Marine (1896) Department.

G.O., No. 3511 W

DATED 7 December

[Despatch Abstract.]

Season: Pros: Rev: Dept Courts: with remarks of the Board of Revenue, Proceedings of the Govt of the N.W. Provinces, & Oudh on the Scarcity in those provinces and the relief measures adopted to meet it, & Copies to S.Es for information.

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[2,000—25-10-96.]

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Public Works (1896) Department

Government {1896} of Madras.

REVENUE.

Current No: 1106

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Recd. 4 { 5. 12. } 1896.
Regd.

Enclosures

Spare copies 10

G.O., No. 675, 27th November 1896.

B. Pro No 3511 W 7.12.96.

Communicated to Suptg Engineers for information

NOVEMBER.

S. Engrs 7/12/96

7/12/96

Season.

Communicating, with remarks, to the Board of Revenue Proceedings of the Government of the North-Western Provinces and Oudh on the scarcity in those provinces and the relief measures adopted to meet it.

Despatched
Acknowledged
Chief Sheriff

GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

Read—the following letter from DENZIL IBBETSON, Esq., C.S.I., Officiating Secretary to the Government of India, Department of Revenue and Agriculture (Famine), to the Secretary to the Government of Madras, Revenue Department, dated Calcutta, the 9th November 1896, Cir. No. 16—5–38 :—

I am directed to forward, for the information of the Governor in Council, a copy of a Resolution, No. 3945-S/1—58, dated the 20th October 1896, recorded by the Government of the North-Western Provinces and Oudh on the scarcity and relief operations in the United Provinces during the spring and summer of 1896, together with a copy of the North-Western Provinces and Oudh Revised Famine Code.

Enclosure.

Read—the following Resolution from the Government, North-Western Provinces and Oudh, Revenue (Scarcity) Department, dated Naini Tal, the 20th October 1896, No. 3945-S.—1-58 of 1896.

[*Scarcity and Relief operations in the North-Western Provinces and Oudh during the Spring and Summer of* 1896.]

Resolution.—The Meteorological Reporter to Government of India gives the following account of the rainy season of 1895 in the North-Western Provinces and Oudh :—

"The rainy season began in June about the usual time. The air was more humid and the sky more clouded than usual during that month. The rainfall was abundant everywhere, and especially so in the central and western divisions of these provinces, where about double the usual amount was registered during the month. July was drier than usual almost everywhere throughout the North-Western Provinces and Oudh. The principal rainy periods were during the first and the last weeks of the month, the second and the third weeks being almost entirely rainless. The rainfall during August was about average in amount and well distributed over the reporting area. In September practically little or no rain fell over the southern, central and western districts of these provinces after the 10th or 11th. The eastern districts, however, received heavyish rainfall during the advance of a cyclonic storm on the 20th. Defects in the season's total appeared in all divisions except Fyzabad, which showed a 10 per cent. excess, and Meerut, which had a 20 per cent. excess. . . . . The remaining three months of the year were almost entirely rainless, November on the plains being completely so."

2. The unsatisfactory character of the rainfall of 1895 resulted in varying degrees of pressure on the agricultural population of the provinces. Relief operations, however, only became necessary in the four districts of Bánda, Hamirpur, Jalaun and Jhánsi, known as British Bundelkhand (where the effects of the short rainfall in September, and the total absence of winter rains, were specially marked); and in parts of the Allahabad, Hardoi, Pilibhít, Garhwál, and Almora districts. But it was only in Bundelkhand that relief measures on an extensive scale were undertaken; the operations in the other districts named were both in extent and character of minor importance. The relief operations which were carried on in the Bundelkhand districts will therefore form the principal subject of this review, and the period dealt with runs from the beginning of February to the end of August, when the early *kharíf* crops ripen.

3. British Bundelkhand has suffered from agricultural depression for the past three years. The country is for the most part black cotton soil and, except in Jalaun and Hamírpur, which are to some extent traversed by branches of the Betwa Canal, is unprotected by irrigation.

The cultivated area commanded by this canal is nominally 310,000 acres, two-thirds being "black cotton" soil; but in the *kharíf* and *rabí* seasons under notice the areas irrigated from it were only 4,312 acres and 30,156 acres respectively. For reasons which the Lieutenant-Governor has discussed elsewhere the value of the Betwa Canal as a protection against the failure in the monsoon or the winter rains is not as great as had been expected; but the results* promised for the current season (owing doubtless to the fresh failure in the rains) far exceed those stated above; and give grounds for hoping that, with more experience of irrigation in black soil, we can make the canal a valuable protective work, if, indeed, it does not come up to the expectations of its designers.

* *Kharíf*, 20,000 acres. *Rabí* (first watering) 60,000.

In point both of fertility of its soil and of the industry and agricultural skill of its population, Bundelkhand compares unfavourably with the rest of the provinces. Since the autumn of 1893, the outturn of the *kharíf* crops there, as shown in Appendix A, has been uniformly poor, while that of the principal *rabí* crop (wheat mixed with either gram or barley) has been worse. The abnormal succession of bad seasons had also encouraged the growth in the culturable area of the coarse grass known as *káns*. The result of this prolonged period of adversity was, according to the statistics supplied by the Director of Land Records and Agriculture, a decrease in 1895 of 192,672 acres, or 13·5 per cent., in the normal *kharíf* area, and this was followed by a still more serious decrease in 1896 of 292,362 acres, or 19 per cent., in the normal *rabí* area. The monsoon of 1895 ceased early in September, and the winter rains entirely failed. The stock of grain in the villages, reduced by double *rabí* sowings, became low, prices began to rise before the end of the year, and the impoverished land-owning classes were unable to assist their tenants. By the beginning of 1896, when the Lieutenant-Governor and Chief Commissioner visited Bundelkhand, it was manifest that the districts were about to pass through a period of distress.

4. The affected area was fortunately well served by railways (the result of a wise employment of the Famine Insurance Fund), and it was from the first apparent that private trade would be capable of supplying all the food required, and that no heavier burden would fall on Government than attaches to the provision of relief works and of those other measures of charitable or gratuitous assistance which are described in the Famine Code.

5. In the first week in February, when the failure in the *rabí* had been placed beyond doubt, test works were started in the form of improvements and repairs to roads in all the districts of Bundelkhand, a sum of Rs. 50,000 being placed at the Commissioner's disposal for expenditure on such works.

At the same time preparatory steps were taken to deal with distress when it should show itself. Relief circles were formed, and officers to take charge of them were nominated; the executive staff of the various districts was strengthened; sites were selected for poor houses; and the programme of relief works was revised and expanded. Preparations were made for dealing with sickness, should it occur, and a staff of hospital assistants was deputed to supervise sanitary arrangements on relief works and administer medical comforts in temporary hospitals. The administrative framework necessary for the management of large relief operations was thus in readiness at the beginning of the emergency, and all that was afterwards necessary was to fill it in as necessity required.

6. The number of applicants for employment on the test works opened soon became so considerable that, on the 28th February, Government ordered the conversion of these works into regular relief works under the Famine Code, and placed a further sum of Rs. 50,000 at the disposal of the Commissioner with effect from the 1st March. The Commissioner was at the same time instructed that in selecting famine relief works regard should be had to the feeder roads required by the Indian Midland Railway.

7. In view of the growing magnitude of the scarcity the Lieutenant-Governor again went to Bundelkhand and held a conference at Jhánsi on the 11th and 12th March to discuss questions connected with famine relief. It was laid down that the object of Government in its famine relief policy would be (subject of course to the dominating idea of preventing starvation), first, to secure that expenditure on famine relief should be of permanent benefit to the several districts and help towards their commercial development and agricultural security; second, so far as possible, to keep people employed near their homes and to prevent the disintegration of villages. Up to the date of the conference relief works of all kinds had been under the control of the District officers; but the increasing pressure rendered a continuance of this arrangement undesirable, and it was accordingly arranged that, with effect from the 1st April, all large works should be carried out by the Public Works Department in accordance with the rules laid down in chapter VI of the Famine Code; while minor works were to continue under the control of the District officers, who should work through the local landowners. At the same time the necessity for a further increase of the local staff was recognized, and twenty-four naib tahsildars were deputed to the affected area to be employed under

the Public Works officers as paymasters on large works. To the employment of responsible officers as paymasters the Lieutenant-Governor and Chief Commissioner attributes much of the economy in expenditure which resulted. The end of March may thus be taken as the period at which the relief operations assumed their settled character, large operations such as roads being in charge of the Public Works Department and minor works such as village tanks, reservoirs, &c., being carried out by local agency controlled by the District officers. Up to the 31st March the actual expenditure incurred was Rs. 1,43,400.

At the Jhánsi conference the provision made for other methods of relief, especially for the relief of respectable women who are debarred by national custom from appearing in public (article 124, Famine Code) was revised and expanded. In addition to the increased staff of hospital assistants already provided, an Assistant Surgeon was placed at the Commissioner's disposal for general inspection duty, and it was ordered that a hospital assistant should be deputed for each work on which more than 1,000 persons might be employed. The question of grazing for cattle was also considered; and when afterwards the necessity arose, free grazing was allowed in the Bánda and Jhánsi Government forests.

8. In Bundelkhand the population, which contains a considerable admixture of aborigines, depends a good deal for sustenance during the summer on the *mahua* crop and other edible forest products. But by April it became manifest that the *mahua* crop had failed, while the prices of the staple food-grains rose steadily, and the numbers on relief works increased. It had been estimated by the local officers in March that at the period of greatest pressure the numbers in receipt of relief would not exceed 140,000; but by the middle of April that number was exceeded and the numbers continued to rise, till in the third week of May they reached their maximum pitch of 263,961. Comparing districts, Bánda had by far the greatest number on relief works; but the Lieutenant-Governor, on a review of the whole facts, is disposed to think that the numbers in this district would not have been so large had the "gang" and "task" systems prescribed by articles 70 and 74 of the Famine Code been more rigorously enforced from the outset. However, the defect was soon corrected, and the unprecedentedly low rate of wages paid combined with the not-unsubstantial outturn of work done proves that the people were in real need of help.

9. On the 2nd of May the Lieutenant-Governor again conferred with the officers in charge of the relief measures on the progress and prospects of affairs. At this conference the whole conduct of the famine relief organization was subjected to minute scrutiny with the object of ascertaining whether the organization was good and sufficient; whether any further modifications were necessary with reference to future prospects; and whether the administration, while being efficient, was also economical. It was found that, excluding charges for establishment, tools and plant, the average daily wage for men, women and children per head on the Public Works Department relief works fell at about 9½ pies a day, and although, here and there, things might have been better done, still, on the whole, the business had been well managed. The wages paid were regulated carefully with reference to the rations prescribed by the Famine Code. Indeed, the tendency was towards over-scrupulosity in following the fluctuations of the grain market so that the relief workers might get the benefit of any variation. It is now the Lieutenant-Governor's opinion that this constant and minute adjustment of wages to ever changing prices caused unnecessary labour and complication and should be avoided in any future operations of the kind. His Honour thinks that ordinarily wages on relief works need not be altered when the change in prices is less than 10 per cent.; and that ordinarily no alteration should be made without the previous sanction of the Commissioner of the division when he controls the relief operations.

10. In addition to the relief afforded by public works, by the establishment of poor houses, and by the distribution of assistance to respectable but indigent people under chapter X of the Code, much help was also given by granting advances of money, under the Agriculturists' Loans Act, and by suspensions and remissions of revenue. The actual sum distributed by way of recoverable advances without interest was Rs. 1,85,118; and the actual amount of revenue suspended by the Commissioner was Rs. 2,16,000 on account of the *kharíf* instalment of 1895 and Rs. 8,78,000 on account of the *rabí* instalment of 1896. No doubt it will be ultimately necessary to remit some part of these suspensions. In this way substantial assistance was afforded to the land-owning and cultivating classes, as the suspension or remission of a certain amount of revenue carries with it, under the North-Western Provinces Rent Act, the suspension or remission of double that amount in rent.

11. During May the numbers on relief works continued to increase until the last week of that month, when, notwithstanding the sanitary precautions taken, cholera, which had previously shown itself in a serious form only in the Lalitpur sub-division, broke out on the relief works with some virulence. Energetic steps were taken to break up large masses of labourers, to draft off relief workers from the works on which cholera had appeared to other works, and to disinfect all wells used by relief labourers with permanganate of potash (this latter measure did much good, and is recommended for future adoption in similar emergencies). The policy of expanding village works so as to relieve the pressure on the larger undertakings was also pressed.

12. At the beginning of June the Government laid down the policy to be adopted after the breaking of the rains with the object of inducing the people to return to their ordinary avocations as soon as possible. Village works being carried out by civil officers were to be contracted to a minimum on the breaking of the rains, and no further grants for such works were to be made, it being left to the Commissioner's discretion to continue the distribution of gratuitous relief in villages and at poor houses when absolutely necessary. With regard to road works, orders were issued that all operations under the control of the Public Works Department should be reduced to a skeleton at the break of the rains in the districts of Jhánsi and Jalaun, where the distress was judged to be less acute; and that in Bánda and Hamírpur the extent of the work should be greatly contracted. The works remaining were to consist in stone-breaking and quarrying, which were considered suitable for the rainy season as they could be done under cover. Task work was to be strictly exacted, and only persons capable of earning a living on task work were to remain on the public works, debilitated persons being provided for in poor houses. It was also laid down that, with a view to inducing people to revert to agricultural work, no wages should be paid to any person on relief works in excess of the minimum subsistence wage (or its money equivalent) prescribed by article 108, Famine Code.

13. The combined effect of these measures, reinforced by the certainty of ordinary agricultural employment when the rains would set in, and also to some extent no doubt by the fear of cholera, was seen in a great decrease of relief workers. The numbers, which in the third week of May had approximated to 2¾ lakhs, fell by the third week of June, when the rains had broken, to 52,619. As a consequence the estimate of expenditure far exceeded the actual sum spent.

By the middle of July all Public Works Department relief works had been closed, except in Bánda, where four quarry works were still open; and all village works had been closed, except in Jhánsi, where some were still unfinished. The relief administered after that time consisted almost entirely in that given at poor houses and in the gratuitous relief administered through the agency of *patwáris* to respectable persons debarred by national custom from appearing in public. At the end of August the total number in receipt of any form of relief in Bundelkhand had fallen to 5,904, and without doubt this number would have melted away by now had not the threatenings of even far greater difficulties than had beset us last year completely altered the situation.

14. Under article 63, Famine Code, relief works are divided into "large" and "small"; those works being regarded as "large" which provide simultaneous employment for three months for at least 1,000 persons. (This latter portion of the definition it was not found desirable on this occasion to adhere to rigorously.) From the 1st April all large relief works, which had till then been under the control of the District Officers, were transferred to the agency of the Public Works Department, and the District Officers were thus enabled to pay greater attention to those other very important methods of relief prescribed by Chapters VIII, IX and X of the Famine Code (poor houses, State kitchens, and relief at their homes to respectable people unused to working in the fields or debarred by national custom from appearing in public) which none but District Officers can successfully administer. The result of this change was an expansion of the employment of subordinate Public Works officers to set out and supervise the work; the employment of men of some standing as "officers in charge"; the keeping and rendition of accounts of large relief works by the Department of Public Works, and the devotion of greater attention to the division of the workers into gangs; and to the exaction of task work. It may be stated here that too much importance cannot be attached to the enforcement from the very outset of the "gang" and "task" systems declared to be imperative by articles 70 and 74 of the Famine Code. They lie at the very root of successful management of relief works. Works on which the systems are not enforced become demoralizing, wasteful and chaotic.

15. It was recognised that it must lie with the District Officer to select the works to be started (as he was most competent to decide where relief labour could be concentrated most advantageously); to adjust the scale of wages to the varying current prices of food grains; and to arrange for the provision, transport, and safeguard of the enormous sums of copper coins required for wages. But the actual execution of the works was left to be carried out by the Public Works officers.

The "large" relief works were of three classes: (1) roads, (2) large tanks, and (3) small roadside tanks. On these works the number of women and children employed far exceeded the number of men. It has been calculated that to every 100 men 306 women and children were in receipt of wages in addition to 171 dependants, nearly all infirm women and very young children, who could not work and had to be relieved gratuitously. There was thus one man to four or five women and children. The explanation of the disparity is that the people migrated in families from their homes, where they were foodless, to the relief works, where they were sure of a subsistence. One male member ordinarily remained behind to watch the cattle and the house: but the rest of the family went together to the relief works.

One result of this family migration was that in the case of road work, where the hard surface soil had to be dealt with, the amount of work done by the men who were employed in digging was insufficient to employ the women and children, who were made use of as "fillers." But it was found that digging tanks gave more equal employment to both classes, because the tank earth was more easily dug, being damp and soft, and the length to which the earth had to be carried was relatively much greater than in the case of roads.

It will be noticed that the number of "dependants" gratuitously relieved on the works under article 99 of the Famine Code considerably exceeded the 10 per cent. laid down by article 100 as the limit to be relieved in that way. The point did not escape the attention of Government during the progress of relief operations; but the Lieutenant-Governor decided that the balance of convenience and general advantage lay in the direction of keeping families together rather than in the direction of breaking them up, employing some on relief works and sending the others to a poor house. Sir Antony MacDonnell is not in favour of extending the working of poor houses beyond a strict interpretation of article 112 of the Famine Code.

Care was taken to use the labourers according to their castes and aptitudes, landowners being employed as "mates;" literate persons in helping to keep tallies; Bráhmans in distributing; and Kahárs in carrying water. But experience in this as in other scarcities has shown that high caste people do not shrink from seeking subsistence on relief works when starvation awaits them at home. Relief in their homes was, under article 124 of the Famine Code, afforded to respectable indigent women whom national custom debars from appearing in public.

16. The rate for earthwork averaged on roads managed by the Public Works Department very nearly Rs. 11 per 1,000 cubic feet. The chief cause of this high rate was that most of the work done was on roads in black cotton soil, and in the height of the hot weather. That soil when dry is extraordinarily hard, and under ordinary conditions the work would never have been done at that season of the year. Some increase in the rate was also due to the large number of carriers as compared with diggers, to which allusion has been already made.

In case of tanks, on the other hand, for reasons above indicated, the rate was only Rs. 5·40 per 1,000 cubic feet.

Of the total expenditure on works, accounted for in the Public Works Department, which is calculated to have amounted to Rs. 7,15,088, about two-fifths represent the value of the work done, if carried out at the most suitable time of the year with labour (*beldárs*) appropriate to the work, and also assuming that there is no loss of efficiency from sickness or other causes.

17. Statement C appended to this Resolution gives the numbers in receipt of relief of all kinds in the Bundelkhand districts on the last Saturday of each fortnight from February 29th to August 29th. It is noticeable that the period of greatest pressure on the relief works did not in all cases coincide with the period during which the prices of the staple food grains ordinarily consumed by the labouring classes of the people (gram *arhar*, rice, and *juár*) ruled the highest. Thus, while in every district the largest number of persons in receipt of relief was reached on the 23rd May, it was only in Hamírpur and Jhánsi that prices also were highest during the week ending on that date. In Bánda, the district where distress was most severe, and in Jalaun food grains were dearest during the weeks ending the 9th and the 30th June respectively. These variations are probably attributable to fluctuations in the market rather than to any more recondite cause.

18. At the time of recording this Resolution still higher prices rule than prevailed last May and June in Bundelkhand; yet pressure on the few relief works which have been kept open at subsistence wages as a precautionary measure is only beginning to make itself felt. The explanation doubtless is that the early *kharíf* crops were not so bad as report makes out and that they have given the poorer classes of the people something to go on with. And this will continue, with more or less variation, possibly until December, when, if no rain falls in the interval, a severe strain may again commence.

19. The health of the relief workers was, on the whole, very good. They were usually, on first coming on the works, in an emaciated and reduced condition; but when afterwards the distressed tract was visited both by the Inspector-General of Civil Hospitals and the Sanitary Commissioner, these officers reported that there was no appearance of general starvation, let alone famine, among the men, women, and children on the works. Had there been, the relief operations would have failed of success. There were during the whole period only 26 deaths reported as due to starvation. But in spite of all the sanitary precautions that were taken, cholera prevailed from time to time in a sporadic form, and there were three serious outbreaks—one in the Lalitpur sub-division on the 4th April, one in the Karwi sub-division on the 18th May, and a third in Jhánsi on the 29th May. The seriousness of these outbreaks is thought by the Sanitary Commissioner to have been partly due to defective arrangements for the supply of water in connection with the large relief works. He recommends that a standard plan of water cart and water distributing appliances should be adopted for such cases. It has been reported

that the Sunday holiday prescribed by article 91 of the Famine Code is dangerous from the sanitary point of view, as the workers flocked into the towns on that day, camping near polluted tanks, &c., at the risk of acquiring or rapidly disseminating disease. This is probably correct; but the matter concerns, not only the non-Christian labourers, but the officers controlling the works, and the Lieutenant-Governor cannot compel the regular performance of official duties on Sunday. It seems clear, however, that the payment of the Sunday wage leads to abuses, as people flock to a relief work on Saturday who are in no need of relief, merely to get the Sunday wage; that the labourers earn during the week ample subsistence for the seventh day; and that no difficulty is felt in giving gratuitous relief, in kind if really required, to newcomers arriving on a relief work on Sunday.

20. On the 20th July a final Famine Conference was held by His Honour the Lieutenant-Governor at Allahabad, at which the results of the whole system of relief up to that date were considered. The figures then furnished have been since supplemented by a statement of famine expenditure incurred up to 31st August prepared in the Accountant-General's office, and this more precise statement has, where possible, been used in the following summary.

The expenditure on relief works falls under two heads according as it was accounted for by the District Officers or the Public Works Department.

Up to 1st April the District Officers accounted for all such expenditure, but after 1st April the Public Works Department accounted for the expenditure on the "large" relief works, which were under their direct control, while the District Officers accounted for the "small" relief works generally described as "village works."

The expenditure will then be shown separately—(*a*) that accounted for by the Public Works Department, and (*b*) that accounted for by the District Officers.

21. (*a*) The total amount expended by the Public Works Department was Rs. 7,15,088, of which sum—

Rs. 5,37,608 was paid in wages for labour done.
Rs. 43,758 was paid in gratuitous relief to the dependants of the relief workers.
Rs. 1,33,722 was paid in cost of tools, hutting, and temporary establishment.

The work done in return for this expenditure consisted of (1) 345½ miles of road remodelled and repaired (in which work is included the clearing out of small roadside tanks); (2) 47 large tanks excavated. The amount of earthwork done amounted to—

	C. FT.
(1) On roads and small roadside tanks	41,923,055
(2) On large tanks	13,984,102
The total earthwork thus was ...	55,907,157

This work cost in *wages only*—

	RS.			RS.
(1)	4,60,908	... ...	rate per 1,000 cubic feet	10·99
(2)	75,700	... ...	do. do.	5·41
Total ...	5,37,608	... ...	do. do.	9·62

The sum of Rs. 43,758 expended on gratuitous relief, and Rs. 1,33,722 on tools, hutting, &c., added to this amount spent in wages, make up the total expenditure of Rs. 7,15,088 expended by the Public Works Department.

The number of persons relieved, including dependants (reduced to relief for one day) on the Public Works Department works in Bundelkhand was 12,843,200, and the cost per head (including wages and gratuitous relief, but excluding tools, &c.,) was 8·7 pies per diem. It is believed that this is the lowest rate yet reached in effective famine relief administration in India by the Public Works Department.

22. (*b*) In paragraph 14 above the difference is stated between the relief which fell within the province of the Department of Public Works and within the province of District Officers to administer respectively. The total amount expended by District Officers on relief works (exclusive of expenditure on poor houses and on the miscellaneous forms of relief prescribed by Chapter X of the Famine Code) was Rs. 2,94,951.

The work done consisted of—

132½ miles of road remodelled.
559 village tanks } re-excavated.
225 do. wells }
39 reservoir embankments constructed.

The amount of earthwork done on the roads amounted to 11,877,466 cubic feet (measured), and that on of the village works was estimated to have been about 53,000,000 cubic feet.

The expenditure was—

	Rs.
On the roads	1,37,094
On village works	1,57,857
Total ...	2,94,951

This gives a rate of about Rs. 12 per 1,000 cubic feet on road work (done at the time of year before April, when such work could be done most cheaply), and a rate of about Rs. 3 per 1,000 cubic feet on village works (tanks, wells, &c.). It will be observed that while the District Officers' rates for road work are greater than the Department of Public Works rates (without the excuse for high rates, which, as stated in paragraph 16 above, the Public Works Department had), their rate for village works is extraordinarily less. The explanation lies in the system followed, and in the supervising agency employed. For road works the District Officer had, especially during the "test" stage, to rely on temporary establishments, aided no doubt to some extent by the District Engineer, and the "gang" and "task" systems referred to in paragraph 14 above do not appear to have been at the outset as strictly enforced as was desirable. But for village works the District Officers acted through the village zamindars. As the latter had not to repay the expenditure incurred and got the full benefit of the improvement in their villages, they acted honourably by the Government in making the Government expenditure go as far as possible. The important lessons to be learnt are (1) the advantage of employing the professional agency of the Public Works Department from the earliest period possible, in controlling all relief works other than those described in article 65 (*a*), Famine Code; (2) the advantage of working through the village proprietors or village headmen in controlling the works described in that article.

23. The total number of relief workers and dependants relieved on these "small" relief works, plus the number gratuitously relieved by District Officers, was 5,533,391 (reduced to units relieved for one day).

The total amount placed at the disposal of the District Officers is reported by the Accountant-General to have been 4½ lakhs in round numbers. The accounts have not yet been cleared; but in the returns submitted from the districts the amount actually disbursed is given as Rs. 3,58,777, and may be safely assumed to have fallen short of four lakhs.

24. The total number relieved for one day throughout the districts of Bundelkhand in the relief operations from 1st February to 31st August was thus approximately 18½ millions, and the total cost of relief of every kind in that region, and including tools and plant, hutting and similar items of expenditure, amounted to about 11 lakhs. This gives an average cost of 11¼ pies per diem per head of the people relieved.

25. It is stated in paragraph 3 above that the quantity of land cultivated with *kharif* and *rabi* during the period referred to fell short of the normal quantity by about 485,000 acres, or about 17 per cent. of the total. The crop yield in the area that was sown was also up to the end of June dificient as shown in the statistics supplied by the Director of Land Records and Agriculture (Appendix A to this Resolution). To make up for the deficiency of food, importation of food grain was active during the period of distress. The figures for the imports and exports by rail of food grains for the railway stations situated in the four districts of Bundelkhand during the six months from January to July inclusive are shown in Appendix D. The total net imports for the whole affected tract are shown as 743,227 maunds. There was doubtless also some importation by road, especially into the Hamirpur district from the north: but imports by road are not thought to have been large. Probably the total imports were about 7¾ lakhs of maunds. Thus the net quantity of grain imported allowed but a small margin over the quantity actually required for the subsistence of the 18½ millions of people (reduced to units of one day) who came on relief: and its cost at the average price ruling during the scarcity of the commonest grain (gram) which constituted the chief article of import approximates to the cash expenditure on the relief operations. The argument, or perhaps, it should be said, the coincidence, need not be pushed too far: but the figures tend to show that, substantially, there was no unnecessary expenditure on relief, and that private trade correctly gauged the extent of the emergency and the necessities of the districts.

26. The Famine Code (article 53) provides for the association, with the Collector, of District or Local Boards "for the purpose of advising and assisting in all matters connected with the prevention or relief of famine." The Code does not enjoin the creation of unofficial charitable committees, though it does not say they shall not be created. The social conditions of Bundelkhand were not favourable to unofficial efforts in the cause of charity; and probably the District Boards contained the intelligence of the region. But in more advanced districts the Lieutenant-Governor is convinced that, should circumstances require the undertaking of relief operations on a large scale, the greatest benefit will accrue from the organization of private effort and private charity in supplement of the Government system of relief. In Bundelkhand most valuable assistance was given by private landlords and others in the control of the smaller relief works; and advantage should, in future cases, be taken of the landlords' willingness to help in this and other ways. They should, so far as possible, be associated with the officers of Government in the general scheme of relief.

27. It has been stated in paragraph 2 above that, besides the relief operations in the Bundelkhand districts, some measures of relief were also found to be necessary in the Allahabad district, the Hardoi district of Oudh, the Pilibhít district of Rohilkhand, and the Garhwál and Almora districts of Kumaun. In the part of the Allahabad district bordering on Bundelkhand, and resembling it in climate, soil, and population, the distress was for a time severe, but fortunately in none of the other districts did the reality come up to the local officers' early apprehensions. The relief measures adopted in these districts do not call for any lengthened comment. They were carried out by the District Officers without assistance from the Department of Public Works and comprised repairs to unmetalled district roads, poorhouses, and some gratuitous relief under Chapter X of the Famine Code. In all the districts except Hardoi the pressure practically ceased when the rains had regularly set in; but in Hardoi, during the latter portion of July, when there was a prolonged break in the rains, distress threatened to assume somewhat serious proportions. The total expenditure in these five districts up to 31st August, as shown in the returns received from the District Officers, amounted to Rs. 1,17,431. The number of persons relieved (reduced to relief for one day) was nearly one million.

Throughout the provinces, therefore, the total number of persons relieved up to 31st August (reduce to units of one day) was 19½ millions (the earlier estimates overstated the numbers), and the total expenditure incurred was Rs. 12,17,431. The number of deaths reported as due to starvation was, as already stated, altogether insignificant; but the mortuary statistics from the distressed districts showed a death rate much above the normal, from which the Lieutenant-Governor infers that, although the number of deaths from actual starvation was almost *nil*, the pressure of hard times claimed many victims, mostly among the old and the very young.

28. Before bringing the review to a close the Lieutenant-Governor and Chief Commissioner desires to record, for information and future guidance, the more useful lessons which actual experience in these relief operations has taught. On the whole, the rules and procedure prescribed by the Famine Code have been found to be effective and easy to work; but they naturally do not provide for all contingencies, while relief operations are fruitful in surprises, which call for decision and resource in the man on the spot. The following instructions therefore, which are the results of practical experience, will be useful to all officers engaged in future relief operations:—

(i) Test works fail to fulfil their object if full tasks are not exacted, and if wages are not regulated with reference to the provisions of Chapter VII of the Famine Code. Close supervision is therefore essential.

(ii) Where test works show the necessity of relief works, the management of the latter, not being of the kind specified in article 65 (*a*), Famine Code, should be entrusted from the outset to the Public Works Department.

(iii) Relief works of the kind specified in article 65 (*a*), Famine Code, (*i.e.*, "works specially intended for the relief of the agricultural population in the vicinity of their villages") are best carried out through the agency of the village landlords and headmen. The quantity of work to be done can usually be accurately calculated beforehand: and the cost fixed with reference to a fair task and the current price of food. Advances can then be made and the account cleared up on completion of the work.

(iv) Article 77 of the Famine Code provides that over each separate work managed by the Public Works Department shall be placed an "officer in charge." The number of labourers under an "officer in charge" should ordinarily not exceed 5,000; and if there are more than 3,000, there should also ordinarily be two sub-overseers or work agents. In every case each sub-overseer or work agent should have an intelligent assistant or "mate" to help him to lay out the work. For every five or six "charges" an inspecting officer of the standing of a Public Works upper subordinate is required.

(v) Officers of the naib tahsildar class or of similar standing on the regular establishment of Government should, whenever possible, be employed as "officers in charge." They should be placed at the disposal of the Public Works Department and employed where required, postings being made by the Superintending Engineer.

(vi) Reserves of tools and baskets should be established at convenient centres, whence they can quickly be sent where wanted; and as baskets wear out quickly and take time to procure, arrangements should be made in advance for their supply.

(vii) On relief works the "gang system" should be rigidly enforced from the very outset and gang registers kept up. A gang register is a card or piece of stout paper containing the names and classification of all persons in the gang. Any gang can thus at any time be checked independently of other gangs, and by 'sampling' a few gangs, the whole work may be effectively checked. These great advantages do not attach to the alternative "ticket system," under which vouchers are delivered to individuals in the morning, to be exchanged for money in the evening. Under the "ticket system" it is obligatory to count and classify at a particular time in the afternoon the whole of the persons present on a work, in order to obtain a satisfactory check; and this has been found to be, not only extremely laborious, but usually impracticable.

(viii) Wells likely to be used for drinking water by labourers on relief works should be examined and, if found pure, should be guarded from contamination for a week before required and the water-supply arrangements perfected before the labourers arrive. Foul wells should be absolutely closed. Should cholera break out, the wells should be disinfected at intervals of two or three days with permanganate of potash until the labourers are split up and drafted off to other works.

(ix) From the labourers Bráhmans should be selected to draw water from the wells for Hindus, and Kahárs to distribute it. The vessels employed in drawing and distributing the water should be ordinarily of metal and scrupulously clean. Kerosine tins have been found to be most useful and acceptable.

(x) A superior Medical officer should inspect periodically (1) the relief labourers on relief works not of the article 65 (*a*) class, (2) the sanitary and medical arrangements in connection with such works, and (3) poorhouses and hospitals.

(xi) The Famine Code (section 85) provides for the erection of latrines. These should usually be on the trench system and provided with grass screens.

A line of flags and posts should be placed all round each relief work and 300 yards from the same, and great care should be taken that no nuisances are committed within the area enclosed by such flags and posts.

(xii) Medical officers in charge of hospitals on relief works should very carefully watch for the occurrence of any cases of relapsing or famine fever, and immediately isolate any such cases.

Provision for the immediate isolation of cases of cholera, small-pox, or other epidemic disease should be made at each work. Grass huts, which can be subsequently burnt, will usually be the best form of isolation hospital.

(xiii) Article 87 of the Code provides for daily, bi-weekly, or tri-weekly payments (with certain exceptions). Wages should ordinarily be paid twice a week. Bi-weekly payments save the labourers a daily wait until a late hour on the works. They also reduce the difficulty of providing a sufficient supply of copper coin, as small silver coin can then be used also. But bi-weekly payments can only be introduced if "gang registers" are maintained in perfect order. (The difficulty, which is sometimes serious, of providing large quantities of copper coin can be reduced by arranging with the gram sellers on the works to exchange copper for silver daily.)

(xiv) No change in wages should be made if prices vary by less than 10 per cent., and ordinarily no change should be made unless with the previous sanction of the Commissioner of the division (or Famine Commissioner if one is appointed).

(xv) When a variation in prices of foodgrain necessitates an alteration in wages, notice of the new rate of wages should be sent to the District Engineer and not to the "officers in charge."

(xvi) No incomplete work should be closed by the controlling authorities, except on account of sickness, unless seven days' notice be previously given to the Divisional (Executive) Engineer to break up the staff and close the work.

(xvii) If article 91 of the Famine Code be retained unaltered (see paragraph 19 above), the Sunday should be reckoned, for account and statistical purposes, as the last day of the week, in order that the payments for the holiday, which are made on Saturday, shall fall in the week covered by the numerical returns. This slight change, which will greatly facilitate check on expenditure, necessitates placing Sunday at the end, and not at the beginning, of the week in the Progress Return (Form III of the Appendix to the Famine Code).

29. In conclusion, it is the Lieutenant-Governor and Chief Commissioner's pleasing duty to notice the services rendered by the principal officers employed in conducting the relief measures which have proved so successful. The chief burden of directing the relief operations fell upon the Commissioner of the Allahabad Division, Mr. G. R. C. Williams, and the Superintending Engineer, 3rd Circle, Mr. C. G. Palmer. Mr. Williams successfully maintained control over all the relief measures without neglecting any of the ordinary duties of a very important division; while Mr. Palmer's management of the Public Works operations was both effective and resourceful. To both of these officers the special thanks of Government are due.

On the Collectors of the various districts the brunt of the executive work fell as an addition to their ordinary duties: and it was carried on in very trying circumstances with a self-sacrifice and devotion to duty which the Lieutenant-Governor cannot praise too highly. The heaviest responsibility fell on Mr. Ferard, Officiating Collector of Bánda, and next on Mr. Warburton, Officiating Collector of Hamírpur, and Mr. Calnan, Officiating Collector of Jalaun. To these officers the Lieutenant-Governor and Chief Commissioner gives his best thanks. In Jhánsi the distress was less than elsewhere in Bundelkhand, but still a considerable strain fell on the Collector, Mr. Steel. Mr. Bird, Collector of Allahabad, administered relief in his district in an efficient manner, chiefly through local agencies, and Mr. Partridge, Officiating Collector of Pilibhít, also merits favourable mention. Mr. Hoare, Sub-divisional Officer of Lalitpur, and Pandit Jwala Parshad, Sub-divisional Officer of Karwi, managed difficult charges well. All these officers in their several degrees deserve the thanks of Government.

In the Public Works Department the good services of Mr. Battie, Executive Engineer, Second Allahabad Division, have been brought to prominent notice; and Mr. Thompson, District Surveyor, Bánda, and Bábu Kula Nand, District Surveyor, Jalaun, have rendered good service, which the Lieutenant-Governor and Chief Commissioner desires to acknowledge.

His Honour notices with much satisfaction that several officers among the Tahsildars and Naib Tahsildars, and among the upper and lower subordinates of the Department of Public Works, have shown marked zeal, probity, and ability in carrying out the work entrusted to them. On fit opportunity the services of these officers will be suitably rewarded.

It was not to be expected that, subject as the executive staff was to great exposure and privation during a Bundelkhand summer, there should be no casualties, but the casualties were comparatively few. In the Civil Department the Naib Tahsildars Maulvi Muhmmad Ali and Bábu Joti Parshad, in the Department of Public Works Mr. J. C. Rose, Sub-Overseer, and in the Police Department Sub-Inspector Niaz Husain died on the works. They were reported as zealous and efficient officers; and the Government regrets their loss.

Finally, the Lieutenant-Governor and Chief Commissioner desires to acknowledge the very great assistance he has throughout these operations received from the Hon'ble Mr. Odling, Chief Engineer and Secretary to Government in the Department of Public Works.

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Order—Ordered that copies of this Resolution be forwarded to—

(1) The Secretary to the Board of Revenue, North-Western Provinces and Oudh, for the information of the Board.
(2) All Commissioners of Divisions and all District Officers, North-Western Provinces and Oudh, for information and guidance.
(3) The Inspector-General of Civil Hospitals, North-Western Provinces and Oudh, for information and communication to Civil Surgeons.
(4) The Sanitary Commissioner, North-Western Provinces and Oudh, for information.
(5) The Inspector-General of Police, North-Western Provinces and Oudh, for information.

Ordered also that copies be furnished to the Secretary to this Government in the Public Works Department, Buildings and Roads Branch, for information and circulation to officers of the Department for information and guidance.

Ordered also that the resolution be published in the *North-Western Provinces and Oudh, Government Gazette.*

(Signed) H. F. EVANS,
Chief Secy. to Govt., N.-W. P. and Oudh.

APPENDIX A.

Kharíf and Rabí Jinswárs of the four Bundelkhand Districts { An average crop = 16 annas. / A bumper crop = 20 annas.

Crops.	Bánda. Acreage. 1893-94.	1894-95.	1895-96.	Bánda. Outturn in annas. 1893-94.	1894-95.	1895-96.	Hamirpur. Acreage. 1893-94.	1894-95.	1895-96.	Hamirpur. Outturn in annas. 1893-94	1894-95.	1895-96.	Jhánsi. Acreage. 1893-94.	1894-95.	1895-96.	Jhánsi. Outturn in annas. 1893-94.	1894-95.	1895-96.	Jalaun. Acreage. 1893-94.	1894-95.	1895-96.	Jalaun. Outturn in annas. 1893-94.	1894-95.	1895-96.	Bundelkhand. Total acreage. 1893-94.	1894-95.	1895-96.	Bundelkhand. Outturn in annas. 1893-94.	1894-95.	1895-96.
Kharíf.																														
Rice	70,643	74,865	81,474	13 7 11			49,22	4,766	5,697	15 15 14			25,545	26,551	25,548	11 16 9			1,629	1,210	1,966	15 15 15			102,739	107,392	114,685	13 13 12		
Indian corn ..	198	198	189	11 5 14			10	10	5	15 14 13			7,953	8,117	8,182	13 14 15			16	22	36	14 15 16			8,177	8,347	8,412	13 12 14		
Cotton and *arhar* (*a*).	104,329	96,579	86,697	10 5 17			80,790	94,367	76,616	14 10 16			25,160	33,345	26,323	14 12 13			50,861	64,162	50,886	14 8 17			261,140	288,453	240,522	13 9 16		
Juár and *arhar* (*b*).	193,803	156,530	133,220	11 6 13			154,822	151,016	122,045	14 10 13			53,919	66,351	45,648	13 12 11			73,009	100,510	60,356	13 8 11			475,553	474,407	361,269	13 9 12		
Bájrá and *arhar* (*c*).	41,618	29,425	30,065	11 4 12			23,814	19,557	19,755	15 8 14			2,296	3,160	1,626	14 11 9			50,677	42,892	42,862	12 7 9			118,405	95,034	94,308	13 7 11		
Urd and *múng* ..	1,089	828	934	9 5 10			3,298	2,664	5,103	11 11 11			16,732	15,824	15,305	12 13 9			82	187	193	15 11 7			21,201	19,503	21,535	12 10 9		
Til	47,438	26,631	25,173	13 5 10			47,107	37,548	31,979	16 12 14			66,958	77,585	6,244	.. 14 8			4,901	5,834	4,439	14 11 12			166,404	147,598	124,235	14 10 11		
Moth (*d*)	1,579	1,004	853	.. .. ..			171	123	85	.. .. ..			255	241	236	.. .. .			79	56	31	.. .. ..			2,084	1,424	1,205	.. .. ..		
Kodon	20,730	27,427	28,576	11 8 13			24,858	32,105	35,955	16 13 12			63,820	68,950	67,892	15			..	2,123	2,927	16 13 11			109,408	130,605	135,350	14 11 12		
Garden crops (food).	703	703	863	.. .. ..			1,692	1,652	1,833	.. .. ..			1,535	1,239	1,265	.. .. ..			1,004	1,022	979	.. .. ..			4,934	4,616	4,940	.. .. ..		
Total ..	482,130	414,190	388,044	.. .. ..			341,484	343,808	299,073	.. .. ..			264,173	301,363	254,669	.. .. ..			182,258	218,018	164,675	.. .. ..			1,270,045	1,277,379	1,106,461	.. .. ..		
Rabí.																														
Sugarcane ..	23	27		.. 14 16			2,503	2,026		16 12 14			931	926		16 16 12			663	430		*14 15 12			4,120	3,409	..	15 14 ..		
Arhar, pure ..	376	893		13 12 12			184	114		16 16 10			462	470		16 16 8			25	21		15 16 8			1,047	1,498	..	15 15 ..		
Wheat and gram (*e*).	211,201	192,863																												
Wheat and barley (*f*).	4,227	6,293		8 9 4			214,010	165,948		10 6 7			104,361	53,548		7 10 5			213,152	112,219		7 10 4			742,724	524,578	..	8 9 ..		
							1,786	6,297					16,463	16,932					5,314	9,090					27,790	38,612	..			
Barley and gram..	71,175	112,271		14 13 7			24,551	51,920		15 14 8			3,254	4,776		16 16 7			34,822	86,974		16 16 5			133,802	255,941	..	15 15 ..		
Gram, pure ..	165,427	205,407		13 12 8			67,039	93,742		15 15 7			59,641	99,178		16 16 7			46,655	61,700		13 15 7			338,762	460,027	..	14 14 ..		
Alsi	30,687	28,261		10 1 2			44,695	64,263		15 .. 3			18,955	28,353		15 3 3			68,764	92,970		13 2 2			163,101	213,847	..	13 2 ..		
Zira	Details not available.			.. .. ..			Details not available.			.. .. ..			Details not available.			.. .. ..			Details not available.			14 15 ..			Details not available.		..	14 15 ..		
Dhania				.. .. ..						.. .. ..						.. .. ..						16 15 ..					..	16 15 ..		
Vegetable (*zaid*) ..	57	123		.. .. ..			26	27		.. .. ..			355	377		.. .. ..			38	49		16 15 ..			476	576	..	16 15 ..		
Total ..	483,173	546,138	..	.. .. ..			354,794	384,337	..	.. .. ..			204,422	204,560	..	.. .. ..			369,433	363,453	..	.. .. ..			1,411,822	1,498,488	..	.. .. ..		

(*a*) Outturn for cotton only.
(*b*) ,, juár ,,
(*c*) ,, bájrá ,,
(*d*) Outturn included in *urd* and *múng*.
(*e*) ,, for wheat only.
(*f*) ,, ,, barley ,,

APPENDIX B.

(1) Prices ruling in the Bánda District from 1st March to 18th August 1896.

District. Week ending—	Wheat.	Gram.	*Arhar dal.*	Rice, common.	*Juár.*	Maize.	Barley.	*Bájrá.*
	sérs.	sérs.	sérs.	sérs.	sérs.			
Bánda. 7th March 1896	10·97	10·81	14·31	12·94	10·06	..	..	..
14th ,,	11·46	20·19	15·38	12·69	15·69	..	..	..
21st ,,	11·78	19·13	15·38	12·63	15·06	..	..	..
28th ,,	12·03	18·41	15·13	12·63	14·69	..	..	..
4th April 1896	11·91	17·97	15·00	12·38	14·57	..	..	..
11th ,,	11·84	18·06	14·31	12·19	14·33	..	..	..
18th ,,	12·31	17·91	14·19	11·94	14·42	..	..	..
25th ,,	12·25	18·25	14·44	12·19	14·50	..	..	..
2nd May 1896	12·22	17·98	13·93	11·50	14·42	..	..	..
9th ,,	12·09	16·31	13·47	11·31	13·83	..	..	..
16th ,,	11·78	15·16	12·66	11·16	13·33	..	..	..
23rd ,,	11·75	14·69	12·28	10·78	13·17	..	..	..
2nd June 1896	11·81	14·94	11·96	10·66	12·92	..	..	..
9th ,,	11·06	14·47	11·75	10·53	13·76	..	..	..
16th ,,	11·25	14·94	12·21	10·71	13·58	..	..	..
23rd ,,	11·	14·75	12·03	10·56	13·58	..	..	..
30th ,,	10·78	14·72	11·97	10·75	13·75	..	..	..
7th July 1896	10·69	14·88	12·06	10·22	12·42	..	..	..
14th ,,	10·75	14·84	11·91	10·34	12·	..	..	..
21st ,,	10·75	14·84	12·00	10·06	11·83	..	..	..
28th ,,	10·78	14·88	12·28	10·19	12·33	..	..	..
4th August 1896	10 75	15·	11·81	9·94	12·26	..	..	..
11th ,,	10 78	14·88	11·78	10·19	12·64	..	..	..
18th ,,	10·69	14·66	11·72	9·94	12 88	..	..	..

(2) Prices ruling in the District of Hamírpur from 1st March to 18th August 1896.

District. Week ending—	Wheat.	Gram.	*Arhar dal.*	Rice, common.	*Juár.*	Maize.	Barley.	*Bájrá.*
Hamírpur. 7th March 1896	10 12	18 9	14 14	11 8	14 9	16 3	16 1	13 13
14th ,,	11 4	18 13	16 8	11 4	15 2	18 6	15 3	15 9
21st ,,	11 4	18 8	14 6	11 3	12 2	18 6	15 5	15 2
28th ,,	11 3	17 14	13 10	11 0	14 8	19 8	15 6	13 14
4th April 1896	11 3	17 4	13 10	10 12	14 10	19 8	15 2	13 0
11th ,,	12 1	17 3	14 0	11 8	14 8	20 10	15 2	.. ..
18th ,,	12 4	16 7	13 14	10 11	14 10	19 13	14 13	.. ..
25th ,,	12 2	16 0	13 14	10 8	14 6	17 0	14 10	.. ..
2nd May 1896	11 15	14 13	12 14	10 6	14 3	16 12	14 5	.. ..
9th ,,	11 14	14 6	12 3	9 14	13 15	15 8	14 6	.. ..
16th ,,	11 8	13 10	11 13	9 8	14 0	14 10	13 1	.. ..
23rd ,,	Fortnight ending—							
Fortnight ending—								
15th June 1896	11 6	14 2	12 3	9 11	13 1	15 0	13 1	13 1
30th ,,	11 1	13 13	13 0	9 5	12 15	14 13	13 2	13 2
15th July 1896	11 2	13 2	11 2	9 12	13 0	13 13	12 13	11 8
31st ,,	11 8	15 0	12 8	10 0	13 3	15 0	12 10	11 8
18th August 1896	10 11	14 13	12 8	9 8	13 3	15 0	12 10	11 8

(3) Prices ruling in the district of Jhánsi from 1st March to 18th August 1896.

District. Week ending—	Wheat.	Gram.	*Arhar dal.*	Rice, common.	*Juár.*	Maize.	Barley.	*Bájrá.*
Jhánsi. 7th March 1896	14 9	17 15	14 0	10 11	16 15	..	..	..
14th ,,	11 9	18 6	15 0	10 10	16 15	..	..	..
21st ,,	11 10	18 11	15 0	10 8	16 15	..	..	..
28th ,,	11 9	17 6	14 13	10 9	16 11	..	..	..
4th April ,,	11 10	17 10	14 13	10 10	16 8	..	..	..
11th ,,	11 15	17 9	14 6	10 12	16 8	..	..	..
18th ,,	12 0	17 0	14 6	10 12	16 8	..	..	..
25th ,,	12 0	16 5	14 7	10 12	16 8	..	..	..
2nd May ,,	12 8	15 15	14 0	10 11	16 8	..	..	..
9th ,,	12 3	15 11	13 13	10 11	15 11	..	..	..
16th ,,	12 1	15 0	13 13	10 11	15 11	..	..	..
23rd ,,	11 15	14 8	13 11	10 9	15 1	..	..	..
Fortnight ending—								
16th June 1896 ..	11 14	14 10	12 0	11 0	14 12	14 8	15 8	14 0
30th ,, ..	12 0	14 14	12 4	11 0	15 1	15 1	15 8	14 9
15th July ,, ..	11 12	14 0	16 8	11 8	15 4	15 8	15 8	14 6
31st ,, ..	11 12	14 0	16 8	10 0	15 4	15 0	14 12	14 0
16th August ,, ..	11 12	13 12	12 12	10 0	15 0	15 8	14 12	..

(4) Prices ruling in the district of Jalaun from 1st March to 18th August 1896.

District.	Week ending—	Wheat.	Gram.	*Arhar dal.*	Rice, common.	*Juár.*	Maize.	Barley.	*Bájrá.*
		s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.
Jalaun.	7th March 1896	10 13	21 11	16 4	..	16 6	..	17 12	15 10
	14th ,, ,, ...	11 3	20 12	16 4	..	16 6	..	17 0	15 10
	21st ,, ,, ...	11 4	20 11	15 12	..	16 6	..	17 8	15 10
	28th ,, ,, ...	11 9	20 8	15 8	..	16 6	..	16 14	15 10
	4th April ,, ...	11 10	19 13	15 12	..	16 0	..	16 12	15 4
	11th ,, ,, ...	12 0	19 6	15 12	..	15 12	..	16 10	15 4
	18th ,, ,, ...	12 9	18 6	15 4	..	15 6	..	16 7	15 2
	25th ,, ,, ...	12 8	17 9	14 8	..	15 0	..	15 15	14 10
	2nd May ,, ...	12 9	16 13	14 4	..	15 0	..	15 12	14 10
	9th ,, ,, ...	12 4	15 14	13 9	..	14 8	..	14 2	15 0
	16th ,, ,, ...	11 8	15 4	14 0	..	14 5½	..	14 4	13 12
	23rd ,, ,, ...	11 3	14 11	12 12	..	13 13	..	14 3	13 7
	Fortnight ending—								
	15th June 1896	11 0	15 0	12 0	11 0	14 0	14 0	14 8	13 0
	30th ,, ,, ...	11 0	14 8	12 0	11 0	14 0	14 0	14 8	13 0
	15th July ,, ...	11 0	14 8	12 0	11 0	14 0	14 0	14 0	13 0
	31st ,, ,, ...	11 0	14 0	12 0	11 0	14 0	14 0	14 0	13 0
	15th August ,, ...	11 0	14 0	12 0	10 0	14 0	14 0	14 0	13 0

APPENDIX C.

Statement showing fortnightly the numbers on relief works and gratuitously relieved in Bundelkhand from the opening to the closing of the works.

District.	February 29th.	March 14th.	March 28th.	April 11th.	April 25th.	May 9th.	May 23rd.
1	2	3	4	5	6	7	8
Bánda	6,630	21,314	47,867	75,681	94,814	117,554	133,739
Hamírpur	2,389	20,459	31,559	39,009	44,090	41,371	47,960
Jhánsi	2,256	7,817	22,040	17,315	29,511	32,301	41,645
Jalaun	1,616	5,905	27,162	33,325	24,118	24,649	40,617
Total ..	12,891	55,495	128,628	165,330	192,533	215,875	263,961

District.	June 6th.	June 20th.	July 4th.	July 18th.	August 1st.	August 15th.	August 29th.
9	10	11	12	13	14	15	
Bánda	71,259	61,718	30,642	6,458	3,460	2,881	2,059
Hamírpur	34,440	8,108	3,238	3,767	3,619	3,611	2,622
Jhánsi	36,686	8,348	1,109	523	545	497	142
Jalaun	33,718	7,055	1,780	1,981	1,831	1,401	1,081
Total ..	176,103	85,229	36,769	12,729	9,455	8,390	5,904

APPENDIX D.

The imports and exports into and from the Bundelkhand districts are shown in the following table:—

District.	Months.	Imports.	Exports.	Net imports.
		mds.	mds.	mds.
Bánda ..	January	20,381	2,116	
	February	7,488	1,488	
	March	8,353	193	
	April	13,769	143	
	May	37,244	2,905	
	June	75,041	8,520	
	July	64,631	5,214	
	Total ..	226,907	20,579	206,328
Hamírpur ..	January	26,991	21	
	February	9,745	118	
	March	5,587	..	
	April	9,628	2	
	May	27,547	13	
	June	26,698	..	
	July	41,869	118	
	Total ..	148,065	272	147,793
Jhánsi ..	January	44,577	13,922	
	February	29,932	11,733	
	March	27,555	6,454	
	April	46,183	2,932	
	May	83,459	7,997	
	June	92,858	3,232	
	July	62,430	1,112	
	Total ..	386,994	47,382	339,612
Jalaun ..	January	5,283	600	
	February	4,518	1,218	
	March	7,458	1,220	
	April	13,267	2,457	
	May	11,654	5,831	
	June	10,011	1,404	
	July	10,035	2	
	Total ..	62,226	12,732	49,494
	Total for the four districts ..	824,192	80,965	743,227

Order—No. 675, Revenue, dated 27th November 1896.

Miscellaneous.

Communicated to the Board of Revenue and all Collectors for information.

2. Their special attention is invited to the remarks in paragraphs 7, 8, 9, 11, 14, 19, and the conclusions summarised in paragraph 28—specially clauses (i), (ii), (vii), (viii), (xiii), (xiv) and (xvii) thereof — of the Resolution of the Government of the North-Western Provinces.

(True Extract.)

Ag. Secretary to Government.

To the Board of Revenue (Revenue Settlement, Land Records and Agriculture).

,, all Collectors.
,, the Public Works Department.
,, the Surgeon-General with the Government of Madras.

Exd. C. M. Thumbuswamy.

100 Copies.

Public Works Department

Government {1896} of Madras.

REVENUE.

Recd.	1896.	*Enclosures*
Regd.		*Spare copies*

G.O., No. 675, 27th November 1896.

Order thereon No. 3518 Wa/7.12.96
Communicate to the
Superintending Engineers
for information.
(True extract)
HG D.C

NOVEMBER.

To

The Superintending Engineers

Season.

Communicating, with remarks, to the Board of Revenue Proceedings of the Government of the North-Western Provinces and Oudh on the scarcity in those provinces and the relief measures adopted to meet it.

GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

Read—the following letter from DENZIL IBBETSON, Esq., C.S.I., Officiating Secretary to the Government of India, Department of Revenue and Agriculture (Famine), to the Secretary to the Government of Madras, Revenue Department, dated Calcutta, the 9th November 1896, Cir. No. 16—5–38 :—

I am directed to forward, for the information of the Governor in Council, a copy of a Resolution, No. 3945-S/1—58, dated the 20th October 1896, recorded by the Government of the North-Western Provinces and Oudh on the scarcity and relief operations in the United Provinces during the spring and summer of 1896, together with a copy of the North-Western Provinces and Oudh Revised Famine Code.

Enclosure.

Read—the following Resolution from the Government, North-Western Provinces and Oudh, Revenue (Scarcity) Department, dated Naini Tal, the 20th October 1896, No. 3945-S.—1-58 of 1896.

[*Scarcity and Relief operations in the North-Western Provinces and Oudh during the Spring and Summer of* 1896.]

Resolution.—The Meteorological Reporter to Government of India gives the following account of the rainy season of 1895 in the North-Western Provinces and Oudh :—

"The rainy season began in June about the usual time. The air was more humid and the sky more clouded than usual during that month. The rainfall was abundant everywhere, and especially so in the central and western divisions of these provinces, where about double the usual amount was registered during the month. July was drier than usual almost everywhere throughout the North-Western Provinces and Oudh. The principal rainy periods were during the first and the last weeks of the month, the second and the third weeks being almost entirely rainless. The rainfall during August was about average in amount and well distributed over the reporting area. In September practically little or no rain fell over the southern, central and western districts of these provinces after the 10th or 11th. The eastern districts, however, received heavyish rainfall during the advance of a cyclonic storm on the 20th. Defects in the season's total appeared in all divisions except Fyzabad, which showed a 10 per cent excess, and Meerut, which had a 20 per cent. excess. . . . . The remaining three months of the year were almost entirely rainless, November on the plains being completely so."

2. The unsatisfactory character of the rainfall of 1895 resulted in varying degrees of pressure on the agricultural population of the provinces. Relief operations, however, only became necessary in the four districts of Bánda, Hamirpur, Jalaun and Jhánsi, known as British Bundelkhand (where the effects of the short rainfall in September, and the total absence of winter rains, were specially marked); and in parts of the Allahabad, Hardoi, Pilibhít, Garhwál, and Almora districts. But it was only in Bundelkhand that relief measures on an extensive scale were undertaken; the operations in the other districts named were both in extent and character of minor importance. The relief operations which were carried on in the Bundelkhand districts will therefore form the principal subject of this review, and the period dealt with runs from the beginning of February to the end of August, when the early *kharíf* crops ripen.

3. British Bundelkhand has suffered from agricultural depression for the past three years. The country is for the most part black cotton soil and, except in Jalaun and Hamirpur, which are to some extent traversed by branches of the Betwa Canal, is unprotected by irrigation.

The cultivated area commanded by this canal is nominally 310,000 acres, two-thirds being "black cotton" soil; but in the *kharíf* and *rabí* seasons under notice the areas irrigated from it were only 4,312 acres and 30,156 acres respectively. For reasons which the Lieutenant-Governor has discussed elsewhere the value of the Betwa Canal as a protection against the failure in the monsoon or the winter rains is not as great as had been expected; but the results* promised for the current season (owing doubtless to the fresh failure in the rains) far exceed those stated above; and give grounds for hoping that, with more experience of irrigation in black soil, we can make the canal a valuable protective work, if, indeed, it does not come up to the expectations of its designers.

* *Kharíf*, 20,000 acres. *Rabí* (first watering) 60,000.

In point both of fertility of its soil and of the industry and agricultural skill of its population, Bundelkhand compares unfavourably with the rest of the provinces. Since the autumn of 1893, the outturn of the *kharíf* crops there, as shown in Appendix A, has been uniformly poor, while that of the principal *rabí* crop (wheat mixed with either gram or barley) has been worse. The abnormal succession of bad seasons had also encouraged the growth in the culturable area of the coarse grass known as *kâns*. The result of this prolonged period of adversity was, according to the statistics supplied by the Director of Land Records and Agriculture, a decrease in 1895 of 192,672 acres, or 13·5 per cent., in the normal *kharíf* area, and this was followed by a still more serious decrease in 1896 of 292,362 acres, or 19 per cent., in the normal *rabí* area. The monsoon of 1895 ceased early in September, and the winter rains entirely failed. The stock of grain in the villages, reduced by double *rabí* sowings, became low, prices began to rise before the end of the year, and the impoverished land-owning classes were unable to assist their tenants. By the beginning of 1896, when the Lieutenant-Governor and Chief Commissioner visited Bundelkhand, it was manifest that the districts were about to pass through a period of distress.

4. The affected area was fortunately well served by railways (the result of a wise employment of the Famine Insurance Fund), and it was from the first apparent that private trade would be capable of supplying all the food required, and that no heavier burden would fall on Government than attaches to the provision of relief works and of those other measures of charitable or gratuitous assistance which are described in the Famine Code.

5. In the first week in February, when the failure in the *rabí* had been placed beyond doubt, test works were started in the form of improvements and repairs to roads in all the districts of Bundelkhand, a sum of Rs. 50,000 being placed at the Commissioner's disposal for expenditure on such works.

At the same time preparatory steps were taken to deal with distress when it should show itself. Relief circles were formed, and officers to take charge of them were nominated; the executive staff of the various districts was strengthened; sites were selected for poor houses; and the programme of relief works was revised and expanded. Preparations were made for dealing with sickness, should it occur, and a staff of hospital assistants was deputed to supervise sanitary arrangements on relief works and administer medical comforts in temporary hospitals. The administrative framework necessary for the management of large relief operations was thus in readiness at the beginning of the emergency, and all that was afterwards necessary was to fill it in as necessity required.

6. The number of applicants for employment on the test works opened soon became so considerable that, on the 28th February, Government ordered the conversion of these works into regular relief works under the Famine Code, and placed a further sum of Rs. 50,000 at the disposal of the Commissioner with effect from the 1st March. The Commissioner was at the same time instructed that in selecting famine relief works regard should be had to the feeder roads required by the Indian Midland Railway.

7. In view of the growing magnitude of the scarcity the Lieutenant-Governor again went to Bundelkhand and held a conference at Jhánsi on the 11th and 12th March to discuss questions connected with famine relief. It was laid down that the object of Government in its famine relief policy would be (subject of course to the dominating idea of preventing starvation), first, to secure that expenditure on famine relief should be of permanent benefit to the several districts and help towards their commercial development and agricultural security; second, so far as possible, to keep people employed near their homes and to prevent the disintegration of villages. Up to the date of the conference relief works of all kinds had been under the control of the District officers; but the increasing pressure rendered a continuance of this arrangement undesirable, and it was accordingly arranged that, with effect from the 1st April, all large works should be carried out by the Public Works Department in accordance with the rules laid down in chapter VI of the Famine Code; while minor works were to continue under the control of the District officers, who should work through the local landowners. At the same time the necessity for a further increase of the local staff was recognized, and twenty-four naib tahsildars were deputed to the affected area to be employed under

the Public Works officers as paymasters on large works. To the employment of responsible officers as paymasters the Lieutenant-Governor and Chief Commissioner attributes much of the economy in expenditure which resulted. The end of March may thus be taken as the period at which the relief operations assumed their settled character, large operations such as roads being in charge of the Public Works Department and minor works such as village tanks, reservoirs, &c., being carried out by local agency controlled by the District officers. Up to the 31st March the actual expenditure incurred was Rs. 1,43,400.

At the Jhánsi conference the provision made for other methods of relief, especially for the relief of respectable women who are debarred by national custom from appearing in public (article 124, Famine Code) was revised and expanded. In addition to the increased staff of hospital assistants already provided, an Assistant Surgeon was placed at the Commissioner's disposal for general inspection duty, and it was ordered that a hospital assistant should be deputed for each work on which more than 1,000 persons might be employed. The question of grazing for cattle was also considered; and when afterwards the necessity arose, free grazing was allowed in the Bánda and Jhánsi Government forests.

8. In Bundelkhand the population, which contains a considerable admixture of aborigines, depends a good deal for sustenance during the summer on the *mahua* crop and other edible forest products. But by April it became manifest that the *mahua* crop had failed, while the prices of the staple food-grains rose steadily, and the numbers on relief works increased. It had been estimated by the local officers in March that at the period of greatest pressure the numbers in receipt of relief would not exceed 140,000; but by the middle of April that number was exceeded and the numbers continued to rise, till in the third week of May they reached their maximum pitch of 263,961. Comparing districts, Bánda had by far the greatest number on relief works; but the Lieutenant-Governor, on a review of the whole facts, is disposed to think that the numbers in this district would not have been so large had the "gang" and "task" systems prescribed by articles 70 and 74 of the Famine Code been more rigorously enforced from the outset. However, the defect was soon corrected, and the unprecedentedly low rate of wages paid combined with the not-unsubstantial outturn of work done proves that the people were in real need of help.

9. On the 2nd of May the Lieutenant-Governor again conferred with the officers in charge of the relief measures on the progress and prospects of affairs. At this conference the whole conduct of the famine relief organization was subjected to minute scrutiny with the object of ascertaining whether the organization was good and sufficient; whether any further modifications were necessary with reference to future prospects; and whether the administration, while being efficient, was also economical. It was found that, excluding charges for establishment, tools and plant, the average daily wage for men, women and children per head on the Public Works Department relief works fell at about 9½ pies a day, and although, here and there, things might have been better done, still, on the whole, the business had been well managed. The wages paid were regulated carefully with reference to the rations prescribed by the Famine Code. Indeed, the tendency was towards over-scrupulosity in following the fluctuations of the grain market so that the relief workers might get the benefit of any variation. It is now the Lieutenant-Governor's opinion that this constant and minute adjustment of wages to ever changing prices caused unnecessary labour and complication and should be avoided in any future operations of the kind. His Honour thinks that ordinarily wages on relief works need not be altered when the change in prices is less than 10 per cent.; and that ordinarily no alteration should be made without the previous sanction of the Commissioner of the division when he controls the relief operations.

10. In addition to the relief afforded by public works, by the establishment of poor houses, and by the distribution of assistance to respectable but indigent people under chapter X of the Code, much help was also given by granting advances of money, under the Agriculturists' Loans Act, and by suspensions and remissions of revenue. The actual sum distributed by way of recoverable advances without interest was Rs. 1,85,118; and the actual amount of revenue suspended by the Commissioner was Rs. 2,16,000 on account of the *kharif* instalment of 1895 and Rs. 8,78,000 on account of the *rabi* instalment of 1896. No doubt it will be ultimately necessary to remit some part of these suspensions. In this way substantial assistance was afforded to the land-owning and cultivating classes, as the suspension or remission of a certain amount of revenue carries with it, under the North-Western Provinces Rent Act, the suspension or remission of double that amount in rent.

11. During May the numbers on relief works continued to increase until the last week of that month, when, notwithstanding the sanitary precautions taken, cholera, which had previously shown itself in a serious form only in the Lalitpur sub-division, broke out on the relief works with some virulence. Energetic steps were taken to break up large masses of labourers, to draft off relief workers from the works on which cholera had appeared to other works, and to disinfect all wells used by relief labourers with permanganate of potash (this latter measure did much good, and is recommended for future adoption in similar emergencies). The policy of expanding village works so as to relieve the pressure on the larger undertakings was also pressed.

12. At the beginning of June the Government laid down the policy to be adopted after the breaking of the rains with the object of inducing the people to return to their ordinary avocations as soon as possible. Village works being carried out by civil officers were to be contracted to a minimum on the breaking of the rains, and no further grants for such works were to be made, it being left to the Commissioner's discretion to continue the distribution of gratuitous relief in villages and at poor houses when absolutely necessary. With regard to road works, orders were issued that all operations under the control of the Public Works Department should be reduced to a skeleton at the break of the rains in the districts of Jhánsi and Jalaun, where the distress was judged to be less acute; and that in Bánda and Hamírpur the extent of the work should be greatly contracted. The works remaining were to consist in stone-breaking and quarrying, which were considered suitable for the rainy season as they could be done under cover. Task work was to be strictly exacted, and only persons capable of earning a living on task work were to remain on the public works, debilitated persons being provided for in poor houses. It was also laid down that, with a view to inducing people to revert to agricultural work, no wages should be paid to any person on relief works in excess of the minimum subsistence wage (or its money equivalent) prescribed by article 108, Famine Code.

13. The combined effect of these measures, reinforced by the certainty of ordinary agricultural employment when the rains would set in, and also to some extent no doubt by the fear of cholera, was seen in a great decrease of relief workers. The numbers, which in the third week of May had approximated to $2\frac{3}{4}$ lakhs, fell by the third week of June, when the rains had broken, to 52,619. As a consequence the estimate of expenditure far exceeded the actual sum spent.

By the middle of July all Public Works Department relief works had been closed, except in Bánda, where four quarry works were still open; and all village works had been closed, except in Jhánsi, where some were still unfinished. The relief administered after that time consisted almost entirely in that given at poor houses and in the gratuitous relief administered through the agency of *patwáris* to respectable persons debarred by national custom from appearing in public. At the end of August the total number in receipt of any form of relief in Bundelkhand had fallen to 5,904, and without doubt this number would have melted away by now had not the threatenings of even far greater difficulties than had beset us last year completely altered the situation.

14. Under article 63, Famine Code, relief works are divided into "large" and "small"; those works being regarded as "large" which provide simultaneous employment for three months for at least 1,000 persons. (This latter portion of the definition it was not found desirable on this occasion to adhere to rigorously.) From the 1st April all large relief works, which had till then been under the control of the District Officers, were transferred to the agency of the Public Works Department, and the District Officers were thus enabled to pay greater attention to those other very important methods of relief prescribed by Chapters VIII, IX and X of the Famine Code (poor houses, State kitchens, and relief at their homes to respectable people unused to working in the fields or debarred by national custom from appearing in public) which none but District Officers can successfully administer. The result of this change was an expansion of the employment of subordinate Public Works officers to set out and supervise the work; the employment of men of some standing as "officers in charge"; the keeping and rendition of accounts of large relief works by the Department of Public Works, and the devotion of greater attention to the division of the workers into gangs; and to the exaction of task work. It may be stated here that too much importance cannot be attached to the enforcement from the very outset of the "gang" and "task" systems declared to be imperative by articles 70 and 74 of the Famine Code. They lie at the very root of successful management of relief works. Works on which the systems are not enforced become demoralizing, wasteful and chaotic.

15. It was recognised that it must lie with the District Officer to select the works to be started (as he was most competent to decide where relief labour could be concentrated most advantageously); to adjust the scale of wages to the varying current prices of food grains; and to arrange for the provision, transport, and safeguard of the enormous sums of copper coins required for wages. But the actual execution of the works was left to be carried out by the Public Works officers.

The "large" relief works were of three classes: (1) roads, (2) large tanks, and (3) small roadside tanks. On these works the number of women and children employed far exceeded the number of men. It has been calculated that to every 100 men 306 women and children were in receipt of wages in addition to 171 dependants, nearly all infirm women and very young children, who could not work and had to be relieved gratuitously. There was thus one man to four or five women and children. The explanation of the disparity is that the people migrated in families from their homes, where they were foodless, to the relief works, where they were sure of a subsistence. One male member ordinarily remained behind to watch the cattle and the house: but the rest of the family went together to the relief works.

One result of this family migration was that in the case of road work, where the hard surface soil had to be dealt with, the amount of work done by the men who were employed in digging was insufficient to employ the women and children, who were made use of as "fillers." But it was found that digging tanks gave more equal employment to both classes, because the tank earth was more easily dug, being damp and soft, and the length to which the earth had to be carried was relatively much greater than in the case of roads.

It will be noticed that the number of "dependants" gratuitously relieved on the works under article 99 of the Famine Code considerably exceeded the 10 per cent. laid down by article 100 as the limit to be relieved in that way. The point did not escape the attention of Government during the progress of relief operations; but the Lieutenant-Governor decided that the balance of convenience and general advantage lay in the direction of keeping families together rather than in the direction of breaking them up, employing some on relief works and sending the others to a poor house. Sir Antony MacDonnell is not in favour of extending the working of poor houses beyond a strict interpretation of article 112 of the Famine Code.

Care was taken to use the labourers according to their castes and aptitudes, landowners being employed as "mates;" literate persons in helping to keep tallies; Bráhmans in distributing; and Kahárs in carrying water. But experience in this as in other scarcities has shown that high caste people do not shrink from seeking subsistence on relief works when starvation awaits them at home. Relief in their homes was, under article 124 of the Famine Code, afforded to respectable indigent women whom national custom debars from appearing in public.

16. The rate for earthwork averaged on roads managed by the Public Works Department very nearly Rs. 11 per 1,000 cubic feet. The chief cause of this high rate was that most of the work done was on roads in black cotton soil, and in the height of the hot weather. That soil when dry is extraordinarily hard, and under ordinary conditions the work would never have been done at that season of the year. Some increase in the rate was also due to the large number of carriers as compared with diggers, to which allusion has been already made.

In case of tanks, on the other hand, for reasons above indicated, the rate was only Rs. 5·40 per 1,000 cubic feet.

Of the total expenditure on works, accounted for in the Public Works Department, which is calculated to have amounted to Rs. 7,15,088, about two-fifths represent the value of the work done, if carried out at the most suitable time of the year with labour (*beldárs*) appropriate to the work, and also assuming that there is no loss of efficiency from sickness or other causes.

17. Statement C appended to this Resolution gives the numbers in receipt of relief of all kinds in the Bundelkhand districts on the last Saturday of each fortnight from February 29th to August 29th. It is noticeable that the period of greatest pressure on the relief works did not in all cases coincide with the period during which the prices of the staple food grains ordinarily consumed by the labouring classes of the people (gram *arhar*, rice, and *judr*) ruled the highest. Thus, while in every district the largest number of persons in receipt of relief was reached on the 23rd May, it was only in Hamírpur and Jhánsi that prices also were highest during the week ending on that date. In Bánda, the district where distress was most severe, and in Jalaun food grains were dearest during the weeks ending the 9th and the 30th June respectively. These variations are probably attributable to fluctuations in the market rather than to any more recondite cause.

18. At the time of recording this Resolution still higher prices rule than prevailed last May and June in Bundelkhand; yet pressure on the few relief works which have been kept open at subsistence wages as a precautionary measure is only beginning to make itself felt. The explanation doubtless is that the early *kharif* crops were not so bad as report makes out and that they have given the poorer classes of the people something to go on with. And this will continue, with more or less variation, possibly until December, when, if no rain falls in the interval, a severe strain may again commence.

19. The health of the relief workers was, on the whole, very good. They were usually, on first coming on the works, in an emaciated and reduced condition; but when afterwards the distressed tract was visited both by the Inspector-General of Civil Hospitals and the Sanitary Commissioner, these officers reported that there was no appearance of general starvation, let alone famine, among the men, women, and children on the works. Had there been, the relief operations would have failed of success. There were during the whole period only 26 deaths reported as due to starvation. But in spite of all the sanitary precautions that were taken, cholera prevailed from time to time in a sporadic form, and there were three serious outbreaks—one in the Lalitpur sub-division on the 4th April, one in the Karwi sub-division on the 18th May, and a third in Jhánsi on the 29th May. The seriousness of these outbreaks is thought by the Sanitary Commissioner to have been partly due to defective arrangements for the supply of water in connection with the large relief works. He recommends that a standard plan of water cart and water distributing appliances should be adopted for such cases. It has been reported

that the Sunday holiday prescribed by article 91 of the Famine Code is dangerous from the sanitary point of view, as the workers flocked into the towns on that day, camping near polluted tanks, &c., at the risk of acquiring or rapidly disseminating disease. This is probably correct; but the matter concerns, not only the non-Christian labourers, but the officers controlling the works, and the Lieutenant-Governor cannot compel the regular performance of official duties on Sunday. It seems clear, however, that the payment of the Sunday wage leads to abuses, as people flock to a relief work on Saturday who are in no need of relief, merely to get the Sunday wage; that the labourers earn during the week ample subsistence for the seventh day; and that no difficulty is felt in giving gratuitous relief, in kind if really required, to newcomers arriving on a relief work on Sunday.

20. On the 20th July a final Famine Conference was held by His Honour the Lieutenant-Governor at Allahabad, at which the results of the whole system of relief up to that date were considered. The figures then furnished have been since supplemented by a statement of famine expenditure incurred up to 31st August prepared in the Accountant-General's office, and this more precise statement has, where possible, been used in the following summary.

The expenditure on relief works falls under two heads according as it was accounted for by the District Officers or the Public Works Department.

Up to 1st April the District Officers accounted for all such expenditure, but after 1st April the Public Works Department accounted for the expenditure on the "large" relief works, which were under their direct control, while the District Officers accounted for the "small" relief works generally described as "village works."

The expenditure will then be shown separately—(*a*) that accounted for by the Public Works Department, and (*b*) that accounted for by the District Officers.

21. (*a*) The total amount expended by the Public Works Department was Rs. 7,15,088, of which sum—

Rs. 5,37,608 was paid in wages for labour done.
Rs. 43,758 was paid in gratuitous relief to the dependants of the relief workers.
Rs. 1,33,722 was paid in cost of tools, hutting, and temporary establishment.

The work done in return for this expenditure consisted of (1) 345½ miles of road remodelled and repaired (in which work is included the clearing out of small roadside tanks); (2) 47 large tanks excavated. The amount of earthwork done amounted to—

	C. FT.
(1) On roads and small roadside tanks	41,923,055
(2) On large tanks	13,984,102
The total earthwork thus was ...	55,907,157

This work cost in *wages only*—

	RS.		RS.
(1)	4,60,908	rate per 1,000 cubic feet	10·99
(2)	75,700	do. do.	5·41
Total ...	5,37,608	do. do.	9·62

The sum of Rs. 43,758 expended on gratuitous relief, and Rs. 1,33,722 on tools, hutting, &c., added to this amount spent in wages, make up the total expenditure of Rs. 7,15,088 expended by the Public Works Department.

The number of persons relieved, including dependants (reduced to relief for one day) on the Public Works Department works in Bundelkhand was 12,843,200, and the cost per head (including wages and gratuitous relief, but excluding tools, &c.,) was 8·7 pies per diem. It is believed that this is the lowest rate yet reached in effective famine relief administration in India by the Public Works Department.

22. (*b*) In paragraph 14 above the difference is stated between the relief which fell within the province of the Department of Public Works and within the province of District Officers to administer respectively. The total amount expended by District Officers on relief works (exclusive of expenditure on poor houses and on the miscellaneous forms of relief prescribed by Chapter X of the Famine Code) was Rs. 2,94,951.

The work done consisted of—

132½ miles of road remodelled.
559 village tanks } re-excavated.
225 do. wells }
59 reservoir embankments constructed.

The amount of earthwork done on the roads amounted to 11,877,466 cubic feet (measured), and that on of the village works was estimated to have been about 53,000,000 cubic feet.

The expenditure was—

	Rs.
On the roads	1,37,094
On village works	1,57,857
Total ...	2,94,951

This gives a rate of about Rs. 12 per 1,000 cubic feet on road work (done at the time of year before April, when such work could be done most cheaply), and a rate of about Rs. 3 per 1,000 cubic feet on village works (tanks, wells, &c.). It will be observed that while the District Officers' rates for road work are greater than the Department of Public Works rates (without the excuse for high rates, which, as stated in paragraph 16 above, the Public Works Department had), their rate for village works is extraordinarily less. The explanation lies in the system followed, and in the supervising agency employed. For road works the District Officer had, especially during the "test" stage, to rely on temporary establishments, aided no doubt to some extent by the District Engineer, and the "gang" and "task" systems referred to in paragraph 14 above do not appear to have been at the outset as strictly enforced as was desirable. But for village works the District Officers acted through the village zamindars. As the latter had not to repay the expenditure incurred and got the full benefit of the improvement in their villages, they acted honourably by the Government in making the Government expenditure go as far as possible. The important lessons to be learnt are (1) the advantage of employing the professional agency of the Public Works Department from the earliest period possible, in controlling all relief works other than those described in article 65 (*a*), Famine Code; (2) the advantage of working through the village proprietors or village headmen in controlling the works described in that article.

23. The total number of relief workers and dependants relieved on these "small" relief works, plus the number gratuitously relieved by District Officers, was 5,533,391 (reduced to units relieved for one day).

The total amount placed at the disposal of the District Officers is reported by the Accountant-General to have been 4½ lakhs in round numbers. The accounts have not yet been cleared; but in the returns submitted from the districts the amount actually disbursed is given as Rs. 3,58,777, and may be safely assumed to have fallen short of four lakhs.

24. The total number relieved for one day throughout the districts of Bundelkhand in the relief operations from 1st February to 31st August was thus approximately 18½ millions, and the total cost of relief of every kind in that region, and including tools and plant, hutting and similar items of expenditure, amounted to about 11 lakhs. This gives an average cost of 11¼ pies per diem per head of the people relieved.

25. It is stated in paragraph 3 above that the quantity of land cultivated with *kharif* and *rabi* during the period referred to fell short of the normal quantity by about 485,000 acres, or about 17 per cent. of the total. The crop yield in the area that was sown was also up to the end of June dificient as shown in the statistics supplied by the Director of Land Records and Agriculture (Appendix A to this Resolution). To make up for the deficiency of food, importation of food grain was active during the period of distress. The figures for the imports and exports by rail of food grains for the railway stations situated in the four districts of Bundelkhand during the six months from January to July inclusive are shown in Appendix D. The total net imports for the whole affected tract are shown as 743,227 maunds. There was doubtless also some importation by road, especially into the Hamirpur district from the north: but imports by road are not thought to have been large. Probably the total imports were about 7¾ lakhs of maunds. Thus the net quantity of grain imported allowed, but a small margin over the quantity actually required for the subsistence of the 18½ millions of people (reduced to units of one day) who came on relief: and its cost at the average price ruling during the scarcity of the commonest grain (gram) which constituted the chief article of import approximates to the cash expenditure on the relief operations. The argument, or perhaps, it should be said, the coincidence, need not be pushed too far: but the figures tend to show that, substantially, there was no unnecessary expenditure on relief, and that private trade correctly gauged the extent of the emergency and the necessities of the districts.

26. The Famine Code (article 53) provides for the association, with the Collector, of District or Local Boards "for the purpose of advising and assisting in all matters connected with the prevention or relief of famine." The Code does not enjoin the creation of unofficial charitable committees, though it does not say they shall not be created. The social conditions of Bundelkhand were not favourable to unofficial efforts in the cause of charity; and probably the District Boards contained the intelligence of the region. But in more advanced districts the Lieutenant-Governor is convinced that, should circumstances require the undertaking of relief operations on a large scale, the greatest benefit will accrue from the organization of private effort and private charity in supplement of the Government system of relief. In Bundelkhand most valuable assistance was given by private landlords and others in the control of the smaller relief works; and advantage should, in future cases, be taken of the landlords' willingness to help in this and other ways. They should, so far as possible, be associated with the officers of Government in the general scheme of relief.

27. It has been stated in paragraph 2 above that, besides the relief operations in the Bundelkhand districts, some measures of relief were also found to be necessary in the Allahabad district, the Hardoi district of Oudh, the Pilibhit district of Rohilkhand, and the Garhwál and Almora districts of Kumaun. In the part of the Allahabad district bordering on Bundelkhand, and resembling it in climate, soil, and population, the distress was for a time severe, but fortunately in none of the other districts did the reality come up to the local officers' early apprehensions. The relief measures adopted in these districts do not call for any lengthened comment. They were carried out by the District Officers without assistance from the Department of Public Works and comprised repairs to unmetalled district roads, poorhouses, and some gratuitous relief under Chapter X of the Famine Code. In all the districts except Hardoi the pressure practically ceased when the rains had regularly set in; but in Hardoi, during the latter portion of July, when there was a prolonged break in the rains, distress threatened to assume somewhat serious proportions. The total expenditure in these five districts up to 31st August, as shown in the returns received from the District Officers, amounted to Rs. 1,17,431. The number of persons relieved (reduced to relief for one day) was nearly one million.

Throughout the provinces, therefore, the total number of persons relieved up to 31st August (reduce to units of one day) was 19½ millions (the earlier estimates overstated the numbers), and the total expenditure incurred was Rs. 12,17,431. The number of deaths reported as due to starvation was, as already stated, altogether insignificant; but the mortuary statistics from the distressed districts showed a death rate much above the normal, from which the Lieutenant-Governor infers that, although the number of deaths from actual starvation was almost *nil*, the pressure of hard times claimed many victims, mostly among the old and the very young.

28. Before bringing the review to a close the Lieutenant-Governor and Chief Commissioner desires to record, for information and future guidance, the more useful lessons which actual experience in these relief operations has taught. On the whole, the rules and procedure prescribed by the Famine Code have been found to be effective and easy to work; but they naturally do not provide for all contingencies, while relief operations are fruitful in surprises, which call for decision and resource in the man on the spot. The following instructions therefore, which are the results of practical experience, will be useful to all officers engaged in future relief operations:—

(i) Test works fail to fulfil their object if full tasks are not exacted, and if wages are not regulated with reference to the provisions of Chapter VII of the Famine Code. Close supervision is therefore essential.

(ii) Where test works show the necessity of relief works, the management of the latter, not being of the kind specified in article 65 (*a*), Famine Code, should be entrusted from the outset to the Public Works Department.

(iii) Relief works of the kind specified in article 65 (*a*), Famine Code, (*i.e.*, "works specially intended for the relief of the agricultural population in the vicinity of their villages") are best carried out through the agency of the village landlords and headmen. The quantity of work to be done can usually be accurately calculated beforehand: and the cost fixed with reference to a fair task and the current price of food. Advances can then be made and the account cleared up on completion of the work.

(iv) Article 77 of the Famine Code provides that over each separate work managed by the Public Works Department shall be placed an "officer in charge." The number of labourers under an "officer in charge" should ordinarily not exceed 5,000; and if there are more than 3,000, there should also ordinarily be two sub-overseers or work agents. In every case each sub-overseer or work agent should have an intelligent assistant or "mate" to help him to lay out the work. For every five or six "charges" an inspecting officer of the standing of a Public Works upper subordinate is required.

(v) Officers of the naib tahsildar class or of similar standing on the regular establishment of Government should, whenever possible, be employed as "officers in charge." They should be placed at the disposal of the Public Works Department and employed where required, postings being made by the Superintending Engineer.

(vi) Reserves of tools and baskets should be established at convenient centres, whence they can quickly be sent where wanted; and as baskets wear out quickly and take time to procure, arrangements should be made in advance for their supply.

(vii) On relief works the "gang system" should be rigidly enforced from the very outset and gang registers kept up. A gang register is a card or piece of stout paper containing the names and classification of all persons in the gang. Any gang can thus at any time be checked independently of other gangs, and by 'sampling' a few gangs, the whole work may be effectively checked. These great advantages do not attach to the alternative "ticket system," under which vouchers are delivered to individuals in the morning, to be exchanged for money in the evening. Under the "ticket system" it is obligatory to count and classify at a particular time in the afternoon the whole of the persons present on a work, in order to obtain a satisfactory check; and this has been found to be, not only extremely laborious, but usually impracticable.

(viii) Wells likely to be used for drinking water by labourers on relief works should be examined and, if found pure, should be guarded from contamination for a week before required and the water-supply arrangements perfected before the labourers arrive. Foul wells should be absolutely closed. Should cholera break out, the wells should be disinfected at intervals of two or three days with permanganate of potash until the labourers are split up and drafted off to other works.

(ix) From the labourers Bráhmans should be selected to draw water from the wells for Hindus, and Kahárs to distribute it. The vessels employed in drawing and distributing the water should be ordinarily of metal and scrupulously clean. Kerosine tins have been found to be most useful and acceptable.

(x) A superior Medical officer should inspect periodically (1) the relief labourers on relief works not of the article 65 (*a*) class, (2) the sanitary and medical arrangements in connection with such works, and (3) poorhouses and hospitals.

(xi) The Famine Code (section 85) provides for the erection of latrines. These should usually be on the trench system and provided with grass screens.

A line of flags and posts should be placed all round each relief work and 300 yards from the same, and great care should be taken that no nuisances are committed within the area enclosed by such flags and posts.

(xii) Medical officers in charge of hospitals on relief works should very carefully watch for the occurrence of any cases of relapsing or famine fever, and immediately isolate any such cases.

Provision for the immediate isolation of cases of cholera, small-pox, or other epidemic disease should be made at each work. Grass huts, which can be subsequently burnt, will usually be the best form of isolation hospital.

(xiii) Article 87 of the Code provides for daily, bi-weekly, or tri-weekly payments (with certain exceptions). Wages should ordinarily be paid twice a week. Bi-weekly payments save the labourers a daily wait until a late hour on the works. They also reduce the difficulty of providing a sufficient supply of copper coin, as small silver coin can then be used also. But bi-weekly payments can only be introduced if "gang registers" are maintained in perfect order. (The difficulty, which is sometimes serious, of providing large quantities of copper coin can be reduced by arranging with the gram sellers on the works to exchange copper for silver daily.)

(xiv) No change in wages should be made if prices vary by less than 10 per cent., and ordinarily no change should be made unless with the previous sanction of the Commissioner of the division (or Famine Commissioner if one is appointed).

(xv) When a variation in prices of foodgrain necessitates an alteration in wages, notice of the new rate of wages should be sent to the District Engineer and not to the "officers in charge."

(xvi) No incomplete work should be closed by the controlling authorities, except on account of sickness, unless seven days' notice be previously given to the Divisional (Executive) Engineer to break up the staff and close the work.

(xvii) If article 91 of the Famine Code be retained unaltered (see paragraph 19 above), the Sunday should be reckoned, for account and statistical purposes, as the last day of the week, in order that the payments for the holiday, which are made on Saturday, shall fall in the week covered by the numerical returns. This slight change, which will greatly facilitate check on expenditure, necessitates placing Sunday at the end, and not at the beginning, of the week in the Progress Return (Form III of the Appendix to the Famine Code).

29. In conclusion, it is the Lieutenant-Governor and Chief Commissioner's pleasing duty to notice the services rendered by the principal officers employed in conducting the relief measures which have proved so successful. The chief burden of directing the relief operations fell upon the Commissioner of the Allahabad Division, Mr. G. R. C. Williams, and the Superintending Engineer, 3rd Circle, Mr. C. G. Palmer. Mr. Williams successfully maintained control over all the relief measures without neglecting any of the ordinary duties of a very important division; while Mr. Palmer's management of the Public Works operations was both effective and resourceful. To both of these officers the special thanks of Government are due.

On the Collectors of the various districts the brunt of the executive work fell as an addition to their ordinary duties: and it was carried on in very trying circumstances with a self-sacrifice and devotion to duty which the Lieutenant-Governor cannot praise too highly. The heaviest responsibility fell on Mr. Ferard, Officiating Collector of Bánda, and next on Mr. Warburton, Officiating Collector of Hamirpur, and Mr. Calnan, Officiating Collector of Jalaun. To these officers the Lieutenant-Governor and Chief Commissioner gives his best thanks. In Jhánsi the distress was less than elsewhere in Bundelkhand, but still a considerable strain fell on the Collector, Mr. Steel. Mr. Bird, Collector of Allahabad, administered relief in his district in an efficient manner, chiefly through local agencies, and Mr. Partridge, Officiating Collector of Pilibhít, also merits favourable mention. Mr. Hoare, Sub-divisional Officer of Lalitpur, and Pandit Jwala Parshad, Sub-divisional Officer of Karwi, managed difficult charges well. All these officers in their several degrees deserve the thanks of Government.

In the Public Works Department the good services of Mr. Battie, Executive Engineer, Second Allahabad Division, have been brought to prominent notice; and Mr. Thompson, District Surveyor, Bánda, and Bábu Kula Nand, District Surveyor, Jalaun, have rendered good service, which the Lieutenant-Governor and Chief Commissioner desires to acknowledge.

His Honour notices with much satisfaction that several officers among the Tahsildars and Naib Tahsildars, and among the upper and lower subordinates of the Department of Public Works, have shown marked zeal, probity, and ability in carrying out the work entrusted to them. On fit opportunity the services of these officers will be suitably rewarded.

It was not to be expected that, subject as the executive staff was to great exposure and privation during a Bundelkhand summer, there should be no casualties, but the casualties were comparatively few. In the Civil Department the Naib Tahsildars Maulvi Muhmmad Ali and Bábu Joti Parshad, in the Department of Public Works Mr. J. C. Rose, Sub-Overseer, and in the Police Department Sub-Inspector Niaz Husain died on the works. They were reported as zealous and efficient officers; and the Government regrets their loss.

Finally, the Lieutenant-Governor and Chief Commissioner desires to acknowledge the very great assistance he has throughout these operations received from the Hon'ble Mr. Odling, Chief Engineer and Secretary to Government in the Department of Public Works.

Order—Ordered that copies of this Resolution be forwarded to—

(1) The Secretary to the Board of Revenue, North-Western Provinces and Oudh, for the information of the Board.
(2) All Commissioners of Divisions and all District Officers, North-Western Provinces and Oudh, for information and guidance.
(3) The Inspector-General of Civil Hospitals, North-Western Provinces and Oudh, for information and communication to Civil Surgeons.
(4) The Sanitary Commissioner, North-Western Provinces and Oudh, for information.
(5) The Inspector-General of Police, North-Western Provinces and Oudh, for information.

Ordered also that copies be furnished to the Secretary to this Government in the Public Works Department, Buildings and Roads Branch, for information and circulation to officers of the Department for information and guidance.

Ordered also that the resolution be published in the *North-Western Provinces and Oudh, Government Gazette.*

(Signed) H. F. EVANS,
Chief Secy. to Govt., N.-W. P. and Oudh.

APPENDIX A.

Kharíf and Rabí Jinswárs of the four Bundelkhand Districts { An average crop = 16 annas. / A bumper crop = 20 annas.

Crops.	Bánda. Acreage. 1893-94.	1894-95.	1895-96.	Bánda. Outturn in annas. 1893-94.	1894-95.	1895-96.	Hamirpur. Acreage. 1893-94.	1894-95.	1895-96.	Hamirpur. Outturn in annas. 1893-94.	1894-95.	1895-96.	Jhánsi. Acreage. 1893-94.	1894-95.	1895-96.	Jhánsi. Outturn in annas. 1893-94.	1894-95.	1895-96.	Jalaun. Acreage. 1893-94.	1894-95.	1895-96.	Jalaun. Outturn in annas. 1893-94.	1894-95.	1895-96.	Bundelkhand. Total acreage. 1893-94.	1894-95.	1895-96.	Bundelkhand. Outturn in annas. 1893-94.	1894-95.	1895-96.
Kharíf.																														
Rice	70,643	74,865	81,474	13 7 11			49,22	4,766	5,697	15 15 14			25,545	26,551	25,548	11 16 9			1,629	1,210	1,966	15 15 15			102,739	107,392	114,685	13 13 12		
Indian corn ..	198	198	189	11 5 14			10	10	5	15 14 13			7,953	8,117	8,182	13 14 15			16	22	36	14 15 16			8,177	8,347	8,412	13 12 14		
Cotton and *arhar* (*a*).	104,329	96,579	86,697	10 5 17			80,790	94,367	76,616	14 10 16			25,160	33,345	26,323	14 12 13			50,861	64,162	50,886	14 8 17			261,140	288,453	240,522	13 9 16		
Juár and *arhar* (*b*).	193,803	156,530	133,220	11 6 13			154,822	151,016	122,045	14 10 13			53,919	66,351	45,648	13 12 11			73,009	100,510	60,356	13 8 11			475,553	474,407	361,269	13 9 12		
Bájrá and *arhar* (*c*).	41,618	29,425	30,065	11 4 12			23,814	19,557	19,755	15 8 14			2,296	3,160	1,626	14 11 9			50,677	42,892	42,862	12 7 9			118,405	95,034	94,308	13 7 11		
Urd and *múng* ..	1,089	828	934	9 5 10			3,298	2,664	5,103	11 11 11			16,732	15,824	15,305	12 13 9			82	187	193	15 11 7			21,201	19,503	21,535	12 10 9		
Til	47,438	26,631	25,173	13 5 10			47,107	37,548	31,979	16 12 14			66,958	77,585	6,244	.. 14 8			4,901	5,834	4,439	14 11 12			166,404	147,598	124,235	14 10 11		
Moth (*d*)	1,579	1,004	853	.. .. ..			171	123	85	.. .. ..			255	241	236	.. .. ..			79	56	31	.. .. ..			2,084	1,424	1,205	.. .. ..		
Kodon	20,730	27,427	28,576	11 8 13			24,858	32,105	35,955	16 13 12			63,820	68,950	67,892	15			..	2,123	2,927	16 13 11			109,408	130,605	135,350	14 11 12		
Garden crops (food).	703	703	863	.. .. ..			1,692	1,652	1,833	.. .. ..			1,535	1,239	1,265	.. .. ..			1,004	1,022	979	.. .. ..			4,934	4,616	4,940	.. .. ..		
Total ..	482,130	414,190	388,044	.. .. ..			341,484	343,808	299,073	.. .. ..			264,173	301,363	254,669	.. .. ..			182,258	218,018	164,675	.. .. ..			1,270,045	1,277,379	1,106,461	.. .. ..		
Rabí.																														
Sugarcane ..	23	27		.. 14 16			2,503	2,026		16 12 14			931	926		16 16 12			663	430		14 15 12			4,120	3,409	..	15 14 ..		
Arhar, pure ..	376	893		13 12 12			184	114		16 16 10			462	470		16 16 8			25	21		15 16 8			1,047	1,498	..	15 15 ..		
Wheat and gram (*e*).	211,201	192,863	Not yet available.	8 9 4			214,010	165,948	Not yet available.	10 6 7			104,361	53,548	Not yet available.	7 10 5			213,152	112,219	Not yet available.	7 10 4			742,724	524,578	..	8 9 ..		
Wheat and barley (*f*).	4,227	6,293					1,786	6,297					16,463	16,932					5,314	9,090					27,790	38,612	..			
Barley and gram..	71,175	112,271		14 13 7			24,551	51,920		15 14 8			3,254	4,776		16 16 7			34,822	86,974		16 16 5			133,802	255,941	..	15 15 ..		
Gram, pure ..	165,427	205,407		13 12 8			67,039	93,742		15 15 7			59,641	99,178		16 16 7			46,655	61,700		13 15 7			338,762	460,027	..	14 14 ..		
Alsi	30,687	28,261		10 1 2			44,695	64,263		15 .. 3			18,955	28,353		15 3 3			68,764	97,970		13 2 2			163,101	213,847	..	13 2 ..		
Zira	Details not available.			.. .. ..			Details not available.			.. .. ..			Details not available.			.. .. ..			Details not available.			14 15 ..			Details not available.			14 15 ..		
Dhania				.. .. ..						.. .. ..						.. .. ..						16 15 ..						16 15 ..		
Vegetable (*sáid*) ..	57	123		.. .. ..			26	27		.. .. ..			355	377		.. .. ..			38	49		16 15 ..			476	576	..	16 15 ..		
Total ..	483,173	546,138	..	.. .. ..			354,794	384,337	..	.. .. ..			204,422	204,560	..	.. .. ..			369,433	363,453	..	.. .. ..			1,411,822	1,498,488	..	.. .. ..		

(*a*) Outturn for cotton only.
(*b*) ,, ,, juár ,,
(*c*) ,, ,, bájrá ,,
(*d*) Outturn included in *urd* and *múng*.
(*e*) ,, for wheat only.
(*f*) ,, ,, barley ,,

APPENDIX B.

(1) Prices ruling in the Bánda District from 1st March to 18th August 1896.

District.	Week ending—	Bánda. Wheat.	Gram.	*Arhar dal.*	Rice, common.	*Juár.*	Maize.	Barley.	*Bájrá.*
		sérs.	sérs.	sérs.	sérs.	sérs.			
Bánda.	7th March 1896	10·97	19·81	14·31	12·94	10·06	..	..	..
	14th ,,	11·46	20·19	15·38	12·69	15·69	..	..	..
	21st ,,	11·78	19·13	15·38	12·63	15·06	..	..	..
	28th ,,	12·03	18·41	15·13	12·63	14·69	..	..	..
	4th April 1896	11·84	17·97	15·00	12·38	14·57	..	..	..
	11th ,,	11·91	16·06	14·31	12·19	14·33	..	..	..
	18th ,,	12·26	18·25	14·44	12·19	14·50	..	..	..
	25th ,,	12·31	17·91	14·19	11·94	14·42	..	..	..
	2nd May 1896	12·22	17·28	13·93	11·60	14·42	..	..	..
	9th ,,	12·09	16·31	13·47	11·31	13·83	..	..	..
	16th ,,	11·78	15·16	12·66	11·16	13·33	..	..	..
	23rd ,,	11·75	14·69	12·28	10·78	13·17	..	..	..
	2nd June 1896	11·31	14·94	11·96	10·66	12·92	..	..	..
	9th ,,	11·06	14·47	11·75	10·53	13·76	..	..	..
	16th ,,	11·25	14·94	12·21	10·71	13·58	..	..	..
	23rd ,,	11·	14·75	12·03	10·56	13·58	..	..	..
	30th ,,	10·78	14·72	11·97	10·75	13·75	..	..	..
	7th July 1896	10·69	14·88	12·06	10·22	12·42	..	..	..
	14th ,,	10·79	14·84	11·91	10·34	12·	..	..	..
	21st ,,	10·78	14·84	12·00	10·06	11·83	..	..	..
	28th ,,	10·78	14·88	12·28	10·19	12·32	..	..	..
	4th August 1896	10·76	15·	11·81	9·94	12·25	..	..	..
	11th ,,	10·78	14·88	11·78	10·19	12·54	..	..	..
	18th ,,	10·69	14·66	11·72	9·94	12·88	..	..	..

(2) Prices ruling in the District of Hamírpur from 1st March to 18th August 1896.

District.	Week ending—	Wheat.	Gram.	*Arhar dal.*	Rice, common.	*Juár.*	Maize.	Barley.	*Bájrá.*
		s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.
Hamírpur.	7th March 1896	10 12	18 9	14 14	11 8	14 9	16 3	16 1	13 13
	14th ,,	11 4	18 13	16 8	11 4	15 2	18 6	15 3	15 0
	21st ,,	11 3	18 9	14 11	11 5	14 13	18 6	15 5	15 2
	28th ,,	11 4	18 8	14 6	11 3	12 2	18 6	15 9	13 14
	4th April 1896	11 3	17 14	13 14	11 0	14 8	19 8	15 6	.. ..
	11th ,,	11 3	17 4	13 10	10 12	14 10	19 8	15 2	13 0
	18th ,,	12 1	17 3	14 0	11 8	14 8	20 10	15 2	.. ..
	25th ,,	12 4	16 7	13 14	10 11	14 10	19 13	14 13	.. ..
	2nd May 1896	12 2	16 0	13 14	10 8	14 6	17 0	14 10	.. ..
	9th ,,	11 15	14 18	12 14	10 6	14 3	16 12	14 5	.. ..
	16th ,,	11 14	14 6	12 3	9 14	13 15	15 8	14 6	.. ..
	23rd ,,	11 8	13 10	11 13	9 8	14 0	14 10	13 1	.. ..
	Fortnight ending—								
	15th June 1896	11 6	14 2	12 3	9 11	13 1	15 0	13 1	13 1
	30th ,,	11 1	13 13	13 0	9 5	12 15	14 13	13 2	.. ..
	15th July 1896	11 2	13 2	11 2	9 12	13 0	13 13	12 13	11 8
	31st ,,	11 8	15 0	12 8	10 0	13 3	15 0	12 10	11 8
	15th August 1896	10 11	14 13	12 8	9 8	13 3	15 0	12 10	11 8

(3) Prices ruling in the district of Jhánsi from 1st March to 18th August 1896.

District.	Week ending—	Wheat.	Gram.	*Arhar dal.*	Rice, common.	*Juár.*	Maize.	Barley.	*Bájrá.*
		s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.
Jhánsi.	7th March 1896	11 9	17 15	14 0	10 11	16 15	.. ..	.. ..	.. ..
	14th ,,	11 9	18 6	15 0	10 10	16 15	.. ..	.. ..	.. ..
	21st ,,	11 10	18 11	16 0	10 8	16 15	.. ..	.. ..	.. ..
	28th ,,	11 9	17 6	14 13	10 9	16 11	.. ..	.. ..	.. ..
	4th April ,,	11 10	17 10	14 13	10 10	16 8	.. ..	.. ..	.. ..
	11th ,,	11 15	17 9	14 6	10 12	16 8	.. ..	.. ..	.. ..
	18th ,,	12 0	17 0	14 6	10 12	16 8	.. ..	.. ..	.. ..
	25th ,,	12 0	16 5	14 7	10 12	16 8	.. ..	.. ..	.. ..
	2nd May ,,	12 3	15 15	14 0	10 11	16 8	.. ..	.. ..	.. ..
	9th ,,	12 3	15 11	13 13	10 11	16 6	.. ..	.. ..	.. ..
	16th ,,	12 1	15 0	13 13	10 11	15 11	.. ..	.. ..	.. ..
	23rd ,,	11 15	14 8	13 11	10 9	15 1	.. ..	.. ..	.. ..
	Fortnight ending—								
	16th June 1896 ..	11 14	14 10	12 0	11 0	14 12	14 8	14 0	
	30th ,, ..	12 0	14 14	12 4	11 0	15 1	15 1	14 0	
	15th July ,, ..	11 12	14 0	11 8	11 0	15 4	15 8	14 0	
	31st ,, ..	11 12	14 0	11 8	10 0	15 4	15 0	14 12	
	15th August ,, ..	11 12	13 12	12 12	10 0	15 0	15 8	14 12	

(4) Prices ruling in the district of Jalaun from 1st March to 18th August 1896.

District.	Week ending—	Wheat.	Gram.	*Arhar dal.*	Rice, common.	*Juár.*	Maize.	Barley.	*Bájrá.*
		s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.
Jalaun.	7th March 1896	10 13	21 11	16 4	..	16 6	..	17 12	15 10
	14th ,, ,, ...	11 3	20 12	16 4	..	16 6	..	17 0	15 10
	21st ,, ,, ...	11 4	20 11	15 12	..	16 6	..	17 8	15 10
	28th ,, ,, ...	11 9	20 8	15 8	..	16 6	..	16 14	15 10
	4th April ,, ...	11 10	19 13	15 12	..	16 0	..	16 12	15 4
	11th ,, ,, ...	12 0	19 6	15 12	..	15 12	..	16 10	15 4
	18th ,, ,, ...	12 9	18 6	15 4	..	15 6	..	16 7	15 2
	25th ,, ,, ...	12 8	17 9	14 8	..	15 0	..	15 15	14 10
	2nd May ,, ...	12 9	16 13	14 4	..	15 0	..	15 12	14 10
	9th ,, ,, ...	12 4	15 14	13 9	..	14 8	..	14 2	15 0
	16th ,, ,, ...	11 8	15 4	14 0	..	14 5½	..	14 4	13 12
	23rd ,, ,, ...	11 3	14 11	12 12	..	13 13	..	14 3	13 7
	Fortnight ending—								
	15th June 1896	11 0	15 0	12 0	11 0	14 0	14 0	14 8	13 0
	30th ,, ,, ...	11 0	14 8	12 0	11 0	14 0	14 0	14 8	13 0
	15th July ,, ...	11 0	14 8	12 0	11 0	14 0	14 0	14 0	13 0
	31st ,, ,, ...	11 0	14 0	12 0	11 0	14 0	14 0	14 0	13 0
	15th August ,, ...	11 0	14 0	12 0	10 0	14 0	14 0	14 0	13 0

APPENDIX C.

Statement showing fortnightly the numbers on relief works and gratuitously relieved in Bundelkhand from the opening to the closing of the works.

District.	February 20th.	March 14th.	March 28th.	April 11th.	April 25th.	May 9th.	May 23rd.
1	2	3	4	5	6	7	8
Bánda	6,630	21,314	47,867	75,681	94,814	117,554	133,739
Hamírpur	2,389	20,459	31,559	39,009	44,090	41,371	47,960
Jhánsi	2,256	7,817	22,040	17,315	29,511	32,301	41,645
Jalaun	1,616	5,905	27,162	33,325	24,118	24,649	40,617
Total ..	12,891	55,495	128,628	165,330	192,533	215,875	263,961

District.	June 6th.	June 20th.	July 4th.	July 18th.	August 1st.	August 15th.	August 29th.
9	10	11	12	13	14	15	
Bánda	71,259	61,718	30,642	6,458	3,460	2,881	2,059
Hamírpur	34,440	8,108	3,238	3,767	3,619	3,611	2,622
Jhánsi	36,686	8,348	1,109	523	545	497	142
Jalaun	33,718	7,055	1,780	1,981	1,831	1,401	1,081
Total ..	176,103	85,229	36,769	12,729	9,455	8,390	5,904

APPENDIX D.

The imports and exports into and from the Bundelkhand districts are shown in the following table:—

District.	Months.	Imports.	Exports.	Net imports.
		MDS.	MDS.	MDS.
Bánda ..	January	20,381	2,116	
	February	7,488	1,488	
	March	8,353	193	
	April	13,769	143	
	May	37,244	2,905	
	June	75,041	8,520	
	July	64,631	5,214	
	Total ..	226,907	20,579	206,328
Hamírpur ..	January	26,991	21	
	February	9,745	118	
	March	5,587	..	
	April	9,628	2	
	May	27,547	13	
	June	26,698	..	
	July	41,869	118	
	Total ..	148,065	272	147,793
Jhánsi ..	January	44,577	13,922	
	February	29,932	11,733	
	March	27,555	6,454	
	April	46,183	2,932	
	May	83,459	7,997	
	June	92,858	3,232	
	July	62,430	1,112	
	Total ..	386,994	47,382	339,612
Jalaun ..	January	5,283	600	
	February	4,518	1,218	
	March	7,458	1,220	
	April	13,267	2,457	
	May	11,654	5,831	
	June	10,011	1,404	
	July	10,035	2	
	Total ..	62,226	12,732	49,494
	Total for the four districts ..	824,192	80,965	743,227

Order—No. 675, Revenue, dated 27th November 1896.

Miscellaneous.

Communicated to the Board of Revenue and all Collectors for information.

2. Their special attention is invited to the remarks in paragraphs 7, 8, 9, 11, 14, 19, and the conclusions summarised in paragraph 28—specially clauses (i), (ii), (vii), (viii), (xiii), (xiv) and (xvii) thereof — of the Resolution of the Government of the North-Western Provinces.

(True Extract.)

(Signed) G. STOKES,
Ag. Secretary to Government.

To the Board of Revenue (Revenue Settlement, Land Records and Agriculture).
,, all Collectors.
,, the Public Works Department.
,, the Surgeon-General with the Government of Madras.

Exd. C. M. Thumbuswamy.
100 Copies.

Public Works Department

Government {1896} of Madras.

REVENUE.

Recd. } 1896. Enclosures
Regd. } Spare copies

G.O., No. 675, 27th November 1896.

Order thereon No. 3511 W 4/7.12.96
to Communicated to the
Superintending Engineers
for information.

NOVEMBER.

(True extract)
Sd/- C D
M

To
The Superintending Engineers.

Season.

Communicating, with remarks, to the Board of Revenue Proceedings of the Government of the North-Western Provinces and Oudh on the scarcity in those provinces and the relief measures adopted to meet it.

GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

Read—the following letter from DENZIL IBBETSON, Esq., C.S.I., Officiating Secretary to the Government of India, Department of Revenue and Agriculture (Famine), to the Secretary to the Government of Madras, Revenue Department, dated Calcutta, the 9th November 1896, Cir. No. 16—5–38 :—

I am directed to forward, for the information of the Governor in Council, a copy of a Resolution, No. 3945-S/1—58, dated the 20th October 1896, recorded by the Government of the North-Western Provinces and Oudh on the scarcity and relief operations in the United Provinces during the spring and summer of 1896, together with a copy of the North-Western Provinces and Oudh Revised Famine Code.

Enclosure.

Read—the following Resolution from the Government, North-Western Provinces and Oudh, Revenue (Scarcity) Department, dated Naini Tal, the 20th October 1896, No. 3945-S.—1-58 of 1896.

[*Scarcity and Relief operations in the North-Western Provinces and Oudh during the Spring and Summer of* 1896.]

Resolution.—The Meteorological Reporter to Government of India gives the following account of the rainy season of 1895 in the North-Western Provinces and Oudh :—

"The rainy season began in June about the usual time. The air was more humid and the sky more clouded than usual during that month. The rainfall was abundant everywhere, and especially so in the central and western divisions of these provinces, where about double the usual amount was registered during the month. July was drier than usual almost everywhere throughout the North-Western Provinces and Oudh. The principal rainy periods were during the first and the last weeks of the month, the second and the third weeks being almost entirely rainless. The rainfall during August was about average in amount and well distributed over the reporting area. In September practically little or no rain fell over the southern, central and western districts of these provinces after the 10th or 11th. The eastern districts, however, received heavyish rainfall during the advance of a cyclonic storm on the 20th. Defects in the season's total appeared in all divisions except Fyzabad, which showed a 10 per cent excess, and Meerut, which had a 20 per cent. excess. . . . . The remaining three months of the year were almost entirely rainless, November on the plains being completely so."

2. The unsatisfactory character of the rainfall of 1895 resulted in varying degrees of pressure on the agricultural population of the provinces. Relief operations, however, only became necessary in the four districts of Bánda, Hamirpur, Jalaun and Jhánsi, known as British Bundelkhand (where the effects of the short rainfall in September, and the total absence of winter rains, were specially marked); and in parts of the Allahabad, Hardoi, Pilibhít, Garhwál, and Almora districts. But it was only in Bundelkhand that relief measures on an extensive scale were undertaken; the operations in the other districts named were both in extent and character of minor importance. The relief operations which were carried on in the Bundelkhand districts will therefore form the principal subject of this review, and the period dealt with runs from the beginning of February to the end of August, when the early *kharíf* crops ripen.

3. British Bundelkhand has suffered from agricultural depression for the past three years. The country is for the most part black cotton soil and, except in Jalaun and Hamirpur, which are to some extent traversed by branches of the Betwa Canal, is unprotected by irrigation.

The cultivated area commanded by this canal is nominally 310,000 acres, two-thirds being "black cotton" soil; but in the *kharíf* and *rabí* seasons under notice the areas irrigated from it were only 4,312 acres and 30,156 acres respectively. For reasons which the Lieutenant-Governor has discussed elsewhere the value of the Betwa Canal as a protection against the failure in the monsoon or the winter rains is not as great as had been expected; but the results* promised for the current season (owing doubtless to the fresh failure in the rains) far exceed those stated above; and give grounds for hoping that, with more experience of irrigation in black soil, we can make the canal a valuable protective work, if, indeed, it does not come up to the expectations of its designers.

* *Kharíf*, 20,000 acres. *Rabí* (first watering) 60,000.

In point both of fertility of its soil and of the industry and agricultural skill of its population, Bundelkhand compares unfavourably with the rest of the provinces. Since the autumn of 1893, the outturn of the *kharíf* crops there, as shown in Appendix A, has been uniformly poor, while that of the principal *rabí* crop (wheat mixed with either gram or barley) has been worse. The abnormal succession of bad seasons had also encouraged the growth in the culturable area of the coarse grass known as *káns*. The result of this prolonged period of adversity was, according to the statistics supplied by the Director of Land Records and Agriculture, a decrease in 1895 of 192,672 acres, or 13·5 per cent., in the normal *kharíf* area, and this was followed by a still more serious decrease in 1896 of 292,362 acres, or 19 per cent., in the normal *rabí* area. The monsoon of 1895 ceased early in September, and the winter rains entirely failed. The stock of grain in the villages, reduced by double *rabí* sowings, became low, prices began to rise before the end of the year, and the impoverished land-owning classes were unable to assist their tenants. By the beginning of 1896, when the Lieutenant-Governor and Chief Commissioner visited Bundelkhand, it was manifest that the districts were about to pass through a period of distress.

4. The affected area was fortunately well served by railways (the result of a wise employment of the Famine Insurance Fund), and it was from the first apparent that private trade would be capable of supplying all the food required, and that no heavier burden would fall on Government than attaches to the provision of relief works and of those other measures of charitable or gratuitous assistance which are described in the Famine Code.

5. In the first week in February, when the failure in the *rabí* had been placed beyond doubt, test works were started in the form of improvements and repairs to roads in all the districts of Bundelkhand, a sum of Rs. 50,000 being placed at the Commissioner's disposal for expenditure on such works.

At the same time preparatory steps were taken to deal with distress when it should show itself. Relief circles were formed, and officers to take charge of them were nominated; the executive staff of the various districts was strengthened; sites were selected for poor houses; and the programme of relief works was revised and expanded. Preparations were made for dealing with sickness, should it occur, and a staff of hospital assistants was deputed to supervise sanitary arrangements on relief works and administer medical comforts in temporary hospitals. The administrative framework necessary for the management of large relief operations was thus in readiness at the beginning of the emergency, and all that was afterwards necessary was to fill it in as necessity required.

6. The number of applicants for employment on the test works opened soon became so considerable that, on the 28th February, Government ordered the conversion of these works into regular relief works under the Famine Code, and placed a further sum of Rs. 50,000 at the disposal of the Commissioner with effect from the 1st March. The Commissioner was at the same time instructed that in selecting famine relief works regard should be had to the feeder roads required by the Indian Midland Railway.

7. In view of the growing magnitude of the scarcity the Lieutenant-Governor again went to Bundelkhand and held a conference at Jhánsi on the 11th and 12th March to discuss questions connected with famine relief. It was laid down that the object of Government in its famine relief policy would be (subject of course to the dominating idea of preventing starvation), first, to secure that expenditure on famine relief should be of permanent benefit to the several districts and help towards their commercial development and agricultural security; second, so far as possible, to keep people employed near their homes and to prevent the disintegration of villages. Up to the date of the conference relief works of all kinds had been under the control of the District officers; but the increasing pressure rendered a continuance of this arrangement undesirable, and it was accordingly arranged that, with effect from the 1st April, all large works should be carried out by the Public Works Department in accordance with the rules laid down in chapter VI of the Famine Code; while minor works were to continue under the control of the District officers, who should work through the local landowners. At the same time the necessity for a further increase of the local staff was recognized, and twenty-four naib tahsildars were deputed to the affected area to be employed under

the Public Works officers as paymasters on large works. To the employment of responsible officers as paymasters the Lieutenant-Governor and Chief Commissioner attributes much of the economy in expenditure which resulted. The end of March may thus be taken as the period at which the relief operations assumed their settled character, large operations such as roads being in charge of the Public Works Department and minor works such as village tanks, reservoirs, &c., being carried out by local agency controlled by the District officers. Up to the 31st March the actual expenditure incurred was Rs. 1,43,400.

At the Jhánsi conference the provision made for other methods of relief, especially for the relief of respectable women who are debarred by national custom from appearing in public (article 124, Famine Code) was revised and expanded. In addition to the increased staff of hospital assistants already provided, an Assistant Surgeon was placed at the Commissioner's disposal for general inspection duty, and it was ordered that a hospital assistant should be deputed for each work on which more than 1,000 persons might be employed. The question of grazing for cattle was also considered; and when afterwards the necessity arose, free grazing was allowed in the Bánda and Jhánsi Government forests.

8. In Bundelkhand the population, which contains a considerable admixture of aborigines, depends a good deal for sustenance during the summer on the *mahua* crop and other edible forest products. But by April it became manifest that the *mahua* crop had failed, while the prices of the staple food-grains rose steadily, and the numbers on relief works increased. It had been estimated by the local officers in March that at the period of greatest pressure the numbers in receipt of relief would not exceed 140,000; but by the middle of April that number was exceeded and the numbers continued to rise, till in the third week of May they reached their maximum pitch of 263,961. Comparing districts, Bánda had by far the greatest number on relief works; but the Lieutenant-Governor, on a review of the whole facts, is disposed to think that the numbers in this district would not have been so large had the "gang" and "task" systems prescribed by articles 70 and 74 of the Famine Code been more rigorously enforced from the outset. However, the defect was soon corrected, and the unprecedentedly low rate of wages paid combined with the not-unsubstantial outturn of work done proves that the people were in real need of help.

9. On the 2nd of May the Lieutenant-Governor again conferred with the officers in charge of the relief measures on the progress and prospects of affairs. At this conference the whole conduct of the famine relief organization was subjected to minute scrutiny with the object of ascertaining whether the organization was good and sufficient; whether any further modifications were necessary with reference to future prospects; and whether the administration, while being efficient, was also economical. It was found that, excluding charges for establishment, tools and plant, the average daily wage for men, women and children per head on the Public Works Department relief works fell at about 9½ pies a day, and although, here and there, things might have been better done, still, on the whole, the business had been well managed. The wages paid were regulated carefully with reference to the rations prescribed by the Famine Code. Indeed, the tendency was towards over-scrupulosity in following the fluctuations of the grain market so that the relief workers might get the benefit of any variation. It is now the Lieutenant-Governor's opinion that this constant and minute adjustment of wages to ever changing prices caused unnecessary labour and complication and should be avoided in any future operations of the kind. His Honour thinks that ordinarily wages on relief works need not be altered when the change in prices is less than 10 per cent.; and that ordinarily no alteration should be made without the previous sanction of the Commissioner of the division when he controls the relief operations.

10. In addition to the relief afforded by public works, by the establishment of poor houses, and by the distribution of assistance to respectable but indigent people under chapter X of the Code, much help was also given by granting advances of money, under the Agriculturists' Loans Act, and by suspensions and remissions of revenue. The actual sum distributed by way of recoverable advances without interest was Rs. 1,85,118; and the actual amount of revenue suspended by the Commissioner was Rs. 2,16,000 on account of the *kharíf* instalment of 1895 and Rs. 8,78,000 on account of the *rabí* instalment of 1896. No doubt it will be ultimately necessary to remit some part of these suspensions. In this way substantial assistance was afforded to the land-owning and cultivating classes, as the suspension or remission of a certain amount of revenue carries with it, under the North-Western Provinces Rent Act, the suspension or remission of double that amount in rent.

11. During May the numbers on relief works continued to increase until the last week of that month, when, notwithstanding the sanitary precautions taken, cholera, which had previously shown itself in a serious form only in the Lalitpur sub-division, broke out on the relief works with some virulence. Energetic steps were taken to break up large masses of labourers, to draft off relief workers from the works on which cholera had appeared to other works, and to disinfect all wells used by relief labourers with permanganate of potash (this latter measure did much good, and is recommended for future adoption in similar emergencies). The policy of expanding village works so as to relieve the pressure on the larger undertakings was also pressed.

12. At the beginning of June the Government laid down the policy to be adopted after the breaking of the rains with the object of inducing the people to return to their ordinary avocations as soon as possible. Village works being carried out by civil officers were to be contracted to a minimum on the breaking of the rains, and no further grants for such works were to be made, it being left to the Commissioner's discretion to continue the distribution of gratuitous relief in villages and at poor houses when absolutely necessary. With regard to road works, orders were issued that all operations under the control of the Public Works Department should be reduced to a skeleton at the break of the rains in the districts of Jhánsi and Jalaun, where the distress was judged to be less acute; and that in Bánda and Hamírpur the extent of the work should be greatly contracted. The works remaining were to consist in stone-breaking and quarrying, which were considered suitable for the rainy season as they could be done under cover. Task work was to be strictly exacted, and only persons capable of earning a living on task work were to remain on the public works, debilitated persons being provided for in poor houses. It was also laid down that, with a view to inducing people to revert to agricultural work, no wages should be paid to any person on relief works in excess of the minimum subsistence wage (or its money equivalent) prescribed by article 108, Famine Code.

13. The combined effect of these measures, reinforced by the certainty of ordinary agricultural employment when the rains would set in, and also to some extent no doubt by the fear of cholera, was seen in a great decrease of relief workers. The numbers, which in the third week of May had approximated to 2¾ lakhs, fell by the third week of June, when the rains had broken, to 52,619. As a consequence the estimate of expenditure far exceeded the actual sum spent.

By the middle of July all Public Works Department relief works had been closed, except in Bánda, where four quarry works were still open; and all village works had been closed, except in Jhánsi, where some were still unfinished. The relief administered after that time consisted almost entirely in that given at poor houses and in the gratuitous relief administered through the agency of *patwáris* to respectable persons debarred by national custom from appearing in public. At the end of August the total number in receipt of any form of relief in Bundelkhand had fallen to 5,904, and without doubt this number would have melted away by now had not the threatenings of even far greater difficulties than had beset us last year completely altered the situation.

14. Under article 63, Famine Code, relief works are divided into "large" and "small"; those works being regarded as "large" which provide simultaneous employment for three months for at least 1,000 persons. (This latter portion of the definition it was not found desirable on this occasion to adhere to rigorously.) From the 1st April all large relief works, which had till then been under the control of the District Officers, were transferred to the agency of the Public Works Department, and the District Officers were thus enabled to pay greater attention to those other very important methods of relief prescribed by Chapters VIII, IX and X of the Famine Code (poor houses, State kitchens, and relief at their homes to respectable people unused to working in the fields or debarred by national custom from appearing in public) which none but District Officers can successfully administer. The result of this change was an expansion of the employment of subordinate Public Works officers to set out and supervise the work; the employment of men of some standing as "officers in charge"; the keeping and rendition of accounts of large relief works by the Department of Public Works, and the devotion of greater attention to the division of the workers into gangs; and to the exaction of task work. It may be stated here that too much importance cannot be attached to the enforcement from the very outset of the "gang" and "task" systems declared to be imperative by articles 70 and 74 of the Famine Code. They lie at the very root of successful management of relief works. Works on which the systems are not enforced become demoralizing, wasteful and chaotic.

15. It was recognised that it must lie with the District Officer to select the works to be started (as he was most competent to decide where relief labour could be concentrated most advantageously); to adjust the scale of wages to the varying current prices of food grains; and to arrange for the provision, transport, and safeguard of the enormous sums of copper coins required for wages. But the actual execution of the works was left to be carried out by the Public Works officers.

The "large" relief works were of three classes: (1) roads, (2) large tanks, and (3) small roadside tanks. On these works the number of women and children employed far exceeded the number of men. It has been calculated that to every 100 men 306 women and children were in receipt of wages in addition to 171 dependants, nearly all infirm women and very young children, who could not work and had to be relieved gratuitously. There was thus one man to four or five women and children. The explanation of the disparity is that the people migrated in families from their homes, where they were foodless, to the relief works, where they were sure of a subsistence. One male member ordinarily remained behind to watch the cattle and the house: but the rest of the family went together to the relief works.

One result of this family migration was that in the case of road work, where the hard surface soil had to be dealt with, the amount of work done by the men who were employed in digging was insufficient to employ the women and children, who were made use of as "fillers." But it was found that digging tanks gave more equal employment to both classes, because the tank earth was more easily dug, being damp and soft, and the length to which the earth had to be carried was relatively much greater than in the case of roads.

It will be noticed that the number of "dependants" gratuitously relieved on the works under article 99 of the Famine Code considerably exceeded the 10 per cent. laid down by article 100 as the limit to be relieved in that way. The point did not escape the attention of Government during the progress of relief operations; but the Lieutenant-Governor decided that the balance of convenience and general advantage lay in the direction of keeping families together rather than in the direction of breaking them up, employing some on relief works and sending the others to a poor house. Sir Antony MacDonnell is not in favour of extending the working of poor houses beyond a strict interpretation of article 112 of the Famine Code.

Care was taken to use the labourers according to their castes and aptitudes, landowners being employed as "mates;" literate persons in helping to keep tallies; Bráhmans in distributing; and Kahárs in carrying water. But experience in this as in other scarcities has shown that high caste people do not shrink from seeking subsistence on relief works when starvation awaits them at home. Relief in their homes was, under article 124 of the Famine Code, afforded to respectable indigent women whom national custom debars from appearing in public.

16. The rate for earthwork averaged on roads managed by the Public Works Department very nearly Rs. 11 per 1,000 cubic feet. The chief cause of this high rate was that most of the work done was on roads in black cotton soil, and in the height of the hot weather. That soil when dry is extraordinarily hard, and under ordinary conditions the work would never have been done at that season of the year. Some increase in the rate was also due to the large number of carriers as compared with diggers, to which allusion has been already made.

In case of tanks, on the other hand, for reasons above indicated, the rate was only Rs. 5·40 per 1,000 cubic feet.

Of the total expenditure on works, accounted for in the Public Works Department, which is calculated to have amounted to Rs. 7,15,088, about two-fifths represent the value of the work done, if carried out at the most suitable time of the year with labour (*beldárs*) appropriate to the work, and also assuming that there is no loss of efficiency from sickness or other causes.

17. Statement C appended to this Resolution gives the numbers in receipt of relief of all kinds in the Bundelkhand districts on the last Saturday of each fortnight from February 29th to August 29th. It is noticeable that the period of greatest pressure on the relief works did not in all cases coincide with the period during which the prices of the staple food grains ordinarily consumed by the labouring classes of the people (gram *arhar*, rice, and *judr*) ruled the highest. Thus, while in every district the largest number of persons in receipt of relief was reached on the 23rd May, it was only in Hamírpur and Jhánsi that prices also were highest during the week ending on that date. In Bánda, the district where distress was most severe, and in Jalaun food grains were dearest during the weeks ending the 9th and the 30th June respectively. These variations are probably attributable to fluctuations in the market rather than to any more recondite cause.

18. At the time of recording this Resolution still higher prices rule than prevailed last May and June in Bundelkhand; yet pressure on the few relief works which have been kept open at subsistence wages as a precautionary measure is only beginning to make itself felt. The explanation doubtless is that the early *kharif* crops were not so bad as report makes out and that they have given the poorer classes of the people something to go on with. And this will continue, with more or less variation, possibly until December, when, if no rain falls in the interval, a severe strain may again commence.

19. The health of the relief workers was, on the whole, very good. They were usually, on first coming on the works, in an emaciated and reduced condition; but when afterwards the distressed tract was visited both by the Inspector-General of Civil Hospitals and the Sanitary Commissioner, these officers reported that there was no appearance of general starvation, let alone famine, among the men, women, and children on the works. Had there been, the relief operations would have failed of success. There were during the whole period only 26 deaths reported as due to starvation. But in spite of all the sanitary precautions that were taken, cholera prevailed from time to time in a sporadic form, and there were three serious outbreaks—one in the Lalitpur sub-division on the 4th April, one in the Karwi sub-division on the 18th May, and a third in Jhánsi on the 29th May. The seriousness of these outbreaks is thought by the Sanitary Commissioner to have been partly due to defective arrangements for the supply of water in connection with the large relief works. He recommends that a standard plan of water cart and water distributing appliances should be adopted for such cases. It has been reported

that the Sunday holiday prescribed by article 91 of the Famine Code is dangerous from the sanitary point of view, as the workers flocked into the towns on that day, camping near polluted tanks, &c., at the risk of acquiring or rapidly disseminating disease. This is probably correct; but the matter concerns, not only the non-Christian labourers, but the officers controlling the works, and the Lieutenant-Governor cannot compel the regular performance of official duties on Sunday. It seems clear, however, that the payment of the Sunday wage leads to abuses, as people flock to a relief work on Saturday who are in no need of relief, merely to get the Sunday wage; that the labourers earn during the week ample subsistence for the seventh day; and that no difficulty is felt in giving gratuitous relief, in kind if really required, to newcomers arriving on a relief work on Sunday.

20. On the 20th July a final Famine Conference was held by His Honour the Lieutenant-Governor at Allahabad, at which the results of the whole system of relief up to that date were considered. The figures then furnished have been since supplemented by a statement of famine expenditure incurred up to 31st August prepared in the Accountant-General's office, and this more precise statement has, where possible, been used in the following summary.

The expenditure on relief works falls under two heads according as it was accounted for by the District Officers or the Public Works Department.

Up to 1st April the District Officers accounted for all such expenditure, but after 1st April the Public Works Department accounted for the expenditure on the "large" relief works, which were under their direct control, while the District Officers accounted for the "small" relief works generally described as "village works."

The expenditure will then be shown separately—(*a*) that accounted for by the Public Works Department, and (*b*) that accounted for by the District Officers.

21. (*a*) The total amount expended by the Public Works Department was Rs. 7,15,088, of which sum—

Rs. 5,37,608 was paid in wages for labour done.
Rs. 43,758 was paid in gratuitous relief to the dependants of the relief workers.
Rs. 1,33,722 was paid in cost of tools, hutting, and temporary establishment.

The work done in return for this expenditure consisted of (1) 345½ miles of road remodelled and repaired (in which work is included the clearing out of small roadside tanks); (2) 47 large tanks excavated. The amount of earthwork done amounted to—

	C. FT.
(1) On roads and small roadside tanks	41,923,055
(2) On large tanks	13,984,102
The total earthwork thus was ...	55,907,157

This work cost in *wages only*—

	RS.		RS.
(1)	4,60,908	rate per 1,000 cublic feet	10·99
(2)	75,700	do. do.	5·41
Total ...	5,37,608	do. do.	9·62

The sum of Rs. 43,758 expended on gratuitous relief, and Rs. 1,33,722 on tools, hutting, &c., added to this amount spent in wages, make up the total expenditure of Rs. 7,15,088 expended by the Public Works Department.

The number of persons relieved, including dependants (reduced to relief for one day) on the Public Works Department works in Bundelkhand was 12,843,200, and the cost per head (including wages and gratuitous relief, but excluding tools, &c.,) was 8·7 pies per diem. It is believed that this is the lowest rate yet reached in effective famine relief administration in India by the Public Works Department.

22. (*b*) In paragraph 14 above the difference is stated between the relief which fell within the province of the Department of Public Works and within the province of District Officers to administer respectively. The total amount expended by District Officers on relief works (exclusive of expenditure on poor houses and on the miscellaneous forms of relief prescribed by Chapter X of the Famine Code) was Rs. 2,94,951.

The work done consisted of—

132½ miles of road remodelled.
559 village tanks } re-excavated.
225 do. wells }
39 reservoir embankments constructed.

The amount of earthwork done on the roads amounted to 11,877,466 cubic feet (measured), and that on of the village works was estimated to have been about 53,000,000 cubic feet.

The expenditure was—

	Rs.
On the roads	1,37,094
On village works	1,57,857
Total ...	2,94,951

This gives a rate of about Rs. 12 per 1,000 cubic feet on road work (done at the time of year before April, when such work could be done most cheaply), and a rate of about Rs. 3 per 1,000 cubic feet on village works (tanks, wells, &c.). It will be observed that while the District Officers' rates for road work are greater than the Department of Public Works rates (without the excuse for high rates, which, as stated in paragraph 16 above, the Public Works Department had), their rate for village works is extraordinarily less. The explanation lies in the system followed, and in the supervising agency employed. For road works the District Officer had, especially during the "test" stage, to rely on temporary establishments, aided no doubt to some extent by the District Engineer, and the "gang" and "task" systems referred to in paragraph 14 above do not appear to have been at the outset as strictly enforced as was desirable. But for village works the District Officers acted through the village zamindars. As the latter had not to repay the expenditure incurred and got the full benefit of the improvement in their villages, they acted honourably by the Government in making the Government expenditure go as far as possible. The important lessons to be learnt are (1) the advantage of employing the professional agency of the Public Works Department from the earliest period possible, in controlling all relief works other than those described in article 65 (*a*), Famine Code; (2) the advantage of working through the village proprietors or village headmen in controlling the works described in that article.

23. The total number of relief workers and dependants relieved on these "small" relief works, plus the number gratuitously relieved by District Officers, was 5,533,391 (reduced to units relieved for one day).

The total amount placed at the disposal of the District Officers is reported by the Accountant-General to have been 4½ lakhs in round numbers. The accounts have not yet been cleared; but in the returns submitted from the districts the amount actually disbursed is given as Rs. 3,58,777, and may be safely assumed to have fallen short of four lakhs.

24. The total number relieved for one day throughout the districts of Bundelkhand in the relief operations from 1st February to 31st August was thus approximately 18½ millions, and the total cost of relief of every kind in that region, and including tools and plant, hutting and similar items of expenditure, amounted to about 11 lakhs. This gives an average cost of 11¼ pies per diem per head of the people relieved.

25. It is stated in paragraph 3 above that the quantity of land cultivated with *kharif* and *rabi* during the period referred to fell short of the normal quantity by about 485,000 acres, or about 17 per cent. of the total. The crop yield in the area that was sown was also up to the end of June dificient as shown in the statistics supplied by the Director of Land Records and Agriculture (Appendix A to this Resolution). To make up for the deficiency of food, importation of food grain was active during the period of distress. The figures for the imports and exports by rail of food grains for the railway stations situated in the four districts of Bundelkhand during the six months from January to July inclusive are shown in Appendix D. The total net imports for the whole affected tract are shown as 743,227 maunds. There was doubtless also some importation by road, especially into the Hamirpur district from the north: but imports by road are not thought to have been large. Probably the total imports were about 7¾ lakhs of maunds. Thus the net quantity of grain imported allowed but a small margin over the quantity actually required for the subsistence of the 18½ millions of people (reduced to units of one day) who came on relief: and its cost at the average price ruling during the scarcity of the commonest grain (gram) which constituted the chief article of import approximates to the cash expenditure on the relief operations. The argument, or perhaps, it should be said, the coincidence, need not be pushed too far: but the figures tend to show that, substantially, there was no unnecessary expenditure on relief, and that private trade correctly gauged the extent of the emergency and the necessities of the districts.

26. The Famine Code (article 53) provides for the association, with the Collector, of District or Local Boards "for the purpose of advising and assisting in all matters connected with the prevention or relief of famine." The Code does not enjoin the creation of unofficial charitable committees, though it does not say they shall not be created. The social conditions of Bundelkhand were not favourable to unofficial efforts in the cause of charity; and probably the District Boards contained the intelligence of the region. But in more advanced districts the Lieutenant-Governor is convinced that, should circumstances require the undertaking of relief operations on a large scale, the greatest benefit will accrue from the organization of private effort and private charity in supplement of the Government system of relief. In Bundelkhand most valuable assistance was given by private landlords and others in the control of the smaller relief works; and advantage should, in future cases, be taken of the landlords' willingness to help in this and other ways. They should, so far as possible, be associated with the officers of Government in the general scheme of relief.

27. It has been stated in paragraph 2 above that, besides the relief operations in the Bundelkhand districts, some measures of relief were also found to be necessary in the Allahabad district, the Hardoi district of Oudh, the Pilibhit district of Rohilkhand, and the Garhwál and Almora districts of Kumaun. In the part of the Allahabad district bordering on Bundelkhand, and resembling it in climate, soil, and population, the distress was for a time severe, but fortunately in none of the other districts did the reality come up to the local officers' early apprehensions. The relief measures adopted in these districts do not call for any lengthened comment. They were carried out by the District Officers without assistance from the Department of Public Works and comprised repairs to unmetalled district roads, poorhouses, and some gratuitous relief under Chapter X of the Famine Code. In all the districts except Hardoi the pressure practically ceased when the rains had regularly set in; but in Hardoi, during the latter portion of July, when there was a prolonged break in the rains, distress threatened to assume somewhat serious proportions. The total expenditure in these five districts up to 31st August, as shown in the returns received from the District Officers, amounted to Rs. 1,17,431. The number of persons relieved (reduced to relief for one day) was nearly one million.

Throughout the provinces, therefore, the total number of persons relieved up to 31st August (reduce to units of one day) was 19½ millions (the earlier estimates overstated the numbers), and the total expenditure incurred was Rs. 12,17,431. The number of deaths reported as due to starvation was, as already stated, altogether insignificant; but the mortuary statistics from the distressed districts showed a death rate much above the normal, from which the Lieutenant-Governor infers that, although the number of deaths from actual starvation was almost *nil*, the pressure of hard times claimed many victims, mostly among the old and the very young.

28. Before bringing the review to a close the Lieutenant-Governor and Chief Commissioner desires to record, for information and future guidance, the more useful lessons which actual experience in these relief operations has taught. On the whole, the rules and procedure prescribed by the Famine Code have been found to be effective and easy to work; but they naturally do not provide for all contingencies, while relief operations are fruitful in surprises, which call for decision and resource in the man on the spot. The following instructions therefore, which are the results of practical experience, will be useful to all officers engaged in future relief operations:—

(i) Test works fail to fulfil their object if full tasks are not exacted, and if wages are not regulated with reference to the provisions of Chapter VII of the Famine Code. Close supervision is therefore essential.

(ii) Where test works show the necessity of relief works, the management of the latter, not being of the kind specified in article 65 (*a*), Famine Code, should be entrusted from the outset to the Public Works Department.

(iii) Relief works of the kind specified in article 65 (*a*), Famine Code, (*i.e.*, "works specially intended for the relief of the agricultural population in the vicinity of their villages") are best carried out through the agency of the village landlords and headmen. The quantity of work to be done can usually be accurately calculated beforehand: and the cost fixed with reference to a fair task and the current price of food. Advances can then be made and the account cleared up on completion of the work.

(iv) Article 77 of the Famine Code provides that over each separate work managed by the Public Works Department shall be placed an "officer in charge." The number of labourers under an "officer in charge" should ordinarily not exceed 5,000; and if there are more than 3,000, there should also ordinarily be two sub-overseers or work agents. In every case each sub-overseer or work agent should have an intelligent assistant or "mate" to help him to lay out the work. For every five or six "charges" an inspecting officer of the standing of a Public Works upper subordinate is required.

(v) Officers of the naib tahsildar class or of similar standing on the regular establishment of Government should, whenever possible, be employed as "officers in charge." They should be placed at the disposal of the Public Works Department and employed where required, postings being made by the Superintending Engineer.

(vi) Reserves of tools and baskets should be established at convenient centres, whence they can quickly be sent where wanted; and as baskets wear out quickly and take time to procure, arrangements should be made in advance for their supply.

(vii) On relief works the "gang system" should be rigidly enforced from the very outset and gang registers kept up. A gang register is a card or piece of stout paper containing the names and classification of all persons in the gang. Any gang can thus at any time be checked independently of other gangs, and by 'sampling' a few gangs, the whole work may be effectively checked. These great advantages do not attach to the alternative "ticket system," under which vouchers are delivered to individuals in the morning, to be exchanged for money in the evening. Under the "ticket system" it is obligatory to count and classify at a particular time in the afternoon the whole of the persons present on a work, in order to obtain a satisfactory check; and this has been found to be, not only extremely laborious, but usually impracticable.

(viii) Wells likely to be used for drinking water by labourers on relief works should be examined and, if found pure, should be guarded from contamination for a week before required and the water-supply arrangements perfected before the labourers arrive. Foul wells should be absolutely closed. Should cholera break out, the wells should be disinfected at intervals of two or three days with permanganate of potash until the labourers are split up and drafted off to other works.

(ix) From the labourers Bráhmans should be selected to draw water from the wells for Hindus, and Kahárs to distribute it. The vessels employed in drawing and distributing the water should be ordinarily of metal and scrupulously clean. Kerosine tins have been found to be most useful and acceptable.

(x) A superior Medical officer should inspect periodically (1) the relief labourers on relief works not of the article 65 (*a*) class, (2) the sanitary and medical arrangements in connection with such works, and (3) poorhouses and hospitals.

(xi) The Famine Code (section 85) provides for the erection of latrines. These should usually be on the trench system and provided with grass screens.

A line of flags and posts should be placed all round each relief work and 300 yards from the same, and great care should be taken that no nuisances are committed within the area enclosed by such flags and posts.

(xii) Medical officers in charge of hospitals on relief works should very carefully watch for the occurrence of any cases of relapsing or famine fever, and immediately isolate any such cases.

Provision for the immediate isolation of cases of cholera, small-pox, or other epidemic disease should be made at each work. Grass huts, which can be subsequently burnt, will usually be the best form of isolation hospital.

(xiii) Article 87 of the Code provides for daily, bi-weekly, or tri-weekly payments (with certain exceptions). Wages should ordinarily be paid twice a week. Bi-weekly payments save the labourers a daily wait until a late hour on the works. They also reduce the difficulty of providing a sufficient supply of copper coin, as small silver coin can then be used also. But bi-weekly payments can only be introduced if "gang registers" are maintained in perfect order. (The difficulty, which is sometimes serious, of providing large quantities of copper coin can be reduced by arranging with the gram sellers on the works to exchange copper for silver daily.)

(xiv) No change in wages should be made if prices vary by less than 10 per cent., and ordinarily no change should be made unless with the previous sanction of the Commissioner of the division (or Famine Commissioner if one is appointed).

(xv) When a variation in prices of foodgrain necessitates an alteration in wages, notice of the new rate of wages should be sent to the District Engineer and not to the "officers in charge."

(xvi) No incomplete work should be closed by the controlling authorities, except on account of sickness, unless seven days' notice be previously given to the Divisional (Executive) Engineer to break up the staff and close the work.

(xvii) If article 91 of the Famine Code be retained unaltered (see paragraph 19 above), the Sunday should be reckoned, for account and statistical purposes, as the last day of the week, in order that the payments for the holiday, which are made on Saturday, shall fall in the week covered by the numerical returns. This slight change, which will greatly facilitate check on expenditure, necessitates placing Sunday at the end, and not at the beginning, of the week in the Progress Return (Form III of the Appendix to the Famine Code).

29. In conclusion, it is the Lieutenant-Governor and Chief Commissioner's pleasing duty to notice the services rendered by the principal officers employed in conducting the relief measures which have proved so successful. The chief burden of directing the relief operations fell upon the Commissioner of the Allahabad Division, Mr. G. R. C. Williams, and the Superintending Engineer, 3rd Circle, Mr. C. G. Palmer. Mr. Williams successfully maintained control over all the relief measures without neglecting any of the [illegible] and that ordinary duties of a very important division; while Mr. Palmer's management of the Public Works operations was both effective and resourceful. To both of these officers the special thanks of Government are due.

On the Collectors of the various districts the brunt of the executive work fell as an addition to their ordinary duties: and it was [illegible] carried on in very trying circumstances with a self-sacrifice and devotion to duty which the Lieutenant-Governor cannot praise too highly. The heaviest responsibility fell on Mr. Ferard, Officiating Collector of Bánda, and next on Mr. Warburton, Officiating Collector of Hamírpur, and Mr. Calnan, Officiating Collector of Jalaun. To these officers the Lieutenant-Governor and Chief Commissioner gives his best thanks. In Jhánsi the distress was less than elsewhere in Bundelkhand, but still a considerable strain fell on the Collector, Mr. Steel. Mr. Bird, Collector of Allahabad, administered relief in his district in an efficient manner, chiefly through local agencies, and Mr. Partridge, Officiating Collector of Pilibhít, also merits favourable mention. Mr. Hoare, Sub-divisional Officer of Lalitpur, and Pandit Jwala Parshad, Sub-divisional Officer of Karwi, managed difficult charges well. All these officers in their several degrees deserve the thanks of Government.

In the Public Works Department the good services of Mr. Battie, Executive Engineer, Second Allahabad Division, have been brought to prominent notice; and Mr. Thompson, District Surveyor, Bánda, and Bábu Kula Nand, District Surveyor, Jalaun, have rendered good service, which the Lieutenant-Governor and Chief Commissioner desires to acknowledge.

His Honour notices with much satisfaction that several officers among the Tahsildars and Naib Tahsildars, and among the upper and lower subordinates of the Department of Public Works, have shown marked zeal, probity, and ability in carrying out the work entrusted to them. On fit opportunity the services of these officers will be suitably rewarded.

It was not to be expected that, subject as the executive staff was to great exposure and privation during a Bundelkhand summer, there should be no casualties, but the casualties were comparatively few. In the Civil Department the Naib Tahsildars Maulvi Muhmmad Ali and Bábu Joti Parshad, in the Department of Public Works Mr. J. C. Rose, Sub-Overseer, and in the Police Department Sub-Inspector Niaz Husain died on the works. They were reported as zealous and efficient officers; and the Government regrets their loss.

Finally, the Lieutenant-Governor and Chief Commissioner desires to acknowledge the very great assistance he has throughout these operations received from the Hon'ble Mr. Odling, Chief Engineer and Secretary to Government in the Department of Public Works.

Order—Ordered that copies of this Resolution be forwarded to—

(1) The Secretary to the Board of Revenue, North-Western Provinces and Oudh, for the information of the Board.
(2) All Commissioners of Divisions and all District Officers, North-Western Provinces and Oudh, for information and guidance.
(3) The Inspector-General of Civil Hospitals, North-Western Provinces and Oudh, for information and communication to Civil Surgeons.
(4) The Sanitary Commissioner, North-Western Provinces and Oudh, for information.
(5) The Inspector-General of Police, North-Western Provinces and Oudh, for information.

Ordered also that copies be furnished to the Secretary to this Government in the Public Works Department, Buildings and Roads Branch, for information and circulation to officers of the Department for information and guidance.

Ordered also that the resolution be published in the *North-Western Provinces and Oudh, Government Gazette.*

(Signed) H. F. EVANS,
Chief Secy. to Govt., N.-W. P. and Oudh.

APPENDIX A.

Kharíf and Rabí Jinswárs of the four Bundelkhand Districts { An average crop = 16 annas. / A bumper crop = 20 annas.

Crops.	Bánda. Acreage. 1893-94.	1894-95.	1895-96.	Bánda. Outturn in annas. 1893-94.	1894-95.	1895-96.	Hamírpur. Acreage. 1893-94.	1894-95.	1895-96.	Hamírpur. Outturn in annas. 1893-94.	1894-95.	1895-96.	Jhánsi. Acreage. 1893-94.	1894-95.	1895-96.	Jhánsi. Outturn in annas. 1893-94.	1894-95.	1895-96.	Jalaun. Acreage. 1893-94.	1894-95.	1895-96.	Jalaun. Outturn in annas. 1893-94.	1894-95.	1895-96.	Bundelkhand. Total acreage. 1893-94.	1894-95.	1895-96.	Bundelkhand. Outturn in annas. 1893-94.	1894-95.	1895-96.
Kharíf.																														
Rice	70,643	74,865	81,474	13 7 11			49,22	4,766	5,697	15 15 14			25,545	26,551	25,548	11 16 9			1,629	1,210	1,966	15 15 15			102,739	107,392	114,685	13 13 12		
Indian corn ..	198	198	189	11 5 14			10	10	5	15 14 13			7,953	8,117	8,182	13 14 15			16	22	36	14 15 16			8,177	8,347	8,412	13 12 14		
Cotton and *arhar* (*a*).	104,329	96,579	86,697	10 5 17			80,790	94,367	76,616	14 10 16			25,160	33,345	26,323	14 12 13			50,861	64,162	50,886	14 8 17			261,140	288,453	240,522	13 9 16		
Juár and *arhar* (*b*).	193,803	156,530	133,220	11 6 13			154,822	151,016	122,045	14 10 13			53,919	66,351	45,648	13 12 11			73,009	100,510	60,356	13 8 11			475,553	474,407	361,269	13 9 12		
Bájrá and *arhar* (*c*).	41,618	29,425	30,065	11 4 12			23,814	19,557	19,755	15 8 14			2,296	3,160	1,626	14 11 9			50,677	42,892	42,862	12 7 9			118,405	95,034	94,308	13 7 11		
Urd and *múng* ..	1,089	828	934	9 5 10			3,298	2,664	5,103	11 11 11			16,732	15,824	15,305	12 13 9			82	187	193	15 11 7			21,201	19,503	21,535	12 10 9		
Til	47,438	26,631	25,173	13 5 10			47,107	37,548	31,979	16 12 14			66,958	77,585	6,244	.. 14 8			4,901	5,834	4,439	14 11 12			166,404	147,598	124,235	14 10 11		
Moth (*d*)	1,579	1,004	853	.. .. ..			171	123	85	.. .. ..			255	241	236	.. .. ..			79	56	31	.. .. ..			2,084	1,424	1,205	.. .. ..		
Kodon	20,730	27,427	28,576	11 8 13			24,858	32,105	35,955	16 13 12			63,820	68,950	67,892	15			..	2,123	2,927	16 13 11			109,408	130,605	135,350	14 11 12		
Garden crops (food).	703	703	863	.. .. ..			1,692	1,652	1,833	.. .. ..			1,535	1,239	1,265	.. .. ..			1,004	1,022	979	.. .. ..			4,934	4,616	4,940	.. .. ..		
Total ..	482,130	414,190	388,044	.. .. ..			341,484	343,808	299,073	.. .. ..			264,173	301,363	254,669	.. .. ..			182,258	218,018	164,675	.. .. ..			1,270,045	1,277,379	1,106,461	.. .. ..		
Rabí.																														
Sugarcane ..	23	27		.. 14 16			2,503	2,026		16 12 14			931	926		16 16 12			663	430		14 15 12			4,120	3,409	..	15 14 ..		
Arhar, pure ..	376	893		13 12 12			184	114		16 16 10			462	470		16 16 8			25	21		15 16 8			1,047	1,498	..	15 15 ..		
Wheat and gram (*e*).	211,201	192,863		8 9 4			214,010	165,948		10 6 7			104,361	53,548		7 10 5			213,152	112,219		7 10 4			742,724	524,578	..	8 9 ..		
Wheat and barley (*f*).	4,227	6,293					1,786	6,297					16,463	16,932					5,314	9,090					27,790	38,612	..			
Barley and gram ..	71,175	112,271		14 13 7			24,551	51,920		15 14 8			3,254	4,776		16 16 7			34,822	86,974		16 16 5			133,802	255,941	..	15 15 ..		
Gram, pure ..	165,427	205,407		13 12 8			67,039	93,742		15 15 7			59,641	99,178		16 16 7			46,655	61,700		13 15 7			338,762	460,027	..	14 14 ..		
Alsi	30,687	28,261		10 1 2			44,695	64,263		15 .. 3			18,955	28,353		15 3 3			68,764	92,970		13 2 2			163,101	213,847	..	13 2 ..		
Zira	Details not available.		Not yet available.	.. .. ..			Details not available.		Not yet available.	.. .. ..			Details not available.		Not yet available.	.. .. ..			Details not available.		Not yet available.	14 15 ..			Details not available.		..	14 15 ..		
Dhania				.. .. ..						.. .. ..						.. .. ..						16 15 ..						16 15 ..		
Vegetable (*zaid*) ..	57	123		.. .. ..			26	27		.. .. ..			355	377		.. .. ..			38	49		16 15 ..			476	576	..	16 15 ..		
Total ..	483,173	546,138	..	.. .. ..			354,794	384,337	..	.. .. ..			204,422	204,560	..	.. .. ..			369,433	363,453	..	.. .. ..			1,411,822	1,498,488	..	.. .. ..		

(*a*) Outturn for cotton only.
(*b*) ,, ,, *juár* ,,
(*c*) ,, ,, *bájrá* ,,
(*d*) Outturn included in *urd* and *múng*.
(*e*) ,, for wheat only.
(*f*) ,, ,, barley ,,

APPENDIX B.

(1) Prices ruling in the Bánda District from 1st March to 18th August 1896.

District. Week ending—	Wheat.	Gram.	*Arhar dál.*	Rice, common.	*Juár.*	Maize.	Barley.	*Bájrá.*
	sérs.	sérs.	sérs.	sérs.	sérs.			
Bánda.								
7th March 1896	10·97	19·81	14·31	12·94	16·06	..	..	..
14th ,,	11·46	20·19	15·38	12·69	15·69	..	..	..
21st ,,	11·78	19·13	15·38	12·63	15·06	..	..	..
28th ,,	12·03	18·41	15·13	12·63	14·69	..	..	..
4th April 1896	11·84	17·97	15·00	12·38	14·57	..	..	..
11th ,,	11·91	18·06	14·81	12·19	14·33	..	..	..
18th ,,	12·25	18·25	14·44	12·19	14·50	..	..	..
25th ,,	12·31	17·91	14·19	11·94	14·42	..	..	..
2nd May 1896	12·32	17·28	13·93	11·60	14·42	..	..	..
9th ,,	12·69	16·31	13·47	11·31	13·83	..	..	..
16th ,,	11·78	16·16	12·66	11·16	13·33	..	..	..
23rd ,,	11·75	14·69	12·28	10·78	13·17	..	..	..
2nd June 1896	11·81	14·94	11·96	10·66	12·92	..	..	..
9th ,,	11·06	14·47	11·75	10·53	13·75	..	..	..
16th ,,	11·25	14·94	12·21	10·71	13·68	..	..	..
23rd ,,	10·78	14·73	12·03	10·56	13·68	..	..	..
30th ,,	10·69	14·72	11·97	10·75	13·75	..	..	..
7th July 1896	10·75	14·88	12·66	10·22	12·42	..	..	..
14th ,,	10·75	14·84	11·91	10·34	12·..	..	..	..
21st ,,	10·78	14·88	12·28	10·06	11·83	..	..	..
28th ,,	10·75	15·	12·00	10·19	12·33	..	..	..
4th August 1896	10·75	14·88	11·81	9·94	12·25	..	..	..
11th ,,	10·78	14·88	11·78	10·19	12·54	..	..	..
18th ,,	10·69	14·66	11·72	9·94	12·88	..	..	..

(2) Prices ruling in the District of Hamírpur from 1st March to 18th August 1896.

District. Week ending—	Wheat.	Gram.	*Arhar dál.*	Rice, common.	*Juár.*	Maize.	Barley.	*Bájrá.*
	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.
Hamírpur.								
7th March 1896	10 12	18 9	14 14	11 8	14 9	16 3	16 1	13 13
14th ,,	11 4	18 13	16 8	11 4	15 2	18 6	15 3	15 0
21st ,,	11 3	18 9	14 11	11 5	14 13	18 6	15 5	15 2
28th ,,	11 4	18 8	14 6	11 3	12 2	18 6	15 9	13 14
4th April 1896	11 3	17 14	13 14	11 0	14 8	19 8	15 6	13 0
11th ,,	11 3	17 4	13 10	10 12	14 10	20 10	15 2	.. ..
18th ,,	12 1	17 3	14 0	11 8	14 8	19 13	14 13	.. ..
25th ,,	12 4	16 7	13 14	10 8	14 10	14 6	14 10	.. ..
2nd May 1896	12 3	16 0	13 14	10 6	14 3	16 12	14 6	.. ..
9th ,,	11 15	15 13	12 14	10 11	13 15	15 8	14 6	13 1
16th ,,	11 14	14 6	12 3	9 14	13 16	14 10	13 1	.. ..
23rd ,,	11 8	13 10	11 13	9 8	14 0	.. ..	.. ..	13 1
Fortnight ending—								
15th June 1896	11 6	14 2	12 3	9 11	13 1	15 0	13 2	.. ..
30th ,, 1896	11 1	13 13	13 0	9 6	12 15	14 13	13 2	11 8
15th July 1896	11 2	13 2	11 2	9 12	13 0	13 13	12 13	11 8
31st ,, 1896	11 8	12 8	12 8	10 0	13 3	15 0	12 10	11 8
15th August ,,	10 11	14 13		9 8	13 3	15 0	12 10	

(3) Prices ruling in the district of Jhánsi from 1st March to 18th August 1896.

District. Week ending—	Wheat.	Gram.	*Arhar dál.*	Rice, common.	*Juár.*	Maize.	Barley.	*Bájrá.*
	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.
Jhánsi.								
7th March 1896	11 9	17 15	14 0	10 11	16 15	.. ..	.. ..	.. ..
14th ,,	11 9	18 6	15 0	10 10	16 15	.. ..	.. ..	.. ..
21st ,,	11 10	18 11	15 0	10 8	16 15	.. ..	.. ..	.. ..
28th ,,	11 9	17 6	14 13	10 9	16 11	.. ..	.. ..	.. ..
4th April ,,	11 10	17 10	14 13	10 10	16 8	.. ..	.. ..	.. ..
11th ,,	11 16	17 9	14 6	10 12	16 8	.. ..	.. ..	.. ..
18th ,,	12 0	17 0	14 6	10 12	16 8	.. ..	.. ..	.. ..
26th ,,	12 0	16 5	14 7	10 11	16 8	.. ..	.. ..	.. ..
2nd May ,,	12 3	15 15	14 0	10 11	16 6	.. ..	.. ..	.. ..
9th ,,	12 3	15 11	13 13	10 11	15 11	.. ..	.. ..	.. ..
16th ,,	12 1	15 0	13 13	10 11	15 1	.. ..	.. ..	.. ..
23rd ,,	11 15	14 8	13 11	10 9				
Fortnight ending—								
16th June 1896 ..	11 14	14 10	12 0	11 0	14 12	14 8	15 8	14 0
30th ,, 1896 ..	12 0	14 14	12 4	11 0	15 1	15 1	15 8	14 0
15th July ,, ..	11 12	14 0	11 8	11 8	15 4	15 8	15 8	14 0
31st ,, ,, ..	11 12	14 0	11 8	10 0	15 0	15 0	14 12	
15th August ,, ..	11 12	13 12	12 0	10 0	15 0	15 8	14 12	..

(4) Prices ruling in the district of Jalaun from 1st March to 18th August 1896.

District.	Week ending—	Wheat.	Gram.	*Arhar dal.*	Rice, common.	*Juár.*	Maize.	Barley.	*Bájrá.*
		s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.
Jalaun.	7th March 1896	10 13	21 11	16 4	..	16 6	..	17 12	15 10
	14th ,, ,, ...	11 3	20 12	16 4	..	16 6	..	17 0	15 10
	21st ,, ,, ...	11 4	20 11	15 12	..	16 6	..	17 8	15 10
	28th ,, ,, ...	11 9	20 8	15 8	..	16 6	..	16 14	15 10
	4th April ,, ...	11 10	19 13	15 12	..	16 0	..	16 12	15 4
	11th ,, ,, ...	12 0	19 6	15 12	..	15 12	..	16 10	15 4
	18th ,, ,, ...	12 9	18 6	15 4	..	15 6	..	16 7	15 2
	25th ,, ,, ...	12 8	17 9	14 8	..	15 0	..	15 15	14 10
	2nd May ,, ...	12 9	16 13	14 4	..	15 0	..	15 12	14 10
	9th ,, ,, ...	12 4	15 14	13 9	..	14 8	..	14 2	15 0
	16th ,, ,, ...	11 8	15 4	14 0	..	14 5½	..	14 4	13 12
	23rd ,, ,, ...	11 3	14 11	12 12	..	13 13	..	14 3	13 7
	Fortnight ending—								
	15th June 1896	11 0	15 0	12 0	11 0	14 0	14 0	14 8	13 0
	30th ,, ,, ...	11 0	14 8	12 0	11 0	14 0	14 0	14 8	13 0
	15th July ,, ...	11 0	14 8	12 0	11 0	14 0	14 0	14 0	13 0
	31st ,, ,, ...	11 0	14 0	12 0	11 0	14 0	14 0	14 0	13 0
	15th August ,, ...	11 0	14 0	12 0	10 0	14 0	14 0	14 0	13 0

APPENDIX C.

Statement showing fortnightly the numbers on relief works and gratuitously relieved in Bundelkhand from the opening to the closing of the works.

District.	February 29th.	March 14th.	March 28th.	April 11th.	April 25th.	May 9th.	May 23rd.
1	2	3	4	5	6	7	8
Bánda	6,630	21,314	47,867	75,681	94,814	117,554	133,739
Hamírpur	2,389	20,459	31,559	39,009	44,090	41,371	47,960
Jhánsi	2,256	7,817	22,040	17,315	29,511	32,301	41,645
Jalaun	1,616	5,905	27,162	33,325	24,118	24,649	40,617
Total ..	12,891	55,495	128,628	165,330	192,533	215,875	263,961

District.	June 6th.	June 20th.	July 4th.	July 18th.	August 1st.	August 15th.	August 29th.
9	10	11	12	13	14	15	
Bánda	71,259	61,718	30,642	6,458	3,460	2,881	2,059
Hamírpur	34,440	8,108	3,238	3,767	3,619	3,611	2,622
Jhánsi	36,686	8,348	1,109	523	545	497	142
Jalaun	33,718	7,055	1,780	1,981	1,831	1,401	1,081
Total ..	176,103	85,229	36,769	12,729	9,455	8,390	5,904

APPENDIX D.

The imports and exports into and from the Bundelkhand districts are shown in the following table:—

District.	Months.	Imports.	Exports.	Net imports.
		mds.	mds.	mds.
Bánda ..	January	20,381	2,116	
	February	7,488	1,488	
	March	8,353	193	
	April	13,769	143	
	May	37,244	2,905	
	June	75,041	8,520	
	July	64,631	5,214	
	Total ..	226,907	20,579	206,328
Hamírpur ..	January	26,991	21	
	February	9,745	118	
	March	5,587	..	
	April	9,628	2	
	May	27,547	13	
	June	26,698	..	
	July	41,869	118	
	Total ..	148,065	272	147,793
Jhánsi ..	January	44,577	13,922	
	February	29,932	11,733	
	March	27,555	6,454	
	April	46,183	2,932	
	May	83,459	7,997	
	June	92,858	3,232	
	July	62,430	1,112	
	Total ..	386,994	47,382	339,612
Jalaun ..	January	5,283	600	
	February	4,518	1,218	
	March	7,458	1,220	
	April	13,267	2,457	
	May	11,654	5,831	
	June	10,011	1,404	
	July	10,035	2	
	Total ..	62,226	12,732	49,494
	Total for the four districts ..	824,192	80,965	743,227

Order—No. 675, Revenue, dated 27th November 1896.

Miscellaneous.

Communicated to the Board of Revenue and all Collectors for information.

2. Their special attention is invited to the remarks in paragraphs 7, 8, 9, 11, 14, 19, and the conclusions summarised in paragraph 28—specially clauses (i), (ii), (vii), (viii), (xiii), (xiv) and (xvii) thereof — of the Resolution of the Government of the North-Western Provinces.

(True Extract.)

(Signed) G. STOKES,
Ag. Secretary to Government.

To the Board of Revenue (Revenue Settlement, Land Records and Agriculture).
,, all Collectors.
,, the Public Works Department.
,, the Surgeon-General with the Government of Madras.

Exd. C. M. Thumbuswamy.
100 Copies.

Public Works Department

Government {1896} of Madras.

REVENUE.

Recd. } 1896. Enclosures
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G.O., No. 675, 27th November 1896.

Order thereon No. 3511 Nd/7.12.96
Communicated to
Superintending Engineers
for information.
(True extract)
[illegible] D.G
11

NOVEMBER.

To The Superintending Engineers

Season.

Communicating, with remarks, to the Board of Revenue Proceedings of the Government of the North-Western Provinces and Oudh on the scarcity in those provinces and the relief measures adopted to meet it.

GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

Read—the following letter from DENZIL IBBETSON, Esq., C.S.I., Officiating Secretary to the Government of India, Department of Revenue and Agriculture (Famine), to the Secretary to the Government of Madras, Revenue Department, dated Calcutta, the 9th November 1896, Cir. No. 16—5-38 :—

I am directed to forward, for the information of the Governor in Council, a copy of a Resolution, No. 3945-S/1—58, dated the 20th October 1896, recorded by the Government of the North-Western Provinces and Oudh on the scarcity and relief operations in the United Provinces during the spring and summer of 1896, together with a copy of the North-Western Provinces and Oudh Revised Famine Code.

Enclosure.

Read—the following Resolution from the Government, North-Western Provinces and Oudh, Revenue (Scarcity) Department, dated Naini Tal, the 20th October 1896, No. 3945-S.—1-58 of 1896.

[Scarcity and Relief operations in the North-Western Provinces and Oudh during the Spring and Summer of 1896.]

Resolution.—The Meteorological Reporter to Government of India gives the following account of the rainy season of 1895 in the North-Western Provinces and Oudh :—

"The rainy season began in June about the usual time. The air was more humid and the sky more clouded than usual during that month. The rainfall was abundant everywhere, and especially so in the central and western divisions of these provinces, where about double the usual amount was registered during the month. July was drier than usual almost everywhere throughout the North-Western Provinces and Oudh. The principal rainy periods were during the first and the last weeks of the month, the second and the third weeks being almost entirely rainless. The rainfall during August was about average in amount and well distributed over the reporting area. In September practically little or no rain fell over the southern, central and western districts of these provinces after the 10th or 11th. The eastern districts, however, received heavyish rainfall during the advance of a cyclonic storm on the 20th. Defects in the season's total appeared in all divisions except Fyzabad, which showed a 10 per cent. excess, and Meerut, which had a 20 per cent. excess. . . . . The remaining three months of the year were almost entirely rainless, November on the plains being completely so."

2. The unsatisfactory character of the rainfall of 1895 resulted in varying degrees of pressure on the agricultural population of the provinces. Relief operations, however, only became necessary in the four districts of Bánda, Hamirpur, Jalaun and Jhánsi, known as British Bundelkhand (where the effects of the short rainfall in September, and the total absence of winter rains, were specially marked); and in parts of the Allahabad, Hardoi, Pilibhít, Garhwál, and Almora districts. But it was only in Bundelkhand that relief measures on an extensive scale were undertaken; the operations in the other districts named were both in extent and character of minor importance. The relief operations which were carried on in the Bundelkhand districts will therefore form the principal subject of this review, and the period dealt with runs from the beginning of February to the end of August, when the early *kharíf* crops ripen.

3. British Bundelkhand has suffered from agricultural depression for the past three years. The country is for the most part black cotton soil and, except in Jalaun and Hamírpur, which are to some extent traversed by branches of the Betwa Canal, is unprotected by irrigation.

The cultivated area commanded by this canal is nominally 310,000 acres, two-thirds being "black cotton" soil; but in the *kharíf* and *rabí* seasons under notice the areas irrigated from it were only 4,312 acres and 30,156 acres respectively. For reasons which the Lieutenant-Governor has discussed elsewhere the value of the Betwa Canal as a protection against the failure in the monsoon or the winter rains is not as great as had been expected; but the results* promised for the current season (owing doubtless to the fresh failure in the rains) far exceed those stated above; and give grounds for hoping that, with more experience of irrigation in black soil, we can make the canal a valuable protective work, if, indeed, it does not come up to the expectations of its designers.

* *Kharíf*, 20,000 acres. *Rabí* (first watering) 60,000.

In point both of fertility of its soil and of the industry and agricultural skill of its population, Bundelkhand compares unfavourably with the rest of the provinces. Since the autumn of 1893, the outturn of the *kharíf* crops there, as shown in Appendix A, has been uniformly poor, while that of the principal *rabí* crop (wheat mixed with either gram or barley) has been worse. The abnormal succession of bad seasons had also encouraged the growth in the culturable area of the coarse grass known as *káns*. The result of this prolonged period of adversity was, according to the statistics supplied by the Director of Land Records and Agriculture, a decrease in 1895 of 192,672 acres, or 13·5 per cent., in the normal *kharíf* area, and this was followed by a still more serious decrease in 1896 of 292,362 acres, or 19 per cent., in the normal *rabí* area. The monsoon of 1895 ceased early in September, and the winter rains entirely failed. The stock of grain in the villages, reduced by double *rabí* sowings, became low, prices began to rise before the end of the year, and the impoverished land-owning classes were unable to assist their tenants. By the beginning of 1896, when the Lieutenant-Governor and Chief Commissioner visited Bundelkhand, it was manifest that the districts were about to pass through a period of distress.

4. The affected area was fortunately well served by railways (the result of a wise employment of the Famine Insurance Fund), and it was from the first apparent that private trade would be capable of supplying all the food required, and that no heavier burden would fall on Government than attaches to the provision of relief works and of those other measures of charitable or gratuitous assistance which are described in the Famine Code.

5. In the first week in February, when the failure in the *rabí* had been placed beyond doubt, test works were started in the form of improvements and repairs to roads in all the districts of Bundelkhand, a sum of Rs. 50,000 being placed at the Commissioner's disposal for expenditure on such works.

At the same time preparatory steps were taken to deal with distress when it should show itself. Relief circles were formed, and officers to take charge of them were nominated; the executive staff of the various districts was strengthened; sites were selected for poor houses; and the programme of relief works was revised and expanded. Preparations were made for dealing with sickness, should it occur, and a staff of hospital assistants was deputed to supervise sanitary arrangements on relief works and administer medical comforts in temporary hospitals. The administrative framework necessary for the management of large relief operations was thus in readiness at the beginning of the emergency, and all that was afterwards necessary was to fill it in as necessity required.

6. The number of applicants for employment on the test works opened soon became so considerable that, on the 28th February, Government ordered the conversion of these works into regular relief works under the Famine Code, and placed a further sum of Rs. 50,000 at the disposal of the Commissioner with effect from the 1st March. The Commissioner was at the same time instructed that in selecting famine relief works regard should be had to the feeder roads required by the Indian Midland Railway.

7. In view of the growing magnitude of the scarcity the Lieutenant-Governor again went to Bundelkhand and held a conference at Jhánsi on the 11th and 12th March to discuss questions connected with famine relief. It was laid down that the object of Government in its famine relief policy would be (subject of course to the dominating idea of preventing starvation), first, to secure that expenditure on famine relief should be of permanent benefit to the several districts and help towards their commercial development and agricultural security; second, so far as possible, to keep people employed near their homes and to prevent the disintegration of villages. Up to the date of the conference relief works of all kinds had been under the control of the District officers; but the increasing pressure rendered a continuance of this arrangement undesirable, and it was accordingly arranged that, with effect from the 1st April, all large works should be carried out by the Public Works Department in accordance with the rules laid down in chapter VI of the Famine Code; while minor works were to continue under the control of the District officers, who should work through the local landowners. At the same time the necessity for a further increase of the local staff was recognized, and twenty-four naib tahsildars were deputed to the affected area to be employed under

the Public Works officers as paymasters on large works. To the employment of responsible officers as paymasters the Lieutenant-Governor and Chief Commissioner attributes much of the economy in expenditure which resulted. The end of March may thus be taken as the period at which the relief operations assumed their settled character, large operations such as roads being in charge of the Public Works Department and minor works such as village tanks, reservoirs, &c., being carried out by local agency controlled by the District officers. Up to the 31st March the actual expenditure incurred was Rs. 1,43,400.

At the Jhánsi conference the provision made for other methods of relief, especially for the relief of respectable women who are debarred by national custom from appearing in public (article 124, Famine Code) was revised and expanded. In addition to the increased staff of hospital assistants already provided, an Assistant Surgeon was placed at the Commissioner's disposal for general inspection duty, and it was ordered that a hospital assistant should be deputed for each work on which more than 1,000 persons might be employed. The question of grazing for cattle was also considered; and when afterwards the necessity arose, free grazing was allowed in the Bánda and Jhánsi Government forests.

8. In Bundelkhand the population, which contains a considerable admixture of aborigines, depends a good deal for sustenance during the summer on the *mahua* crop and other edible forest products. But by April it became manifest that the *mahua* crop had failed, while the prices of the staple food-grains rose steadily, and the numbers on relief works increased. It had been estimated by the local officers in March that at the period of greatest pressure the numbers in receipt of relief would not exceed 140,000; but by the middle of April that number was exceeded and the numbers continued to rise, till in the third week of May they reached their maximum pitch of 263,961. Comparing districts, Bánda had by far the greatest number on relief works; but the Lieutenant-Governor, on a review of the whole facts, is disposed to think that the numbers in this district would not have been so large had the "gang" and "task" systems prescribed by articles 70 and 74 of the Famine Code been more rigorously enforced from the outset. However, the defect was soon corrected, and the unprecedentedly low rate of wages paid combined with the not-unsubstantial outturn of work done proves that the people were in real need of help.

9. On the 2nd of May the Lieutenant-Governor again conferred with the officers in charge of the relief measures on the progress and prospects of affairs. At this conference the whole conduct of the famine relief organization was subjected to minute scrutiny with the object of ascertaining whether the organization was good and sufficient; whether any further modifications were necessary with reference to future prospects; and whether the administration, while being efficient, was also economical. It was found that, excluding charges for establishment, tools and plant, the average daily wage for men, women and children per head on the Public Works Department relief works fell at about 9½ pies a day, and although, here and there, things might have been better done, still, on the whole, the business had been well managed. The wages paid were regulated carefully with reference to the rations prescribed by the Famine Code. Indeed, the tendency was towards over-scrupulosity in following the fluctuations of the grain market so that the relief workers might get the benefit of any variation. It is now the Lieutenant-Governor's opinion that this constant and minute adjustment of wages to ever changing prices caused unnecessary labour and complication and should be avoided in any future operations of the kind. His Honour thinks that ordinarily wages on relief works need not be altered when the change in prices is less than 10 per cent.; and that ordinarily no alteration should be made without the previous sanction of the Commissioner of the division when he controls the relief operations.

10. In addition to the relief afforded by public works, by the establishment of poor houses, and by the distribution of assistance to respectable but indigent people under chapter X of the Code, much help was also given by granting advances of money, under the Agriculturists' Loans Act, and by suspensions and remissions of revenue. The actual sum distributed by way of recoverable advances without interest was Rs. 1,85,118; and the actual amount of revenue suspended by the Commissioner was Rs. 2,16,000 on account of the *kharíf* instalment of 1895 and Rs. 8,78,000 on account of the *rabí* instalment of 1896. No doubt it will be ultimately necessary to remit some part of these suspensions. In this way substantial assistance was afforded to the land-owning and cultivating classes, as the suspension or remission of a certain amount of revenue carries with it, under the North-Western Provinces Rent Act, the suspension or remission of double that amount in rent.

11. During May the numbers on relief works continued to increase until the last week of that month, when, notwithstanding the sanitary precautions taken, cholera, which had previously shown itself in a serious form only in the Lalitpur sub-division, broke out on the relief works with some virulence. Energetic steps were taken to break up large masses of labourers, to draft off relief workers from the works on which cholera had appeared to other works, and to disinfect all wells used by relief labourers with permanganate of potash (this latter measure did much good, and is recommended for future adoption in similar emergencies). The policy of expanding village works so as to relieve the pressure on the larger undertakings was also pressed.

12. At the beginning of June the Government laid down the policy to be adopted after the breaking of the rains with the object of inducing the people to return to their ordinary avocations as soon as possible. Village works being carried out by civil officers were to be contracted to a minimum on the breaking of the rains, and no further grants for such works were to be made, it being left to the Commissioner's discretion to continue the distribution of gratuitous relief in villages and at poor houses when absolutely necessary. With regard to road works, orders were issued that all operations under the control of the Public Works Department should be reduced to a skeleton at the break of the rains in the districts of Jhánsi and Jalaun, where the distress was judged to be less acute; and that in Bánda and Hamírpur the extent of the work should be greatly contracted. The works remaining were to consist in stone-breaking and quarrying, which were considered suitable for the rainy season as they could be done under cover. Task work was to be strictly exacted, and only persons capable of earning a living on task work were to remain on the public works, debilitated persons being provided for in poor houses. It was also laid down that, with a view to inducing people to revert to agricultural work, no wages should be paid to any person on relief works in excess of the minimum subsistence wage (or its money equivalent) prescribed by article 108, Famine Code.

13. The combined effect of these measures, reinforced by the certainty of ordinary agricultural employment when the rains would set in, and also to some extent no doubt by the fear of cholera, was seen in a great decrease of relief workers. The numbers, which in the third week of May had approximated to 2¾ lakhs, fell by the third week of June, when the rains had broken, to 52,619. As a consequence the estimate of expenditure far exceeded the actual sum spent.

By the middle of July all Public Works Department relief works had been closed, except in Bánda, where four quarry works were still open; and all village works had been closed, except in Jhánsi, where some were still unfinished. The relief administered after that time consisted almost entirely in that given at poor houses and in the gratuitous relief administered through the agency of *patwáris* to respectable persons debarred by national custom from appearing in public. At the end of August the total number in receipt of any form of relief in Bundelkhand had fallen to 5,904, and without doubt this number would have melted away by now had not the threatenings of even far greater difficulties than had beset us last year completely altered the situation.

14. Under article 63, Famine Code, relief works are divided into "large" and "small"; those works being regarded as "large" which provide simultaneous employment for three months for at least 1,000 persons. (This latter portion of the definition it was not found desirable on this occasion to adhere to rigorously.) From the 1st April all large relief works, which had till then been under the control of the District Officers, were transferred to the agency of the Public Works Department, and the District Officers were thus enabled to pay greater attention to those other very important methods of relief prescribed by Chapters VIII, IX and X of the Famine Code (poor houses, State kitchens, and relief at their homes to respectable people unused to working in the fields or debarred by national custom from appearing in public) which none but District Officers can successfully administer. The result of this change was an expansion of the employment of subordinate Public Works officers to set out and supervise the work; the employment of men of some standing as "officers in charge"; the keeping and rendition of accounts of large relief works by the Department of Public Works, and the devotion of greater attention to the division of the workers into gangs; and to the exaction of task work. It may be stated here that too much importance cannot be attached to the enforcement from the very outset of the "gang" and "task" systems declared to be imperative by articles 70 and 74 of the Famine Code. They lie at the very root of successful management of relief works. Works on which the systems are not enforced become demoralizing, wasteful and chaotic.

15. It was recognised that it must lie with the District Officer to select the works to be started (as he was most competent to decide where relief labour could be concentrated most advantageously); to adjust the scale of wages to the varying current prices of food grains; and to arrange for the provision, transport, and safeguard of the enormous sums of copper coins required for wages. But the actual execution of the works was left to be carried out by the Public Works officers.

The "large" relief works were of three classes: (1) roads, (2) large tanks, and (3) small roadside tanks. On these works the number of women and children employed far exceeded the number of men. It has been calculated that to every 100 men 306 women and children were in receipt of wages in addition to 171 dependants, nearly all infirm women and very young children, who could not work and had to be relieved gratuitously. There was thus one man to four or five women and children. The explanation of the disparity is that the people migrated in families from their homes, where they were foodless, to the relief works, where they were sure of a subsistence. One male member ordinarily remained behind to watch the cattle and the house: but the rest of the family went together to the relief works.

One result of this family migration was that in the case of road work, where the hard surface soil had to be dealt with, the amount of work done by the men who were employed in digging was insufficient to employ the women and children, who were made use of as "fillers." But it was found that digging tanks gave more equal employment to both classes, because the tank earth was more easily dug, being damp and soft, and the length to which the earth had to be carried was relatively much greater than in the case of roads.

It will be noticed that the number of "dependants" gratuitously relieved on the works under article 99 of the Famine Code considerably exceeded the 10 per cent. laid down by article 100 as the limit to be relieved in that way. The point did not escape the attention of Government during the progress of relief operations; but the Lieutenant-Governor decided that the balance of convenience and general advantage lay in the direction of keeping families together rather than in the direction of breaking them up, employing some on relief works and sending the others to a poor house. Sir Antony MacDonnell is not in favour of extending the working of poor houses beyond a strict interpretation of article 112 of the Famine Code.

Care was taken to use the labourers according to their castes and aptitudes, landowners being employed as "mates;" literate persons in helping to keep tallies; Bráhmans in distributing; and Kahárs in carrying water. But experience in this as in other scarcities has shown that high caste people do not shrink from seeking subsistence on relief works when starvation awaits them at home. Relief in their homes was, under article 124 of the Famine Code, afforded to respectable indigent women whom national custom debars from appearing in public.

16. The rate for earthwork averaged on roads managed by the Public Works Department very nearly Rs. 11 per 1,000 cubic feet. The chief cause of this high rate was that most of the work done was on roads in black cotton soil, and in the height of the hot weather. That soil when dry is extraordinarily hard, and under ordinary conditions the work would never have been done at that season of the year. Some increase in the rate was also due to the large number of carriers as compared with diggers, to which allusion has been already made.

In case of tanks, on the other hand, for reasons above indicated, the rate was only Rs. 5·40 per 1,000 cubic feet.

Of the total expenditure on works, accounted for in the Public Works Department, which is calculated to have amounted to Rs. 7,15,088, about two-fifths represent the value of the work done, if carried out at the most suitable time of the year with labour (*beldárs*) appropriate to the work, and also assuming that there is no loss of efficiency from sickness or other causes.

17. Statement C appended to this Resolution gives the numbers in receipt of relief of all kinds in the Bundelkhand districts on the last Saturday of each fortnight from February 29th to August 29th. It is noticeable that the period of greatest pressure on the relief works did not in all cases coincide with the period during which the prices of the staple food grains ordinarily consumed by the labouring classes of the people (gram *arhar*, rice, and *juár*) ruled the highest. Thus, while in every district the largest number of persons in receipt of relief was reached on the 23rd May, it was only in Hamírpur and Jhànsi that prices also were highest during the week ending on that date. In Bánda, the district where distress was most severe, and in Jalaun food grains were dearest during the weeks ending the 9th and the 30th June respectively. These variations are probably attributable to fluctuations in the market rather than to any more recondite cause.

18. At the time of recording this Resolution still higher prices rule than prevailed last May and June in Bundelkhand; yet pressure on the few relief works which have been kept open at subsistence wages as a precautionary measure is only beginning to make itself felt. The explanation doubtless is that the early *kharif* crops were not so bad as report makes out and that they have given the poorer classes of the people something to go on with. And this will continue, with more or less variation, possibly until December, when, if no rain falls in the interval, a severe strain may again commence.

19. The health of the relief workers was, on the whole, very good. They were usually, on first coming on the works, in an emaciated and reduced condition; but when afterwards the distressed tract was visited both by the Inspector-General of Civil Hospitals and the Sanitary Commissioner, these officers reported that there was no appearance of general starvation, let alone famine, among the men, women, and children on the works. Had there been, the relief operations would have failed of success. There were during the whole period only 26 deaths reported as due to starvation. But in spite of all the sanitary precautions that were taken, cholera prevailed from time to time in a sporadic form, and there were three serious outbreaks—one in the Lalitpur sub-division on the 4th April, one in the Karwi sub-division on the 18th May, and a third in Jhánsi on the 29th May. The seriousness of these outbreaks is thought by the Sanitary Commissioner to have been partly due to defective arrangements for the supply of water in connection with the large relief works. He recommends that a standard plan of water cart and water distributing appliances should be adopted for such cases. It has been reported

that the Sunday holiday prescribed by article 91 of the Famine Code is dangerous from the sanitary point of view, as the workers flocked into the towns on that day, camping near polluted tanks, &c., at the risk of acquiring or rapidly disseminating disease. This is probably correct; but the matter concerns, not only the non-Christian labourers, but the officers controlling the works, and the Lieutenant-Governor cannot compel the regular performance of official duties on Sunday. It seems clear, however, that the payment of the Sunday wage leads to abuses, as people flock to a relief work on Saturday who are in no need of relief, merely to get the Sunday wage; that the labourers earn during the week ample subsistence for the seventh day; and that no difficulty is felt in giving gratuitous relief, in kind if really required, to newcomers arriving on a relief work on Sunday.

20. On the 20th July a final Famine Conference was held by His Honour the Lieutenant-Governor at Allahabad, at which the results of the whole system of relief up to that date were considered. The figures then furnished have been since supplemented by a statement of famine expenditure incurred up to 31st August prepared in the Accountant-General's office, and this more precise statement has, where possible, been used in the following summary.

The expenditure on relief works falls under two heads according as it was accounted for by the District Officers or the Public Works Department.

Up to 1st April the District Officers accounted for all such expenditure, but after 1st April the Public Works Department accounted for the expenditure on the "large" relief works, which were under their direct control, while the District Officers accounted for the "small" relief works generally described as "village works."

The expenditure will then be shown separately—(*a*) that accounted for by the Public Works Department, and (*b*) that accounted for by the District Officers.

21. (*a*) The total amount expended by the Public Works Department was Rs. 7,15,088, of which sum—

Rs. 5,37,608 was paid in wages for labour done.
Rs. 43,758 was paid in gratuitous relief to the dependants of the relief workers.
Rs. 1,33,722 was paid in cost of tools, hutting, and temporary establishment.

The work done in return for this expenditure consisted of (1) 345½ miles of road remodelled and repaired (in which work is included the clearing out of small roadside tanks); (2) 47 large tanks excavated. The amount of earthwork done amounted to—

	C. FT.
(1) On roads and small roadside tanks	41,923,055
(2) On large tanks	13,984,102
The total earthwork thus was ...	55,907,157

This work cost in *wages only*—

	RS.		RS.
(1)	4,60,908	rate per 1,000 cublic feet	10·99
(2)	75,700	do. do.	5·41
Total ...	5,37,608	do. do.	9·62

The sum of Rs. 43,758 expended on gratuitous relief, and Rs. 1,33,722 on tools, hutting, &c., added to this amount spent in wages, make up the total expenditure of Rs. 7,15,088 expended by the Public Works Department.

The number of persons relieved, including dependants (reduced to relief for one day) on the Public Works Department works in Bundelkhand was 12,843,200, and the cost per head (including wages and gratuitous relief, but excluding tools, &c.,) was 8·7 pies per diem. It is believed that this is the lowest rate yet reached in effective famine relief administration in India by the Public Works Department.

22. (*b*) In paragraph 14 above the difference is stated between the relief which fell within the province of the Department of Public Works and within the province of District Officers to administer respectively. The total amount expended by District Officers on relief works (exclusive of expenditure on poor houses and on the miscellaneous forms of relief prescribed by Chapter X of the Famine Code) was Rs. 2,94,951.

The work done consisted of—

132½ miles of road remodelled.
559 village tanks } re-excavated.
225 do. wells }
39 reservoir embankments constructed.

The amount of earthwork done on the roads amounted to 11,877,466 cubic feet (measured), and that on of the village works was estimated to have been about 53,000,000 cubic feet.

The expenditure was—

	Rs.
On the roads	1,37,094
On village works	1,57,857
Total ...	2,94,951

This gives a rate of about Rs. 12 per 1,000 cubic feet on road work (done at the time of year before April, when such work could be done most cheaply), and a rate of about Rs. 3 per 1,000 cubic feet on village works (tanks, wells, &c.). It will be observed that while the District Officers' rates for road work are greater than the Department of Public Works rates (without the excuse for high rates, which, as stated in paragraph 16 above, the Public Works Department had), their rate for village works is extraordinarily less. The explanation lies in the system followed, and in the supervising agency employed. For road works the District Officer had, especially during the "test" stage, to rely on temporary establishments, aided no doubt to some extent by the District Engineer, and the "gang" and "task" systems referred to in paragraph 14 above do not appear to have been at the outset as strictly enforced as was desirable. But for village works the District Officers acted through the village zamindars. As the latter had not to repay the expenditure incurred and got the full benefit of the improvement in their villages, they acted honourably by the Government in making the Government expenditure go as far as possible. The important lessons to be learnt are (1) the advantage of employing the professional agency of the Public Works Department from the earliest period possible, in controlling all relief works other than those described in article 65 (*a*), Famine Code; (2) the advantage of working through the village proprietors or village headmen in controlling the works described in that article.

23. The total number of relief workers and dependants relieved on these "small" relief works, plus the number gratuitously relieved by District Officers, was 5,533,391 (reduced to units relieved for one day).

The total amount placed at the disposal of the District Officers is reported by the Accountant-General to have been 4½ lakhs in round numbers. The accounts have not yet been cleared; but in the returns submitted from the districts the amount actually disbursed is given as Rs. 3,58,777, and may be safely assumed to have fallen short of four lakhs.

24. The total number relieved for one day throughout the districts of Bundelkhand in the relief operations from 1st February to 31st August was thus approximately 18¼ millions, and the total cost of relief of every kind in that region, and including tools and plant, hutting and similar items of expenditure, amounted to about 11 lakhs. This gives an average cost of 11¼ pies per diem per head of the people relieved.

25. It is stated in paragraph 3 above that the quantity of land cultivated with *kharif* and *rabi* during the period referred to fell short of the normal quantity by about 485,000 acres, or about 17 per cent. of the total. The crop yield in the area that was sown was also up to the end of June dificient as shown in the statistics supplied by the Director of Land Records and Agriculture (Appendix A to this Resolution). To make up for the deficiency of food, importation of food grain was active during the period of distress. The figures for the imports and exports by rail of food grains for the railway stations situated in the four districts of Bundelkhand during the six months from January to July inclusive are shown in Appendix D. The total net imports for the whole affected tract are shown as 743,227 maunds. There was doubtless also some importation by road, especially into the Hamirpur district from the north: but imports by road are not thought to have been large. Probably the total imports were about 7¾ lakhs of maunds. Thus the net quantity of grain imported allowed but a small margin over the quantity actually required for the subsistence of the 18½ millions of people (reduced to units of one day) who came on relief: and its cost at the average price ruling during the scarcity of the commonest grain (gram) which constituted the chief article of import approximates to the cash expenditure on the relief operations. The argument, or perhaps, it should be said, the coincidence, need not be pushed too far: but the figures tend to show that, substantially, there was no unnecessary expenditure on relief, and that private trade correctly gauged the extent of the emergency and the necessities of the districts.

26. The Famine Code (article 53) provides for the association, with the Collector, of District or Local Boards "for the purpose of advising and assisting in all matters connected with the prevention or relief of famine." The Code does not enjoin the creation of unofficial charitable committees, though it does not say they shall not be created. The social conditions of Bundelkhand were not favourable to unofficial efforts in the cause of charity; and probably the District Boards contained the intelligence of the region. But in more advanced districts the Lieutenant-Governor is convinced that, should circumstances require the undertaking of relief operations on a large scale, the greatest benefit will accrue from the organization of private effort and private charity in supplement of the Government system of relief. In Bundelkhand most valuable assistance was given by private landlords and others in the control of the smaller relief works; and advantage should, in future cases, be taken of the landlords' willingness to help in this and other ways. They should, so far as possible, be associated with the officers of Government in the general scheme of relief.

27. It has been stated in paragraph 2 above that, besides the relief operations in the Bundelkhand districts, some measures of relief were also found to be necessary in the Allahabad district, the Hardoi district of Oudh, the Pilibhit district of Rohilkhand, and the Garhwál and Almora districts of Kumaun. In the part of the Allahabad district bordering on Bundelkhand, and resembling it in climate, soil, and population, the distress was for a time severe, but fortunately in none of the other districts did the reality come up to the local officers' early apprehensions. The relief measures adopted in these districts do not call for any lengthened comment. They were carried out by the District Officers without assistance from the Department of Public Works and comprised repairs to unmetalled district roads, poorhouses, and some gratuitous relief under Chapter X of the Famine Code. In all the districts except Hardoi the pressure practically ceased when the rains had regularly set in; but in Hardoi, during the latter portion of July, when there was a prolonged break in the rains, distress threatened to assume somewhat serious proportions. The total expenditure in these five districts up to 31st August, as shown in the returns received from the District Officers, amounted to Rs. 1,17,431. The number of persons relieved (reduced to relief for one day) was nearly one million.

Throughout the provinces, therefore, the total number of persons relieved up to 31st August (reduce to units of one day) was 19½ millions (the earlier estimates overstated the numbers), and the total expenditure incurred was Rs. 12,17,431. The number of deaths reported as due to starvation was, as already stated, altogether insignificant; but the mortuary statistics from the distressed districts showed a death rate much above the normal, from which the Lieutenant-Governor infers that, although the number of deaths from actual starvation was almost *nil*, the pressure of hard times claimed many victims, mostly among the old and the very young.

28. Before bringing the review to a close the Lieutenant-Governor and Chief Commissioner desires to record, for information and future guidance, the more useful lessons which actual experience in these relief operations has taught. On the whole, the rules and procedure prescribed by the Famine Code have been found to be effective and easy to work; but they naturally do not provide for all contingencies, while relief operations are fruitful in surprises, which call for decision and resource in the man on the spot. The following instructions therefore, which are the results of practical experience, will be useful to all officers engaged in future relief operations:—

(i) Test works fail to fulfil their object if full tasks are not exacted, and if wages are not regulated with reference to the provisions of Chapter VII of the Famine Code. Close supervision is therefore essential.

(ii) Where test works show the necessity of relief works, the management of the latter, not being of the kind specified in article 65 (*a*), Famine Code, should be entrusted from the outset to the Public Works Department.

(iii) Relief works of the kind specified in article 65 (*a*), Famine Code, (*i.e.*, "works specially intended for the relief of the agricultural population in the vicinity of their villages") are best carried out through the agency of the village landlords and headmen. The quantity of work to be done can usually be accurately calculated beforehand: and the cost fixed with reference to a fair task and the current price of food. Advances can then be made and the account cleared up on completion of the work.

(iv) Article 77 of the Famine Code provides that over each separate work managed by the Public Works Department shall be placed an "officer in charge." The number of labourers under an "officer in charge" should ordinarily not exceed 5,000; and if there are more than 3,000, there should also ordinarily be two sub-overseers or work agents. In every case each sub-overseer or work agent should have an intelligent assistant or "mate" to help him to lay out the work. For every five or six "charges" an inspecting officer of the standing of a Public Works upper subordinate is required.

(v) Officers of the naib tahsildar class or of similar standing on the regular establishment of Government should, whenever possible, be employed as "officers in charge." They should be placed at the disposal of the Public Works Department and employed where required, postings being made by the Superintending Engineer.

(vi) Reserves of tools and baskets should be established at convenient centres, whence they can quickly be sent where wanted; and as baskets wear out quickly and take time to procure, arrangements should be made in advance for their supply.

(vii) On relief works the "gang system" should be rigidly enforced from the very outset and gang registers kept up. A gang register is a card or piece of stout paper containing the names and classification of all persons in the gang. Any gang can thus at any time be checked independently of other gangs, and by 'sampling' a few gangs, the whole work may be effectively checked. These great advantages do not attach to the alternative "ticket system," under which vouchers are delivered to individuals in the morning, to be exchanged for money in the evening. Under the "ticket system" it is obligatory to count and classify at a particular time in the afternoon the whole of the persons present on a work, in order to obtain a satisfactory check; and this has been found to be, not only extremely laborious, but usually impracticable.

APPENDIX A.

Kharíf and Rabí Jinswárs of the four Bundelkhand Districts { An average crop = 16 annas. / A bumper crop = 20 annas.

Crops.	Bánda.									Hamirpur.										Jhánsi.									
	Acreage.			Outturn in annas.						Acreage.			Outturn in annas.							Acreage.			Outturn in annas.						
	1893-94.	1894-95.	1895-96.	1893-94.			1894-95.			1893-94.	1894-95.	1895-96.	1893-94.			1894-95.				1893-94.	1894-95.	1895-96.	1893-94.			1894-95.			
Kharíf.																													
Rice	70,643	74,865	81,474	13	7	11	49,22	4,766	5,697	15	15	14	25,545	26,551	25,548	11	16	9		1,629	1,210	1,966	15	15	15	102,739	107,392	114,685	13	13	12
Indian corn ..	198	198	189	11	5	14	10	10	5	15	14	13	7,953	8,117	8,182	13	14	15		16	22	36	14	15	16	8,177	8,347	8,412	13	12	14
Cotton and *arhar* (*a*).	104,329	96,579	86,697	10	5	17	80,790	94,367	76,616	14	10	16	25,160	33,345	26,323	14	12	13		50,861	64,162	50,886	14	8	17	261,140	288,453	240,522	13	9	16
Juár and *arhar* (*b*).	193,803	156,530	133,220	11	6	13	154,822	151,016	122,045	14	10	13	53,919	66,351	45,648	13	12	11		73,009	100,510	60,356	13	8	11	475,553	474,407	361,269	13	9	12
Bájrá and *arhar* (*c*).	41,618	29,425	30,065	11	4	12	23,814	19,557	19,755	15	8	14	2,296	3,160	1,626	14	11	9		50,677	42,892	42,862	12	7	9	118,405	95,034	94,308	13	7	11
Urd and *múng* ..	1,089	828	934	9	5	10	3,298	2,664	5,103	11	11	11	16,732	15,824	15,305	12	13	9		82	187	193	15	11	7	21,201	19,503	21,535	12	10	9
Til	47,438	26,631	25,173	13	5	10	47,107	37,548	31,979	16	12	14	66,958	77,585	6,244	..	14	8		4,901	5,834	4,439	14	11	12	166,404	147,598	124,235	14	10	11
Moth (*d*)	1,579	1,004	853	..	..	..	171	123	85	..	..	..	255	241	236	..	..	..		79	56	31	..	..	..	2,084	1,424	1,205	..	..	..
Kodon	20,730	27,427	28,576	11	8	13	24,858	32,105	35,955	16	13	12	63,820	68,950	67,892	15	..	..		..	2,123	2,927	16	13	11	109,408	130,605	135,350	14	11	12
Garden crops (food).	703	703	863	..	..	..	1,692	1,652	1,833	..	..	..	1,535	1,239	1,265	..	..	..		1,004	1,022	979	..	..	..	4,934	4,616	4,940	..	..	..
Total ..	482,130	414,190	388,044	..	..	..	341,484	343,808	299,073	..	..	..	264,173	301,363	254,669	..	..	..		182,258	218,018	164,675	..	..	..	1,270,045	1,277,379	1,106,461	..	..	..
Rabí.																													
Sugarcane ..	23	27		..	14	16	2,503	2,026		16	12	14	931	926		16	16	12		663	430		14	15	12	4,120	3,409	..	15	14	..
Arhar, pure ..	376	893		13	12	12	184	114		16	16	10	462	470		16	16	8		25	21		15	16	8	1,047	1,498	..	15	15	..
Wheat and gram (*e*).	211,201	192,863		8	9	4	214,010	165,948		10	6	7	104,361	53,548		7	10	5		213,152	112,219		7	10	4	742,724	524,578	..	8	9	..
Wheat and barley (*f*).	4,227	6,293					1,786	6,297					16,463	16,932						5,314	9,090					27,790	38,612	..			
Barley and gram..	71,175	112,271		14	13	7	24,551	51,920		15	14	8	3,254	4,776		16	16	7		34,822	86,974		16	16	5	133,802	255,941	..	15	15	..
Gram, pure ..	165,427	205,407		13	12	8	67,039	93,742		15	15	7	59,641	99,178		16	16	7		46,655	61,700		13	15	7	338,762	460,027	..	14	14	..
Alsi	30,687	28,261		10	1	2	44,695	64,263		15	..	3	18,955	28,353		15	3	3		68,764	92,270		13	2	2	163,101	213,847	..	13	2	..
Zira	Details not available.		Not yet available.	..	..	..	Details not available.		Not yet available.	..	..	..	Details not available.		Not yet available.	..	..	..		Details not available.		Not yet available.	14	15	..	Details not available.		..	14	15	..
Dhania				..	..	..				..	..	..				..	..	..					16	15	..			..	16	15	..
Vegetable (*zaid*) ..	57	123		..	..	..	26	27		..	..	..	355	377		..	..	..		38	49		16	15	..	476	576	..	16	15	..
Total ..	483,173	546,138	..	..	..	..	354,794	384,337	..	..	..	..	204,422	204,560	..	..	..	..		369,433	363,453	..	..	..	..	1,411,822	1,498,488	..	..	..	..

(*a*) Outturn for cotton only.
(*b*) ,, juár ,,
(*c*) ,, bájrá ,,
(*d*) Outturn included in *urd* and *múng*.,
(*e*) ,, for wheat only.
(*f*) ,, ,, barley ,,

APPENDIX B.

(1) Prices ruling in the Bánda District from 1st March to 18th August 1896.

District.	Week ending—	Wheat.	Gram.	*Arhar dal.*	Rice, common.	Juár.	Maize.	Barley.	*Bájrá.*
		sérs.	sérs.	sérs.	sérs.	sérs.			
Bánda.	7th March 1896	10·97	19·81	14·31	12·94	16·06	..	..	..
	14th ,,	11·46	20·19	15·38	12·69	15·69	..	..	..
	21st ,,	11·78	19·13	15·38	12·63	16·06	..	..	..
	28th ,,	12·03	18·41	15·13	12·63	14·69	..	..	..
	4th April 1896	11·84	17·97	15·00	12·38	14·57	..	..	..
	11th ,,	11·91	18·06	14·31	12·19	14·33	..	..	..
	18th ,,	12·25	18·25	14·44	12·19	14·50	..	..	..
	25th ,,	12·31	17·91	14·19	11·94	14·42	..	..	..
	2nd May 1896	12·22	17·28	13·93	11·50	14·42	..	..	..
	9th ,,	12·09	16·31	13·47	11·31	13·83	..	..	..
	16th ,,	11·78	15·16	12·66	11·16	13·33	..	..	..
	23rd ,,	11·79	14·69	12·28	10·78	13·17	..	..	..
	2nd June 1896	11·31	14·94	11·96	10·66	12·92	..	..	..
	9th ,,	11·06	14·47	11·75	10·53	13·75	..	..	..
	16th ,,	11·25	14·94	12·21	10·71	13·68	..	..	..
	23rd ,,	11·	14·75	12·03	10·56	13·68	..	..	..
	30th ,,	10·78	14·72	11·97	10·75	13·75	..	..	..
	7th July 1896	10·69	14·68	12·06	10·22	12·42	..	..	..
	14th ,,	10·75	14·84	11·91	10·84	12·	..	..	..
	21st ,,	10·75	14·84	12·00	10·06	11·83	..	..	..
	28th ,,	10·78	14·88	12·28	10·19	12·83	..	..	..
	4th August 1896	10·75	15·	11·81	9·94	12·25	..	..	..
	11th ,,	10·78	14·88	11·78	10·19	12·54	..	..	..
	18th ,,	10·69	14·66	11·72	9·94	12·88	..	..	..

(2) Prices ruling in the District of Hamírpur from 1st March to 18th August 1896.

District.	Week ending—	Wheat.	Gram.	*Arhar dal.*	Rice, common.	Juár.	Maize.	Barley.	*Bájrá.*
		s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.
Hamírpur.	7th March 1896	10 12	18 9	14 14	11 8	14 9	16 3	16 1	13 13
	14th ,,	11 4	18 13	16 8	11 4	15 2	18 6	15 3	15 0
	21st ,,	11 3	18 9	14 11	11 5	14 13	18 6	15 5	15 2
	28th ,,	11 4	18 8	14 6	11 3	12 2	18 6	15 9	13 14
	4th April 1896	11 3	17 14	13 14	11 0	14 8	19 8	15 6	..
	11th ,,	12 1	17 3	13 10	10 12	14 10	19 8	15 2	13 0
	18th ,,	12 4	16 7	13 14	10 11	14 8	20 10	14 13	..
	25th ,,	12 2	16 0	13 14	10 8	14 10	19 13	14 10	..
	2nd May 1896	11 15	14 13	12 14	10 6	14 6	17 0	14 5	..
	9th ,,	11 14	14 6	12 3	9 14	14 3	16 12	14 6	..
	16th ,,	11 8	13 10	11 13	9 8	13 15	15 8	13 1	..
	23rd ,,					14 0	14 10		..
	Fortnight ending—								
	15th June 1896	11 6	14 2	12 3	9 11	13 1	15 0	13 1	13 1
	30th ,,	11 1	13 13	13 0	9 5	12 15	14 13	13 2	11 8
	15th July 1896	13 2	15 0	11 2	9 12	13 0	13 13	12 13	11 8
	31st ,,	11 8	15 0	12 8	10 0	13 3	15 0	12 10	11 8
	15th August 1896	10 11	14 13	12 8	9 8	13 3	15 0	12 10	11 8

(3) Prices ruling in the district of Jhánsi from 1st March to 18th August 1896.

District.	Week ending—	Wheat.	Gram.	*Arhar dal.*	Rice, common.	Juár.	Maize.	Barley.	*Bájrá.*
		s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.
Jhánsi.	7th March 1896	11 9	17 15	14 0	10 11	16 15	..	..	..
	14th ,,	11 9	18 6	15 0	10 10	16 15	..	..	..
	21st ,,	11 10	18 11	15 0	10 8	16 15	..	..	..
	28th ,,	11 9	17 6	14 13	10 9	16 11	..	..	..
	4th April	11 10	17 10	14 13	10 10	16 8	..	..	..
	11th ,,	11 15	17 9	14 6	10 12	16 8	..	..	..
	18th ,,	12 0	17 0	14 6	10 12	16 8	..	..	..
	25th ,,	12 0	16 5	14 7	10 11	16 8	..	..	..
	2nd May ,,	12 8	15 15	14 0	10 11	16 8	..	..	..
	9th ,,	12 3	15 11	13 13	10 11	16 6	..	..	..
	16th ,,	12 1	15 0	13 13	10 11	15 11	..	..	..
	23rd ,,	11 15	14 8	13 11	10 9	15 1	..	..	..
	Fortnight ending—								
	16th June 1895 ..	11 14	14 10	12 0	11 0	14 12	14 8	15 8	14 0
	30th ,, ..	12 0	14 14	12 4	11 0	15 1	15 1	15 8	14 0
	15th July ,, ..	11 12	14 0	12 8	11 8	15 4	15 8	15 8	14 0
	31st ,, ..	11 12	14 0	12 8	10 0	15 4	15 0	14 12	14 0
	15th August ,, ..	11 13	13 12	12 12	10 0	15 0	15 8	14 12	..

(4) Prices ruling in the district of Jalaun from 1st March to 18th August 1896.

District.	Week ending—	Wheat.	Gram.	*Arhar dal.*	Rice, common.	*Judr.*	Maize.	Barley.	*Bájrá.*
		s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.
Jalaun.	7th March 1896	10 13	21 11	16 4	..	16 6	..	17 12	15 10
	14th ,, ,, ...	11 3	20 12	16 4	..	16 6	..	17 0	15 10
	21st ,, ,, ...	11 4	20 11	15 12	..	16 6	..	17 8	15 10
	28th ,, ,, ...	11 9	20 8	15 8	..	16 6	..	16 14	15 10
	4th April ,, ...	11 10	19 13	15 12	..	16 0	..	16 12	15 4
	11th ,, ,, ...	12 0	19 6	15 12	..	15 12	..	16 10	15 4
	18th ,, ,, ...	12 9	18 6	15 4	..	15 6	..	16 7	15 2
	25th ,, ,, ...	12 8	17 9	14 8	..	15 0	..	15 15	14 10
	2nd May ,, ...	12 9	16 13	14 4	..	15 0	..	15 12	14 10
	9th ,, ,, ...	12 4	15 14	13 9	..	14 8	..	14 2	15 0
	16th ,, ,, ...	11 8	15 4	14 0	..	14 5½	..	14 4	13 12
	23rd ,, ,, ...	11 3	14 11	12 12	..	13 13	..	14 3	13 7
	Fortnight ending—								
	15th June 1896	11 0	15 0	12 0	11 0	14 0	14 0	14 8	13 0
	30th ,, ,, ...	11 0	14 8	12 0	11 0	14 0	14 0	14 8	13 0
	15th July ,, ...	11 0	14 8	12 0	11 0	14 0	14 0	14 0	13 0
	31st ,, ,, ...	11 0	14 0	12 0	11 0	14 0	14 0	14 0	13 0
	15th August ,, ...	11 0	14 0	12 0	10 0	14 0	14 0	14 0	13 0

APPENDIX C.

Statement showing fortnightly the numbers on relief works and gratuitously relieved in Bundelkhand from the opening to the closing of the works.

District.	February 29th.	March 14th.	March 28th.	April 11th.	April 25th.	May 9th.	May 23rd.
1	2	3	4	5	6	7	8
Bánda	6,630	21,314	47,867	75,681	94,814	117,554	133,739
Hamírpur	2,389	20,459	31,559	39,009	44,090	41,371	47,960
Jhánsi	2,256	7,817	22,040	17,315	29,511	32,301	41,645
Jalaun	1,616	5,905	27,162	33,325	24,118	24,649	40,617
Total ..	12,891	55,495	128,628	165,330	192,533	215,875	263,961

District.	June 6th.	June 20th.	July 4th.	July 18th.	August 1st.	August 15th.	August 29th.
	9	10	11	12	13	14	15
Bánda	71,259	61,718	30,642	6,458	3,460	2,881	2,059
Hamírpur	34,440	8,108	3,238	3,767	3,619	3,611	2,622
Jhánsi	36,686	8,348	1,109	523	545	497	142
Jalaun	33,718	7,055	1,780	1,981	1,831	1,401	1,081
Total ..	176,103	85,229	36,769	12,729	9,455	8,390	5,904

APPENDIX D.

The imports and exports into and from the Bundelkhand districts are shown in the following table:—

District.	Months.	Imports.	Exports.	Net imports.
		MDS.	MDS.	MDS.
Bánda ..	January	20,381	2,116	
	February	7,488	1,488	
	March	8,353	193	
	April	13,769	143	
	May	37,244	2,905	
	June	75,041	8,520	
	July	64,631	5,214	
	Total ..	226,907	20,579	206,328
Hamírpur ..	January	26,991	21	
	February	9,745	118	
	March	5,587	..	
	April	9,628	2	
	May	27,547	13	
	June	26,698	..	
	July	41,869	118	
	Total ..	148,065	272	147,793
Jhánsi ..	January	44,577	13,922	
	February	29,932	11,733	
	March	27,555	6,454	
	April	46,183	2,932	
	May	83,459	7,997	
	June	92,858	3,232	
	July	62,430	1,112	
	Total ..	386,994	47,382	339,612
Jalaun ..	January	5,283	600	
	February	4,518	1,218	
	March	7,458	1,220	
	April	13,267	2,457	
	May	11,654	5,831	
	June	10,011	1,404	
	July	10,035	2	
	Total ..	62,226	12,732	49,494
	Total for the four districts ..	824,192	80,965	743,227

Order—No. 675, Revenue, dated 27th November 1896.

Miscellaneous.

Communicated to the Board of Revenue and all Collectors for information.

2. Their special attention is invited to the remarks in paragraphs 7, 8, 9, 11, 14, 19, and the conclusions summarised in paragraph 28—specially clauses (i), (ii), (vii), (viii), (xiii), (xiv) and (xvii) thereof — of the Resolution of the Government of the North-Western Provinces.

(True Extract.)

(Signed) G. STOKES,
Ag. Secretary to Government.

To the Board of Revenue (Revenue Settlement, Land Records and Agriculture).
,, all Collectors.
,, the Public Works Department.
,, the Surgeon-General with the Government of Madras.

Exd. C. M. Thumbuswamy.
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REVENUE.

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G.O., No. 675, 27th November 1896.

NOVEMBER.

Season.

Communicating, with remarks, to the Board of Revenue Proceedings of the Government of the North-Western Provinces and Oudh on the scarcity in those provinces and the relief measures adopted to meet it.

GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

Read—the following letter from DENZIL IBBETSON, Esq., C.S.I., Officiating Secretary to the Government of India, Department of Revenue and Agriculture (Famine), to the Secretary to the Government of Madras, Revenue Department, dated Calcutta, the 9th November 1896, Cir. No. 16—5-38 :—

I am directed to forward, for the information of the Governor in Council, a copy of a Resolution, No. 3945-S/1—58, dated the 20th October 1896, recorded by the Government of the North-Western Provinces and Oudh on the scarcity and relief operations in the United Provinces during the spring and summer of 1896, together with a copy of the North-Western Provinces and Oudh Revised Famine Code.

Enclosure.

Read—the following Resolution from the Government, North-Western Provinces and Oudh, Revenue (Scarcity) Department, dated Naini Tal, the 20th October 1896, No. 3945-S.—1-58 of 1896.

[*Scarcity and Relief operations in the North-Western Provinces and Oudh during the Spring and Summer of* 1896.]

Resolution.—The Meteorological Reporter to Government of India gives the following account of the rainy season of 1895 in the North-Western Provinces and Oudh :—

"The rainy season began in June about the usual time. The air was more humid and the sky more clouded than usual during that month. The rainfall was abundant everywhere, and especially so in the central and western divisions of these provinces, where about double the usual amount was registered during the month. July was drier than usual almost everywhere throughout the North-Western Provinces and Oudh. The principal rainy periods were during the first and the last weeks of the month, the second and the third weeks being almost entirely rainless. The rainfall during August was about average in amount and well distributed over the reporting area. In September practically little or no rain fell over the southern, central and western districts of these provinces after the 10th or 11th. The eastern districts, however, received heavyish rainfall during the advance of a cyclonic storm on the 20th. Defects in the season's total appeared in all divisions except Fyzabad, which showed a 10 per cent. excess, and Meerut, which had a 20 per cent. excess. . . . . The remaining three months of the year were almost entirely rainless, November on the plains being completely so."

2. The unsatisfactory character of the rainfall of 1895 resulted in varying degrees of pressure on the agricultural population of the provinces. Relief operations, however, only became necessary in the four districts of Bánda, Hamirpur, Jalaun and Jhánsi, known as British Bundelkhand (where the effects of the short rainfall in September, and the total absence of winter rains, were specially marked); and in parts of the Allahabad, Hardoi, Pilibhít, Garhwál, and Almora districts. But it was only in Bundelkhand that relief measures on an extensive scale were undertaken; the operations in the other districts named were both in extent and character of minor importance. The relief operations which were carried on in the Bundelkhand districts will therefore form the principal subject of this review, and the period dealt with runs from the beginning of February to the end of August, when the early *kharíf* crops ripen.

3. British Bundelkhand has suffered from agricultural depression for the past three years. The country is for the most part black cotton soil and, except in Jalaun and Hamirpur, which are to some extent traversed by branches of the Betwa Canal, is unprotected by irrigation.

The cultivated area commanded by this canal is nominally 310,000 acres, two-thirds being "black cotton" soil; but in the *kharíf* and *rabí* seasons under notice the areas irrigated from it were only 4,312 acres and 30,156 acres respectively. For reasons which the Lieutenant-Governor has discussed elsewhere the value of the Betwa Canal as a protection against the failure in the monsoon or the winter rains is not as great as had been expected; but the results* promised for the current season (owing doubtless to the fresh failure in the rains) far exceed those stated above; and give grounds for hoping that, with more experience of irrigation in black soil, we can make the canal a valuable protective work, if, indeed, it does not come up to the expectations of its designers.

* *Kharíf*, 20,000 acres. *Rabí* (first watering) 60,000.

In point both of fertility of its soil and of the industry and agricultural skill of its population, Bundelkhand compares unfavourably with the rest of the provinces. Since the autumn of 1893, the outturn of the *kharíf* crops there, as shown in Appendix A, has been uniformly poor, while that of the principal *rabí* crop (wheat mixed with either gram or barley) has been worse. The abnormal succession of bad seasons had also encouraged the growth in the cultivable area of the coarse grass known as *káns*. The result of this prolonged period of adversity was, according to the statistics supplied by the Director of Land Records and Agriculture, a decrease in 1895 of 192,672 acres, or 13·5 per cent., in the normal *kharíf* area, and this was followed by a still more serious decrease in 1896 of 292,362 acres, or 19 per cent., in the normal *rabí* area. The monsoon of 1895 ceased early in September, and the winter rains entirely failed. The stock of grain in the villages, reduced by double *rabí* sowings, became low, prices began to rise before the end of the year, and the impoverished land-owning classes were unable to assist their tenants. By the beginning of 1896, when the Lieutenant-Governor and Chief Commissioner visited Bundelkhand, it was manifest that the districts were about to pass through a period of distress.

4. The affected area was fortunately well served by railways (the result of a wise employment of the Famine Insurance Fund), and it was from the first apparent that private trade would be capable of supplying all the food required, and that no heavier burden would fall on Government than attaches to the provision of relief works and of those other measures of charitable or gratuitous assistance which are described in the Famine Code.

5. In the first week in February, when the failure in the *rabí* had been placed beyond doubt, test works were started in the form of improvements and repairs to roads in all the districts of Bundelkhand, a sum of Rs. 50,000 being placed at the Commissioner's disposal for expenditure on such works.

At the same time preparatory steps were taken to deal with distress when it should show itself. Relief circles were formed, and officers to take charge of them were nominated; the executive staff of the various districts was strengthened; sites were selected for poor houses; and the programme of relief works was revised and expanded. Preparations were made for dealing with sickness, should it occur, and a staff of hospital assistants was deputed to supervise sanitary arrangements on relief works and administer medical comforts in temporary hospitals. The administrative framework necessary for the management of large relief operations was thus in readiness at the beginning of the emergency, and all that was afterwards necessary was to fill it in as necessity required.

6. The number of applicants for employment on the test works opened soon became so considerable that, on the 28th February, Government ordered the conversion of these works into regular relief works under the Famine Code, and placed a further sum of Rs. 50,000 at the disposal of the Commissioner with effect from the 1st March. The Commissioner was at the same time instructed that in selecting famine relief works regard should be had to the feeder roads required by the Indian Midland Railway.

7. In view of the growing magnitude of the scarcity the Lieutenant-Governor again went to Bundelkhand and held a conference at Jhánsi on the 11th and 12th March to discuss questions connected with famine relief. It was laid down that the object of Government in its famine relief policy would be (subject of course to the dominating idea of preventing starvation), first, to secure that expenditure on famine relief should be of permanent benefit to the several districts and help towards their commercial development and agricultural security; second, so far as possible, to keep people employed near their homes and to prevent the disintegration of villages. Up to the date of the conference relief works of all kinds had been under the control of the District officers; but the increasing pressure rendered a continuance of this arrangement undesirable, and it was accordingly arranged that, with effect from the 1st April, all large works should be carried out by the Public Works Department in accordance with the rules laid down in chapter VI of the Famine Code; while minor works were to continue under the control of the District officers, who should work through the local landowners. At the same time the necessity for a further increase of the local staff was recognized, and twenty-four naib tahsildars were deputed to the affected area to be employed under

the Public Works officers as paymasters on large works. To the employment of responsible officers as paymasters the Lieutenant-Governor and Chief Commissioner attributes much of the economy in expenditure which resulted. The end of March may thus be taken as the period at which the relief operations assumed their settled character, large operations such as roads being in charge of the Public Works Department and minor works such as village tanks, reservoirs, &c., being carried out by local agency controlled by the District officers. Up to the 31st March the actual expenditure incurred was Rs. 1,43,400.

At the Jhánsi conference the provision made for other methods of relief, especially for the relief of respectable women who are debarred by national custom from appearing in public (article 124, Famine Code) was revised and expanded. In addition to the increased staff of hospital assistants already provided, an Assistant Surgeon was placed at the Commissioner's disposal for general inspection duty, and it was ordered that a hospital assistant should be deputed for each work on which more than 1,000 persons might be employed. The question of grazing for cattle was also considered; and when afterwards the necessity arose, free grazing was allowed in the Bánda and Jhánsi Government forests.

8. In Bundelkhand the population, which contains a considerable admixture of aborigines, depends a good deal for sustenance during the summer on the *mahua* crop and other edible forest products. But by April it became manifest that the *mahua* crop had failed, while the prices of the staple food-grains rose steadily, and the numbers on relief works increased. It had been estimated by the local officers in March that at the period of greatest pressure the numbers in receipt of relief would not exceed 140,000; but by the middle of April that number was exceeded and the numbers continued to rise, till in the third week of May they reached their maximum pitch of 263,961. Comparing districts, Bánda had by far the greatest number on relief works; but the Lieutenant-Governor, on a review of the whole facts, is disposed to think that the numbers in this district would not have been so large had the "gang" and "task" systems prescribed by articles 70 and 74 of the Famine Code been more rigorously enforced from the outset. However, the defect was soon corrected, and the unprecedentedly low rate of wages paid combined with the not-unsubstantial outturn of work done proves that the people were in real need of help.

9. On the 2nd of May the Lieutenant-Governor again conferred with the officers in charge of the relief measures on the progress and prospects of affairs. At this conference the whole conduct of the famine relief organization was subjected to minute scrutiny with the object of ascertaining whether the organization was good and sufficient; whether any further modifications were necessary with reference to future prospects; and whether the administration, while being efficient, was also economical. It was found that, excluding charges for establishment, tools and plant, the average daily wage for men, women and children per head on the Public Works Department relief works fell at about 9½ pies a day, and although, here and there, things might have been better done, still, on the whole, the business had been well managed. The wages paid were regulated carefully with reference to the rations prescribed by the Famine Code. Indeed, the tendency was towards over-scrupulosity in following the fluctuations of the grain market so that the relief workers might get the benefit of any variation. It is now the Lieutenant-Governor's opinion that this constant and minute adjustment of wages to ever changing prices caused unnecessary labour and complication and should be avoided in any future operations of the kind. His Honour thinks that ordinarily wages on relief works need not be altered when the change in prices is less than 10 per cent.; and that ordinarily no alteration should be made without the previous sanction of the Commissioner of the division when he controls the relief operations.

10. In addition to the relief afforded by public works, by the establishment of poor houses, and by the distribution of assistance to respectable but indigent people under chapter X of the Code, much help was also given by granting advances of money, under the Agriculturists' Loans Act, and by suspensions and remissions of revenue. The actual sum distributed by way of recoverable advances without interest was Rs. 1,85,118; and the actual amount of revenue suspended by the Commissioner was Rs. 2,16,000 on account of the *kharíf* instalment of 1895 and Rs. 8,78,000 on account of the *rabí* instalment of 1896. No doubt it will be ultimately necessary to remit some part of these suspensions. In this way substantial assistance was afforded to the land-owning and cultivating classes, as the suspension or remission of a certain amount of revenue carries with it, under the North-Western Provinces Rent Act, the suspension or remission of double that amount in rent.

11. During May the numbers on relief works continued to increase until the last week of that month, when, notwithstanding the sanitary precautions taken, cholera, which had previously shown itself in a serious form only in the Lalitpur sub-division, broke out on the relief works with some virulence. Energetic steps were taken to break up large masses of labourers, to draft off relief workers from the works on which cholera had appeared to other works, and to disinfect all wells used by relief labourers with permanganate of potash (this latter measure did much good, and is recommended for future adoption in similar emergencies). The policy of expanding village works so as to relieve the pressure on the larger undertakings was also pressed.

12. At the beginning of June the Government laid down the policy to be adopted after the breaking of the rains with the object of inducing the people to return to their ordinary avocations as soon as possible. Village works being carried out by civil officers were to be contracted to a minimum on the breaking of the rains, and no further grants for such works were to be made, it being left to the Commissioner's discretion to continue the distribution of gratuitous relief in villages and at poor houses when absolutely necessary. With regard to road works, orders were issued that all operations under the control of the Public Works Department should be reduced to a skeleton at the break of the rains in the districts of Jhánsi and Jalaun, where the distress was judged to be less acute; and that in Bánda and Hamírpur the extent of the work should be greatly contracted. The works remaining were to consist in stone-breaking and quarrying, which were considered suitable for the rainy season as they could be done under cover. Task work was to be strictly exacted, and only persons capable of earning a living on task work were to remain on the public works, debilitated persons being provided for in poor houses. It was also laid down that, with a view to inducing people to revert to agricultural work, no wages should be paid to any person on relief works in excess of the minimum subsistence wage (or its money equivalent) prescribed by article 108, Famine Code.

13. The combined effect of these measures, reinforced by the certainty of ordinary agricultural employment when the rains would set in, and also to some extent no doubt by the fear of cholera, was seen in a great decrease of relief workers. The numbers, which in the third week of May had approximated to 2¾ lakhs, fell by the third week of June, when the rains had broken, to 52,619. As a consequence the estimate of expenditure far exceeded the actual sum spent.

By the middle of July all Public Works Department relief works had been closed, except in Bánda, where four quarry works were still open; and all village works had been closed, except in Jhánsi, where some were still unfinished. The relief administered after that time consisted almost entirely in that given at poor houses and in the gratuitous relief administered through the agency of *patwáris* to respectable persons debarred by national custom from appearing in public. At the end of August the total number in receipt of any form of relief in Bundelkhand had fallen to 5,904, and without doubt this number would have melted away by now had not the threatenings of even far greater difficulties than had beset us last year completely altered the situation.

14. Under article 63, Famine Code, relief works are divided into "large" and "small"; those works being regarded as "large" which provide simultaneous employment for three months for at least 1,000 persons. (This latter portion of the definition it was not found desirable on this occasion to adhere to rigorously.) From the 1st April all large relief works, which had till then been under the control of the District Officers, were transferred to the agency of the Public Works Department, and the District Officers were thus enabled to pay greater attention to those other very important methods of relief prescribed by Chapters VIII, IX and X of the Famine Code (poor houses, State kitchens, and relief at their homes to respectable people unused to working in the fields or debarred by national custom from appearing in public) which none but District Officers can successfully administer. The result of this change was an expansion of the employment of subordinate Public Works officers to set out and supervise the work; the employment of men of some standing as "officers in charge"; the keeping and rendition of accounts of large relief works by the Department of Public Works, and the devotion of greater attention to the division of the workers into gangs; and to the exaction of task work. It may be stated here that too much importance cannot be attached to the enforcement from the very outset of the "gang" and "task" systems declared to be imperative by articles 70 and 74 of the Famine Code. They lie at the very root of successful management of relief works. Works on which the systems are not enforced become demoralizing, wasteful and chaotic.

15. It was recognised that it must lie with the District Officer to select the works to be started (as he was most competent to decide where relief labour could be concentrated most advantageously); to adjust the scale of wages to the varying current prices of food grains; and to arrange for the provision, transport, and safeguard of the enormous sums of copper coins required for wages. But the actual execution of the works was left to be carried out by the Public Works officers.

The "large" relief works were of three classes: (1) roads, (2) large tanks, and (3) small roadside tanks. On these works the number of women and children employed far exceeded the number of men. It has been calculated that to every 100 men 306 women and children were in receipt of wages in addition to 171 dependants, nearly all infirm women and very young children, who could not work and had to be relieved gratuitously. There was thus one man to four or five women and children. The explanation of the disparity is that the people migrated in families from their homes, where they were foodless, to the relief works, where they were sure of a subsistence. One male member ordinarily remained behind to watch the cattle and the house: but the rest of the family went together to the relief works.

The expenditure was—

	Rs.
On the roads	1,37,094
On village works	1,57,857
Total ...	2,94,951

This gives a rate of about Rs. 12 per 1,000 cubic feet on road work (done at the time of year before April, when such work could be done most cheaply), and a rate of about Rs. 3 per 1,000 cubic feet on village works (tanks, wells, &c.). It will be observed that while the District Officers' rates for road work are greater than the Department of Public Works rates (without the excuse for high rates, which, as stated in paragraph 16 above, the Public Works Department had), their rate for village works is extraordinarily less. The explanation lies in the system followed, and in the supervising agency employed. For road works the District Officer had, especially during the "test" stage, to rely on temporary establishments, aided no doubt to some extent by the District Engineer, and the "gang" and "task" systems referred to in paragraph 14 above do not appear to have been at the outset as strictly enforced as was desirable. But for village works the District Officers acted through the village zamindars. As the latter had not to repay the expenditure incurred and got the full benefit of the improvement in their villages, they acted honourably by the Government in making the Government expenditure go as far as possible. The important lessons to be learnt are (1) the advantage of employing the professional agency of the Public Works Department from the earliest period possible, in controlling all relief works other than those described in article 65 (*a*), Famine Code; (2) the advantage of working through the village proprietors or village headmen in controlling the works described in that article.

23. The total number of relief workers and dependants relieved on these "small" relief works, plus the number gratuitously relieved by District Officers, was 5,533,391 (reduced to units relieved for one day).

The total amount placed at the disposal of the District Officers is reported by the Accountant-General to have been 4½ lakhs in round numbers. The accounts have not yet been cleared; but in the returns submitted from the districts the amount actually disbursed is given as Rs. 3,58,777, and may be safely assumed to have fallen short of four lakhs.

24. The total number relieved for one day throughout the districts of Bundelkhand in the relief operations from 1st February to 31st August was thus approximately 18½ millions, and the total cost of relief of every kind in that region, and including tools and plant, hutting and similar items of expenditure, amounted to about 11 lakhs. This gives an average cost of 11¼ pies per diem per head of the people relieved.

25. It is stated in paragraph 3 above that the quantity of land cultivated with *kharif* and *rabi* during the period referred to fell short of the normal quantity by about 485,000 acres, or about 17 per cent. of the total. The crop yield in the area that was sown was also up to the end of June dificient as shown in the statistics supplied by the Director of Land Records and Agriculture (Appendix A to this Resolution). To make up for the deficiency of food, importation of food grain was active during the period of distress. The figures for the imports and exports by rail of food grains for the railway stations situated in the four districts of Bundelkhand during the six months from January to July inclusive are shown in Appendix D. The total net imports for the whole affected tract are shown as 743,227 maunds. There was doubtless also some importation by road, especially into the Hamírpur district from the north: but imports by road are not thought to have been large. Probably the total imports were about 7¾ lakhs of maunds. Thus the net quantity of grain imported allowed but a small margin over the quantity actually required for the subsistence of the 18½ millions of people (reduced to units of one day) who came on relief: and its cost at the average price ruling during the scarcity of the commonest grain (gram) which constituted the chief article of import approximates to the cash expenditure on the relief operations. The argument, or perhaps, it should be said, the coincidence, need not be pushed too far: but the figures tend to show that, substantially, there was no unnecessary expenditure on relief, and that private trade correctly gauged the extent of the emergency and the necessities of the districts.

26. The Famine Code (article 53) provides for the association, with the Collector, of District or Local Boards "for the purpose of advising and assisting in all matters connected with the prevention or relief of famine." The Code does not enjoin the creation of unofficial charitable committees, though it does not say they shall not be created. The social conditions of Bundelkhand were not favourable to unofficial efforts in the cause of charity; and probably the District Boards contained the intelligence of the region. But in more advanced districts the Lieutenant-Governor is convinced that, should circumstances require the undertaking of relief operations on a large scale, the greatest benefit will accrue from the organization of private effort and private charity in supplement of the Government system of relief. In Bundelkhand most valuable assistance was given by private landlords and others in the control of the smaller relief works; and advantage should, in future cases, be taken of the landlords' willingness to help in this and other ways. They should, so far as possible, be associated with the officers of Government in the general scheme of relief.

27. It has been stated in paragraph 2 above that, besides the relief operations in the Bundelkhand districts, some measures of relief were also found to be necessary in the Allahabad district, the Hardoi district of Oudh, the Pilibhít district of Rohilkhand, and the Garhwál and Almora districts of Kumaun. In the part of the Allahabad district bordering on Bundelkhand, and resembling it in climate, soil, and population, the distress was for a time severe, but fortunately in none of the other districts did the reality come up to the local officers' early apprehensions. The relief measures adopted in these districts do not call for any lengthened comment. They were carried out by the District Officers without assistance from the Department of Public Works and comprised repairs to unmetalled district roads, poorhouses, and some gratuitous relief under Chapter X of the Famine Code. In all the districts except Hardoi the pressure practically ceased when the rains had regularly set in; but in Hardoi, during the latter portion of July, when there was a prolonged break in the rains, distress threatened to assume somewhat serious proportions. The total expenditure in these five districts up to 31st August, as shown in the returns received from the District Officers, amounted to Rs. 1,17,431. The number of persons relieved (reduced to relief for one day) was nearly one million.

Throughout the provinces, therefore, the total number of persons relieved up to 31st August (reduce to units of one day) was 19½ millions (the earlier estimates overstated the numbers), and the total expenditure incurred was Rs. 12,17,431. The number of deaths reported as due to starvation was, as already stated, altogether insignificant; but the mortuary statistics from the distressed districts showed a death rate much above the normal, from which the Lieutenant-Governor infers that, although the number of deaths from actual starvation was almost *nil*, the pressure of hard times claimed many victims, mostly among the old and the very young.

28. Before bringing the review to a close the Lieutenant-Governor and Chief Commissioner desires to record, for information and future guidance, the more useful lessons which actual experience in these relief operations has taught. On the whole, the rules and procedure prescribed by the Famine Code have been found to be effective and easy to work; but they naturally do not provide for all contingencies, while relief operations are fruitful in surprises, which call for decision and resource in the man on the spot. The following instructions therefore, which are the results of practical experience, will be useful to all officers engaged in future relief operations:—

(i) Test works fail to fulfil their object if full tasks are not exacted, and if wages are not regulated with reference to the provisions of Chapter VII of the Famine Code. Close supervision is therefore essential.

(ii) Where test works show the necessity of relief works, the management of the latter, not being of the kind specified in article 65 (*a*), Famine Code, should be entrusted from the outset to the Public Works Department.

(iii) Relief works of the kind specified in article 65 (*a*), Famine Code, (*i.e.*, "works specially intended for the relief of the agricultural population in the vicinity of their villages") are best carried out through the agency of the village landlords and headmen. The quantity of work to be done can usually be accurately calculated beforehand: and the cost fixed with reference to a fair task and the current price of food. Advances can then be made and the account cleared up on completion of the work.

(iv) Article 77 of the Famine Code provides that over each separate work managed by the Public Works Department shall be placed an "officer in charge." The number of labourers under an "officer in charge" should ordinarily not exceed 5,000; and if there are more than 3,000, there should also ordinarily be two sub-overseers or work agents. In every case each sub-overseer or work agent should have an intelligent assistant or "mate" to help him to lay out the work. For every five or six "charges" an inspecting officer of the standing of a Public Works upper subordinate is required.

(v) Officers of the naib tahsildar class or of similar standing on the regular establishment of Government should, whenever possible, be employed as "officers in charge." They should be placed at the disposal of the Public Works Department and employed where required, postings being made by the Superintending Engineer.

(vi) Reserves of tools and baskets should be established at convenient centres, whence they can quickly be sent where wanted; and as baskets wear out quickly and take time to procure, arrangements should be made in advance for their supply.

(vii) On relief works the "gang system" should be rigidly enforced from the very outset and gang registers kept up. A gang register is a card or piece of stout paper containing the names and classification of all persons in the gang. Any gang can thus at any time be checked independently of other gangs, and by 'sampling' a few gangs, the whole work may be effectively checked. These great advantages do not attach to the alternative "ticket system," under which vouchers are delivered to individuals in the morning, to be exchanged for money in the evening. Under the "ticket system" it is obligatory to count and classify at a particular time in the afternoon the whole of the persons present on a work, in order to obtain a satisfactory check; and this has been found to be, not only extremely laborious, but usually impracticable.

(viii) Wells likely to be used for drinking water by labourers on relief works should be examined and, if found pure, should be guarded from contamination for a week before required and the water-supply arrangements perfected before the labourers arrive. Foul wells should be absolutely closed. Should cholera break out, the wells should be disinfected at intervals of two or three days with permanganate of potash until the labourers are split up and drafted off to other works.

(ix) From the labourers Bráhmans should be selected to draw water from the wells for Hindus, and Kahárs to distribute it. The vessels employed in drawing and distributing the water should be ordinarily of metal and scrupulously clean. Kerosine tins have been found to be most useful and acceptable.

(x) A superior Medical officer should inspect periodically (1) the relief labourers on relief works not of the article 65 (*a*) class, (2) the sanitary and medical arrangements in connection with such works, and (3) poorhouses and hospitals.

(xi) The Famine Code (section 85) provides for the erection of latrines. These should usually be on the trench system and provided with grass screens.

A line of flags and posts should be placed all round each relief work and 300 yards from the same, and great care should be taken that no nuisances are committed within the area enclosed by such flags and posts.

(xii) Medical officers in charge of hospitals on relief works should very carefully watch for the occurrence of any cases of relapsing or famine fever, and immediately isolate any such cases.

Provision for the immediate isolation of cases of cholera, small-pox, or other epidemic disease should be made at each work. Grass huts, which can be subsequently burnt, will usually be the best form of isolation hospital.

(xiii) Article 87 of the Code provides for daily, bi-weekly, or tri-weekly payments (with certain exceptions). Wages should ordinarily be paid twice a week. Bi-weekly payments save the labourers a daily wait until a late hour on the works. They also reduce the difficulty of providing a sufficient supply of copper coin, as small silver coin can then be used also. But bi-weekly payments can only be introduced if "gang registers" are maintained in perfect order. (The difficulty, which is sometimes serious, of providing large quantities of copper coin can be reduced by arranging with the gram sellers on the works to exchange copper for silver daily.)

(xiv) No change in wages should be made if prices vary by less than 10 per cent., and ordinarily no change should be made unless with the previous sanction of the Commissioner of the division (or Famine Commissioner if one is appointed).

(xv) When a variation in prices of foodgrain necessitates an alteration in wages, notice of the new rate of wages should be sent to the District Engineer and not to the "officers in charge."

(xvi) No incomplete work should be closed by the controlling authorities, except on account of sickness, unless seven days' notice be previously given to the Divisional (Executive) Engineer to break up the staff and close the work.

(xvii) If article 91 of the Famine Code be retained unaltered (see paragraph 19 above), the Sunday should be reckoned, for account and statistical purposes, as the last day of the week, in order that the payments for the holiday, which are made on Saturday, shall fall in the week covered by the numerical returns. This slight change, which will greatly facilitate check on expenditure, necessitates placing Sunday at the end, and not at the beginning, of the week in the Progress Return (Form III of the Appendix to the Famine Code).

29. In conclusion, it is the Lieutenant-Governor and Chief Commissioner's pleasing duty to notice the services rendered by the principal officers employed in conducting the relief measures which have proved so successful. The chief burden of directing the relief operations fell upon the Commissioner of the Allahabad Division, Mr. G. R. C. Williams, and the Superintending Engineer, 3rd Circle, Mr. C. G. Palmer. Mr. Williams successfully maintained control over all the relief measures without neglecting any of the ordinary duties of a very important division; while Mr. Palmer's management of the Public Works operations was both effective and resourceful. To both of these officers the special thanks of Government are due.

On the Collectors of the various districts the brunt of the executive work fell as an addition to their ordinary duties: and it was carried on in very trying circumstances with a self-sacrifice and devotion to duty which the Lieutenant-Governor cannot praise too highly. The heaviest responsibility fell on Mr. Ferard, Officiating Collector of Bánda, and next on Mr. Warburton, Officiating Collector of Hamírpur, and Mr. Calnan, Officiating Collector of Jalaun. To these officers the Lieutenant-Governor and Chief Commissioner gives his best thanks. In Jhánsi the distress was less than elsewhere in Bundelkhand, but still a considerable strain fell on the Collector, Mr. Steel. Mr. Bird, Collector of Allahabad, administered relief in his district in an efficient manner, chiefly through local agencies, and Mr. Partridge, Officiating Collector of Pilibhít, also merits favourable mention. Mr. Hoare, Sub-divisional Officer of Lalitpur, and Pandit Jwala Parshad, Sub-divisional Officer of Karwi, managed difficult charges well. All these officers in their several degrees deserve the thanks of Government.

In the Public Works Department the good services of Mr. Battie, Executive Engineer, Second Allahabad Division, have been brought to prominent notice; and Mr. Thompson, District Surveyor, Bánda, and Bábu Kula Nand, District Surveyor, Jalaun, have rendered good service, which the Lieutenant-Governor and Chief Commissioner desires to acknowledge.

His Honour notices with much satisfaction that several officers among the Tahsildars and Naib Tahsildars, and among the upper and lower subordinates of the Department of Public Works, have shown marked zeal, probity, and ability in carrying out the work entrusted to them. On fit opportunity the services of these officers will be suitably rewarded.

It was not to be expected that, subject as the executive staff was to great exposure and privation during a Bundelkhand summer, there should be no casualties, but the casualties were comparatively few. In the Civil Department the Naib Tahsildars Maulvi Muhmmad Alí and Bábu Joti Parshad, in the Department of Public Works Mr. J. C. Rose, Sub-Overseer, and in the Police Department Sub-Inspector Niaz Husain died on the works. They were reported as zealous and efficient officers; and the Government regrets their loss.

Finally, the Lieutenant-Governor and Chief Commissioner desires to acknowledge the very great assistance he has throughout these operations received from the Hon'ble Mr. Odling, Chief Engineer and Secretary to Government in the Department of Public Works.

Order—Ordered that copies of this Resolution be forwarded to—

(1) The Secretary to the Board of Revenue, North-Western Provinces and Oudh, for the information of the Board.
(2) All Commissioners of Divisions and all District Officers, North-Western Provinces and Oudh, for information and guidance.
(3) The Inspector-General of Civil Hospitals, North-Western Provinces and Oudh, for information and communication to Civil Surgeons.
(4) The Sanitary Commissioner, North-Western Provinces and Oudh, for information.
(5) The Inspector-General of Police, North-Western Provinces and Oudh, for information.

Ordered also that copies be furnished to the Secretary to this Government in the Public Works Department, Buildings and Roads Branch, for information and circulation to officers of the Department for information and guidance.

Ordered also that the resolution be published in the *North-Western Provinces and Oudh, Government Gazette.*

(Signed) H. F. EVANS,
Chief Secy. to Govt., N.-W. P. and Oudh.

APPENDIX A.

Kharíf and Rabí Jinswárs of the four Bundelkhand Districts { An average crop = 16 annas. / A bumper crop = 20 annas.

Crops.	Bánda. Acreage. 1893-94.	1894-95.	1895-96.	Bánda. Outturn in annas. 1893-94.	1894-95.	1895-96.	Hamirpur. Acreage. 1893-94.	1894-95.	1895-96.	Hamirpur. Outturn in annas. 1893-94	1894-95.	1895-96.	Jhánsi. Acreage. 1893-94.	1894-95.	1895-96.	Jhánsi. Outturn in annas. 1893-94.	1894-95.	1895-96.	Jalaun. Acreage. 1893-94.	1894-95.	1895-96.	Jalaun. Outturn in annas. 1893-94.	1894-95.	1895-96.	Bundelkhand. Total acreage. 1893-94.	1894-95.	1895-96.	Bundelkhand. Outturn in annas. 1893-94.	1894-95.	1895-96.
Kharíf.																														
Rice	70,643	74,865	81,474	13 7 11			49,22	4,766	5,697	15 15 14			25,545	26,551	25,548	11 16 9			1,629	1,210	1,966	15 15 15			102,739	107,392	114,685	13 13 12		
Indian corn ..	198	198	189	11 5 14			10	10	5	15 14 13			7,953	8,117	8,182	13 14 15			16	22	36	14 15 16			8,177	8,347	8,412	13 12 14		
Cotton and *arhar* (*a*).	104,329	96,579	86,697	10 5 17			80,790	94,367	76,616	14 10 16			25,160	33,345	26,323	14 12 13			50,861	64,162	50,886	14 8 17			261,140	288,453	240,522	13 9 16		
Juár and *arhar* (*b*).	193,803	156,530	133,220	11 6 13			154,822	151,016	122,045	14 10 13			53,919	66,351	45,648	13 12 11			73,909	100,510	60,356	13 8 11			475,553	474,407	361,269	13 9 12		
Bájrá and *arhar* (*c*).	41,618	29,425	30,065	11 4 12			23,814	19,557	19,755	15 8 14			2,296	3,160	1,626	14 11 9			50,677	42,892	42,862	12 7 9			118,405	95,034	94,308	13 7 11		
Urd and *múng* ..	1,089	828	934	9 5 10			3,298	2,664	5,103	11 11 11			16,732	15,824	15,305	12 13 9			82	187	193	15 11 7			21,201	19,503	21,535	12 10 9		
Til	47,438	26,631	25,173	13 5 10			47,107	37,548	31,979	16 12 14			66,958	77,585	6,244	.. 14 8			4,901	5,834	4,439	14 11 12			166,404	147,598	124,235	14 10 11		
Moth (*d*)	1,579	1,004	853	.. .. ..			171	123	85	.. .. ..			255	241	236	.. ..			79	56	31	.. .. .			2,084	1,424	1,205	.. .. ..		
Kodon	20,730	27,427	28,576	11 8 13			24,858	32,105	35,955	16 13 12			63,820	68,950	67,892	15			..	2,123	2,927	16 13 11			109,408	130,605	135,350	14 11 12		
Garden crops (food).	703	703	863	.. .. ..			1,692	1,652	1,833	.. .. ..			1,535	1,239	1,295	.. .. ..			1,004	1,022	979	.. .. .			4,934	4,616	4,940	.. .. ..		
Total ..	482,130	414,190	388,044	.. .. ..			341,484	343,808	299,073	.. .. ..			264,173	301,363	254,669	.. .. ..			182,258	218,018	164,675	.. .. ..			1,270,045	1,277,379	1,106,461	.. .. ..		
Rabí.																														
Sugarcane ..	23	27		.. 14 16			2,503	2,026		16 12 14			931	926		16 16 12			663	430		14 15 12			4,120	3,409	..	15 14 ..		
Arhar, pure ..	376	893		13 12 12			184	114		16 16 10			462	470		16 16 8			25	21		15 16 8			1,047	1,498	..	15 15 ..		
Wheat and gram (*e*).	211,201	192,863		8 9 4			214,010	165,948		10 6 7			104,361	53,548		7 10 5			213,152	112,219		7 10 4			742,724	524,578	..	8 9 ..		
							1,786	6,297					16,463	16,932					5,314	9,090					27,790	38,672	..			
Wheat and barley (*f*).	4,227	6,293																							133,802	255,941	..	15 15 ..		
Barley and gram..	71,175	112,271		14 13 7			24,551	51,920		15 14 8			3,254	4,776		16 16 7			34,822	86,974		16 16 5			338,702	460,027	..	14 14 ..		
Gram, pure ..	165,427	205,407		13 12 8			67,039	93,742		15 15 7			59,641	99,178		16 16 7			46,655	61,700		13 15 7			163,101	213,847	..	13 2 ..		
Alsi	30,687	28,261		10 1 2			44,695	64,263		15 .. 3			18,955	28,353		15 3 3			68,764	92,970		13 2 2			Details not available.		..	14 14 ..		
Zira	Details not available.			.. .. ..			Details not available.			.. .. ..			Details not available.			.. .. ..			Details not available.			14 15 ..						15 15 ..		
Dhania				.. .. ..			26	27		.. .. ..			355	377		.. .. ..			38	49		16 15 .			476	576	..	16 15 ..		
Vegetable (*sáid*) ..	57	123		.. .. ..																										
Total ..	483,173	546,138	..	.. .. ..			354,794	384,337	..	.. .. ..			204,422	204,560	..	.. .. ..			369,433	363,453	..	.. .. ..			1,411,822	1,498,488	..	.. .. ..		

(*a*) Outturn for cotton only.
(*b*) ,, juár ,,
(*c*) ,, bájrá ,,
(*d*) Outturn included in *urd* and *múng*.
(*e*) ,, for wheat only.
(*f*) ,, ,, barley ,,

APPENDIX B.

(1) Prices ruling in the Bánda District from 1st March to 18th August 1896.

District. Week ending—	Wheat. sérs.	Gram. sérs.	Arhar dál. sérs.	Rice, common. sérs.	Juár. sérs.	Maize.	Barley.	Bájrá.
Bánda.								
7th March 1896	11·97	19·81	14·31	12·94	11·06	..	..	..
14th ,,	11·46	20·19	15·38	12·69	15 69	..	..	..
21st ,,	11·78	19·13	15·38	12·63	15·06	..	..	..
28th ,,	12·03	18·41	15·13	14·69	14·69	..	..	..
4th April 1896	11·84	17·97	15·00	14·57	14·57	..	..	..
11th ,,	11·91	18·06	14·81	12·19	14·38	..	..	..
18th ,,	12·25	18·25	14·44	11·94	14·60	..	..	..
25th ,,	12·31	17·91	14·19	11·50	14·42	..	..	..
2nd May 1896	12·22	17·28	13·93	11·31	13·83	..	..	..
9th ,,	12·09	16·31	13·47	11·16	13·33	..	..	..
16th ,,	11·78	15·16	12·66	10·78	13·17	..	..	..
23rd ,,	11·75	14·69	12·28	10·66	12·92	..	..	..
30th ,,	11·31	14·94	11·96	10·53	13·75	..	..	..
6th June 1896	11·06	14·47	11·75	10·71	13·58	..	..	..
9th ,,	11·	14·94	12·21	10·56	13·58	..	..	..
16th ,,	10·78	14·75	12·03	10·75	13·75	..	..	..
23rd ,,	10·78	14·72	11·97	10·22	13·42	..	..	..
30th ,,	10·69	14 88	12·06	12··	12··	..	..	..
7th July 1896	10·75	14·84	11·91	10·34	12·42	..	..	..
14th ,,	10·75	14·84	12·00	10·06	11·83	..	..	..
21st ,,	10·75	14·88	12·28	10·19	12·33	..	..	..
28th ,,	10·75	15	11·78	9·94	12·29	..	..	..
4th August 1896	10·78	14·88	11·81	10·19	12·54	..	..	..
11th ,,	10·78	14 66	11·72	9·94	12 88	..	..	..
18th ,,	10·69							

(2) Prices ruling in the District of Hamírpur from 1st March to 18th August 1896.

District. Week ending—	Wheat.	Gram.	Arhar dál.	Rice, common.	Juár.	Maize.	Barley.	Bájrá.
Hamírpur.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.	s. c.
7th March 1896	10 12	18 9	14 14	11 8	14 9	16 3	16 1	13 13
14th ,,	11 4	18 13	16 8	14 4	15 2	18 6	16 3	15 0
21st ,,	11 4	18 8	14 6	11 5	14 13	18 6	16 5	15 2
28th ,,	11 3	17 14	13 14	11 0	14 8	19 8	15 9	13 14
4th April 1896	11 3	17 4	13 10	10 12	14 10	20 10	15 6	13 0
11th ,,	12 1	17 3	13 0	11 8	14 8	19 8	15 2	..
18th ,,	12 4	16 7	13 14	10 11	14 10	19 13	14 13	..
25th ,,	12 2	16 0	13 14	10 8	14 6	17 0	14 10	..
2nd May 1896	11 15	14 18	12 14	10 14	14 3	16 12	14 6	..
9th ,,	11 14	14 6	12 3	9 14	14 3	16 8	14 6	..
16th ,,	11 8	13 10	11 13	9 8	14 0	14 10	13 1	..
23rd ,, Fortnight ending—								
15th June 1896	11 6	14 2	12 3	9 11	13 1	15 0	13 1	13 1
30th ,,	11 1	13 13	13 0	9 15	12 15	14 13	13 2	..
15th July 1896	11 2	13 2	11 2	9 12	13 0	13 0	12 13	11 8
31st ,,	11 8	15 0	12 8	10 0	13 3	15 0	12 10	11 8
15th August 1896	10 11	14 13	12 8	9 8	13 3	15 0	12 10	11 8
Jhánsi.								
7th March 1896	11 9	17 15	14 0	10 11	16 15	.. ..	.. ..	.. ..
14th ,,	11 9	18 6	15 0	10 10	16 15	.. ..	.. ..	.. ..
21st ,,	11 10	18 11	15 0	10 8	16 15	.. ..	.. ..	.. ..
28th ,,	11 9	17 6	14 13	10 9	16 11	.. ..	.. ..	.. ..
4th April	11 10	17 10	14 13	10 10	16 8	.. ..	.. ..	.. ..
11th ,,	11 15	17 9	14 6	10 12	16 8	.. ..	.. ..	.. ..
18th ,,	12 0	17 0	14 6	10 12	16 8	.. ..	.. ..	.. ..
25th ,,	12 0	16 6	14 0	10 11	16 8	.. ..	.. ..	.. ..
2nd May ,,	12 3	15 11	13 13	10 11	16 6	.. ..	.. ..	.. ..
9th ,,	12 1	15 0	13 13	10 11	15 11	.. ..	.. ..	.. ..
16th ,,	11 15	14 8	13 11	10 9	15 1	.. ..	.. ..	.. ..
23rd ,, Fortnight ending—								
16th June 1896 ..	11 14	14 10	12 0	11 0	14 12	14 8	15 8	14 0
30th ,, ..	12 0	14 14	12 4	11 0	15 1	15 1	16 8	14 0
15th July ,, ..	11 12	14 0	11 8	11 8	15 4	15 8	14 0	14 0
31st ,, ..	11 12	14 0	12 0	10 0	15 4	15 0	14 12	..
15th August ,, ..	11 12	13 12	12 12	10 0	15 0	15 8	14 12	..

(3) Prices ruling in the district of Jhánsi from 1st March to 18th August 1896.

District. Week ending—	Wheat. s. c.	Gram. s. c.	Arhar dál. s. c.	Rice, common. s. c.	Juár. s. c.	Maize. s. c.	Barley. s. c.	Bájrá. s. c.
Jhánsi.								
7th March 1896	11 9	17 15	14 0	10 11	16 15	.. ..	.. ..	.. ..
14th ,,	11 9	18 6	15 0	10 10	16 15	.. ..	.. ..	.. ..
21st ,,	11 10	18 11	15 0	10 8	16 15	.. ..	.. ..	.. ..
28th ,,	11 9	17 6	14 13	10 9	16 11	.. ..	.. ..	.. ..
4th April	11 10	17 10	14 13	10 10	16 8	.. ..	.. ..	.. ..
11th ,,	11 15	17 9	14 6	10 12	16 8	.. ..	.. ..	.. ..
18th ,,	12 0	17 0	14 6	10 12	16 8	.. ..	.. ..	.. ..
25th ,,	12 0	16 6	14 0	10 11	16 8	.. ..	.. ..	.. ..
2nd May ,,	12 3	15 11	13 13	10 11	16 6	.. ..	.. ..	.. ..
9th ,,	12 1	15 0	13 13	10 11	15 11	.. ..	.. ..	.. ..
16th ,,	11 15	14 8	13 11	10 9	15 1	.. ..	.. ..	.. ..
23rd ,, Fortnight ending—								
16th June 1896 ..	11 14	14 10	12 0	11 0	14 12	14 8	15 8	14 0
30th ,, ..	12 0	14 14	12 4	11 0	15 1	15 1	16 8	14 0
15th July ,, ..	11 12	14 0	11 8	11 8	15 4	15 8	14 0	14 0
31st ,, ..	11 12	14 0	12 0	10 0	15 4	15 0	14 12	..
15th August ,, ..	11 12	13 12	12 12	10 0	15 0	15 8	14 12	..