both in 1860-61 and ${ }^{*}$ 1868-69 refugers from Bikaner and Hariána enhanced the Absence of immigration from aspect of distress in Umballa. It is noticeable that Absence of immigration from in liger. $96-97$ there was no such immigration.
Bikn

## (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 oth of November in each tahsil. At first applicants for relief were engaged only on digging tanks. But shortly afterwards, when experience had
the people, the relief of which had to be based on the

## Commencement of telief operations.

 been gained of the necessities of the people, the relief of which had to be based on theprinciples 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 grom 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 weath ${ }^{\wedge}$; when there was little risk to be ran in assembling large crowds of people at one spot for weeks together, andi 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 Gbaggar Canals opened early in December and were soon followed by the Bhiwani Water Works, and roads in Fatahabad, Hissar and the north of Sirsan 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 ceasus 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 2,68 r. 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 scal- 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.

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 lanks were all dry, and, in the case of many villages,
away. Except in the canal tracts. drinking water was

## Picture of the district in Jue.

 the only available water was miles away. Except in the canal tracts. drinking water wasfound only in scattered brackish wells on the borders of tanks. Nine-tenths of the district was a barren, weary desert. Three was no green to kreak the crushing monotony of the landscape, as even the ever-green jungle bushes weré covered with thick dust. The majority of the villages were deserted by a large proportion of their inhabitants, and some villages, çhiefly in Sirsa and Fatahabad, were wholly abandoned. Daring the whole month over one-tenth of the population were in daily receipt of State aid of one kind or another, a:d 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 betwern the towns and villages in the hope of getting food. They ure 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 lune 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 $\$ 2$ miles of road with pakhals filled at each end of the beat, Certainly travelling by road in the Hissar District ii 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.

Owing to the universal celebration of the 6oth 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 Jubilee holidays. penple 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 1 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 tuture, 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.
*


Actual relief warks opened on the 15th of August 1896. The average attendance in the first week was $\mathrm{t}, 190$ workers with 335 dependents. - Commencement of relief operatione. It rose in the following week to $1,88^{\prime} 5$ 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 82 th 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 norks were formally opened In consequence the strike first alluded to above occurred, and the workers remained absent from the 26th of August to the 1oth 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 12 th 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 Reasons for the works being superior officers such as were introduced later. "rushed." (he 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 difficul y 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 worix 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 an 1 relations can earn not merely a suhsistence, 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 Ks. 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 viilage chaukidárs on less than a quarter of it. In fact, in hard times a famine is a prolonged jubilae to the village kamín 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 $\$ 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 repcrts. 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 (Sharàkpur).

## (Lieutenant C. P. DOWN, Assistant Commissioner.)

Owing to the number of workers having become so large, it was considered neces-

## Closure of the relief works.

sary 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 tahsfl, about niae miles north of Nankana Sahib. 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 wauld 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, bit would be paid to all workerse on theirarrival at the new work, which was distant abouf 14 miles from the place where work No. 2 was completed. I sent the Tahsildar with a small staff to the new work on the evening of the i8th June to make arrangements for starting a camp. He arrived there on the 1gth,' and laid out a camp, but no relief workers appeared.

## UMBALLA.

There was muth more worry over the retuifis and forms required by the Code Worry caused by Famine code main anything else, and this is, in rry opinion, one
way of elat Code, vis., that its exactions, in the
wand 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 feturns pretty punctually by dint of great efforts in the way of calls. and through having a clear-headed Secretary of the Local Fünds 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. Jed to regard the returns as of more importance than the work:


#### Abstract

HISSAR: The work on tbe Ghaggar Canals, like all other works in the district, wäs carried out Agency of management of relief under the control of the Deputy Commissioner. The Civi works. Relief Officer was the Assistant Commissioner in charge of the sub-division of Sirsa, and the Tahsildár of Sirsa was * placed in immediafe 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 alcne. In this way there could be no approach to a dual control, which isrisky enough when applied to an ordinary undertaking, bitt 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 resulta.


## KARNAL

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

## FĒROZF゙PSJRE.

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 juidge otily from the results' I have seen. The payments made on the tanks at Gulabewala and Kábul 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 is 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.


#### Abstract

KARNAL. On the Nardak Rajbaha the system in force was ane of well-supervised decenOrganization of relief works. tralization. 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 $3^{0}$ gang muharrirs with a store-keeper.


The muharrirs were in charge of detail; they had 500 to $\mathrm{x}, 000$ cubic feet* of work

- Running ${ }^{\text {t }}$
R. Clarke. 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.

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 Pablic Works Department,
Management of re:ief works. and was then placed in charge of the Kaitbal Rajbaha, and on both works he did excellently in his own way. When I found that the relief workers were only digging 9 or 10 icches 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 1 could accept at the time. He was, however, right; for, as he subsequently explained in his Goanese English: "Sáb, I givé 100 cubic feet superficial area. I find the zamíndars 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 ico cubic feet; they zamindárs awful fools, they beiieve anything."

## HISSAR.

The details of the organization of the large works in the recent famine naturally Organization of relief campa. 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 thold 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, bowever 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 (sirki), 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 privary'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 probibitive, especially as the workers objected to live in a hut with so many of their fellows, and the risk from fire was very g reat. 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 farge works was organised on the same footing as that of any ordinary work carried out by the Public Works Department agency. The scale
the fluctuations in attendance, and it was ofter difficult to

## Relief works establishment.

 naturally varied very much with the fluctuations in attendance, and it was often dificult torase it suddenly when there was a rush of applicants for labour, and to tower 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 Tabsildár or Náib-Tabsildár 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, ar say $25^{\circ}$ persons.
One daffadár and 6 barkandázes for each "charge."
One small field hospital in charg ? of a hospital assistant or a compounder.
The Tahsildárs and Naib Tahsildars, 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
eturn. This made it very difficult to either allot a task or to

Shortcomings of the gang system. mome 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 dast 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. <br> (H. C. GRANVIlle Esquire, Execufive Engineer.)

On the Jhelum Canal the family party of five or six persons constituted the "task Task parties. 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 farty, 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,

[^0]
## GUJRAT

## (H. C. GRANVILLE, Esquire, Executive Engineer.)

One of our greatest difficulties on the Jhelum Canal has been to prevent mates 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 mayibe, the mate, like the "heathen Chinee," in ways that are dark, is peculiari, so he b:ings people from the neighbouring villages on to the work in place of those who have gone, and by a olever 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 felds 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 drinksvater, or bring. their food, \&cc.

## GUJRAT.

## (S: S: THORBURN, EsQuire, Commissioner.)

Segregation of classes is also a necessity on relief works. For a long time the

- I expect another reason was that the eamindár wauld not dig until he had exhausted his borrowing powers Gice the power of alienation is restricted he will have to work as a codile or'starve.
S.S.T. 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 ulimately-2. e. when spacing out was carried outsuccessfully managed on the canal works in Gujrát, but not on the road works. It coutd be possibly as easily worked on anyclass of work by system at starting. Were relief workers grouped by classes on entry, the wurks 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.


## HISSAR.

From 150 to 1,500 - digging tools and a corresponding number of baskets were Tools. 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 toois. Agricultural implements were a dras in the markst during the famine, and by far the larger majority of the diggers used therr own kassis. 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 frae 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, aczording to the facility for obtaining baskets in the neighbourhood.

The scale of tasks given for the digg?rs 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 Tasks. to prescribe tasks for the carriers were soon given up. Tte almost invariable rule over the district was that the carriers and fillers were out of all propartion to the diggers, and the task of the former depended entirely on what the latter could give them to do. The following scale for the diggers may be tak n as the district average prescribed :-


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 oui 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, sut 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. Mach 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 $\delta$ 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. Mainprise 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
output, subject to a minimum of three pice. In

## Working children.

 Class $D$, according to his or her output, subject to a minimum of three pice. Inpractice working children were found to be a great drawback. There was always, 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 Wages. of the different wages in this table are expressed in pies, a modification was made by the

When the system was introduced wages were supposed to be paid daily to a considetable extent. If paid twice a week, without count ing 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 poople understand pice, but not pies, and I therefore thing that, under all circumstances, the system introduced is the best. It was certainly appreciated on account of its simplicity.

## R. CLARKE,

Commissioner. orders of the Commissioner which still further simplified matters. 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 ples, 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 add 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 jowar, 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 :-


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 oaly was it the beat 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

## Payment of wages.

 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 I 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 where working. Gang No. I 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 Wages. - a family could make much more than a single coo lie 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,

## Wages.

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 wagea to besoufficiently liberal under the circumstances.
which was gram at to seers per rupee.

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

Comamissioner.

## Men.

## 'Women.

Rs. A. P.

| A. Class | $\ldots$ | $\ldots$ | 0 | 1 | 6 | 0 | 1 | 3 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B. Class | $\ldots$ | $\ldots$ | 0 | 1 | 3 | 0 | 1 | 0 |
| C. Class | $\ldots$ | $\ldots$ | 0 | 1 | 0 | 0 | 0 | 9 |
| D. Class | $\ldots$ | $\ldots$ | 0 | 1 | 0 | 0 | 0 | 9 |

A. Class
C. Class
D. Class

Working Childrea-

| i |  |  |  | Rs. A. P. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Maximum | $\cdots$ |  |  |  |  |  |
| Minimum | $\cdots$ | $\cdots$ | $\cdots$ | 0 | 9 |  |
| Non-working children | $\cdots$ | $\cdots$ | 0 | 0 | 6 |  |
| Nursing mother | $\cdots$ | $\cdots$ | $\cdots$ | 0 | 0 | 3 |

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, conlined 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

[^1] secure in ordinary seasons. But these were not 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 littie 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 Tohana 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

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

Comparison of relief wages with mages on ordinary works. 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 bim with food.


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                                    GUJRAT.
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## (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
Punishment for shirking work recommended. 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.

# KARNAL. <br> The proportion of dependents to workers on the three famine relief works under <br> <br> Dependents. <br> <br> Dependents. <br> (i) Karnál-Asaudh Road <br> $\begin{array}{ll}\ldots & \ldots \\ \cdots & \ldots \\ \cdots & \ldots\end{array}$ <br> ... 3.50 per cent. <br> (2) Kaithal Branch <br> $\cdots$ <br> ... 42 " 

The number of dependents on Nos. (1) and (2) is, I believe, abnormally low, while the number on the Nardak Rajbaha 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 Rajbaha 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 io 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 $\mathbf{I}$ 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
Dependents, \&c. 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 $\boldsymbol{g}_{2} 6$.

## HISSAR <br> A Naib Tabsildár was in charge of all the kitchens on each canal, and a Zaildár <br> Kitchens. <br> 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 foad. 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 a rticle of clothing, and, if these got torn, the numbers were painted on their backs.

## GUJRAT.

(H. C. GRANVILLE, Esquire, Executive Engineer.)

The system on the Jhelum Canal Works was Kitcheas on the Jhelam Canalo as follows:-

There were four enclosures to each kitchen, one for each class, vis., Hindús, Zamindars, Mosallis, Kamins.

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 $d a l$ (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 Naib Tahsildar, 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 Kitchens for dependents. 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 thatin 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. inmatea. up only 49 per cent. of the total, the other 51 per cent. 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 being subjects of the surrounding Native States.. The vast majority of these .were
Bikanerís, and a large number came from Jeypore.

The largest proportion of strangers was found on the Ghaggar Canals, where only $83 \frac{1}{\frac{1}{2}}$ per cent. of the workers belonged to Hissar. The remaining $16 \frac{1}{2}$ per cent. were chiefly from Bikaner.
Of all the Native States Bikaner was most largely represented, Patiála 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 sease.

## 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
Relief Officers much in certifying to persons who seek Cincle Inspectors. 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 parwana, 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 Zaildars. It is a peculiarity of the Code that it always alludes to the Circle

## Gratuitous relief ag ency.

 Inspector and prescribes his duties as if he were likely to be a literate and more thanordinarily intelligent man, with a good head for accounts and returns. The Umballa ordinarily intelligent man, with a good 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 Tahsildar 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. Patwaris were then given to the Circie 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 Lambardars at the different villages in their circles.

## LAHORE-(Sharakpur.) <br> Registers of gratuitous, relief in Form 4 under Chapter VI of the Code were

## ciratuitous relief.

 prepared in April by the Circle Inspectors and duly checked by the Kanúngos. 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 Tahsídér 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 Karnal, Relief to respectable poor. 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 Rajbaha 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

## Other forms of relief. <br> 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 '「ahsíldár.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 $2 \frac{1}{2}$ to 3 a few weeks after the scheme was in operation. Each woman received annas $\mathrm{t}-3$ 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 Bhiwani 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 19 i 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 Utility of various relief works. '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 commanity at large and therefore of the highest concern to Government, the results of carrying out which cannot $I$ entirely concur.

## R. Clarke,

 possibly be expressed by any figures. Among these Comis is tank excavation, for, in Hissar at least, it is no 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 :-(1) Public works which will be of great (1) (a) Ghaggar Canals cuts-off from value to the public, whether (a) financially remunerative to Government, or (b) not so remunerative, except in the most indirect way.
(2) Unproductive public works of temporary utility to the public.
(3) Public works which will benefit only a section of the population.
(4) Public wórks useless except as a means of employing labour.

Western Jumna Canal.
(b) Villaze tanks, Rangoi Channel.
(2) Bhiwáni-Tushám Road. Hán $\mathbf{n}$ iTushám Road. Kankar-quarrying. Half of Hissár-Barwála Road. Half of FatahabadTohána Road.
(3) Bhiwáni Water-Works. . Cattle
Farm Ditch.
(4) Half of Hissar-Barwála Road. Fatahabad-Tohána Road. Dabwáli-Kalánwáli Road.

It is hard for any one, who has not had actual experience of the conditions of

## Utilty of tanks.

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
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 Játs as "Janam Ghutti," or mother's milk, and the whole of the life of the village centres round the Fohar. 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 fohar is the first object which suggests itself to a liberally disposed person for the exercise of his charity, and the bencfactions 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 ander 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 fakír 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:-

| \% |  |  | 2 | 3 | 4 | 5 | 6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Tahsil, |  |  | Number of tanks bxcavated brlonging to |  |  |  | Average number of days each worly was open. |
|  |  |  | Villages | Municipalities. | Government. | Total. |  |
| Bhiváni .0e ...e mo | ** | $\cdots$ | 85 | 4 | 6 | 93 | 3597 |
| Hánsi | \% m | $\cdots$ | 99 | 4 | 1 | 104 | 41.85 |
| Hissar ... | \% $\quad$ m | ** | 130 | 1 | 7 | 138 | 32.63 |
| Fatahabed | $\cdots \infty$ | ... | 813 | $\cdots$ | 2 | 115 | 1738 |
| Sirsa | $\cdots$ | *. | 228 | 4 | 7 | 139 | 2504 |
| Total District |  | - | 555 | 11 | 23 | 589 | 2774 |

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

## Utillty of tanks,

 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 viliage 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 treation 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 ghats) 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 ( 1 would infinitely prefer the expenditure to that on heaping dust on kutcha 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 olans 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 Rajpúts and Gujars and even Játs always spontaneously refuse to dig at them. They say that it is the business of the disorganised labouritg section of the community to dig. The Játs here are degenerate and inclined to ape the Rájpúts, who keep their women in pardah, and who will borrow, beg and steal, but to dig are ashamed. A fortiori the Rájpúts 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.

[^2]at home in a gentlemanly way. I may add that in this village of Lukhi the kangál population, which is very large, has already greatly cleared out, showing how easy it is for such to disappear while the zamindárs 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 zamindars 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 zamindárs 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.

Note recorded by the Chief Engineer, Public Works Department, General Branch, with seference 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.

## UMBALLA.

In fact the conclusions forced upon one are that ( 1 ) the construction of new Kacha roads as relief works. roads offers suitable relief labour, but that (2) the raising of existing roads does not offer such, because (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.

## LAHORE (Sharakpar).

(Lieutenant C. P. DOWN, Assistant Commissioner.)


#### Abstract

* * * 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

Difficulties of relief organization on hacha roads. is daily shifted. There being no shelter for them, emain on the scene of the works at night. Man of 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


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.


It cannot be said that the works as a whole were very useful; they were selected Utility of relief work. as the best available in order to provide work for a filt at Kana Kácha enables the 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 「ahsil-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.
$\checkmark$


#### Abstract

FEROZEPORE. It was hoped that the Gulábewála and Kabulshah tanks would prove useful to a

Utility of relief works. These tanks are situated in Tahsn 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 neighbourbood is brackish and bad for drinking purposes, both for men aud cattle. I will ask what action has aince been taken. C. F. Massy.

\section*{a1st October 1897.} 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 intend. ed, 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.


The small tanks in Moga are, however, different. These tanks are only meant primarily for the villages near which they are, respec-

I agree.
C. F. Massy,
tively. 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.

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

## Kankar quarrying

 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 narıow 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.
## GUJRAT.

## (S. S. THORBURN, Esquire, Commissioner.)

I doubt very much the value of small district works like district katcha roadKatcha rondi. 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.

## HISSAR.

## The following table gives the amount of earth excavation carried out by the Oatturn of wortis different agencies:-

 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 $20^{\prime} 9$ cubic feet. Relief works were open for exactly $3^{21}$ days, 47 of which were Sundays or holidays. . Excluding these the daily average task per worker is $30^{\circ} 5$ cu ic feet and per unit relieved $24^{\circ} 5$ cubic feet.

## KARNAL.

On the Nardak Rajbaha I got permission to intoduce the piece-work system in the Piece-work, 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 Purbias, 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 he earned by them elsewhere.

## FEROZEPORE.

The widening and extension of the Aghawhh, one of the Inundation Canals of Piece work 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 feat on a rapid slope and yet the average rate paid was only Rs. 2-1-2 $\frac{1}{2}$ 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 $2 \frac{1}{4}$ 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. 1-9o 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 Dárogha 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 $r \in c o g$. nizing 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 $1,352 \mathrm{men}, 159$ women and ror 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 Aghawah 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 to 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 ghumaos.

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 Bahádur Maya Dás, Extra Assistant Commissioner, under whon the work was executed, that the description given in the local reprot 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． <br> From the beginning of Dcermber 1896 till the end of September 1897 seventeen cases of death from actual starvation were reported． <br> Deaths by starvation．

In each case an inquiry was heid by the Assistant
Commissioner in Civil relief charge of the locality where 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 repart 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 later 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 $n$ ，trace，and was found in an emaciated． and dying condition in the jungle some way north of Hánsi．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 Rajgarh in Bikanir．She was brought to the poor－house in Hissar and was there recognized by two Bikániri inmates as a resident of that State．Shie was in the last．stage of emaciation，and though she toik 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 snuth of Fatahabad．The fourth case was that of a lad of 16，who had evidently been trying to reach some of our reliet 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 villaye 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 pneumenia 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 Reaults of eating jungle Iruit． 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 ：－

| Prkiod． |  |  | Deaths resulting prum bowel complaimts． |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 突 |  |  | $\stackrel{\dot{\tilde{z}}}{\frac{1}{4}}$ | $\stackrel{\stackrel{\rightharpoonup}{\mathrm{N}}}{\boldsymbol{x}}$ | 吴 | 立 | 莿 | 浐 | 宮 |  | 宮 | 帝 |
| $\begin{aligned} & \text { A verage } \\ & 18896 \\ & 1897 \end{aligned}$ | $\cdots$ | … $\cdots$ $\cdots$ | 22 22 66 | 17 13 45 | 21 30 38 | 26 25 65 | 47 27 102 | 37 28 805 | 39. 34 116 | 59 74 936 | 86 165 ‥6 | 68 114 $\cdots$ | 54 <br> 85 | 45 <br> 98 <br> .9 | 544 703 773 |

## 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 tiving and are accustom-

## Wild products used es food.

 ed to live by the aid of nature when there is no food-grain to be got or when they can onlyget the smallest of quantities. All officers know that the rural menial supplements his food 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 consideting 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 $b$ fore 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 spontareously so as to attract the attention of authorities. Mr. Hailey "raided" the houses unexpectedly atd procured specimens of the materials put by ready for meals.

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The packets contain the following:-
    I.-Husks of jowár (millet).
    II.-Tüss or husiss of rice (eaten with the tops of wild leeks).
    III -Sonk or samank or sámak, a wild millet.
    IV.-Del-seed of a weed which grows largely in urd or charri fields. It is
                glaned 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.
    VIIl,-Root on bulb of the dhak (butea frond sa).
    1X.-Rotten gram.
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With the exception of No. IX these are all wild products, though probably No. III is the wild type of that Sawank 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 tha! the labourcrs 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 millat 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 del is said to be bad owing to its constipating qualities.

Along with these samples, samples of some vegetaoles 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 stoo 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.


#### Abstract

\section*{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 Rájpútána. 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 thoray 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 bajra and is generally made into chapattis.

## APPENDIX II.

Normal condition of the poorer classes.

## No 263 S., dated Simla, 23rd June 1888: <br> From-H. C. Fanshawe, Esquire, Offr. 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 dally 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 thet His Excellency the Viceroy may be in possession of the opinions of the officers consultea 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. 2nd 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 scante for two or more seasons, the lowest classes, comprising village artisans, field laboure $s$ 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 sn than those of the same classes in the country. But the town artisans and labourers are apt to suffer more in times of bigh 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 defiriency 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 mo e 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 noforiously 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.

Note by E. B. Sterduan, Esquire, Director of Land Records and Agriculture, Punjab, dated 12th Jane 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-I Revenue and Agricultural Department (Famine), dated ${ }^{1} 7$ th 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.

Fullundur 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 Farid, Qázi Ali Ahmad, Ghulám Ahmad, Extra Assistant Commissioners.

Devaját Division.-Messrs. Steel, Ogilvie, Dames; Ghulám Murtaza, Extra Assistant Commissioner.

Pesházar 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 afficers 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 kunger. 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.

Fullundur - The Commissioner, Mr. Mackworth Young; considers that the assertion is wholly unture. In ordipary 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 Kángra, states that the assertion is wholly untrue. In Kángra 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 zamindars 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.

Babu Maya Dás, Extra Assistant Commissioner, does not give any general opinion He says that tite inhabitants of cortain 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 alio well off. Kamíns are always holpod 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.

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

Bhagwan Das-Gurddispur.-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.

Rawalpindi.-The Commissioner, Colonel Nisbet, C.i.E., holds that in drought and famine there is a great deficiency of food among the lower ciasses, but that this is dueto 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-Raiwalpindi-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 Rawalpindi 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. Thare, 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.

Ghulam Ahmad-Rawalpindi--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 - Sialkot.-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

KKai Ali Ahmad-Sialkot.-The people, as a rule, receive sufficient food. No emigration from the district. Even beggars get enough to eat, Village kamins are well off. Never heard of a death from starvation.

Mr. Wilson-Shakpur. - 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.

Ghuldm Farid-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

Derajat.-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 Muzaffargarh. 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.

K6si Ghulám Murtasa-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 Ghasi 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 /smail Knan.-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 ncarest labour market or to the Indus alluvial lands. At the present moment the Thal is empty of inhabitants owing to continued drought.

Peshiwar 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. Kohat 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.

Hasara-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 in sufficiency 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 :-
(8) 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.

Jnirrigated 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 Yusafzaí.
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 and 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, Gujránwala and Gujrat. 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. 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 fails 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 Karnal.

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 Bar 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- eachi 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 kharff harvest of 1887 the people of the Shahpur Bar 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 pooren 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 Rawalpindi 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 raimfall 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 Bar 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 quant ity 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 $\mathbf{8 8 8 8}$.
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 thes ubject 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 uccasions 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.

# -• APPENDIX III. 

# Operations of the Medical Department. 

## No. 4434, dated Lahore, a2nd December 8897

From-Sargeon-Colonel D. O'C. Rayz, w.D., Inspector-General of Civil Hospitals, Pupjab,
To-The Rovonue Secretary to Government, Punjab.
Wirh reference to your letters No. 1166, dated 5th November 1897, and No. 1266, dated 16th December 1897, Revenue, 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. $\mathbf{1 2 6 6}$, dated 16 th December 1897, are returned.

General Report on the operations of the Medical Department daring 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 Karnál.

- Gujrát District.

2. In the Gujrát District relief works were started on a small scale near Phália 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.<br>Three Hospital Assistants.<br>Four Compounders.<br>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 Phália,
System of relief. but when the works were carried on at a distance from Phália, a hospital for the accommodation of in-patients was established on the spot.

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 bad 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 : 2I, 896 out-patients were also treated on the works. Number of patients treated. The chief diseases were fevers, affections of the eye,
espiratory 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, it of which occurred in relief hospitals. The very old and the very young Deaths. furnished, as was to be expected, the greatest morta-
ity. 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.

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,
Sanitation. 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 supetvision,

For the purposes of nature the people preferred resorting to the open fields to the screened trenches provided for them. They were Latrines; $\quad$ allowed to follow their usual custom, but only at a sufficient distance from camp marked with flags.

The water-supply was always sufficient, good and pure, but wells were systematiWater. cally disinfected with lime. As many as 87 wells were so treated; and in addition care was taken to keep platforms and surroundings clean.

## Hissar District.

Relief works were started in the Hissar District in February 1896 on the Ghaggar Canal and the Bhiwani Water Works ; on the Western Jumna Canal in April 1896; and on the Hissar Bir Ditch in May 1896.

Establighment 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 $\mathbf{1 6 , 5 8 8}$ 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
ases of small-pox are returned, all but one being on the Number of patients treated. 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.

Two deaths are reported as being probably due to starvation, although the Deaths. immediate cause of death was pneumonia. Both of the deceased were children.

The Civil Surgeon, on his periodical inspection of the various camps, found the sanitary arrangements good. The poor-houses established at Sirsa, Hissar, Hánsi and Bhiwáni were frequently Sanitation. visited by the Medical Officers attached to the dispensaries there.

## 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 Rájbaha, they were entrusted to suitable Compounders.

These Medical subordinates treated 44 in-door and 1,369 out-door patients, malariail fever being the principal complaint. On the Sarsuti works there were five cases of small-pox, and these Patients treated. were treated in their own houses,

The Civil Surgeon did not hear of any case of death as being due to starvation on of cases of illpess attributable to this cause.

Note by Brigade.Surgeon-Lientenant-Colonel W. A. Crawford Rob, p. 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 Gujrát 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 disense 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.


## STATISTICAL STATEMENTS.



No. 1.
60 30th September 1897.


| Rabr 8896. |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sowing season 1st September 1895 to 31st December 1895. |  |  | Maturixg season, <br> 1st January 1896 to $318 t$ March 5896. |  |  | Total. |  |  |
| Normal. | Actual. | Variation: | Normal. | Actual. | Variation. | Normal. | Actual. | Variation. |
| $2 \cdot 83$ | $\ldots$ | -2:83 | 143 | 0.22 | - 12 I | 4:26 | $0 \cdot 22$ | -404 |
| 436 | 0.35 | -4'II | 1 40 | 1'50 | + ${ }^{\prime} 10$ | 576 | - 175 | -401 |
| 572 | 172 | $-460$ | 1 51 | 855 | +0.04 | 723 | $2 \cdot 67$ | -4:56 |
| 6.08 | 127 | -4:8I | 1.96 | 1 57 | -0.39 | 8.04 | 2.84 | $-520$ |
| 5.55 | 0.85 | -4'70 | $3 \cdot 16$ | $\bigcirc$ | -2:23 | 8.71 | 178 | -6.93 |
| 6.43 | $\cdots$ | -6.43 | $2 \cdot 97$ | 1.46 | - r 5 I | 9.40 | 1.46 | -794 |
| $3 \cdot 17$ | - | -3x ${ }^{\text {a }}$ | $2 \cdot 15$ | 1.68 | -0.54 | 533 | 1.6x | $-3.7 x$ |
| $3 \cdot 32$ | ㅍ: | $-3.32$ | 2:19 | $2 \cdot 45$ | +0'26 | $55^{2}$ | $2 \cdot 45$ | -3.06 |
| 417 | … | $-4 \cdot 17$ | 5.88 | 127 | -38I | 9.25 | $1 \cdot 27$ | -7.98 |

I.

STATEMENT
Rainfall.
Rainfall from 1st April 1895


No. I-CONTINUED.
to 3oth September 1897-continued.

1 ,
Rainfall.

Rabi 1897.

I.

Rainfall. Rainfall from 1 st April 1895 to 30 th September 1897 -concld.


## 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



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 | 263,59: | 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 | 108 | 180,773 | 60 |
| 224,026 | - 60 | 24r,404 | 68 | 209,217 | 56 |
| 298,618 | 60 | 447.156 | 92 | 268,891 | 53 |
| 4,252 | 86 | 7,254 | 102 | 5,791 | 117 |
| 209,502 | 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 | 386007 | 83 |
| 940,018 | 89 | 328,960 | 62 | 680,046 | 65 |
| 425,859 | 94 | 268,871 | 115 | 410,547 | 90 |
| 362,301 | 120 | 233,476 | ${ }^{\bullet} 163$ | 435,866 | 14. |
| 253,177 | 81 | 122,094 | 85 | 234.935 | 75 |
| 526.052 | 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 |
| 350.334 | 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 | [1: |
| 368,276 | 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 |
| 396,016 | 86 | 165,991 | 89 | 432,388 | 92 |
| - 225,366 | 90 | 223290. | 84 | 220,277 | 88 |
| - 326,602 | 99 | 147,081 | 108 | 325,277 | 98 |
| 19,472,118 | 794 | 8,144,776 | 8! | 10,369,383 | $78 \cdot 5$ |
|  |  |  |  |  | . |

STATEMENT
Crop area irrigated.
Area of Crops irrigated


No. II B.
in 1878 and in 1897.
II II B. ${ }_{\text {creat }}$

| 1897. |  |  |  |  |  | Increase .or decrease. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Canals. |  | Wel | Tanks and ponds. | Other sources. | Total. |  |
| 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 | ${ }^{10}$ | 35,435 | ** | - 2 | 182,968 | $\pm 64,334$ |
| 92,085 | $\cdots$ | 105,019 | ** | 20,317 | 217,421 | + 26,675 |
| 68,072 | ** | 1 10,287 | 423 | $\cdots$ | 178,782 | - 15,083 |
| 169,083 | 3,269 | - 113,686 | 3.3:8 | *- | 289,356 | + 22,991 |
| 2,759 | ** | 60,148 | 8,017 | 12,225 | 83,149 | - 92,727 |
| $\cdots$ |  | $\cdots *$ | *** | 1,214 | 1,214 | + 587 |
| ** | ** | ** | *** | 173037 | 173,037 | + 8,639 |
| 10,86: | 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 | $\cdots$ | 275,292 | +155,970 |
| 536,808 | 66,801 | 150,798 | ** | $\cdots$ | 756,401 | + 575,491 |
| 427,059 | 9,939 | 138,878 | ** | 6,624 | 582,500 | + 172,200 |
| 302,969 | $\cdots$ | 256,024 | ** | 4.514 | 563.507 | +336,403 |
| 136,024 | - 4,847 | 169,186 | ** | 8,168 | 318,225 | + 77,633 |
| 402,999. | ** | 272,532 | 7,371 | 13,239 | 696,141 | + $24 \mathrm{r}, 001$ |
| 247,465 | $\cdots$ | 292,680 | 836 | 2,087 | 543,068 | + 278,398 |
| 37,101 | 27,048 | 141,435 | 4,78 | 10 | 210,375 | + 87,775 |
| $4 *$ | 9.717 | 478,664 | ${ }^{* *}$ | 15,982 | 504,363 | + 78,718 |
| ** | ** | 184,128 | $\cdots$ | ** | 184,128 | $+97,987$ |
| 230,685 | ** | 326,438 | 329 | ** | 557,453 | + 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 | ** | ${ }^{* * 4}$ | 58,111 | + 41,954 |
| ... | $\cdots$ | 1,589 | $\cdots$ | 54,085 | 55,674 | + 10,605 |
| 255,056 | 169,874 | 73,718 | $\cdots$ | 6,632 | 405,290 | +187,903 |
| $\cdots$ | $\cdots$ | 1,842 | 1,363 | 35,96t | 39, 166 | $\pm 3,218$ |
| ... | 162,747 | 3,828 | $4 \cdot$ | ** | 166,575 | + 97,575 |
| ** | - 49,721 | 100,128 | $\cdots$ * | ** | 159,849 | + 9,849 |
| 166,809 | 5,486 | 49.005 | ** | 8,774 | 230,074 | - 18,718 |
| 294,914 | $\bullet \bullet$ | 50,004 | 6.6 | 13,491. | 359,025 | + 102,49 |
| 3,733,267 | 563,679 | 4,006,984 | 27,920 | 388,558 | 8,720,408 | +3,084,622 |

III.

STATEMENT
Statement of Actual and Normal* Prices Current
[Normal prices are


No. III.
of principal food-grains for the fortnights endingprinted in antique type.]

athe five' years ending. December 31st, 1895.
[Normal prices are


No. III-Continued.
of principal food-grains for the fortnights endingprinted in antigure type.]


Tho five rears ondiog Decemben guth foss


No. III-CONTINUED:
of principal food-grains for the fortnights ending printed in antique type.]

the five jears ending December 31st, $\mathbf{~ 8 8 9 5 .}$


No. III-continued.
of principal food-grains for the fartnights endingprinted in antique type.]
III.

Prices Current.

ting five yoars ending December 3rst, 1895.
III.

STATEMENT
Statement of Actual and Normal* Prices Current
[Normal prices are


No. III-CONtinued.
of principal food-grains yor the fortnights ending-
III.

Prices Current. printed in antique type.]

the five gears onding December 3ist, 1895,


No. III-CONCLUDED.
of principal food-grains for the fortnights endingprinted in antique type.]
III.

Prices Current.

the five years ending December 31st, $\mathbf{8 8 9 5}$

STATEMENT

## IV <br> Movements of Food-grains.

Movements (by Rail) of Food-grains $\begin{gathered}\text { fortnghts }\end{gathered}$


No．IV．
and Pulses（in hundreds of maunds）for
ending－ ending－

Movements of Food－grains

| Apris． |  |  |  | Mar． |  |  |  | Juns． |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| soth． |  | － 244 h ． |  | 8th， |  | $23 n d$. |  | Sth． |  | 19th． |  |
| $\dot{\#}$ |  |  |  |  | $\frac{i}{2}$ | $\begin{aligned} & \text { j } \\ & \text { 高 } \end{aligned}$ | $\begin{aligned} & \stackrel{g}{\dot{\circ}} \\ & \stackrel{0}{0} \end{aligned}$ | $\begin{aligned} & \text { 膏 } \\ & \text { 咱 } \end{aligned}$ | $\begin{aligned} & \text { 哥 } \\ & \text { 总 } \end{aligned}$ | 夏 | 咅 |
| 628 |  | 530 | 23 |  | 22 | 922 | ${ }^{8}$ | 8，298 | 34 | 1，995 | ${ }^{33}$ |
| 4 | 5 | 5 | ${ }^{2}$ | 4 | 232 | 6 | ．．． | ： | ．．． | ． 2 |  |
| 48 | 88 | 106 | 42 | 55627 |  | 66 | 196$\times 88$r | 23 | ${ }^{3} 3$ | $3^{88}$ | 368 |
| $8 \times 3$ |  | 5 | 15813 |  | 238 256 | 499 |  | 524 | 1945858 | 59529 | 472 |
| 19 | 5 |  |  | $\begin{array}{r}627 \\ 6 \\ \hline\end{array}$ | 156 20 | ${ }^{4} 8$ | 32 | ${ }^{27}$ |  |  | 155 |
| 123 | 44 | 132 | 30 | 254 | 33 | 274 | $5_{4}$ | 330 | $3{ }^{1}$ | 26x | 57 |
| 30 |  | 17 | ．．． | 85 | ．．． | 103162 | ．．． | 77 | $\cdots$ | 76163 | ．．．： |
| 67 | $3^{1}$ | ${ }^{76}$ | 88 | 63 | 556 |  | \％，092 | 37 |  |  | 8，842 |
| 62 | 392 | $3_{4}$ | 125 | 11 | 238 | 72 | 72 | 59 | 306 | 94 | 878 |
| 177 | 298 | 83 | ${ }^{47}$ | 90 | 253 | 100 | 403 | $: 27$ | 458 | 312 | 427 |
| 184 | 46 | 130 | 25 | 96 | $2{ }^{5}$ | 175 | 70 | 97 | 157 | 88 | 248 |
| 66 | ， | 18 | 3 | 13 | 42 | 12 | 195 | 3 | 127 | 3 | 372 |
| 108 | 16 | 13 | 8 | 17 | ．．． | 12 | 5 | 19 | 7 | 25 | 11 |
| 276 | 68 | 82 | 98 | 230 | 279 | 177 | 357 | 166 | 479 | 65 | 678 |
| 185 | 88 | 180. | 210 | 143 | 655 | 127 | 980 | 124 | 702 | 268 | ${ }_{14}$ |
| 43 | 52 | $2{ }^{2}$ | 92 | 26 | 250 | 24 | 720 | 20 | 705 | 17 | 554 |
| $8{ }^{8}$ | 6 | ${ }^{3} 2$ | 16 | 56 | 42 | $8:$ | ${ }^{13}$ | 63 | 85 | 76 | 5 |
| 72 | 88 | ${ }^{3}$ | 3 | 13 | 18 | 12 | $\begin{array}{r}18 \\ 373 \\ \hline 8\end{array}$ | 21 | 35 | 49 | 35 |
| 109 | 35 | 32 | 129 | 42 | 369 | 33 |  | 25 | 887 | 21 | 906 |
| 76 | $3^{8}$ | $3^{8}$ | 74 | $2_{3}$ | 65 | 29 | 87 | 23 | 67 | 25 | 59 |
| 114 | 12 | 81 | 14 | 9 | 20 | $3{ }^{3}$ | 72 | 105 | 12 | 79 | 16 |
| 424 | 23 | 490 | 46 | $5^{88}$ | 94 | 656 | $3{ }^{3}$ | 841 | 53 | 97 | 75 |
| 240 | 65 | 237 | 42 | 249 | 35 | 209 | 59 | 144 | 205 | ${ }^{143}$ | 215 |
|  | 23 |  | 40 | 7 | 70 | 16 | ro2 | 6 | 78 | 10 | 185 |
|  | 88 | 5 | 15 | 4 | 26 | 22 | 63 | 9 | $\begin{array}{r}183 \\ 184 \\ \hline\end{array}$ |  | 227 |
| 6 | 34 | 13 | 5 |  | 2 | 9 | 37 | 3 |  | 4 | 264 |
| 3，937 | 1，45t | 3，042 | 1，436 | 3.646 | 3.492 | 3．843 | 5，236 | 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


Figares for K_́ngra, Hoshiarpur, Hazfra, Kohát and Dera Ghari Khan

No. IV.
and Pulses (in hundired's of maunds)
IV ${ }_{\text {Movements of Food-grains }}$ ending.-

not reported as there are no Railway Stations in those districts.


No. V.

## (District-Hissar. <br> Oparations $\left\{\begin{array}{l}\text { Area*- } 3,763 \text { squ,are miles. } \\ \text { Popul }\end{array}\right.$ <br> Population*- 543,834 .

V.

Hissar District.

trach
V.

Hissar District.
General Statement of Relief

:Of affected

No. $\mathbf{v}$ :
District-Hissar. A rea*-3,763 square miless Population*-543,834: Hissar District.


Rohtak District.
General Statement of Relief


No. V.
Operations $\left\{\begin{array}{l}\text { District Rohtak. } \\ \text { Area* r,467 } \\ \text { Population* } 45 \mathrm{I}, \mathbf{9}^{20} .\end{array}\right.$

tract
V.


NO, V-CONCLUDED.
Operations
$\{$ District-Rohtak. Area*-1,467

Rohtak District. Population*-451,920.



No. V:
District-Gurgaon.
Operations $\left\{\begin{array}{l}\text { Drea*-558'square miles: } \\ \text { Arent }\end{array}\right.$
V.
(Population*-197,928.
Gurgaon District.



No. V
District Delhi.
$\left\{\begin{array}{l}\text { Area* } \\ \text { Br }_{30} \text { square miles. }\end{array}\right.$ $\left\{\begin{array}{l}\text { Area } \\ \text { Population }{ }^{*} 3^{80}, 715 .\end{array}\right.$

tract


No. V.



No. V.
Operations $\left\{\begin{array}{l}\text { District-Karndl. } \\ \text { Area*-2,123 square miles. } \\ \text { 'opulation*-498,862. }\end{array}\right.$
V.

Karnal District.

tracts
V.

Karnal District.


Ia, $\boldsymbol{V}$
V.

Karnal District

tact


No, V.
Operations $\left\{\begin{array}{l}\text { District Umballa. } \\ \text { Area* } 1,755 \text { square miles. } \\ \text { Population* } 717,969 .\end{array}\right.$
V.
ambala District.


Ferozepore District.


No. V.
(District-Ferosepore.
Operations Area*-407 square miles.
Population*-122,810.
Ferozepore District.

truct

|  | Week ending |  |  | Daily average numbir of pbrsons |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | On relief morks． |  |  |  | As non－working children and dependents on relief works． |  |  |  | Gratuitously in villages． |  |  |  | B品晏品品 |
|  |  |  |  | $\dot{\mathbf{0}} \underset{\Sigma}{\dot{\Delta}}$ | \％ | 䂸 | － | $\begin{aligned} & \dot{\mathbf{D}} \\ & \underset{\mathbf{D}}{2} \end{aligned}$ | 砣 |  | ＋ | $\begin{aligned} & \text { í } \\ & \stackrel{\rightharpoonup}{\Sigma} \end{aligned}$ | 3 | 它 | \％ |  |
| 1 |  |  |  | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | It | 12 | 13 | 14 |
| 1897－conciuded． |  |  |  | 34 | 26 | 13 | 73 | $\cdots$ | －＊ | ＊＊ | ＊＊ | $\ldots$ | $\cdots$ | $\cdots$ | ＊＊ | 11 |
| May | rst | ＊＊ | ＊－ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ＂ | 8th | ＊＊ | ．．． | 58 | 63 | 22 | 143 | －＊ | ．$\cdot$－ | ＊＊ | ＊＊ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | 9 |
| ＂ | 15th | $\cdots$ | $\cdots$ | 81 | 59 | 35 | 175 | $\cdots$ | $\cdots$ | ＊＊ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | 3 |
| ＂ | a2nd | ．．＊ | $\cdots$ | 135 | 107 | 58 | 300 | ＊＊ | ．．． | $\cdots$ | ＊＊ | －．＂ | ＊．• | $\cdots$ | $\cdots$ | 19 |
| ＂ | 29th | － | ．．． | 157 | － 129 | 74 | 360 | $\cdots$ | $\cdots$ | ＊＊ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | 2 |
| June | 5th | $\cdots$ | ．．． | 121 | 95 | 54 | 270 | $\cdots$ | ＊＊ | $\cdots$ | ．．． | ＊－＊ | $\cdots$ | $\cdots$ | $\cdots$ | 2 |
| ＂ | 12th | ＊＊ | ＊＊ | 18： | 175 | 106 | 45＊ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | ＊＊ | $\cdots$ | $\cdots$ | $\cdots$ | 3 |
| ＂ | 19th | ＊ | $\cdots$ | 193 | 165 | 96 | 454 | － | ＊＊ | $\cdots$ | ＊＊ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | 3 |
| ＂ | 26th | ＊＊ | $\cdots$ | 192 | 175 | 53 | 416 | ＊＊ | $\cdots$ | ＊＊＊ | $\cdots$ | ＊＊ | $\cdots$ | $\cdots$ | $\cdots$ | 3 |
| July | 3 rd | $\cdots$ | －－ | 243 | 207 | 85 | 535 | ＊＊ | ＊＊ | ＊＊ | ＊＊ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | 3 |
| ، | 10th | $\cdots$ | ＊． | 306 | 26I | 123 | 690 | ＊＊ | ＊＊ | ＊－ | ＊＊ | ＊＊＊ | $\cdots$ | ＊＊ | ＊＊ | 3 |
| ＂ | 17th | $\ldots$ | ．．． | 289 | 273 | 161 | 723 | $\cdots$ | ＊＊＊ | ＊＊ | ＊＊ | $\cdots$ | $\cdots$ | ＊＊ | $\cdots$ | 3 |
| ＂ | 24th | $\cdots$ | $\cdots$ | 234 | 234 | 161 | 629 | $\cdots$ | ＊＊ | $\cdots$ | ＊＊＊ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | 3 |
| ＂ | 31st | ＊＊ | ＊＊ | 179 | 199 | 132 | 509 | ＊＊ | ＊＊ | ＊＊ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | 3 |
| Augus | 7th | $\cdots$ | ＊＊ | 190 | 212 | 130 | 532 | $\cdots$ | $\cdots$ | ＊＊ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | 8 |
| ＂ | 14th | ．．＂ | ＊＊ | 138 | 149 | 93 | 380 | $\cdots$ | ＊＊ | $\cdots$ | －．＂ | $\cdots$ | $\cdots$ | ＊＊ | $\cdots$ | 2 |
| －＂ | －sist | － | ＊．＊ | 87 | 110 | 69 | 266 | $\cdots$ | － | ＊＊ | $\cdots$ | $\cdots$ | $\cdots$ | ＊＊ | $\cdots$ | 2 |
| Nam | of | one man | day | 133，105 | 11，720 | 79，569 | 24，394 | 1，393 | 1，981 | 32，277 | 35，581 | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | 763 |

No. V.-CONCLUDED.
$\left\{\begin{array}{l}\text { District-Fel osepore. }\end{array}\right.$
Operations $\left\{\begin{array}{l}\text { District-Fi } \\ \text { A rea*-ton square miles. }\end{array}\right.$
Population*- 122,810 .
Ferozepore District.

tract.


No. V.


trach
V.

## Lahore District.



No. $\mathbf{V}$.
District Lahore $\{$
$\left\{\begin{array}{l}\text { For } 1 s t \text { period of famine- } 521 \text { square miles. }\end{array}\right.$ $\left\{\begin{array}{llr}\text { Do. } 2 n d & \text { ditto } & 174 \\ \begin{cases}\text { Do. } 1 s t & \\ \text { Dist } & \text { ditto } \\ \text { Do. 2nd } & \text { ditto }\end{cases} & 88,125 .\end{array}\right.$
ditto.



No. V.
(Districl-Gujrat.
Operations $\left\{\begin{array}{l}\text { Area* } 562 \text { square miles. }\end{array}\right.$
Area*-562 square mile
Population*- $154,857$.
Gujrat District.

tract.

V .
Gujrat District.


No. V-concluded.
District-Gujrat.
Operations $\left\{\begin{array}{l}\text { Area*- } 562 \text { square miles. } \\ \text { Pobl }\end{array}\right.$
$\left\{\begin{array}{l}\text { Area } \\ \text { Population*-154,857. }\end{array}\right.$
Gujrat Distriot.


| District． | Duration of relief operations． |  |  |  |  |  | Total | UMBER OI | UNITS（in |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | On relief works， |  |  |  | Non－working children and dependents on velief works． |  |  |  |
|  |  |  | E |  | $\begin{aligned} & \text { ज口゙ } \\ & \stackrel{\rightharpoonup}{\circ} \\ & \stackrel{1}{2} \end{aligned}$ | $\stackrel{\dot{5}}{\stackrel{\rightharpoonup}{E}}$ | 3 | 荷 | － |
| 1 |  | 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 m． | 9th January 1897 to 28 th August 1897， 34 weeks． | 305，144 | 385，889 | 259，077 | 950，1 10 | 8，792 | 13，244 | 200，956 | 222，992 |
| Gurgaon ．．． | 23rd January ${ }^{18} 97$ to 8 th May 1897， 16 weeks． | 54，299 | 64，155 | 44，093 | 162，547 | ＊－＊ | ＊＊ | $\cdots$ | 10，997 |
| Delbi ．．． | 12th December 1896 to 25th September 18；7， 42 weeks． | 94，444 | 118，909 | 56，357 | 269，710 | 2，114 | 2，135 | 23.786 | 28，035 |
| Karná | 14th November 1896 to 2nd October 1897， 47 weeks． | 305，256 | 248，157 | 148．309 | $\left\{\frac{701.722}{111,552^{*}}\right.$ | 560 | 57796 | 235，109 | 241,465 |
| Umballa ．．． | 23rd January 1897 to 28 th August 1897， 32 weeks． | \＄59，929 | 113，855 | 33.908 | 307，692 | 574 | 280 | 16，142 | 16，996 |
| Ferozepore ．．． | 19th December 1896 to arat August 2897， 36 weeks． | 133，805 | 111，730 | 79，569 | 324.394 | 1，393 | 1，911 | 32277 | 35，581 |
| Lahore（1st period） | ifth．April 1896 to 15th August 1896， 19 weeks． | 146，356 | 124，782 | 109，291 | 380，429 | － | ＊． | $\cdots$ | 71，806 |
| Do．（and period） | 23rd Janurry 1897 to 1st May 1897， 15 weeks． | 86，541 | 42，805 | 37，842 | 167，188 | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ |
| Gujrat | 15 th August 8806 to 6th March 1897， 45 weeks． | 1，521，023 | 1，463，392 | 452，060 | 3．436，475 | $\cdots$ | ＊＊ | $\cdots$ | $1,462,300$ |
| Provincial Total | 11th Aprit 18y6 to and October 1897， 63 week 8 | 6，591，830 | 6，176，492 | 3，007，760 | $\begin{array}{r} 15.776 .082 \\ \quad 111.552^{\circ} \end{array}$ | 64，316 | 88，032 | 1，854，048 | $\begin{aligned} & 2,006,396 \\ & 1,545,103 \dagger \end{aligned}$ |
|  |  |  |  |  | 15，887，634 |  |  |  | 3，551，499 |

No. VI.

## VI. <br> Consolidated Statement of Relief Operations.

TERMS OF ONE DAT) RBLIEVED.


Average numbers relieved
(Average) numbers in receipt of relief at the at the end of each month.


63
Ñ. VII.
VII.
end of each month in each affected District. A verage numbers relieved at the end of each month.


A verage numbers relieved (Average) numbers in reccipt of at the end of each month. affected


## 65

No. VII-CONTINUED.
relief at the end of each moxth in each District-continued.
VII.

A verage numbers relieved: at the end of each month.



VII-continued.
relief at the end of each month in each District-continued.

## VII <br> Average numbers relieved at the end of each month.


VII.

Average numbers relieved at the end of each rionth.
(Average) numbers in recoipt of affected


No. VII-CONCLUDED.
relief at the end of each month in each Districl-concluded.

69
VII.

Average numbers relieved at the end of each month.


## V̇III.

STATEMENT
Total units relieved.
Total number of units (in terms of one day) relieved


No. VIII.

## VIII.

in each District from beginning to end of operations.
Total units relieved.


Consolidated statement of Famine expenditure.


No. IX.
Famine expenditure.
IX.

Consolidated Statement of Famine expenditure.


Suspensions and Remissions.

Suspensions and Remissions of Land Revenue for


No. X.
Kharif 1896 and Rabi 1897:

## X.

Suspensions and Remissions.


## X. <br> Suspensions and Remissions.

STATEMENT
Suspensions and Remissions of Land Revenue for


No. X .
Kharif 1896 and Rabi 1897-continued.
X.
Suspensions and Remissions.


Suspensions and
Suspensions and Remissions of Land Revenuefor


No. $\mathbf{X}$.
Kharif 1896 ana 'Rabi $\mathbf{1 8 9 7 - c o n c l u d e d . ~}$
X.

Suspensions and Remissions.


80


Statement No. XI.

## Loins to Agriculturists during the year ending 3oth



Statement No. XI-concluded
XI.

Advances to Agriculturists.



No. XII.
Value of Relief Works.



No. XII.

Value of Relief Works-continued.



No. XII.

Value of Relief Works-continued.



No. XII.

Value of Relief Works- concluded.


Pupjab Government Press, Lehore-3-3-98-525.


Elobo Panfab Gont, Frest, Leliore.



Litho. Punjab Gove. Pross, Lahor:


Rusoo. Punjab Govt. Preas, Lahote.


Litho. Panjab Gort. Press, Lahore.




Witho, Panjab Gort, Press, Law...





[^0]:    Gang-system mates were tried, but found quite useless. None of them, were Mates. 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.

[^1]:    Comparison of wages at famine and ordinary rates.

[^2]:    Now for this large precentage 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 zamindars would not leave their homes "until too emaciated to be able to work" (see Karnal 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 zamíndar 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 zamindárs, and in order to prevent this class of labour from quickly giving out, 1 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, zamindars will shy at work if they are to be mixed up with "kangals.". I have just questioned the Hindu Rájpút 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 kangals could go and work like coolis on roads, while they would only be asked to dig together

