(1) பக்கங்களின் எண்ணிக்கை 112

(2) புதுக்கித் திருப்பிய நாள் 23.5.90

(3) ஆதாரங்குறிப்பவர் சுருக்கொப்பம்

தமிழ்நாடு ஆவணக் காப்பகம்.

(44)

தமிழ்நாடு அரசு

P.W.D. துறை

அரசாணை எண்.
மு. கோப்புத் தாள் எண். 223

அச்சகம்
பலவகை

நாள் : 23-1-1891 198 .

மடிக்கவோ கண்டபடி கையாளவோ கூடாது

56 Sheets

ஆவண. கா-1—18,006—15-6-87.

GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

READ—the following Proceedings of the Board of Revenue (Revenue Settlement, Land Records and Agriculture), dated 9th September 1890, No. 274:—

MR. BLISS.
MR. WHITESIDE.
MR. CLOGSTOUN.

Read—again the following Proceedings of the Board of Revenue (Revenue Settlement, Land Records and Agriculture), dated 26th November 1889, No. 4715, Mis.:—

Read—the following G.O., dated 20th November 1889, Mis. No. 7451, Revenue:—

Read—the following letter from J. W. P. MUIR-MACKENZIE, Esq., C.S., Officiating Secretary to the Government of India, Revenue and Agricultural Department (Famine), to the Secretary to the Government of Madras, dated Simla, 28th October 1889, No. 109—1-98 F.:—

In acknowledging the receipt of Mr. Galton's letter No. 713 of the 17th August last, on the subject of the famine operations in the Ganjam district, I am directed to intimate that it will at a later date become the duty of the Government of India to review, in the light of the experience gained during the current year in Madras, the regulations of the Famine Codes framed upon the Provisional Code issued by the Government of India in 1883. I am therefore to ask that His Excellency the Governor in Council will be good enough to assist the Government of India with any advice and suggestions which may tend to the introduction of useful amendations. Recent events will doubtless have suggested some weak points in the existing Code of the Madras Presidency, and I am to invite particular attention to the necessity of giving some assistance even before prices have reached the recognized scarcity rates.

2. In this connection I am to point out one wide point of difference between the Madras Code and that provisionally issued by the Government of India in 1883. The principle upon which the latter proceeded was that some system should be established under which continuous information should be supplied from every "local area" of a district—in ordinary times as well as in times of famine—as to "the condition of the crops and the state of the people." By "local area" was meant any small area within which there might be located some native official, or, to use the term of the Code, "local officer," of sufficient intelligence to provide his superiors with the requisite information. This provision was primarily aimed at reports from patwaris' circles, but the terms "local officer" and "local area" were used in order to lead to the establishment of at least some system of local reporting, which would keep the authorities in charge of the district and division supplied with continuous knowledge of the general condition of each small section of the country. It would seem difficult, if this principle were carried into practical effect, that scarcity could be approaching in any given region without being signalled in ample time from one

or more of the local areas concerned. The Madras Code throws initial responsibility on Collectors and Divisional officers, who are bound by rule to keep themselves informed, but there is nothing in the Code making it the normal duty of any class of subordinate officers to supply continuous information to the Collector. It seems possible therefore that this officer, and even the Tahsildars under him, might not become aware of the gravity of the position in time to make all those detailed preparations with which a coming scarcity should be met.

3. The advantage of a comprehensive and continuous system of reporting from "local areas" appears to be illustrated by the circumstance that in Ganjam the absence of information led to the withholding of gratuitous relief at a time when it was proved that a large number of persons were in positive need of it. In your letter under acknowledgment it is said that "the organization of an efficient system of village relief has brought to light numerous cases of destitution which had passed unnoticed before;" and it appears possible that, had the local authorities been warned at an earlier date by continuous reports received from every "local area" in the district of the growing distress, they might have been constrained to establish, in more timely preparation for the crisis, an efficient system of village relief. Initial responsibility for reporting under definite and precise rules should, in the opinion of the Governor-General in Council, rest on officials in some more subordinate position than that of a Collector, who is often less able to judge of the signs of approaching distress in a remote corner of his district, than the native officials who live among the people and are intimately acquainted with the agricultural condition of the small circle within which their duties lie.

4. I am requested to append to this letter, for purposes of easy reference, extracts from the literature connected with the Provisional Famine Code, which will bring into clear light the general policy to which the preceding paragraphs invite attention; and to ask that His Excellency the Governor in Council may be good enough to allow the question to be brought under consideration, if this has not already been done, as to how far effect can be usefully given in the Madras Presidency to the principles therein recommended.

5. The system which should be adopted for maintaining the scheme of Famine Works is another point on which the advice of the Madras Government is desired by the Governor-General in Council. The experience of the past season will perhaps have indicated both in what direction the programme of large Public Works can be supplemented by minor relief works, and what additional measures are advisable to secure punctuality in the preparation of the programme in all the districts of the Presidency. I am to remind the Governor in Council that there was some difficulty in obtaining the list of Famine Works, which the Collector ought to have kept in readiness.

6. I am further to suggest for consideration whether the rigid test of prices laid down in section 33 of the Madras Code might not be modified. It has been made clear during the course of the present famine that this test is an insufficient indication of the need for measures of relief; and both the Collector and His Excellency the Governor have recorded observations to this effect. On a consideration of the reports which have from time to time reached the Government of India, there seems cause to apprehend that, owing to a too close observance of the section quoted, assistance may not have been given sufficiently early "before the people had begun to lose strength from want of food" (*vide* section 38); and that partly for the same reason the Collector had not in readiness the scheme for village relief circles required by section 56 of the Madras Code, or the programme of works required by section 35.

7. Another point noticed in your letter is the remark in paragraph 3, to the effect that "those who are in receipt of gratuitous relief are enfeebled and cannot obtain employment in the fields." From paragraph 2 of Mr. Horne's letter of the 23rd July, however, it appears that, at all events in some localities, there is nothing contemplated

between "Professional Agency Works" and "gratuitous relief." A reference to section 24 of the Madras Code, on the other hand, shows that there is a class of laborers "who are not able to perform more than 50 to 75 per cent. of the work of ordinary laborers," and that this class includes weakly women, children and others whom it is desirable to keep with their male relations," &c. On comparing this with the classes to whom, according to section 55, gratuitous relief should be given, viz., "destitute resident villagers who are idiots, cripples, blind or so old or decrepid that they are not able to support themselves," the question arises whether a material number of the recipients of gratuitous relief might not have been legitimately given light labor on Civil Works, and whether therefore it might not with advantage be made still clearer in the Code, that Civil Agency Works must be established on which light work should be given to all who are able to do any work at all. It must be remembered that recipients of relief who have to attend at a work for daily labor will relinquish it when relief is no longer necessary, whereas under a system of gratuitous relief they are not unlikely to remain on as long as they can.

8. The reluctance to retire from the relief list will naturally be considerably enhanced if the relief is given in money, and when to this objection to a money-dole is added that of the opportunity of fraud which it offers to unscrupulous agents, it appears to His Excellency the Governor-General in Council doubtful whether the Code should not insist more strongly on the grain-dole system. In my letter No. 79-F. of the 29th August, the attention of the Government of Madras has been specially invited to this subject; and I am to take this opportunity to ask what suggestions His Excellency the Governor in Council can offer, in the light of recent experience, as to the amendment of the Code in connection with the administration of grain relief by money-dole, grain-doles or cooked food.

9. I am finally to say that if the attention of His Excellency the Governor in Council has been drawn to any other points which deserve notice, the Government of India will be glad to receive his suggestions and advice regarding them.

APPENDIX.

Extracts from the Provisional Famine Code.

CHAPTER I.

Duties of "local officers."

1. In every village or other local area determined by the Local Government, a headman or a Government official or local Committee shall be appointed, who shall be responsible for the performance of the duties imposed on him or them under this Code. For the purposes of this Code such headman or local Committee shall be termed "local officer," and the term "local area" shall include the village.

In the absence of any legal provision on the subject, the Local Government may frame rules for the appointment of local officers.

To report certain matters to district authority.

2. Every local officer shall report, where the Local Government so directs, at such times and through such channel as the district authority may from time to time prescribe,—

(*a*) condition of the crops and the state of the people of the local area;
(*b*) the existence of any scarcity or distress, whenever it may occur;
(*c*) the condition of the grain-stocks;
(*d*) any failure in the supply of fodder, the presence of disease, or the occurrence of any unusual mortality among the cattle.

For the purposes of this Code the term "district authority" shall mean the Collector of the District either acting alone, or in concert with local committees or local bodies, as the Local Government may determine.

* * * * * *

6. Each district will be divided into relief circles, the boundaries of one or more of which shall be conterminous, as far as possible, with territorial divisions made for purposes of administration (such as sub-divisions, parganas, tahsils, kánúngos' circles, areas formed under Local Self-Government Acts, and the like).

Division of districts into relief circles.

7. Where no proper organization may exist for supplying Government with continuous information as to the agricultural condition of the province, it shall be the duty of the Local Government to appoint a permanent officer (such as a kánúngo or a member of a Local Board), to be inspecting officer for one or more circles. In times of scarcity or famine the number of circles may, if necessary, be increased, and special officers appointed as inspectors.

Appointment of circle inspectors.

8. The circle inspector shall in ordinary times be required—

Duties of circle inspectors in ordinary times.

(*a*) to receive and submit with remarks to the Collector of the district any reports made to him from time to time by the local officers, and to carry out such other instructions as he may receive from his superior authorities;

(*b*) to make a special report whenever he has reason to believe that serious failure in crops, fodder, or food-stocks is imminent.

* * * * * *

CHAPTER II.

20. The Commissioner of a division is bound to keep himself at all times informed of the agricultural condition of every part of his division, and to enforce the observation of all rules laid down by Government for the collection of agricultural statistics and information; and is also bound to see that the rules laid down in Chapter I for village organization are duly observed.

Duties of the Commissioner.

21. He shall provide the Local Government, for communication to the Public Works Department, with a statement of the areas within his division which are most liable to famine, and with a rough forecast of the maximum number of persons within those areas likely to require employment on each class of relief work in a year of extreme drought.

Shall furnish number of people who may require work.

* * * * * *

26. The Collector shall, *mutatis mutandis*, be responsible for the performance within his district of all the duties which are laid down for the Commissioner within his division.

Duties of Collector.

EXTRACT from Government of India Resolution No. 44-F., dated the 8th June 1883.

* * * * * *

9. It need hardly be said that the Government of India fully agrees with the Famine Commission that the Administration of each Province should be such as will enable the revenue officials of all grades to be fully acquainted with its agricultural condition. On this point the views of the Government of India have already been communicated to Local Governments and Administrations. In the Provisional Code it has been assumed that in the different Provinces this essential requisite to efficient administration is more or less to be found. The Code therefore passes lightly over the ordinary duties of the revenue staff, and assumes that among them, that of obtaining prompt information of the existence of the probability of distress is included.

10. It may, however, be noted that the Code contemplates the association of non-officials, where possible, with the district officer in the work both of obtaining early information of the existence of distress and also of relieving it. The extent to which this can be done will depend on local circumstances, but the general principle is one which will be readily assented to, and

223

which has not been unrecognized in past famines. It presumes that the leading men of such districts should be invited to assist in providing information and in investigating the condition of the poorer classes, and also in superintending the administration of famine relief. The Government of India has accordingly made provision in the Code for imposing, where practicable, the two important duties of providing prompt and continuous information of the agricultural circumstances of the season, and of assisting in the organisation of local relief, upon local communities and their representatives under any local self-government arrangements which may be established.

* * * * * *

14. While, however, the principle of connecting the general public with the duties of famine relief should be recognized, the whole of the official machinery at the disposal of Government should also be utilized. Nor should any responsibility which may be thrown upon the community weaken that of the Government and its officers. Indeed the Government of India would like to feel assured that in every Province the subordinate revenue staff, whether kánúngos, kurnams, or revenue inspectors, was equal to the duties sketched out in the Code. The decay of this class of officers in parts of India may be fully accounted for on historical or other grounds, but it is none the less to be regretted. The Government of India, however, has recently expressed its views at length on the subject, and is glad to know that much has already been done in many Provinces to restore an office on which native administrations set such store.

15. Among these officers the putwari, or village accountant, where such an officer exists, is no doubt the most important functionary. The area assigned to him is usually so limited that he may be held responsible for supplying full and timely information as to the character of the season or the condition of the agricultural population. He possesses too, or is expected to possess, sufficient skill to be able to provide information in a form in which it will be intelligible to Government officials, or in prescribed statements of a statistical character which will admit of easy collation; on the other hand, he will be a useful agent in providing information to, or receiving information from, local bodies where they exist.

16. Where the village accountants are grouped in circles, the supervising officers of such circles would naturally form the next channel through which information will pass. A much greater responsibility can be placed upon them than upon the village accountants. The latter are, from their position, the servants of two masters, and are exposed to great temptations. The former owe exclusive allegiance to Government, and are at all times particularly entrusted with the duty of providing correct information. It may not be possible to require all such officials invariably to reside within their respective circles, but the Government of India believes that the principle is one which should, as far as possible, be enforced.

17. Where village and circle organization of this nature and of a permanent character exists, its efficiency greatly depends upon the district officer and his staff. The Government of India entirely agrees with the Famine Commission that the assistants to the district officer, whether convenanted civilians or not, should be required to maintain a thorough personal knowledge of the areas under their charge: that they ought to visit all parts of their charge once at least within some stated period, and might be permitted to travel or reside within their sub-divisions at all seasons of the year, and should be directed to continue in an intelligible form the annals of each estate of which the settlement officials have already recorded the initial history. It is to be feared that from various causes these important duties have in some parts of India hardly received the attention they deserve, and to this has been ascribed much of the local ignorance of the near approach of famine which has been displayed in some remarkable instances.

18. The Provisional Code assumes that the real responsibility for carrying out the rules and for adopting efficient measures within his district rests upon the officer in charge of it. The position of the district officer is too well known to require special notice, and, so far as it concerns the relief of famine, it is sufficiently secured in the Code. A chapter has been added on the duties of Commissioners of Divisions, with the view both of maintaining their recognized powers of direction and supervision, and of indicating that to these high officers the Government ought to primarily look for information and action. The Government of India need hardly express its conviction that not only in years of scarcity, but also at all other times, the Commissioner of a division should keep his Government acquainted with the condition of his districts, and should be held strictly responsible for this duty. His position eminently enables him to study the agricultural requirements of the country, as the larger area over which he has jurisdiction offers greater facilities than a single district for ascertaining the extensive measures of protection against famine which can properly be undertaken or encouraged by Government. Of these the extension of irrigation, the establishment of fodder reserves and fodder plantations and the improvement

3

of communications are among the most important. Whoever the officers may be by whom such schemes are ultimately carried out, the Commissioner is undoubtedly the person upon whom the primary duty of securing the better protection of his division against famine naturally falls.

Another duty of equal importance is that of assisting the agricultural population to recover from the after-effects of famine. The timely grant of such assistance is of almost as much importance as the actual relief of the people during the drought itself. The Government of India is not satisfied that this has always received the attention it deserves, and the duty of Commissioners of Divisions in this respect is obvious, and should be strictly enforced.

* * * * * *

Extract from letter to Government of Bengal, No. 12-F., dated 25th January 1888.

* * * * * *

2. His Excellency in Council approves generally of the revised Code as drafted, and is glad to know that in its general scheme it has been found possible to maintain it in such close accordance with the Provisional Code. I am, however, to state that, before according final confirmation to the present draft, the Governor-General in Council would commend to the consideration of His Honor the Lieutenant-Governor the question whether some effect should not be given to those provisions of the Provisional Code, and especially of section 8, which requires arrangements to be made for the continuous supply to District Officers of information "in ordinary times." His Excellency in Council apprehends that unless some rules are prescribed for effecting this object, scarcity or distress may in some instances reach a dangerous point before being brought to the notice of the Collector upon whom the responsibility of keeping the Government informed (through the Commissioner) primarily rests.

3. The Government of India fully appreciates the impossibility of making throughout the Lower Provinces any present arrangement for the complete allocation, as contemplated by the Provisional Code, of separate "local areas" within which the responsibilities of relief officers should be defined in anticipation of famine; but would be glad if some further consideration could be given to the subject of arranging beforehand a scheme of "circles," *i.e.*, of the larger area units contemplated by the Provisional Code.

The Code has for its main object the attainment of a condition of what has been called "preparedness against famine," and would have its value proportionately enhanced in accordance with the extent to which the responsibilities of the various agencies, who would be called upon to take part in famine administration, could be defined in anticipation of time of action. If, therefore, in the opinion of His Honor the Lieutenant-Governor, the early formation of the larger circles in each district is feasible, and if in some few tracts where local agency already exists, or is, in connection with settlement proceedings, being organized, the larger units could be further subdivided into the "local areas" contemplated by the Provisional Code, it might be found desirable to adopt some of the provisions of Chapter I of that Code for such modified application as the circumstances of each district may admit.

* * * * * *

Order—dated 20th November 1889, Mis. No. 7451, Revenue.

Referred to the Collector of Ganjam for any remarks and suggestions he may have to make on the various points raised by the Government of India; this reference should be treated as urgent, and the Collector's reply should be submitted to Government at as early a date as possible.

(True Extract.)

(Signed) J. GROSE,
Ag. Secretary to Government.

To the Collector of Ganjam.

Copy to the Commissioner of Revenue Settlement,
Land Records and Agriculture.

223

Resolution—dated 26th November 1889, Mis. No. 4715.

Recorded.

(A true Copy and Extract.)

(Signed) P. RAJARATNA MUDALIAR,
Secretary.

Read—again the following Proceedings of the Board of Revenue (Revenue Settlement, Land Records and Agriculture), dated 27th February 1890, No. 53:—

Read—the following extract from the Proceedings of the Government of India in the Revenue and Agricultural Department (Famine), dated Calcutta, the 19th December 1889, Circular No. 63-77 C—Fam.:—

Read—again—

Government of India Resolution, dated 8th December 1881, No. 6—340-50 G.
Government of India Resolution, dated 9th June 1883, No. 44 F.

Read—also—

Correspondence with the Governments of Madras and Bengal regarding the distress and scarcity in parts of those Provinces during the year 1889.

Resolution—

In 1883, upon the advice of the Famine Commissioners, a Provisional Famine Code was prepared by the Government of India and circulated to Local Governments and Administrations. The General Code thus issued was used as a basis for the Provincial Codes, in which the provisions of the General Code were so modified as to bring them into closer accordance with the conditions and circumstances of each Province. The Resolution with which the original Code was promulgated implied that some of its provisions might require to be tested by experience, and though, happily, since 1883 no severe famine of wide-spread character has afflicted the Empire, yet during the past intervening years no one of the Provinces in which famine is possible has entirely escaped the scarcity which follows a partial failure of the harvests, and which in certain limited areas has deepened into famine. His Excellency the Governor-General in Council deems therefore that the time has now come when it will be convenient to subject the procedure founded upon the Provisional Code of 1883 to fresh scrutiny in the light of the experience gained in various parts of the Empire since that date, and desires to receive the opinion and advice of all Local Governments and Administrations, especially of those Provinces which may have been visited by scarcity or famine, on the working of the existing Codes.

2. One of the most important principles adopted in the Provisional Code was that a system should be established under which continuous information should be supplied from every "local area" of a district—in ordinary times as well as in times of famine—as to the "condition of the crops and the state of the people." By "local area" was meant any small area within which there might be located some native official, or, to use the term of the Code, some "local officer" of sufficient intelligence to provide the superior authorities with such information as would keep them supplied with continuous knowledge of the general condition of every tract in the Province in all seasons and at all times. It would seem difficult, if this procedure were adopted, that scarcity could approach in any given region without being signalled in ample time from one or more of the local areas concerned.

3. It is doubtful, however, whether the principle to which reference has now been made has, in all of the Provincial Codes, been kept sufficiently in view. On a review of the history of the past few years the Government of India is able to acknowledge with satisfaction that, whenever the condition and circumstances of a tract

afflicted by scarcity have been thoroughly understood and the position clearly grasped, the zeal and intelligence with which the Famine Code has been administered and remedial measures applied have not only been commendable, but have secured efficient results. But it cannot avoid the conclusion that in the earlier stages of scarcity, administrative operations have not always been equally successful and complete, and that the instructions laid down by the Codes for the guidance of local officials are imperfect and defective. Some of the Codes, for instance, impose on the District officer the initial responsibility of keeping himself informed of the agricultural condition of his district without providing any rules under which it is made the normal duty of subordinate officials to submit periodical reports. The consequence has been that in some of the tracts which during the last few years have suffered from failure of the crops, the responsible authorities have not become aware of the gravity of the position in time to make all those detailed preparations with which the coming scarcity should be met. In this connection attention is directed to paragraph 2 of the Provisional Code of 1883 and to paragraphs 14 to 17 of the Resolution with which it was circulated. These are appended for the purpose of easy reference to the present Resolution.

4. It is necessary to bear in mind that the primary object of the establishment of Imperial and Provincial Departments of Land Records and Agriculture was that of assisting the Administration in the prevention of distress due to scarcity and famine. The recommendation to create such departments was one of the most prominent of those made by the Commissioners appointed to investigate the causes of famine and the means of protection against its results. And the Government of India, though preferring not to attach to the Agricultural Departments the executive authority involved in the suggestions of the Commissioners, nevertheless accepted, as the leading responsibility of the new agency, the important duty of creating and maintaining a scheme, under which continuous information of the condition of each part of the Province should be supplied to the Local Government. This policy was enunciated both in the Resolution No. 6—340-50 G. of 8th December 1881 and in that of No. 44 F., dated 9th June 1883. Thus, in the fourth paragraph of the first-quoted Resolution, it was written—

"Consideration must be primarily given to the development of a permanent organisation in each Province of such a character as may be most compatible with existing administrative arrangements with the view of confiding to it the execution of those measures which may be required for the maintenance of a thorough system of agricultural enquiry. Such enquiry cannot fail to lead in the course of time to sounder conclusions as to the direction in which it is desirable either to attempt agricultural improvement, or to afford protection to the agricultural population against the difficulties and danger of famine and drought."

5. The duties relating to land records were to be made subservient to this important object. It was therefore added—

"In this connection, the advantage of bringing an Agricultural Department in that section of its duties which appertains to agricultural inquiry into close connection with any official organization already constructed, or at any future time required for the assessment of revenue, for the investigation of rent, rates and other issues between landlords and tenants, or for the revision and maintenance of village records, cannot be overlooked. In the words of the Famine Commissioners, 'the success of an Agricultural Department would mainly depend on the completeness and accuracy with which agricultural and economic facts are collected in each village and compiled in each sub-division and district throughout the country.'"

The most important aim of agricultural inquiry was declared to be—

"the maintenance of agricultural operations at the highest attainable standard of efficiency;"

or in other words—

"the full sustenance of agricultural labour and the complete provision of agricultural requirements, which meant in India that cultivators, their families and cattle, must be properly fed, and their need for labour-irrigating machinery and agricultural implements adequately met."

6. The Government of India is aware that in the seven years which have passed since the issue of the Resolution from which these extracts are made, time has been occupied in most Provinces in organizing first the Department itself and next the

223

local machinery, through the agency of which information and intelligence was initially to be collected. But the time has now come when the ultimate object of the creation of the Departments of Agriculture and Land Records must be more prominently brought forward. That object was the prevention of the evils resulting from famine and scarcity. The function assigned to the new departments was similar to that assigned to the Intelligence Branch of a Military Department. In other words, they were to organize and maintain a system under which the responsible authorities should be kept continuously and automatically provided with prompt intelligence of agricultural circumstances. They were also to map out in each Province the tracts liable to scarcity and to investigate the causes which rendered them precarious, as well as to suggest measures for the improvement of their agricultural condition and the maintenance, in times of distress, of agricultural efficiency. In order to enable them to fulfil these objects, the ordinary and continuous duties imposed on the special Departments in connection with settlements and land records were designedly of such a character as would tend to place them in possession and control of all facts and statistics connected with the agricultural condition of every part of the country.

7. The organization and maintenance of an efficient staff of village officers and their supervisors are subjects of equal importance. They cannot be dealt with in the Famine Codes. But it must not be forgotten that the duty of dealing with these questions under the direction of the Local Government, as well as of inspecting the local establishments and of assisting the District officers to secure their efficiency, was imposed on the officers who were placed in charge of the special Departments of Land Records and Agriculture, with the view of securing the system of prompt intelligence to which reference has been made in the preceding paragraph, as well as of providing in each district a capable and well-organized machinery which can be employed as a section of the relief inspecting agency on the occurrence of famine. Other subordinate officials on the executive staff of tahsil establishments must, if necessary, be similarly utilized, and the duty of instructing them in their duties under the Famine Code imposed upon some responsible officials in each district.

8. His Excellency the Governor-General in Council now desires that the Codes should define precisely—

(1) the functions actually assigned to the special Department in the different Provinces in connection with the system under which current and continuous information is provided, whether to District officers or to the Government, as to the agricultural condition of the different districts and sub-divisions, especially under the heads of prices, rainfall, state of the crops and agricultural stock, imminence or prevalence of scarcity;

(2) the responsibility of the Department for the special inspection of or report on the prospects in any seriously menaced tract and for preparing a minute but compendious analysis of precarious tracts;

(3) the duties of village officers and their supervisors and other subordinate officials so far as they may be connected with reports on the agricultural condition of their villages and circles, or with their responsibilities on the occurrence of scarcity and famine.

9. This opportunity is taken to refer to other points which deserve attention. Some of the Codes contain no sufficient provision for testing the approach of scarcity by prices. While recognising that inspection alone can furnish the District officer with information of a reliable character regarding the prevalence of distress, the Government of India cannot ignore the importance of keeping a systematic watch upon prices as a rough but useful indication of the condition of food-stocks. Some rule requiring the District officer to submit at all times an explanation of any material rise in prices with a brief report as to its effect on the people, should find a place in every Code.

10. Another matter on which the Codes require amplification is that which concerns the application of the Forest policy or the Forest law in each Province. A Forest policy, which tends to preserve and increase forest produce in tracts where

forests cannot or ought not to give way to agriculture, so far from increasing the embarrassments of the rural population, may be found of considerable service in years of scarcity. The Provisional Code indeed gave expression to the principle that forests should be opened for cattle on the occasion of drought. The Government of India expects the same principle to be applied in cases where forest produce is utilizable as human food, and desires the inclusion in the Codes of explicit rules on the subject.

11. The proper maintenance of a scheme of famine works is also a matter on which further precision is required. Past experience will probably enable Local Governments and Administrations to submit useful suggestions on this subject and to indicate in what direction the programme of large public works can be supplemented by minor works under civil agency.

12. In connection with the administration of gratuitous relief in times of scarcity the Government of India wishes to be informed what, in the light of recent experience, are considered to be the relative advantages of a money-dole, a grain-dole, and the distribution of cooked food.

13. His Excellency the Governor-General in Council desires in conclusion that, so far as may be possible, suggestions for the revision of the Provincial Codes, whether based upon the principles indicated in this Resolution or upon any definite conclusions at which the Local Government or Administration may have otherwise arrived in connection with the improvement of the Codes, may be submitted in the form of precise rules. The Government of India will at the same time be glad to receive the views of every Local Government or Administration upon any question connected with the subject-matter of this Resolution which it may consider desirable to refer for the consideration of the Government of India.

Order—

Madras. Bombay. Bengal. North-Western Provinces and Oudh. Punjab.	Central Provinces. Burma. Assam. Chief Commissioner, Ajmere. Chief Commissioner, Coorg. Resident at Hyderabad.

Ordered that a copy of this Resolution be forwarded to the Local Governments and Administrations noted in the margin for information and guidance.

Ordered, also, that a copy be forwarded to the Foreign, Finance and Commerce, Home, and Public Works Departments, for information.

(True Extract.)

(Signed) E. C. BUCK,
Secretary to the Government of India.

Endorsement No. 657, Revenue.

Referred to the Commissioners of Land Revenue and the Commissioner of Revenue Settlement and Director of the Department of Land Records and Agriculture for remarks and suggestions with reference to the various points adverted to in the Resolution.

FORT ST. GEORGE,
30th January 1890.

(Signed) C. A. GALTON,
Secretary to Government.

To the Commissioner of Revenue Settlement and Director
of the Department of Land Records and Agriculture.

Resolution—dated 27th February 1890, No. 53.

Mr. Horsfall will be requested to favour the Commissioner with his views generally on the questions raised in the Government of India circular and as to whether any and what difficulties have been found in practically applying the provisions of the Provincial Famine Code in dealing with the famine which recently afflicted the district.

2. The Collectors of Kistna, Kurnool, Bellary, Anantapur, North Arcot, Salem and Tanjore will also be requested to favour the Board with any suggestions they may have to offer regarding modifications in the provisions of the Code.

(A true Copy and Extract.)

(Signed) P. RAJARATNA MUDALIAR,
Secretary.

(True Copy.)

(Signed) V. K. RAMANUJA CHARI,
First Assistant.

To the Collectors concerned.
Copy to other Collectors.

Read—also the following G.O., dated 19th April 1890, Mis. No. 2417, Revenue :—

Read—again G.O., dated 20th November 1889, Mis. No. 7451, Revenue.

Read—also the following letter from the Collector of Ganjam, dated 20th December 1889, E. No. 20 :—

I have the honor to acknowledge the receipt of the order of Government, dated 20th November 1889, No. 7451, referring to me, for remarks and suggestions, letter from the Officiating Secretary to the Government of India raising certain questions as to famine operations in the Ganjam district.

Question 1.—The necessity of giving some assistance even before prices have reached the recognized scarcity rates.

Answer.—Nothing was more clearly demonstrated than this during the past year in Ganjam. Never throughout the year did the average price of ragi which was ordered to be adopted as the standard grain touch the recognized scarcity rate. When early in June, His Excellency Lord Connemara visited the district, this fact was immediately recognized and general relief sanctioned, irrespective of scarcity rates, the restrictive order of the 12th December 1888 being set aside.

Question 2.—As to the source from which information as to approaching scarcity is to be obtained.

Answer.—I do not consider that the Madras system is deficient in this respect. The cultivation accounts of each village and reports from Taluk and Divisional officers afforded ample information upon which the Collector very early came to the conclusion that famine was inevitable—*vide* the Collector's weekly season telegrams from the 30th June 1888 onwards. It was the restrictive order of the 12th December as to scarcity rates that prohibited relief being given, although numbers were in positive need of it.

Question 3.—As to a scheme of famine works.

Answer.—I submit that there were works ready at hand upon which all that required work could be employed. In my telegrams and letters in October 1888 I considered that the Rushikulya project and the Gopálpur canal would afford ample relief to all who then needed it. The Honorable Mr. Garstin in his two reports of November and December specified a number of other works which could be undertaken as relief works. Long prior to this the Collector had submitted a list of works which might be undertaken as famine works, which was returned for revision by the Government of Madras in November 1888. There was no hitch in finding work. At any period double the number who ever came to work could have been provided for. I consider, however, that a mistake was made in ordering that the Rushikulya and Gopálpur canal works should be carried out as ordinary Public Works Department works—which means the employment of contractors and payments made after an interval of a week or ten days or even more. Such a system is not suited for times of

severe distress. The two chief hindrances were, however, the severe epidemic of cholera which frightened the people away from works and the low rate of wages allowed upon civil agency relief works. At a time when prices were nearly cent per cent. dearer than normal, the cooly, whose ordinary hire is two annas per diem, could get, under the provisions of the Code, with ragi, as the standard grain, only 1 anna 4 pies, and against this he rebelled, declaring not infrequently that he preferred death to working for such wages.

Question 4.—As to the test of prices laid down in section 33 of the Madras Code.

Answer.—The difficulty alluded to arose from making ragi and not second-sort rice the standard grain. It must be admitted that assistance was not given sufficiently early before the people had begun to lose strength from want of food owing solely to the rigid order passed by the Madras Government on the 12th December 1888. The rule was set aside as soon as His Excellency Lord Connemara visited this district, that is, early in June, but not before a great deal of mischief had been done. Had rice and not ragi been adopted from the first as the standard, things would have been very different. Both the Honorable Mr. Garstin and Lord Connemara, after personal inquiries in the district, concurred with me, in the opinion, that rice and not ragi should be considered the standard grain of the district, but the Board of Revenue considered that the order of the Government of India did not admit of their accepting second-sort rice as the standard grain, and their view was unfortunately as it turned out, endorsed and confirmed by the Madras Government. The Collector had taken early steps to have a scheme prepared for village relief circles and this fact is noticed in the Honorable Mr. Garstin's report. It was not, however, till the 22nd June that Government telegraphed sanction for the appointment of circle inspectors and there was some delay and difficulty in obtaining suitable men for these posts. In the Mohana division of the Agency tracts, however, a circle inspector was appointed in March and in the Chinna Kimedi estate two from the beginning of April.

Question 5.—The necessity for intermediate works between "Professional agency works" and "Gratuitous relief."

Answer.—I believe Mr. Horne's remarks have been misunderstood. Numerous tank works, wells, village roads, and two major works, the Digupudi-Govindapur and Palasa roads, were started as civil agency works, upon which all persons capable of doing any work and willing to work were employed. Like gratuitous relief these works were not started early enough owing to the restrictive orders passed. No persons capable of doing work were granted gratuitous relief, and, as soon as persons on the gratuitous relief list became fit to work, they were struck off the relief list and delegated to works.

Question 6.—The question of money-doles, grain-doles or cooked food.

Answer.—I would abolish the money-dole system altogether as open to the objections noticed by the Government of India and restrict relief to grain-doles and cooked food.

2. I hope shortly to submit my final report on the Ganjam famine of 1888-89, and suggest that it would be as well for Government to have this before them before final action is taken on the questions raised by the Government of India.

Read—also the following letter from the Collector of Ganjam, dated 19th February 1890, No. 1544 :—

I have the honor to submit my report on the Ganjam famine of 1888-89.

2. Ganjam is the most northern district of the Madras Presidency. It lies between 18° 12′ 45″ and 20° 25′ 40″ north latitude, and east longtitude 83° 33′ 20″ and 85° 15″, and is bounded on the north by Cuttack and Pooree of the Bengal Presidency, east by the Bay of Bengal, south and west by the Vizagapatam district. Its area is 8,311 square miles and population 1,749,604 according to the census of 1881. In 1871 the population was 1,520,088. The district consists of two well-defined divisions

—agency and non-agency ; the former, commonly styled the "maliahs," is inhabited by Khonds and Savaras and pays, beyond a small honorarium contributed by the titular chieftains, no revenue to Government. The latter comprises the three Government taluks of Goomsur, Berhampore and Chicacole and numerous zemindaries. The agency tracts form the western half of the district with an area of 5,205 square miles and a population of 246,303. The remainder of the district or Ganjam proper has an area of 3,106 square miles and a population, according to the census of 1881, of 1,503,301. It is with regard to the latter chiefly that this report deals, though a small portion of the maliahs, estimated at 300 square miles, with a population of about 10,000, was affected. The total area in which distress from scarcity prevailed may be put down at 2,500 square miles with a population of 1,100,000 and comprised the Government taluks of Berhampore and Goomsur with the outlying zemindaries, the Tarla and Tekkali estates and a small portion of the Parlákimedi estate to the south.

3. It has been laid down as a maximum that the failure of harvest in any one year is not sufficient to produce a famine or even such a degree of scarcity as to call for State intervention and that it requires the failure of a succession of harvests to do so. This may be true, provided that the produce of the harvest is retained for home consumption, but over-exportation may bring about the same results, and, as an instance, I would quote the Ganjam district in 1878 when, owing to the famine in Southern India, exportation from this district was unduly stimulated and distress prevailed. Ganjam has always been an exporting district, not because it produces more in an ordinary year than is required for its own consumption, but because it receives large supplies from the adjoining countries—Orissa and the Central Provinces, which, in return, draw upon it to a large extent for salt. Certainly there was nothing in the seasons of 1886 and 1887 to excite attention or alarm. In 1887 the yield of the rice or principal crop was estimated at between 10 and 11 annas and that of dry grains at between 8 and 9 annas. Not a good year, but still not one that called for any particular notice. The preceding year was described in similar terms. The years 1884 and 1885 were less favorable. Notwithstanding this, it will be seen from the annexed table that Ganjam went on exporting through all these years. The exports are made out from October to October which represents more correctly the crop year than either the official or fasli year :—

Years.	Cwts.	Value.	Season.
		Rs.	
1877-78	65,622	2,82,663	Very unfavorable.
1878-79	177,566	6,55,144	Good.
1879-80	424,108	12,70,281	Favorable.
1880-81	950,172	23,75,655	Do.
1881-82	407,320	10,04,918	Unfavorable.
1882-83	697,668	17,55,474	Do.
1883-84	561,826	18,62,522	Favorable.
1884-85	41,741	1,44,359	Very unfavorable.
1885-86	1,627	6,432	Bad.
1886-87	89,562	2,51,050	Average.
1887-88	96,769	2,76,199	Do.
1888-89	456	1,296	Very bad.

4. The principal food-grains grown in the district are rice and ragi. The cultivation season commences in June and terminates in November or December. Rice, which is far the most important crop, requires the rains of both the south-west and north-east monsoons. The south-west monsoon usually sets in early in June and continues up to October when the north-east monsoon commences and continues for about a month, the average rainfall for the year being over rather than under 40 inches. In the absence of any large irrigation works, the crops are peculiarly dependent upon the rainfall which, to give a good year, must be seasonable as well as abundant.

5. As above stated, cultivation usually commences in June and this should be preceded by a good shower in May to enable the ryot to plough his lands. In the annexed table, which shows the rainfall of the past twelve years and of 1865, which preceded the Orissa famine year, I have adopted the official year as showing better than the fasli year what may be termed the crop rainfall :—

No.	Months.	Fasli 1275.	Fasli 1287.	Fasli 1288.	Fasli 1289.	Fasli 1290.	Fasli 1291.	Fasli 1292.	Fasli 1293.	Fasli 1294.	Fasli 1295.	Fasli 1296.	Fasli 1297.	Fasli 1298.	Remarks.
		IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	
1	April ..	1·85	2·6	·3	1·1	1·1	·6	1·5	·8	·8	·7	·12	·5	·25	South-west monsoon.
2	May ..	2·90	7·9	2·6	2·8	2·7	1·4	3·5	1·8	1·3	2·7	3·38	1·82	·37	
3	June ..	4·70	3·3	1·4	9·7	9·7	8·3	2·5	9·5	5·2	2·5	4·64	5·99	2·37	
4	July ..	3·80	3·6	6·7	6·7	10·1	6·2	8·3	9·2	6·9	6·7	8·47	8·19	3·28	
5	August ..	5·97	4·8	12·8	8·6	10·4	7·1	7·2	9·9	5·2	6·2	10·15	9·46	7·42	
6	September.	4·92	6·4	6·9	6·8	8·1	6·0	7·3	5·3	11·8	4·4	11·12	5·19	4·48	
7	October ..	·45	2·0	12·9	4·6	9·7	7·6	4·4	5·9	4·9	4·9	15·71	7·12	1·92	North-east monsoon.
8	November..	·32	·1	5·6	3·3	3·3	1·4	3·8	2·2	0·7	7·2	5·88	1·87	5·83	
9	December..	..	..	13·0	1·0	·1	·3	.6	1·2	·3	3·3	4·52	..	·09	
10	January ..	..	..	..	·2	..	·5	·1	..	·4	·1	·04	·29	..	
11	February ..	·97	·1	..	1·1	..	·1	·6	·6	1·8	..	..	·67	·02	
12	March ..	·5	·6	·9	·1	1·8	·2	1·6	·1	·8	1·7	·89	·12	·06	
	Total ..	25·93	31·4	63·1	46·0	57·0	39·7	41·4	46·5	39·47	40·4	64·92	41·22	26·19	

6. The rainfall of 1888, it will be observed, corresponds almost exactly with that of 1865, the Orissa famine year. The year 1878 with 63·1 inches was a good year; whilst 1886 with 64·92 inches was only average, owing to excessive rain in October and November; 1877 with a fall of 31·4 was decidedly bad. In 1865, 1877 and 1888 there was practically no north-east monsoon, the fall of 1·92 inches in October and of 5·83 inches in November 1888 being the outcome of a cyclone that occurred at Madras at the end of October of that year.

7. A reference to the statement of rainfall for 1888 shows that in the months of June and July, the most important months for agricultural operations, there was a decided failure and this was repeatedly brought to the notice of the Board of Revenue in my weekly telegrams. On the 30th June prices were: rice 15·46, ragi 31·32, cholum 27·5, cumbu 31·5 seers the rupee. In this and in the following weeks' telegrams it was stated that the scarcity of water was much felt. Standing crops were withering. Agricultural operations were retarded and prices rising. As the season advanced, these remarks were repeated in successive weekly telegrams and early in August, I personally informed Mr. Wilson, a member of the Board of Revenue, that I entertained grave apprehensions regarding the season which could not be otherwise than a disastrous one. It was in this week that cholera first made its appearance. On the 29th September I telegraphed: "Standing crops withering, want of rain much felt. Prices: rice 13·02, ragi 22·75, cholum 21, cumbu 28," and a fortnight later, "prices: rice 10·29, ragi 20·23, cholum 20·5, cumbu 26·43. Standing crops withering and withered; prices rising rapidly and merchants holding back stocks of grain," and the following week, that is, the 20th October, "prices: rice 9·97, ragi 21·58, cholum 18·93, cumbu 27; prices rising, grain held back by merchants, scarcity very severe, scarcity of water felt, crime increasing, grain looted in Berhampore, Aska and other places."

8. It was about this period that people began to lose hope. The north-east monsoon was overdue and the weather seemed set fair, the early dry crops had proved more or less a failure, whilst the rice crops were reported everywhere to be withering and withered; as in 1865, prices rose with a bound in October, the merchants held back stocks and refused, in some places, to sell at all and the natural result was that the people began to help themselves.

9. In the mean time, divisional officers were busy inspecting their divisions.

Berhampore division.

Mr. Bell, the Acting Senior Assistant Collector, having inspected the Jarada estate, reported on the 15th October that though rain had fallen all over the estate and much improved matters, the year must be considered a bad one, that villages immediately under the Sagaram or big tank would get a full crop, while those at a distance would not get half a full crop and the rest would suffer almost total loss. On the 20th, the same officer reported that he had inspected the country between Berhampore and Haripore to the south, that wet lands immediately under irrigation sources were mostly doing fairly well though very backward, that rain-fed lands were hopeless, though in a few places the crops might be saved if rain fell in a few days. The manager of the Kallikót and Atagadá estates, which lie to the north of the district, reported on the 19th that in the Kallikót estate dry cultivation was not extensive and

that many lands had been left waste owing to inability or apathy on the part of the ryots, but that ragi, gingelli and chamalu had yielded an average crop, that nearly all rain-fed lands and about three-fourths of the irrigated highlands had suffered total loss and that about 50 per cent. of the irrigated lowlands might be saved if there were a heavy fall of rain within a week, otherwise hardly 10 per cent.; regarding the Atagadá estate he wrote that the ragi crop had yielded less than the average, other dry crops being insignificant and that the condition of the wet crops was similar to that reported for the Kallikót estate.

The General Deputy Collector, writing on the 17th October, stated that no rain had fallen since the 25th September, that almost all rain-fed paddy had failed, that irrigated paddy was suffering and large areas had been left waste. That the early ragi had yielded from 4 to 8 annas crop and the later ragi was withering.

Goomsur division.

The manager of the Chinna Kimedi estate, in his report of the 20th October, stated that small ragi had yielded 2 annas, middle ragi 6 annas, and that the late or big ragi was lost, that the paddy crop, except in river-fed lands, was a total failure and that even in river-fed lands, should the rain still hold off, there would be a total failure. On the same date, the Dhárákót manager reported that the crops on all, except river-fed lands, were in bad condition and big ragi was withering.

The manager of the Aska and Kurla estates reported on the 21st October that all the rain-fed and some of the irrigated lands had already failed and that the remaining irrigated lands would fall unless rain fell within a week and that the ragi crop was a poor one.

In his letter of the 19th October, the Principal Assistant Collector stated that the crops on rain-fed lands to a great extent and on channel-fed lands to some extent were lost; that in his inspection in September the paddy crops in the Parlákimedi estate, except between Haddubangi and Varanasi, were good. That between Tekkali and Naupada there was absolutely nothing, that paddy cultivation commenced again half-way between Tekkali and Narsannapet and that the paddy under channel irrigation between Narsannapet and Chicacole was in excellent condition. That Tekkali was the worst.

Chicacole division.

10. Owing to the panic that set in about the middle of the month, the grain merchants held back what stocks they had and in consequence a circular was issued to the principal merchants and holders of grain in the district inviting and encouraging them to come forward with supplies. On the 19th a largely-attended meeting was held at Berhampore and the merchants then promised on their part to do all they could. The zemindars of the district were also exhorted to assist as far as possible. The granaries of the Urlám, Kallikót and Dhárákót estates, which were under the Court of Wards, were opened and their stocks offered at the market rates. The Local Fund Engineer was directed to spend up to his full allotment on all works in progress, and tahsildars and managers of estates to do the same as regarded minor irrigation works in the Government taluks and estates. In anticipation of the approval of the Board of Revenue, sanction was given for the cultivation of dry crops on wet lands at the dry rates of assessment.

11. On the 14th October occurred the first grain loot at Kotabommali in the Chicacole division; this was quickly followed by others in the Goomsur and Berhampore taluks, and before the 27th of the month no less than 208 such cases had occurred. Organized bands of several hundreds openly plundered the houses where grain was known or supposed to be stored, asserting that the "Sircar" (Government) had given them permission to do so. In the mean time, the Goomsur Paiks were called in to assist the police. One company of the 5th Regiment, Madras Infantry, was deputed to Aska; on the 20th the regiment paraded the streets of Berhampore, and subsequently another company made a tour *viâ* Ichápur and Chíkati to Digupúdi returning thence to Berhampore. The peons of the Salt Department were also requisitioned and rendered valuable assistance at Ichápur and Aska and the neighbourhood. Every assistance possible was given to the police and in consultation with Mr. Meredith, the Superintendent of Police, the Balliguda and Chatrapur reserves were drawn upon. Mr. Fraser, the Maliah Assistant Superintendent of Police, was stationed at Aska, whilst Mr. Meredith watched Berhampore and Gopálpur. My Special Assistant, Mr. Horne, was

called in to Aska and rendered valuable assistance there in disposing of the prisoners arrested. The District Munsif of Aska was also given special powers to try loot cases. The General Deputy Magistrate with Mr. Mainwaring, an Inspector of Police, was at Russellkonda. Mr. Lever, a full-power Magistrate at Purushottapur, and I proceeded to Pattupur in the Chinna Kimedi estate. These measures effectually put a stop to looting and no cases occurred subsequent to the 27th. The following statement will show how serious this was though attended with loss of life in two cases only—one at Noloheuta near Aska, where a man received a blow on the head with a stone and another at Gangupur where a looter was shot in self-defence by a police constable :—

Loots committed between the 14th and 27th October.

CASES.		PERSONS.		
Reported.	Detected.	Arrested.	Convicted.	Acquitted.
208	125	2,986	1,895	1,083

Such an outbreak of crime is, I believe, unprecedented in our police annals.

12. Reports received from the Orissa on the north were gloomy in the extreme; the crops, it was stated, were lost and relief works had already been inaugurated there. No supplies of food-grains could be expected, it was said, from that province. On the south, Vizagapatam was said to be similarly suffering, and it seemed likely, therefore, that we must look, for supplies, to the Godávari alone, but here too prices rose with a sudden bound in consequence of a brisk demand from Bombay.

13. It was in the midst of these gloomy surroundings that I addressed the Board of Revenue my letters of the 17th, 18th and 25th October, giving a full account of the condition of the district, the steps I had already taken and the measures I recommended should be taken to relieve the distress then prevailing and to provide against impending famine. It was, at the latter date beyond any doubt, certain that the year would turn out a disastrous one if not the worst ever known.

14. In addition to the loot cases above specified, crime had increased throughout the district, a large proportion of the rice crop was already irretrievably lost and the early dry crops had given but a poor outturn. To all appearance, there was to be an utter failure of the north-east monsoon entailing an almost complete loss of the remaining rice crop. Owing to the unfavorable season there had been a considerable diminution in the extent cultivated. Prices too had risen nearly cent. per cent.

15. The following table compares the crime of the year October 1888 to October 1889 with that of the previous year :—

Offences.	1888-89.	1887-88.
	Cases.	Cases.
Murder	19	22
Culpable homicide	9	14
Dacoity	60	3
Robbery	25	5
Riot	26	9
House-breaking	1,094	563
Theft	1,922	1,243
Abkári Act	221	259
Salt Act	670	486
Arms Act	14	18
Opium Act	35	26
Forest	47	24

It must be noted that prosecution for petty cases of salt was stopped in June of 1889.

16. The following statement gives the area of Government lands, dry and wet, cultivated and left waste for fasli 1275 and from fasli 1287 to 1298 :—

Particulars.	Fasli 1275.		Fasli 1287.		Fasli 1288.		Fasli 1289.		Fasli 1290.		Fasli 1291.	
	Area.	Assessment.	Area.	Assessment.	Area.	Assessment.	Area.	Assessment.	Area.	Assessment.	Area.	Assessment.
	1	2	3	4	5	6	7	8	9	10	11	12	13
	ACS.	RS. A. P.	RS.	ACS.	RS.	ACS.	RS.	ACS.	RS.	ACS.	RS.	ACS.	RS.
1. Cultivated	278,609	6,30,088 0 7	6,27,792	281,015	6,36,931	279,169	7,05,655	311,240	7,03,943	313,385	7,03,943	311,376	7,02,975
2. Waste charged	2,016	3,037 0 11	36,512	21,372	55,099	26,413	16,850	9,277	23,337	10,941	23,337	15,637	27,900
3. Do. remitted	130	311 7 6	7,053	2,630	21	6	3,239	1,620	1,196	612	1,196	642	1,041
Total holdings ..	280,655	6,33,406 9 0	6,71,357	305,067	6,92,051	305,577	7,23,744	322,137	7,28,476	324,938	7,28,476	327,555	7,31,916

Particulars.	Fasli 1292.		Fasli 1293.		Fasli 1294.		Fasli 1295.		Fasli 1296.		Fasli 1297.		Fasli 1298.	
	Area.	Assessment.	Area.	Assessment.	Area.	Assessment.	Area.	Assessment.	Area.	Assessment.	Area.	Assessment.	Area.	Assessment.
	14	15	16	17	18	19	20	21	22	23	24	25	26	27
	ACS.	RS.	ACS.	RS.	ACS.	RS.	ACS.	RS.	ACS.	RS.	ACS.	RS.	ACS.	RS.
1. Cultivated	315,364	7,09,736	350,906	7,35,438	324,378	6,82,751	333,382	6,96,439	337,331	7,23,589	339,171	7,44,480	..	..
2. Waste charged	13,785	23,249	10,942	17,085	31,510	64,840	17,594	28,900	23,427	24,420	19,894	}	..	..
3. Do. remitted	757	1,846	508	846	6,144	14,800	9,705	24,504	611	1,001	3,263	6,182	..	..
Total holdings ..	329,906	7,34,831	362,356	7,53,369	362,132	7,52,391	360,681	7,49,843	361,369	7,49,010	362,328	7,50,662	362,319	7,51,043

17. The following statement gives the average prices of the principal food-grains taken from the jamabandi reports in seers per rupee :—

Food-grains.	Faslis.												
	1275.	1287.	1288.	1289.	1290.	1291.	1292.	1293.	1294.	1295.	1296.	1297.	1298.
Rice, 2nd sort	10·73	8·76	10·29	16·35	21·22	19·59	19·65	18·46	14·95	13·11	15·09	25·53	12·05
Ragi	15·29	20·76	17·25	29·58	36·57	38·61	38·7	35·15	27·07	25·2	30·27	45·88	22 62
Cholum	13·35	14·7	17·31	30·75	39·03	34·95	34·17	32·02	28·62	27·09	27·26	44·03	21·82
Cumbu	18·87	16·32	17·85	36·63	44·82	41·97	39·45	36·27	33·13	30·7	32·36	49·49	28·38

NOTE.—The fasli is from 1st July to 30th June and does not therefore correctly represent the period of scarcity which would seem usually to commence in October. Taking the average of prices from beginning of October 1888 to 30th September 1889, we get the following results :—
Rice 11·3, ragi 20·35, cholum 18·44 and cumbu 26·36.

18. In my letter of the 17th October, I recommended the recommencement of works on the Rushikulya, which had recently mostly unfortunately been stopped, and the commencement of the Gopálpur canal with a view to give employment to the laboring classes and prevent the physical deterioration which rapidly sets in in times of scarcity, and the payment of compensation on account of the dearness of food to all Government servants and servants employed in the service of the estates under the Court of Wards. On the 20th October, I telegraphed to the Board of Revenue recommending the purchase by Government of a stock of rice to hold in readiness should local supplies fail and the strengthening of the police force, and in my telegram of the 24th, asked for sanction for extra Magistrates to relieve Tahsildars of magisterial work, permission to open relief houses where absolutely required and the grant of advances to weavers, and in my letter of the 25th October, repeating the above recommendations, I reported, for the Board's sanction, the concession I had already granted the ryots of cultivating dry crops on wet lands at the dry rate of assessment. I urged the stay of coercive process both in the Government taluks and in the estates under management, the treatment, for the purpose of remission, of rain-fed lands as wet lands, the exemption of all food grains imported at Gopálpur from the tax recently imposed under Madras Act III of 1885, and the connection of Russellkonda with Aska by telegraph and the strengthening of the Aska, Gopálpur and Chatrapur telegraph offices.

19. On the 2nd November, in their Proceedings, No. 625, the Board of Revenue observed that, as to the reopening of the Rushikulya works, the Board's Acting First Member, who had been deputed on special duty to the district, would be in a better position to advise Government. In regard to No. 2, the Board, in its Proceedings of the 25th October, No. 593, had ruled that ragi and not rice was the cheapest grain commonly used in Ganjam and that, as the former grain was selling at the date of the Collector's report at the rate of 26·23 seers the rupee, there was no ground for granting compensation to Government servants and servants of the Court of Wards. They repeated their objection to the purchase of a stock of rice on Government behalf, while fully admitting the exceptional position of the Ganjam district as compared with most other districts of the Presidency. Regarding my proposal to increase the police force, which they had in previous Proceedings recommended, they hoped that the numerous arrests which had been made and the judicious measures which had since been adopted by the Collector would effectually stop further lawlessness. In their Proceedings of the 24th October, they stated they were unable to make any recommendation regarding the increase to the Sub-Magistracy asked for and observed that the immediate reopening of the Rushikulya works and, if possible, the opening also of the Gopálpur canal would probably obviate the necessity for relief houses, at all events, in the present stage of affairs. The questions of granting advances to weavers, of placing Russellkonda in close communication with the head-quarters of the district and of strengthening the telegraph offices at Aska, Gopálpur and Chatrapur, were to be brought to the notice of the Board's First Member. They recommended to the favorable consideration of Government the proposal to temporarily exempt from the payment of fees all food-grains imported into Gopálpur. They approved of the orders issued by the Collector regarding the expenditure of the year's allotments, the inspection of withered

crops, the cultivation of dry crops on Government wet lands at the dry rate of assessment and his recommendation regarding the suspension of coercive processes where necessary. They declined to say at present whether any remissions should be granted upon rainfed lands and called upon the Collector to report again when the extent and amount of loss was known.

20. In their Order, dated the 7th November, the Government approved of the orders passed by the Board on the Collector's recommendations regarding the levy of the dry rate of assessment on wet lands cultivated with dry crops, suspension of coercive process and grant of remission in respect of rainfed lands. They awaited Mr. Garstin's views before passing orders as to strengthening the magistracy and police, improving telegraphic communication, reopening of the Rushikulya works, grant of advances to weavers, importation of grain by Government and exemption of imports of food-grains from landing fees.

21. Government had previously, on the 25th October, in their Order, No. 735, resolved to depute Mr. Garstin, Acting First Member of the Board of Revenue, to proceed at once to Ganjam and report, with as little delay as possible, on the exact condition of affairs. He was authorised, if the condition of the district warranted in his opinion such a step, to put in hand at once the works connected with the Rushikulya project under the rules prescribed by the Famine Code for Professional Agency works. He was also directed to consider and report whether the district staff in any department required to be strengthened.

22. Prior to Mr. Garstin's arrival, however, there were good falls of rain throughout the district, the fortunate outcome, it is believed, of a cyclone that occurred about this time at Madras. Rain commenced on the 29th October and continued for about a fortnight, and in my letter to the Board of the 9th November I reported that it had been of enormous benefit in giving a supply of water for the tanks, that dry crops—red-gram, horse-gram, later ragi, &c.—which had been in a critical condition, were secured and that all the paddy crop which had not already withered would give some yield though it was impossible at the time to estimate what the yield would be. This information had been previously telegraphed and the Madras Government had informed the Government of India of the same on the 8th November.

23. On the 4th November, Mr. Garstin arrived at Gopálpur. On the 8th, three additional Second-class Magistrates were sanctioned and about the same time the Rushikulya project was re-commenced as an ordinary Professional Agency work. I accompanied Mr. Garstin on a tour through the northern half of the district which, in consequence of the recent rains, presented a very different aspect to what it had done a fortnight previous. The rice crops had assumed a green aspect and everywhere grass was growing giving ample fodder to the cattle; the tanks too had received some supply of water and the ryots and their laborers, who had before been idle, were busy ploughing and sowing the later dry crops. After completing his tour through this part of the district, Mr. Garstin telegraphed on the 26th November to Government as follows :—

"In my opinion there is no famine, that is, no general failure of food-supply. There is distress owing to high prices and failure crops and this will probably increase. Estimate average yield rice crop on irrigated land six annas out of sixteen. Have started Rushikulya works as ordinary Public Works Department work; up to 24th only 2,522 laborers; at four points in thirty-six miles canal begun. Consider arrangements should be made at once for beginning coast canal from Ganjam to Gopálpur as ordinary Public Works Department work in case work needed in east district. Collector has issued instructions prepare registers for village relief. Weavers in some distress for want work; if price rice rise to scarcity rate expedient make them advances."

On the following day, the 27th, Mr. Garstin submitted his first report.

24. In their Order of the 12th December, Government accepted Mr. Garstin's conclusions and passed the following orders on his recommendations :—

(*a*) That steps be taken for commencing the Mallada-Tampara project, estimated to cost Rs. 18,000.

(*b*) That the works connected with the Rushikulya project should be kept open as ordinary Public Works Department works for the employment of all labor which offers itself, and that a lakh of rupees be allotted for expenditure during the remainder of the current year.

(*c*) That the Ganjam-Gopálpur canal be put in hand at once as an ordinary Public Works Department work. An allotment of Rs. 30,000 to be made to meet present requirements.

(*d*) The Collector is authorized to select one or more of the roads specified in paragraph 31 of Mr. Garstin's report for execution if the necessity should hereafter arise.

On Mr. Garstin's recommendations—

(*e*) That village relief on the scale prescribed by the Famine Code should be afforded to helpless persons when the price of *rice* exceeds the scarcity rate, and

(*f*) That advances be granted to weavers to the extent of Rs. 30 per loom to be adjusted by delivery of cloth to that value.

Government considered that the grant of gratuitous relief and of advances to weavers was altogether premature seeing that the price of all food-grains was below scarcity rate. They added that they were "not prepared to sanction this measure until the price of *ragi*, which is the cheapest food-grain in ordinary use (not rice), reaches the scarcity rate. The Collector may then exercise his discretion in the matter. The Order of the 3rd December, No. 7203, authorizing the grant of subsistence batta, but directing that this relief be kept within the narrowest possible limits, will be considered as cancelled."

The proposals—

(*g*) That certain measures be adopted for improvement of telegraphic communication.

(*h*) That food-grains imported at Gopálpur be exempted from landing fees.

were approved.

Further, the ruling contained in G.O. of the 8th November that ragi and not rice was to be adopted as the standard grain for Ganjam in considering the necessity for the grant of compensation to Government servants for dearness of food was reaffirmed.

25. On the 13th December, Mr. Garstin submitted his second report relating to the southern half of the district. This was reviewed by Government in their Order of the 18th idem, and the Collector was directed to have estimates prepared for the lines of communication specified, so that there might be no delay in putting them in hand should the necessity for finding employment for large bodies of laborers arise. The Collector was further directed to lose no time in making a selection and preparing a programme of works, the list of proposed Civil Agency works previously submitted having been returned for revision with G.O., dated 6th November 1888. The attention of the Public Works Department was invited to two large irrigation projects referred to by Mr. Garstin, and it was further ruled that labor should be concentrated on large works as far as possible, petty village works being intended primarily for those who are not strong enough to go to works at a distance.

26. It may be as well to mention here that when on tour with Mr. Garstin we met with several cases of emaciation from starvation and I had, with Mr. Garstin's concurrence, to prevent death from absolute starvation, sanctioned in such cases the grant of subsistence batta as provided in paragraph 55 and according to the scale laid down in paragraph 186 of the Madras Famine Code and reported my having done so to the Board of Revenue in my letter of the 15th November. In their Order of the 3rd December, Government approved of my action, but directed that this relief should be kept within the narrowest possible limits, observing at the same time that, with the price of all grains below scarcity rates, such relief should not be necessary and should be given only to avoid loss of life. Though this limited authority was apparently withdrawn from me by the Government order passed on Mr. Garstin's first report, I naturally hesitated to act upon it, feeling assured that it was not the intention of Government that people were to be allowed to perish from starvation because a certain limit of price had not been reached. On the 15th January 1889 the Government, in their Order, No. 189, remarked that the cancellation of the sanction accorded in their order of the 3rd December was not to be understood as preventing the grant of occasional relief to homeless wanderers and

beggars, who are starving, when the Collector considers such assistance absolutely necessary to preserve life, and accordingly relief continued to be given in such cases only.

27. The general impression produced by Mr. Garstin's reports and the Government orders thereon was that there was no famine and no immediate prospect of it. The Collector was considered an alarmist and supposed to have been bewildered by the occurences of October. In the *Madras Mail* of the 5th February 1889, a leading article was devoted to this subject and this was copied *verbatim* into the *Agricultural Gazette*, which is supplied *gratis* to district offices throughout India. The fact that, on the 9th November, the Collector reported that the recent rainfall had done enormous good was lost sight of or ignored in this article altogether.

28. In justice to myself it is necessary to state that the unexpected rainfall between the 29th October and 7th November—not, I contend, the north-east monsoon, the date for which had passed, but the outcome of the cyclone, which occurred at Madras on the 31st October—had completely altered the condition of affairs reported in my telegrams and letters of the 17th, 18th and 25th October and had staved off famine, which I had then considered imminent for several months. It had supplied drinking-water to the tanks for men and cattle, had caused the pasturage to grow and the withering crops to revive, but, above all, it had given heart to the ryots encouraging them to plough and sow their lands for the later dry crops and thereby afforded employment to many thousands, who, but for this fortuitous rain, would have remained idle without the means of procuring their livelihood. It had the effect, too, of lowering prices. When Mr. Garstin arrived, the aspect of affairs had completely changed and there was no longer fear that famine was imminent. It is useless now to conjecture what would have been the case had the rain not come.

29. With one single exception, every proposal I had made was endorsed by Mr. Garstin and that was the purchase by Government of a stock of grain to be held in reserve. He differed from me in my estimate of existing stocks and in regard to the outturn of the coming harvest. These were at that time matters of opinion. It has always been extremely difficult to arrive at any true estimate of stocks at any given period. In the famine of 1866 Mr. Forbes, the then Collector, declared his inability to form any reliable estimate, and I was in a similar position in 1888. The returns furnished were totally unreliable and manifestly far below the mark. Mr. Garstin took a favorable view of the harvests of previous years and concluded, from the fact that exportation from the district had continued up to June of 1888, that existing stocks were normal and would suffice with the coming crop to tide over the year. My opinion was that stocks were below par, that previous years had not been good ones and left no surplus, and that the fact of exportation was not a safe indication of the existence of stocks, that exportation depended rather upon demand and prices elsewhere. I would instance in support of my view the large exportation of grain from the Madura district in December 1876, when the Board of Revenue on this very ground refused to accept my prediction that famine was threatening that district. In June of 1877 over 100,000 were on relief in the Madura district. So also in 1878, a very bad year in Ganjam, exportation was not entirely stopped, although prices were higher even than in 1866, the great famine year. In regard to the crops, subsequent careful inspection showed that Mr. Garstin's estimate was too sanguine. What an important factor this is will be easily seen if put in the following form. A crop of 12 annas may be taken as a favorable one and sufficient for the consumption of the population of the district for 12 months, that is, a difference of one anna is equivalent to food sufficient for a million and-a-half of people for one month. The difference between Mr. Garstin's estimate and mine was two annas, or, in other words, food-supply for two months. It was upon these premises that Mr. Garstin regarded famine as possible but not probable, whereas I held that it was inevitable and had been retarded, not prevented, by the rain at the end of October and beginning of November.

30. Throughout December and January matters remained *in statu quo*. The price of second-sort rice, which had risen in October to 10 seers, had fallen and hovered between 11 and 12 seers the rupee. The chief feature noticeable in the weekly telegram being the reported scarcity of water and the existence of cholera. The Rushikulya works were being prosecuted and the Gopálpur canal was started in the last week

of January. On Saturday, the 2nd February, the numbers employed on the Rushikulya project and Gopálpur canal works were 4,911 and 6,067, respectively.

31. In the mean time, unfavorable reports were received from the Bodogoda portion of the Maliahs, and on the 15th December I addressed Government, recommending that certain wells should be sunk to meet the deficiency of water and the commencement of the Taptapani ghât road, with branches from Luhagudi to Mohana and Chandiput as relief works. In their order of the 16th January 1889, No. 22, Government replied that it was not satisfied that any measures of relief were required as yet in the Agency tracts, that there was no outlet for the produce and large stocks of grain probably existed and that it would be premature to start works in the Agency tracts until the necessity for relief operations became more apparent than it was at present in the low country. The Collector was, however, authorized in communication with the Superintendent of Police to send up supplies of grain for the police force departmentally.

32. This order reached me in the Maliahs on the 30th January and considering the matter of grave importance, I at once proceeded to the Mohana division and finding that the state of affairs had not been exaggerated, sanctioned the grant of money doles to persons in an emaciated condition and the sinking of wells to meet the deficiency of water-supply. My telegram informing Government was crossed by one from Government of the same date, sanctioning the sinking of wells and commencement of the Taptapani ghât road, and in their order of the 22nd February 1889, No. 119, Government authorized the Collector to sink as many wells as might be found necessary to prevent a water famine and the purchase of grain for distribution to the starving people in the Maliahs and for payment of wages to the coolies employed on the ghât road.

33. It was thus in the Bodogoda Maliahs that relief was first instituted on a systematic form. The extent of country affected was not very great and the population sparse. The Taptapani ghât road afforded ample occupation to all those able and willing to work and the numbers receiving money doles were never very large. One relief circle inspector sufficed and the road work was carried on under the superintendence of Mr. Horne, the Special Assistant Collector, and of the Sub-Magistrate of Ramagiri Udayagiri. A supply of ragi sufficient for two months' consumption for the coolies employed on the road work was purchased and sent up to Luhagudi from Berhampore and it was not found necessary to renew the supply. By the end of September 1889, all necessity for continuing the work or for gratuitous relief had ceased. The maximum number employed on the road work never exceeded 600 at any one time and about 350 on relief. The population of the distressed tract is estimated roughly at 10,000. The hill people differing from those on the plains are self-reliant and averse to regular employment. They lived during this period to a great extent upon roots and grasses and the heart of the solopo or sago palm tree. The numbers therefore that came upon relief and works were comparatively small.

34. My proposal that Government should import and keep in reserve a stock of grain, though repeatedly urged for reasons which it is not necessary now to repeat, was negatived by Government and in answer to a question from the Government of India on this subject, the Madras Government replied on the 26th January 1889 that the importation on account of Government would probably be unnecessary and would be at present impolitic and, on the 19th February, Government telegraphed to the Government of India that as far as the Madras Government could judge there would be no necessity to import grain into Ganjam on Government account. This resolution was adhered to and no grain was imported, if we exclude the 1,400 tons of seed-grain, on Government account.

35. Fortunately, things turned out favorably for this decision: the threatened failure of supplies in Orissa did not come off and the surf at Gopálpur was abnormally smooth throughout the year, and although supplies could not be obtained in particular localities, such as Mohana, Chinna Kimedi and Suradá, and had to be forwarded from Berhampore there was no general failure and no disaster, such as occurred in 1866, when Orissa failed and the Gopálpur surf was frequently impassable.

36. The question of stocks is one of insuperable difficulty and no reliable estimate could be obtained. Taking the past ten years, 1878 to 1888, the Ganjam district had exported by sea an average quantity of 17,000 tons, in 1888-89 the exports were 23 tons only, whereas the registered imports by land and sea amounted for the 8 months, from January, 27th, to September, 28th, 1889, to 22,200 tons, made up as follows:—

	TONS.
By sea	6,178
From Central Provinces	4,020
„ Orissa	12,002
Total ...	22,200

Assuming, as we reasonably may, that importations for the 4 months, October, November, December and January, were carried on at a similar rate, we get 33,300 tons. Imports from the Central Provinces were registered from the middle of April and the Ganjam registering station for Orissa was opened on the 29th March, besides which registering stations did not by any means cover the whole of the importing routes, so that we are well within the mark in estimating that, between October 1888 and October 1889, Ganjam imported 40,000 tons of grain.

37. I submit that this is a more certain test of the existence of a deficiency of stocks than prices. If prices alone are to be considered, the years 1866, 1877 and 1878 give much worse results. Prices, however, are regulated by the supply to meet the demand. In 1866, Orissa drew supplies from Ganjam through Gopálpur. In 1877 and 1878, the prices were abnormally high owing to the demand for Southern India. In 1889, on the contrary, Orissa and the Central Provinces continued pouring in supplies throughout and it was owing to this alone that prices were kept down. It was the alarming reports received from Orissa in October 1888 of the anticipated failure of the rice crop there, coupled with the certainty that crops would be deficient in Ganjam, that sent up prices abnormally in that month.

38. I append, hereunder, a statement showing the average prices of the district for the thirteen months, October 1888 to November 1889. The scarcity rate has been fixed at 11·20 seers rice and 16·60 seers ragi the rupee and if the ruling, that ragi is the staple food of the district, is correct, there never was any scarcity in the district. I venture, however, to submit that this ruling requires reconsideration and that second-sort rice should be adopted as the standard. I had always advocated the adoption of second-sort rice as the standard grain and Mr. Garstin was of the same opinion and taking the extent of cultivation of each crop, as stated in paragraph 5 of his first report, we find that the extent of rice and ragi cultivated is 3 to 1 in acres. Now the yield of paddy is for the Ganjam district assumed to be 1,500 lb. per acre and that of dry grains 500, the yield, therefore, is 45 lb. paddy to 5 of ragi and if these are reduced to rice and ragi flour, in which form alone is ragi consumed, we get the proportions 45 lb. paddy = 22½ rice and 5 lb. ragi = 4 lb. ragi flour or a proportion of 45 to 8. Ragi is no doubt largely consumed by the poorer classes, but, so far as I can learn, it is never eaten alone; it is made into a porridge with ¼ ragi and ¼ rice. The laboring classes invariably estimate their wages by the quantity of rice they can procure thereby, not ragi, and seeing that agricultural laborers are chiefly paid in kind and not in money, more especially at harvest time, it follows that the laborer receives as wages much more paddy than ragi. I trust that the above considerations are sufficient to show that rice and not ragi is the staple food of the district. The following table exemplifies this argument. No one will now question that the past year has been one of severe scarcity amounting to famine and yet in no single month out of the thirteen, for which prices are quoted, did the price of ragi touch the scarcity rate; whereas, if second-sort rice be adopted as the standard, the scarcity rate was passed in 8 out of the 13 months.

Months.	Seers per rupee.			
	Second-sort rice.	Cholum.	Cumbu.	Ragi.
October 1888	10·3	19	27·51	23·02
November ,, ...	12·15	17·12	27 75	24·41
December ,, ...	11·96	19·12	27·75	24·12
January 1889	11·23	20·74	30·67	20·53
February ,, ...	10·92	20·26	26·4	19·2
March ,, ...	10·23	26·74	27·08	19·26
April ,, ...	11·59	20·6	26·1	21·78
May ,, ...	10·77	19·93	25·35	18·64
June ,, ...	9·99	17·25	23·03	17·04
July ,, ...	9·93	16·13	22·03	17·54
August ,, ...	10·16	16·37	25·75	18·05
September ,, ...	10·85	18	33·6	26·5
October ,, ...	11·61	17·25	33	33·2

NOTE.—Scarcity rate for rice was fixed at 11·20 seers the rupee and for ragi at 16·60.

39. On the 7th February 1889, the Government apparently misled by the wording of the weekly season telegrams submitted during the Collector's absence from head-quarters by the then Treasury Deputy Collector considered that the time had arrived for making further provision to meet the demand for labor and the Collector was directed to take steps at once for putting in hand some of the road works suggested in the Honorable Mr. Garstin's reports as soon as the necessity arose. An additional officer to act as personal assistant to the Collector was sanctioned and more aid promised if required. In my reply, dated the 23rd February, I specified certain roads for which estimates were ready and upon which work would be commenced if necessary, and stated that I did not require at present the staff of civil officers to be strengthened and could manage until matters got much worse than they were with the assistance of Mr. Carr who had been specially sent to assist me. I reported that on the Rushikulya and Gopálpur canal works there were ample supplies for the laborers employed, and that I required the assistance of some Public Works Department subordinates for the preparation of road estimates. Government had, however, in their order of the 5th March, No. 151, resolved that all works opened for the purpose of affording relief to the people of Ganjam, except those situated in the Maliahs, should be treated as Professional Agency works unless it should be found necessary hereafter, in consequence of the increase of distress, to open Civil Agency works, and it was further directed that the preparation of estimates for relief works should devolve on the Department of Public Works and that such establishment as was required was to be provided in that department.

40. On the 1st March, the Madras Government in a telegram to the Secretary of State briefly summarised the condition of affairs as follows:—

"Condition Ganjam not materially changed. Prices during February practically stationary. About seven hundred tons of grain imported weekly by merchants, chiefly from Orissa. Numbers not increasing upon two large works opened. Fifteen thousand now employed. Arrangements are being made for opening other works. Collector authorized give gratuitous relief whenever necessary to prevent starvation. No improvement can be expected till June rains begin; should they fail or hold off condition will become more serious."

41. During March and April there was no material change. In April prices fell and cholera which had been spasmodic up to this time began to be very virulent. The laborers employed on the Rushikulya and Gopálpur works dispersed in alarm in thousands. On April the 20th, the numbers had gone down from this cause from 20,000 the previous fortnight to 8,000. The deaths reported from cholera during the week amounted to 593. Two new relief works for the Tekkali division were commenced as Professional Agency works. At the end of April, the works in progress were the Rushikulya project, Gopálpur canal, the Anantagiri and Battili roads and the Boppayapuram gedda. In the Maliahs or hill tracts, the Taptapani and Chokkapad ghât roads were being executed as Civil Agency works as well as a few wells and in the plains with a view to give relief to the weak and provide a supply of water, the want of which was much felt, tanks were being excavated and wells sunk. From the 1st April systematic village relief was introduced in the Chinna Kimedi estate and

923

two circle inspectors appointed. Advances were also made during the month to distressed weavers in that estate. In the Aska division and Chinna Kimedi estate alone, prices rose above the scarcity rates.

42. In May, matters rapidly got worse, prices rose steadily, the scarcity of water became very serious and cholera advanced with rapid strides, carrying off no less than 2,500 in the first fortnight; owing to the general prevalence of cholera, coolies were afraid to remain on works and stayed at home in their villages without any means of subsistence. In Ganjam, Purushottapur and Berhampore, the people were described as becoming emaciated. In Goomsur and Suradá they refused to accept the famine rates of hire and declared that they "preferred to die of starvation." In Chinna Kimedi, too, the rates were said to be insufficient to feed them properly. Notwithstanding cholera, the numbers on works were, for the week ending with the 11th May, 17,600 and the numbers on gratuitous relief 2,037, of whom 1,078 were in the Chinna Kimedi estate alone.

43. In their Order of the 16th February 1889, Government had ruled that ragi was the grain to be used with reference to section 185 of the Madras Famine Code, the rates being for third-class laborers as follows:—

Men including boys above 12 years and nursing mothers	Value of $1\frac{1}{4}$ lb. of grain + $\frac{3}{4}$ anna.
Women including girls above 12 years ...	Value of $1\frac{1}{8}$ lb. of grain + $\frac{1}{2}$ anna.
Working children below 12 years	Value of $\frac{5}{8}$ lb. of grain + $\frac{3}{16}$ anna.

Unfortunately two serious errors crept in here and the people had great cause to complain of the insufficiency of the rates. The standard seer of rice weighs 80 tolas or a little over two pounds, and it was assumed wrongly that ragi was the same. A series of tests showed that a seer of ragi ordinarily weighs 72 tolas or less than 2 lb. Then again ragi no more than paddy is edible and requires to be converted into flour before it can be used for food, in this process it loses as found by test one-fifth of its weight. Furthermore, ragi is not consumed *per se* by the people who eat it, but is made into porridge with an admixture of one-fifth rice. The error as to weight was discovered at once, but it was not till a late period that $\frac{4}{5}$ ragi flour and $\frac{1}{5}$ rice were adopted as the standard for famine wages.

In connection with this subject, I beg to draw attention to the very low scale of wages allowed by the Famine Code. At a time when food-grains were nearly doubled in price, the laborer, who ordinarily gets 2 annas a day cooly and in harvest time much more, was receiving only one anna 4 pies. It is true he was incapable of doing a full day's work, but there is much closer connection between low wages and short work than is generally known. In some instances, where it was found necessary to mark out the day's work for a gang, telling them that they would be fined or dismissed if this task was not completed, it was found that they finished their task easily by 3 o'clock in the afternoon and then refused to go on. Another objection and one which has, I submit, considerable force, is the slight difference between the wage scale and that for gratuitous relief, compare with the above that for gratuitous relief.

Men including boys above 12 years and nursing mothers	Value of $1\frac{1}{4}$ lb. of grain + $\frac{1}{2}$ anna.
Women including girls above 12 years ...	Value of $1\frac{1}{8}$ lb. of grain + $\frac{1}{4}$ anna.
Children below 12 years	Value of $\frac{5}{8}$ lb. of grain + $\frac{1}{4}$ anna.

The result was that many, who were originally capable of work, refused to work for the low rate of wages allowed and eventually came upon the relief list, thereby entailing extra cost to the State. With rice as the standard grain, this difficulty would have been avoided in a great measure.

44. In my letter of the 16th April and in subsequent letters I strongly urged, with a view to enabling the ryots to purchase seed-grain, that the existing rules as to granting loans should be relaxed and loans granted upon the ryots' simple bonds. I pointed out that, as a matter of fact, not a single ryot would be able to obtain a loan if the rules were to be strictly followed. The Board of Revenue, however, considered that advances should not be made without proper security, and the Government accepted their opinion, but in their order of the 28th May, No. 431, the Collector was authorized to expend a sum not exceeding Rs. 10,000 on the purchase of seed-grain for gratuitous

distribution in cases of undoubted need, and this sanction was communicated by wire. Owing to other arrangements, which will be related hereafter, this sum was not availed of.

45. During the latter fortnight of May, cholera went on increasing, the number of deaths recorded for the fourth week reaching 1,429. Notwithstanding this, on the last day of the fortnight, 22,500 were employed on works, and the number on receipt of gratuitous relief was 3,146. Relief kitchens were opened by the Chikati zemindar, and one by the Gottipilli proprietor in the Chicacole taluk. Kitchens supported by private charity were opened at Boirani, Calingapatam and Chicacole, and one at Parlákimedi by the zemindar of that place. A children's kitchen was also opened on the Gopálpur canal work. To afford pasturage for cattle, several of the reserved forests in the Goomsur taluk were thrown open. Sanction was accorded for commencing the Digupudi-Govindapur road as a Civil Agency work. Showers had fallen here and there and the ryots had commenced to plough, but prices continued to rise and distress, greatly accelerated by cholera, increased rapidly.

46. It was at this juncture that His Excellency Lord Connemara, accompanied by the Honorable Mr. Price, Chief Secretary, Mr. Claude Vincent, Private Secretary, and Dr. McNally arrived, reaching Gopálpur on the 1st June. His Excellency made a tour through the district visiting the parts where distress was most severely felt and re-embarked at Barwvah on the 16th June. His Excellency has issued a separate minute on his tour, and I trust I may be pardoned for quoting therefrom the following :—

"I may state at once that I consider it is a very fortunate circumstance that I went to Ganjam, as I was able to satisfy myself by personal observation that a large amount of distress amounting to starvation existed, and that the most urgent orders and the most prompt action were required if many lives were not to be lost by the most lingering and dreadful of all deaths."

47. The result of His Excellency's visit was the immediate recognition of the existence of famine in the northern half of the district, the abolition of the fatal restriction as to scarcity rates, the opening of kitchen where cooked food was to be given, the strengthening of the district staff, the formation of relief circles with circle inspectors, the issue of advances to weavers and the importation by Government of seed-grain.

48. It must be admitted that prior to His Excellency's arrival, native officials had held back from granting relief on a large scale under the impression that the Government order restricted their doing so, except in cases of danger of death. They were waiting until scarcity rates should be reached and their timidity and callousness in this respect met with the severe reprobation of His Excellency. Prior to His Excellency's arrival, owing to the order as to the scarcity rate of ragi, the administration of relief in a systematic form had been confined to the Mohana division in the Maliahs and to the Chinna Kimedi estate.

49. The Government order declaring famine to exist and sanctioning the appointment of circle inspectors was passed on the 22nd June, but, in anticipation thereof, and in accordance with His Excellency's personal instructions, kitchens were being opened in the meantime as rapidly as possible and lists of persons for gratuitous relief prepared.

50. Mr. W. O. Horne, Special Assistant, was put in famine charge of the Goomsur division, with Mr. G. W. Elphinstone, Assistant Collector, and subsequently Messrs. Lever, Story and R. M. Powell to assist him. Mr. Carr was given charge of the Shergada Zemindari in addition to the estates of Chinna Kimedi, Dhárákót and Bodogoda and was at a late period given Mr. P. J. Quinless. Mr. H. W. Foster, Senior Assistant, had the Berhampore division with Messrs. A. T. Forbes, W. C. McMurray, C. M. Sherman, J. Brown and F. G. Marshall. Mr. A. W. B. Higgens was appointed Principal Assistant Collector to relieve the Collector of routine work. In the Chicacole division, no European officers were required and Mr. D. Venkata Sastri retained sole charge of the Kallikót and Atagada estates.

51. With this staff it would not have been a matter of much difficulty to effectively control famine relief, but there was great delay in their joining and, in the

meantime, the strain upon district officers was severely felt, and it was impossible at first to keep under perfect control and check the distribution of gratuitous relief. I give, hereunder, the dates on which the several officers joined the district :—

Names of officers.	Designation.	Date of joining.
1. R. C. C. Carr, Esq.	Additional Special Assistant Collector	13th February 1889.
2. A. T. Forbes, Esq.	Assistant Collector on famine duty	24th June ,,
3. J. T. Lever, Esq.	Famine Deputy Collector	28th do. ,,
4. F. G. Marshall, Esq.	Famine Relief Officer	Do.
5. A. W. B. Higgens, Esq.	Additional Principal Assistant Collector	3rd July 1889.
6. A. M. Story, Esq.	Famine Relief Officer	Do.
7. W. C. McMurray, Esq.	Famine Deputy Collector	7th July 1889.
8. C. M. Sherman, Esq.	Famine Relief Officer	17th do.
9. J. Brown, Esq.	Do.	18th do.
10. R. M. Powell, Esq.	Do.	20th do.
11. P. J. Quinless, Esq.	Do.	26th August.

52. In his letter, No. 573, of the 9th July, Mr. Galton reporting to the Government of India the condition of the district for the past month stated that distress had increased in intensity, and that it had become necessary to afford relief on a much more extensive scale. Cholera had, however, begun to abate and the deaths therefrom reported for the week ending 6th July amounted to 602 as against 1,478 for the week ending 22nd June, the highest number reached. The numbers employed on the last day of the week ending with the 6th July were on Professional Agency works 7,331 and on Civil Agency works 8,094, the numbers on gratuitous relief being 25,191. Fed in kitchens 2,907 and from Estate funds 972. Prices had risen steadily and were for rice 10·05 and for ragi 16·88 seers the rupee.

53. From the 1st July all gratuitous relief expenditure incurred in the several estates under management was admitted as a charge against the State. The total amount expended on gratuitous relief will be shown later on.

54. The following is the programme of works proposed to be taken up as famine relief works. Those marked with an asterisk were actually commenced. The expenditure incurred under this head will be shown further on :—

Works.	Amount.	Probable time and numbers for which they will afford work.
I.—Works under construction, including works which are being executed or which will be executed irrespective of the famine.	Rs.	
Professional Agency Works.		
* 1. The Rushikulya works	8,26,000	13,800 for 12 months.
* 2. Ganjam-Gopálpur canal works	2,95,000	7,300 for 8 ,,
* 3. Ordinary budget works executed by the Public Works Department (Major Irrigation works in Government taluks and in estates under the management of the Court of Wards).	2,00,000	6,000 for 12 ,,
Civil Agency Works.		
* 4. Road from Kallikót to Boirani	38,800	3,500 for 4 ,,
* 5. Boppayapuram gedda work	3,000	250 for 4 ,,
* 6. Road from Tekkali to Anantagiri	22,300	1,600 for 4 ,,
* 7. Do. from Hiramandalam to Battili	10,980	1,000 for 4 ,,
* 8. Do. from Kallikót to trunk road	2,776	Completed.
* 9. Do. from Digupudi to Pudamari	14,163	1,200 for 4 months.
*10. Do. from Pudamari to Govindapur	21,665	1,600 for 4 ,,
Note.—Works Nos. 4 to 8, though Civil Agency (Local Fund) works, are being executed by the Public Works Department as Professional Agency works.		
*11. Road from 8th mile to Digupudi	16,067	1,400 for 4 ,,
*12. Minor Irrigation works in Government taluk (the ordinary budget grant)	26,000	1,000 for 12 ,,
*13. Do. do. in estates under the Court of Wards (the ordinary budget grant).	30,000	1,200 for 12 ,,
*14. Drinking water tanks and wells about	40,000	3,500 for 4 ,,
*15. Ordinary works executed by the Local Fund Department about	1,00,000	3,500 for 12 ,,
*16. Petty construction and repairs executed by the Revenue Department	3,000	100 for 12 ,,

Works.	Amount.	Probable time and numbers for which they will afford work.
II.—WORKS PROPOSED TO BE EXECUTED IF NEEDED.		
(2) *Professional Agency Works.*	RS.	
* Estimate ready and sanctioned. Finally abandoned. 1. The Mobagam channel work (this, I believe, has already commenced).	12,350	1,000 for 4 months.
2. Mallada-Tampara project	20,000	1,500 for 4 ,,
3. A channel from Vamsadhara at Battili to Parlákimedi.	2,00,000	16,000 for 4 ,,
4. A channel from the anicut at Battisiripuram to Krishnasagaram.	50,000	4,000 for 4 ,,
5. Two reservoirs in Mohiri	30,000	2,500 for 4 ,,
6. Repairs to reservoir at Suramani near Boimala and construction of two surplus weirs and a sluice.	2,500	200 for 4 ,,
7. Protective channel at Nettanga to prevent lands from being sand-drifted.	4,000	350 for 4 ,,
8. Execution of a channel for drawing the water of Gavuja and other tamparas.	60,000	5,000 for 4 ,,
9. Anicut across Rushikulya near the mouth of Hiradhara channel.	6,000	200 for 12 ,,
10. Extension of Hiradhara channel as far as Pratapur.	3,000	250 for 4 ,,
11. Anicut across the Bahuda river and a channel as far as Soonnapur.	30,000	1,000 for 22 ,,
NOTE.—Nos. 3 and 4 are mentioned in the Honorable Mr. Garstin's report.		
(3) *Civil Agency Works.*		
Estimate ready. 1. Special repairs to trunk road	4,000	350 for 4 ,,
Do. 2. Do. to tunnels	5,000	50 for 4 ,,
* Do. 3. Palasa road	3,360	260 for 4 ,,
Under preparation. 4. Road from Atagada to Buguda	42,940	3,500 for 4 ,,
Estimate ready. 5. Do. from Suradá to Kontiapalli (I have already recommended this).	34,970	3,000 for 4 ,,
Do. 6. Special repairs, Russellkonda road	11,598	1,000 for 4 ,,
Do. 7. Do. Kalingia road	9,422	8,000 for 4 ,,
Do. 8. Bridge across Sunnia Moddia river on the Mandasa Goppili road.	13,780	400 for 12 ,,
Do. 9. Special repairs, Battili road	7,400	600 for 4 ,,
Do. 10. Do. Varanasi road	7,425	600 for 4 ,,
Do. 11. Raising Varanasi road, &c., 5 miles	1,720	150 for 4 ,,
Do. 12. Alikam road	2,000	160 for 4 ,,
Under preparation. 13. Road from Shergada to Suradá *via* Bodogoda	50,000	4,200 for 4 ,,
Do. 14. Road from Calingapatam to Gopálpur	20,000	1,600 for 4 ,,
Not yet taken up. 15. Road from Baruda to Korcholi in Jagannadha Prasad mutta.	50,000	4,200 for 4 ,,
Estimate called for. 16. Road from Babanda to Injili	20,000	1,600 for 4 ,,
* Under preparation. 17. Road from Jarada to trunk road near Ichápur	20,000	1,600 for 4 ,,
Not yet taken up. 18. Road to Shergada connecting with Berhampore and Aska road.	16,000	1,350 for 4 ,,
* Estimate called for. 19. Road from Kallada *via* Baruda to Gulleri	20,000	1,100 for 4 ,,
Not yet taken up. 20. Road from Nowpada of Pedda Kimedi to Jakkara on the Chikati road.	6,000	500 for 4 ,,
Do. 21. Road from Podabhadra on trunk road to Pratapur	20,000	1,600 for 4 ,,
Do. 22. Road to Kosavala-Bodogam in Kimedi	8,000	650 for 4 ,,
* 23. Drinking-water tanks and wells	60,000	5,000 for 4 ,,
* 24. Minor irrigation works	1,00,000	3,300 for 12 ,,
* 25. Improvement of village sites	10,000	1,000 for 4 ,,
* 26. Village roads	30,000	2,500 for 4 ,,
(4) *Agency Works.*		
1. Digging of tank at Balliguda	1,000	100 for 4 ,,
2. Do. do. Sarangodo	1,000	100 for 4 ,,
3. Do. do. Tumeribund	1,000	100 for 4 ,,
4. Do. do. Daringabadi	1,000	100 for 4 ,,
5. Do. do. Baminigam	1,000	100 for 4 ,,
6. Do. do. Tickaballi	1,000	100 for 4 ,,
7. Constructing anicut to the Raikanala and channel from do.	1,000	100 for 4 ,,
8. Constructing anicut on the Salki	1,000	100 for 4 ,,
9. Do. on the Bentango near Chokkapad	1,000	100 for 4 ,,
* 10. The Taptapani ghât road	1,500	150 for 4 ,,
11. Extension of the Kalipano road *via* Balliguda and Mohangiri to Kalahandi.	2,000	200 for 4 ,,
12. Road from near Gulleri to Chokkapad	10,000	400 for 4 ,,
13. Road from Ambacheri *via* Gumma and Kallikót to Gunupur.	10,000	400 for 4 ,,
14. Chokkapad ghât road, *i.e.*, road from Catiguda to Bodangi.	5,000	400 for 4 ,,
	30,000	1,000 for 12 ,,
	2,000	1,000 for 4 ,,

55. In my report for the week ending with the 29th June, I endeavoured to estimate the numbers likely to come upon gratuitous relief for each division, putting the

outside number at 72,000. This the Madras Government considered excessive, but eventually the number was considerably exceeded, though for a brief period only, and my estimate of cost under this head (Rs. 3,50,000) turned out to be very near the mark.

56. One of the most important results of Lord Connemara's visit to the district was the immediate recognition of the necessity for supplying the impoverished ryots with seed-grain. I had previously in vain urged a relaxation of the rules under the Agriculturists Loans Act with this object and now the season for sowing had arrived and the ryots had neither seed nor money wherewith to purchase it and thousands of acres of rice lands were in danger of being left uncultivated in consequence. Inquiries showed that the seed-grain required was not procurable in the district and it was reported, though I have good reason to believe erroneously, that not a single ton of seed-grain was to be had in Orissa. It was accordingly resolved to procure a supply of 1,000 tons from Cocanada to be distributed to the ryots at cost price *plus* cost of carriage to the inland depôts. It was believed that the cost price would be Rs. 4-12-0 per bag and this rate was accordingly fixed. No time was to be lost and the order was communicated to the Collector of the Godávari district by telegram and the first instalment received before His Excellency left the district on the 16th June.

57. Nothing in my opinion could have been more advantageous to the district than His Excellency's prompt action in this respect. At first there was a dead set made against the Cocanada seed paddy. Mischievous rumours were disseminated that Godávari paddy would not grow in the Ganjam district. The ryots hung back and it seemed for a time that the imported seed would not be utilized. The imported grain was, however, reported by connoisseurs to be of excellent quality and had only to be seen by the ryots to be appreciated by them. The opposition gave way early in July and by the middle of the month the whole of the 1,000 tons had been eagerly taken by the ryots and a further supply of 400 tons was subsequently required. By this means some 40,000 acres which would probably have otherwise lain fallow, were brought under cultivation.

58. There seems to be a general impression that the people of the Ganjam district have a rooted aversion to the Godávari paddy. This is a mistake. They do object to the Cocanada rice because it is prepared with lime to give it a lustre and is said to disagree with people who are not accustomed to it; they have no objection to the paddy though the ignorant ryot did, owing to the unreasonable clamour that had been raised by interested parties against it, in some instances, exchange his Cocanada seed for that of Orissa and sow the latter. The Ganjam correspondent to the *Pioneer* went so far as to assert that the seeds of the Cocanada paddy that had been sown might be counted. I was satisfied however from personal inspection that it had been very generally sown and that, where it had failed, failure was due not to any defect in the seed but to neglect on the part of the sower to see that the land received sufficient water. The Godávari seed requires more water than its *confrere* the Ganjam paddy and almost every case of failure pointed out to me could be attributed to this cause. I have received since I left the district magnificent samples of paddy grown from this seed.

59. It is worthy of note that, from the time this seed paddy began to be distributed, the upward tendency of prices was checked. This it is true may be a mere coincidence. I was informed, however, by more than one large holder of grain that they had intended to wait for still higher prices and had only commenced selling because of the importation of this seed-grain; they argued that what Government had done in regard to seed-grain might be repeated in regard to food-grains. In the words of the *Pioneer* correspondent, the importation of seed-grain "enabled the ryot to live for a time and to obtain and pay for labor in grain which he otherwise could not have afforded; it lowered prices for it curbed the greed of the grain-dealers, who significantly remarked another thousand tons can come whence this thousand have come and all this without Government interfering in any way with private trade. All honor to the Governor who broke through the trammels of his Government's political economy and whose visit produced as the Supreme Government truly declare these useful results."

60. On the 14th July, the Government passed the following order :—

"It being essential that in the present state of the Ganjam district orders should issue with the utmost promptitude on all questions connected with relief operations, the Government resolves to direct that all communications on this subject, including the special weekly reports and fortnightly narratives, shall in future be submitted to Government direct instead of through the Board. The Collector will be instructed accordingly by telegram."

This was a much-needed change. Correspondence carried on through the Board had other drawbacks besides the delay involved in circumlocution.

61. Another very acceptable concession was the alteration of the rule as to the standard food-grain in regard to Government servants and servants employed in estates under the Court of Wards. It was admitted in their case that rice, and not ragi, was the standard food-grain and famine batta was accordingly allowed and continued to be granted up to the end of October.

62. Throughout July, relief circles were being organized and kitchens opened and, in consequence, the numbers on gratuitous relief and those fed in kitchens increased enormously and were, on the last day of the week ending with the 3rd August, as follows :—

Gratuitous relief.	Men.	Women.	Children.	Total.
Money-doles and raw grains ..	10,577	17,469	42,138	70,184
Fed in kitchens	957	1,905	6,456	9,318
Grand Total ..	..	..	..	79,502

On the other hand, there had been a considerable decrease in the numbers employed upon works which were for the same date 11,307. The rapid increase in numbers on relief and decrease in numbers on works attracted the attention simultaneously of the Supreme and Madras Government. In regard to the former, I replied that the increase was the natural result of the appointment of some sixty circle inspectors and the opening of about 50 kitchens. The decrease in the numbers on works was due to the very favorable character of the season which afforded to all able-bodied persons employment in the fields on more remunerative wages than could be obtained on Government works. The upward tendency of prices had been checked, rice being quoted at 10·10 and ragi at 17·81 seers the rupee.

63. It was not, however, until the following week that the recorded maximum was reached, the numbers reported being as follows :—

Gratuitous relief.	Men.	Women.	Children.	Total.
Money-doles and raw grains ..	13,729	20,390	49,442	83,561
Fed in kitchens	1,160	2,087	6,916	10,163
Grand Total ..	..	..	..	93,724
On works	..	..	..	8,948

64. From this time the numbers on relief steadily decreased. The harvest of the early dry crops had commenced and importation of food-grains continued brisk, prices, especially for ragi, becoming gradually easier.

For the week ending with the 31st August the numbers were as follows :—

Gratuitous relief.	Men.	Women.	Children.	Total.
Money-doles and raw grains ..	7,432	13,070	32,057	52,559
Fed in kitchens	1,286	2,011	7,726	11,023
Grand Total ..	..	..	..	63,582
On works	..	..	..	11,154

On the 28th September the numbers stood as follows :—

Gratuitous relief.	Men.	Women.	Children.	Total.
Money-doles and raw grains ..	5,191	9,941	23,090	38,222
Fed in kitchens	1,146	1,837	7,645	10,628
Grand Total ..	..	..	..	48,850
On works	..	..	..	14,709

65. It was found impossible to get circle inspectors to strike off persons from the relief lists. They had been ready enough to bring them on to the list, but shirked the responsibility of removing them. Throughout, these men had proved totally inefficient and continued so to the end. The work was distasteful to them. Some resigned, others succumbed to sickness and others were dismissed. Constant check and supervision was needed. Eventually it was found necessary to close one circle after another as fast as was feasible without leaving it to the discretion of the circle inspector. This course had the desired effect and on the 20th October, by which date all relief circles were virtually closed, the numbers were as follows :—

Gratuitous relief.	Men.	Women.	Children.	Total.
Money-doles and raw grains ..	1,081	1,773	4,476	7,330
Fed in kitchens	321	643	2,429	3,393
Grant Total ..	..	..	..	10,723
On works	..	..	..	9,586

the price of rice at the same date being 11·74 and ragi 33·62 seers the rupee.

From the end of October State relief ceased altogether, the cases remaining on that date being met from the private subscription fund. Sanction was, however, accorded to continue such works as the Collector considered necessary up to the end of November.

66. With the end of October, famine may be said to have terminated. The early dry crops had yielded well and there was every promise that the rice crop would be the best that the district had known for many years Free from anxiety on this score, I sought and obtained leave and quitted the district on the 17th November only to be caught in the cyclone which on the 19th passed over the northern portion of the district, causing considerable damage and marring to some extent the brilliant prospect of a bumper rice harvest. The period of scarcity had continued for thirteen months; famine may be said to have prevailed for five of those months.

67. Perhaps the most distressing feature was the scarcity of water, the rivers, tanks and wells dried up, the cry for water was more universal even than that for food. This continued to be most pressing from the beginning of February to the end of June, by that time the south-west monsoon had fairly set in.

68. Following upon scarcity of water and food came its usual concomitant, cholera, which, during the critical months of April, May and June, carried off thousands and what was nearly as bad frightened the people away from works thereby accelerating and intensifying distress.

69. The first step towards giving relief was the re-opening in November 1888 of the Rushikulya project as a Professional agency work and the grant of money-doles under the restrictive order of the 12th December to persons in actual danger of perishing from starvation In February the Gopálpur canal was also started as a Professional agency work, and numerous tanks and wells, to relieve the scarcity of water, as Civil agency works. In February the existence of famine in the Mohana division of the agency tracts was recognized, a circle inspector appointed for the distribution of money-doles and the Taptapani ghât road started as a Civil agency work shortly afterwards. Adjoining the Mohana division of the maliahs lies the estate of Chinna Kimedi which has been for many years under the Court of Wards

the failure of crops had been in this estate most complete and, as might have been expected, it was the first to suffer severely and the necessity for granting relief was early recognized. Two circle inspectors were appointed and gratuitous relief given systematically under the superintendence of Mr. Carr, who had been sent by Government to assist the Collector. It was not however until the arrival of His Excellency Lord Connemara in June that the unfortunate restriction as to the so-termed scarcity rates was abandoned and the existence of actual famine throughout a large portion of the district admitted. There can be no doubt now that, had this been done a month or two earlier, many lives might have been saved. Dr. McNally, an officer of considerable famine experience, found that early in June about 7 per cent. of the population were emaciated from starvation—many of them dangerously so.

70. No time was lost; within two days of Lord Connemara's arrival a kitchen was started at Gopálpur, followed by others throughout the district; relief circles were constituted and circle inspectors appointed as fast as suitable men could be found, and relief systematically administered throughout the affected portion of the district.

71. Relief may be distributed under the following heads:—

1. Works.
2. Gratuitous relief.
3. Advances.
4. Remissions and postponement of collections.

72. Works were divided into (1) Professional agency works; (2) Civil agency works. Under the former come—

1. The Rushikulya project.
2. The Gopálpur canal.
3. The Kalliót-Boirani road.
4. The Ichápur-Jarada road.
5. The Battili road.
6. The Tekkali-Anantagiri road.
7. The Boppayapuram gedda work.

Under the latter the principal works were—

1. The Digupúdi to Govindapur road.
2. The Berhampore to Digupúdi road.
3. The Palasa road.
4. The Babanda to Pattupur road.
5. The Korcholi road.
6. Village road.
7. Drinking-water tanks and wells.
8. Minor Irrigation works.
9. Sanitary improvements in villages.
10. The Taptapani ghât road.
11. The Chokkapad ghât road.

73. The works provided were, I consider, ample. I question, however, whether Professional agency works, executed on the ordinary contract system with payments made at long intervals, are at all suited to times of distress. To the man already suffering from want of food, daily payments are essential. To this I attribute the failure of these works to draw large crowds, though, no doubt, the rooted aversion of the Uriya to go far from home and the prevalence of cholera contributed to this result. That the objection, however, of the Uriya to leave home is not insuperable is evidenced by the large numbers that emigrated to Rangoon and other places. It is to be regretted that the principle recognized in 1877, prohibiting the employment of contractors on these works and directing that laborers should be employed solely on the basis of daily work, was not adopted on these works.

74. In regard to Civil agency works, I consider that an unfortunate mistake was made in fixing ragi as the standard grain by which the scale of wages laid down in the code was determined. As stated above, the Ganjam cooly calculates the value of his labor by the quantity of rice—not ragi—that it will produce. He resented the imposition of a standard he was not accustomed to, and, not infrequently, refused to work for the wage offered until he became too enfeebled to work and was put upon the relief list or had recourse to the kitchens. Had rice, and not ragi, been adopted as the standard, there would have been no difficulty in obtaining any number of laborers. Ragi is, in many respects, an inconvenient standard; it is not the staple food of the

223

country; it is not eaten by itself, but requires an admixture of rice. It had to be converted into flour before it is fit for food and loses considerably in the operation. In the famine of 1866, rice was, I believe, recognized as the staple food of the district. It certainly was in 1877. Lord Connemara and the Honorable Mr. Garstin were both satisfied that rice is the staple food of the people, and I respectfully submit that sufficient grounds have been shown for abandoning ragi as the standard grain.

75. Gratuitous relief is divided under three heads—

1. Money-doles.
2. Cooked food.
3. Raw grain.

76. At first money-doles were distributed under the authority of divisional and taluk officers and managers of estates, but as soon as circle inspectors were appointed, this duty devolved upon them subject to check and supervision of the famine and divisional officers. Each circle inspector had a group of villages assigned to him, which it was his duty to visit weekly to enrol or strike off persons from the relief list and make payments in advance through the karnam or headman of the village, ascertaining, by personal inquiry, that the money-doles were actually paid to the recipients. The system is fully laid down in the code and should, if effectively worked, be almost perfect. The objections, however, to this form of relief are very great. It is demoralising many who would refuse to take cooked food and even hesitate as to raw grain-doles unhesitatingly clamour for money. Circle inspectors are not above temptation, much less village officers. There is no guarantee that the money paid by Government does actually reach the supposed recipients, and, even if it does, it is not always expended upon wholesome diet. Too often, incredible as it may seem, parents spend the money intended for their children and robust themselves, kept their children in a wretched state of emaciation. Money-doles also tended to keep people back from self-exertion. In 1876, the then Collector of Nellore, protesting against the money-dole system, dwelt forcibly on the character of the village officers and relief inspectors and the want of control over the former class in zemindari villages and urged, as the chief objection to the scheme, the improbability of its preventing starvation, because much of the dole would be spent on arrack or toddy or other luxuries, and because parents would starve their children to save themselves from suffering. The experience gained during the past year confirms the correctness of these views.

77. I have no hesitation in declaring that the most efficacious and cheapest form of gratuitous relief is by cooked food. The recipients are subject to better check. The food given is sufficient and wholesome and the physical improvement in the appearance of people fed at a kitchen for a month was manifest to the most casual observer. In the southern half of the district, inhabited by people of the Telugu race, there was little difficulty in inducing them to come to the kitchens. With the Uriyas, however, in the north, it was the reverse, not caste people alone, but all classes objected to this form of relief and the attendance at our kitchens was never satisfactory. Persuasion was tried, but in vain. Caste kitchens with caste Brahmins as cooks and totally separate sheds and enclosures failed to attract and finally compulsion was had recourse to and the lowest classes brought in *vi et armis*, yet with what little success may be gathered from the fact that whereas when distress was at its highest and when over 80,000 were receiving money-doles and raw grain 10,000 only were being fed in our kitchens.

78. This difficulty was repeatedly brought to the notice of Government in my weekly reports. I quote verbatim from my letter of the 27th September the following paragraph as showing the conclusion I had arrived at:—

"The caste difficulty as regards the kitchen is constantly recurring. The District Surgeon noticed as Suradá the children of some Panos very much emaciated, whilst the parents were strong and robust and recommended that the parents be punished, as they, no doubt, consumed the money-doles and left their children to starve. Mr. Foster (the Senior Assistant) asks whether steps may be taken to confine to the kitchens Bouris and others who desert after having been forcibly brought there. My own opinion is that the legislature must step in and make it a punishable offence for parents to allow their children to starve when food is to be had with every regard to caste prejudices at the Government kitchens; nothing less than this will get over the difficulty; as it is, force has to be used to bring them into the

kitchens, and this is not always successful. The Government appears (*vide* G.O., 6th September 1889, No. 757) to be under the impression that there has been a want of firmness on the part of the district officers in this respect, but I beg to assure them that such is not the case. Threats and persuasion alike failed, and it was only by compulsion that the Bouris at Purushottapur and elsewhere were brought into the kitchens. The same tactics had to be pursued at every kitchen I visited and the consequence was that, in some instances, notably at Suradá, the villages were deserted on hearing of my approach. It is not a pleasant task bringing forcibly to the kitchens, and could any other method have succeeded, I for one would certainly not have adopted it. I cannot but repeat what I have already stated that the people would have died rather than have voluntarily come to the kitchens; not until it is made a penal offence for a man to threaten loss of caste for a feeding at a Government kitchen, or for a parent to allow his children to starve when within reasonable reach of such kitchen will the difficulty be got over. When some inhuman parent has suffered the extreme penalty of the law for killing his child by starvation in lieu of taking him to the kitchen, we shall hear no more of the so-termed caste objections on the part of Bouris, Panos, Dandasis and so on."

79. I was writing at the time of the lower classes of the people. To get caste people to come to our kitchens is out of the question. Mr. Carr, indeed, reported that he had been successful in the Dhárákót estate, but inquiry showed that, excepting orphans, not a single person still in caste fed in our kitchens.

80. The reason why caste people cannot be induced to attend our kitchens is not far to seek, all who did so in the famine of 1866 were out-casted and rather than incur this penalty the Uriya cast-man will starve unto death. There is a concensus of opinion on this point. Degradation ensues as an inevitable consequence of the acceptance of cooked food at a public kitchen or chattram. "A more bigoted and unenlightened race of people than the Uriya," writes Mr. Foster on this subject, "it would be difficult to find and to reason away or even to attempt to ascertain the reason for their prejudices and prepossessions is an impossible task. The word 'Chotrokiya' (one who eats in a chattram) is an epithet which has to them a most opprobrious signification and that is to them a sufficient reason for enduring any extremities rather than give a handle for that epithet." The General Deputy Collector reports that those even of low castes who were fed in the Government kitchens in 1866 were excommunicated and received the abominable epithet of Chotrokiya.

81. So far as I can learn the same objection holds good in regard to cooked food distributed by native gentlemen. The cooked food has first to be offered in the temple before distribution and is then freely partaken of under the pretext apparently that the recipients are sharing in the offerings at a sacred ceremony. As a rule, however, the better classes will not receive cooked food but readily accept raw grain which they carry off home to cook. It cannot for a moment be admitted that a Christian Government will descend to the device of offering cooked food in a temple before distributing it to the people and the caste difficulty must continue, so far as Uriyas are concerned, an insuperable one.

82. Fortunately it is not caste people but the Pariahs and lowest classes—people who are not permitted to live within the precincts of the village proper—who form the great majority of those who come upon Government relief. The plea of caste prejudice in their case is repudiated by all alike, and I cannot admit that any concession should be made as regards them. On this subject Mr. Horne writes:—

"The objection to take cooked food on the part of these Pariah castes has been so confirmed, in the present famine, that it is to be feared that a precedent has been established, but if in a future famine it should be decided that the system of village relief by money-doles is cumbrous, expensive, impossible to control, affords unlimited opportunity for embezzlement and has, in fact, proved itself a failure, and if it should be determined on these facts to offer gratuitous relief only in the shape of food, then, I believe, that all Pariah castes would at once see the necessity of abandoning their self-made scruples and would take food cheerfully."

The opinion stated above is in unison with that of all natives—official and non-official—whom I have consulted on the subject. The determination on the part of the non-caste community to hold aloof from kitchens was no doubt strengthened by commencing with money-doles before kitchens were opened.

83. I come now to the third method of gratuitous relief distribution of raw grain. This was done to a limited extent only at some of the principal kitchens where reliable supervision could be exercised. The original proposal of the Board of Revenue—*vide* paragraph 3 of their Proceedings of the 27th June, No. 322, was to replace the grant of

money-doles in villages by the grant of rations in the shape of raw grain in the relief camps, leaving the people to cook for themselves, and in their order of the 23rd July, Nos. 628, 628A, Government approved of and directed that the experiment of distributing raw grain "to be cooked by the recipients at the kitchens" should be tried without delay and result reported. It was just as impracticable, however, to get caste people to cook at the kitchens as to eat cooked food there, and so instead the system was introduced of distributing at the kitchens raw grain and this the recipients were permitted to carry away to their homes and cook there.

84. The system was tried at comparatively few stations and opinions of divisional and taluk officers are not unanimous. Mr. Foster reports that at the Ichápur centre raw grain was distributed to 1,876 persons, that the required amount of grain was procured without difficulty daily from local merchants at current prices and that none of the disadvantages enumerated in G.O. of the 30th September, No. 803, namely, enhanced price, cost of carriage and storage and wastage were experienced, but adds that the system was far more troublesome than the distribution of money-doles would have been, that circle inspectors were not thereby relieved from the necessity of visiting and examining the villages in which grain was being given, another officer of equal trustworthiness was required to superintend the distribution of the grain, a more complicated set of accounts was necessitated and, moreover, there was a tendency to retain on grain-dole relief persons whose circumstances, had they been examined in their own villages, would have shown that relief might safely have been discontinued.

My Treasury Deputy Collector who supervised the distribution of grain-doles at the Chatrapur head-quarters writes:—

"The system was liked by the recipients; some of them stated indirectly that they were fortunate when compared with the recipients of money-doles who were at the mercy of the karnams."

Mr. Wedderburn is strongly in favor of grain-doles; he states:—

"Most officers who have any experience prefer doles in the form of grain. The fact is that when money is given, it is not always spent upon food. Even when the recipient receives it for his own use and is suffering from emaciation he has been known to save it and when it is given for the family the temptation to buy only just enough food to keep the children alive and to hoard the rest is still stronger. Most officers have noted that the recipients of money-doles did not improve as rapidly as those that were fed, and cases have been met with where the money was laid out on tobacco or arrack instead of sustaining food which was required. The poor, no doubt, have a difficulty in getting rice retailed to them in time of scarcity, they get small measure and the worst sort and have to get their money changed, they have been living on insufficient food and will not buy themselves a good meal. When grain is given them, there is more temptation to eat and less to save. It is also supposed that money has a greater tendency to stick by the way than grain and that some small scruples exist about stealing the grain which is being given as visible food to the poor, whereas there are none about taking the money, but this may only be fanciful. Still the distribution of money appears to demoralize both those that give and receive it more than the distribution of grain."

Mr. Carr writes regarding the trial in his division:—

"The people in receipt of gratuitous relief in and near Pattupur greatly appreciated the system and, as a rule, preferred it to receiving money-doles in their own villages. This preference is easily accounted for. A pauper on receiving his weekly dole from the karnam or carji of his village has to buy grain in small quantities from the nearest Comati who naturally secures his profit on retail dealings; the karnam, moreover, if dishonest, deducts his portion of the dole before payment. With a system of raw grain payments on the other hand the full allotment is made and the grain having in addition been purchased in the cheapest market, the pauper gets considerably more than he would do if left to obtain it for himself."

And in regard to the objection urged by Government that the system involves large purchases of grain by Government at probably higher than local prices, Mr. Carr points out that the very reverse of this was the case in his division. By purchasing a large quantity from a Berhampore merchant he was able to put down rice for distribution at less than one rupee for 11 seers at a time when the local price was 10 seers the rupee and procurable only in very small quantities.

Mr. Horne reports that the system worked satisfactorily at Russellkonda, Aska and Suradá where it was tried. He doubts, however, if it could be introduced satisfactorily throughout the country.

85. It will be seen from the above that the system was eminently successful wherever tried and I see no good reason why in a future famine money-doles should not be entirely abolished and gratuitous relief confined to distribution of raw grain to caste-people and people unable from old age or sickness to leave their homes and of cooked food to non-caste people. Raw grain can be distributed at kitchens or at any large village where a Comati flourishes. The check upon abuse is better than in the case of money-doles as the recipients selected and registered by the circle inspector have to pass further examination weekly before the officer authorized to distribute the raw grain, and so far from the objection stated by Mr. Foster that there was a tendency to retain persons on grain-dole relief longer than was necessary being well-founded, the reverse was the case. Mr. Horne notices this double check as one of the advantages of the system, and Mr. Higgens informs me that at Chatrapur he largely availed himself of the opportunity afforded thereby of shroffing the circle inspectors' lists. The distance limit fixed for a kitchen was $2\frac{1}{2}$ miles, but this distance might without any hardship be doubled in the case of recipients of raw grain who, it must be remembered, have to appear once a week only to receive their week's supply and who are accustomed to go much greater distances to their weekly market.

86. Government relief, as detailed above, was very largely aided by private charity. The Zemindar of Chekati set the example by opening four kitchens in his estate, at which some 500 were fed daily for a time. His example was followed by the Zemindar of Parlákimedi and the proprietor of the Gattipalli estate. The late Raja of Mandasa informed me that from the commencement of distress he had given away daily one bandy-load of paddy. At Berhampore, Chicacole, Calingapatam, Tekkáli, Boirani, Chatrapur, Jarada and other places, food was distributed gratis by private individuals long before Government kitchens were opened. Still more markedly was private charity exhibited in providing work for the laboring classes. In Berhampore town it is estimated that not less than one thousand were so employed for some three months, and what was done at Berhampore was done in other places; and I had constantly to bring to the notice of Government in my weekly reports the liberality in this respect of particular individuals.

87. I come now to advances (1) to weavers; (2) of seed-grain to cultivators.

88. The special treatment of weavers who, by the practice of their profession, are unsuited for hard manual labor, is recognized by the Famine Code, and in November the Honorable Mr. Garstin wrote regarding them:—

"I think that the Collector should be put in funds and empowered to make advances to the weavers of Berhampore and other villages who cannot get work to the extent of Rs. 30 per loom when the price of rice at Berhampore is as high as or higher than the scarcity rate. The advances should be adjusted in full by cloth of that value being given up to some Government officer before any fresh advance is made. Such an advance will probably last a family a month. Great care will have to be exercised to see that advantage is not taken of these advances to sell Government, quantities of old clothes in stock and it would perhaps be a good plan if the Government were to send the Collector specimens of tent or other cloth to be woven. A local committee should be appointed for the district on which the head of the weaver caste at Berhampore would probably be willing to serve, as he is a man of influence and education and through his instrumentality all the contracts could be made and advances adjusted without loss to Government. From the report made to me by one of the Municipal Councillors of Berhampore, alluded to in paragraph 11 *supra*, it appears that there are 381 weaver families in that town with one loom each and all out of work. About Rs. 10,000 a month would keep these all going and probably another Rs. 5,000 a month would suffice for the weavers in other parts of the district, but I am not in a position to speak with certainty on the point. For six months probably a lakh of rupees might be required, and the cloth made would have to be sold to recover this amount. As soon as rice is cheaper than the scarcity rate and so long as it remains so, the advances should not be made."

89. It will be observed that Mr. Garstin recommended advances according to the price of rice. Government in their order thereon of the 12th December, however, ruled, as in the case of gratuitous relief, that advances to weavers could only be made when the price of ragi had reached the scarcity rate. As has been already pointed out, this did not occur until some months later and then only in the Chindna Kimedi estate where advances commenced to be made in April and this form of relief was not extended elsewhere, until the arrival of His Excellency Lord Connemara and the abrogation of the scarcity rate rule.

90. The amount to be advanced at one time was limited to Rs. 15, and as only the ordinary coarse cloth of the country was ordered, this amount proved ample. Generally, the procedure sketched by Mr. Garstin was followed, advances being made in money and the value recovered in cloth. In Mr. Foster's division the procedure laid down in sections 87 and 88 of the code was followed and advances made to weavers in the shape of thread. From June to September advances continued to be made and were then finally stopped.

91. I have recorded elsewhere—*vide supra* paragraphs 56, 57 and 58—how my efforts to obtain seed-paddy for the impoverished ryots upon favorable terms were thwarted on the plea that the loan rule, like the laws of the Medes and Persians, could not be relaxed. The Gordian knot was unhesitatingly cut by His Excellency Lord Connemara, one of his first acts after reaching the district. First 1,000 tons and subsequently another 400 tons were imported from the Godávari. The seed was purchased at varying rates, out of the first supply of 1,000 tons, 5,000 bags at Rs. 4-12-0 per bag and 8,660 bags at Rs. 4-14-0. The second supply of 400 tons at Rs. 4-10-0 per bag. The whole was stored in a large godown of Mr. Minchin's at Gopálpur which was generously placed by that gentleman at the disposal of Government for the purpose. It was distributed thence direct to ryots and to sub-depôts at Berhampore, Ichápur, Aska and Russellkonda, and, owing to a misinterpretation of the order on the subject, was supplied to the ryot at the uniform rate of Rs. 4-12-0 per bag *plus* cost of carriage to depôt, all extra charges being borne by Government. The ryot executed a simple bond to repay the amount without interest two months after harvest time.

92. In the estates under the Court of Wards, advances were made in money to enable the ryots to purchase seed-grain, following the practice usually observed by all zemindars in this district.

93. *Remissions.*—In February 1889, I submitted proposals to the Board of Revenue recommending that remission should be granted in full upon all wet lands which had yielded one anna or less, and estimated roughly that the total amount thus to be remitted would amount to two lakhs of rupees, and, secondly, that, as a special case this year, rain-fed lands (manavari) should be treated in identically the same way as wet lands. I stated that rain-fed lands though technically treated as dry in our settlement accounts are essentially wet lands. They are cultivated exactly as wet lands are and almost entirely with rice, the difference being that in rain-fed lands paddy is sown broadcast and transplanted, but this is by no means universal. The cost of cultivation, the seed-grain and consequent loss to the ryot in case of failure are the same as in wet lands and much heavier than is the case with dry land cultivation. I made no recommendation for remission on dry lands. I subsequently recommended that remission should be granted on wet lands, the outturn from which did not exceed 2 annas, and finally the Board of Revenue in their Proceedings, dated 7th May 1889, No. 227, accepted my proposals with the proviso that remissions on rain-fed (manavari) dry land should be confined to cases where such lands lie in defined and continuous tracts and that no remissions should be granted in the case of isolated fields, and the Government in their order of the 18th May, No. 398, sanctioned the Board's proposals. It was estimated that the total remissions on wet and rain-fed lands would thus amount to some Rs. 2,76,500. Owing to the late date of the receipt of the sanction of Government and to the pressure of famine work, the jamabandi or settlement of the Goomsur and Berhampore taluks could not be commenced until October and the amount actually remitted has not yet been communicated.

94. The above relates to ryotwari lands held direct from Government, but does not include remissions granted by zemindars, proprietors and inamdars to their tenants. An idea of the vast losses incurred by these proprietors may be formed from a glance at the amounts it was found necessary to remit in estates under the management of the Court of Wards.

95. One more form of relief remains to be specified, namely, postponement of collections of land revenue. The demand of the land assessment for the whole year is for ryotwari lands made payable in four equal instalments in the months of

December, January, February and March. Failing payment on due date, the usual procedure is to have recourse to coercive process by attachment of the movable and immovable property of the ryot. In a year like the one under report such procedure could have resulted only in ruin to the ryot as no purchasers other than Government at a nominal value would have been forthcoming and accordingly Government wisely determined to hold coercive process in abeyance, leaving the assessment to be recovered when the next harvest should furnish the ryot with the means to meet the demand against him with interest. This concession was of the greatest possible advantage to the ryot and did not necessarily entail any loss to the State. Similar clemency was shown to many of the zemindars of the district who, owing to non-receipt of rents from their tenants, found themselves unable to meet the instalments of their peishcush. This was a pure act of grace as zemindars are bound to pay the full amount of peishcush irrespective of seasons. An exception was rightly made in the case of the Pedda Kimedi zemindar who had failed to take any steps to alleviate the sufferings of the people of his zemindari.

96. So far, I have dealt with the progress of famine and the steps taken to meet it. It remains now to show what has been the cost in life and money, and to touch incidentally upon such matters as have been brought prominently to notice in the course of it.

97. Naturally, the first and most important is loss of life. Imperfect as our death and birth registration returns undoubtedly are, the returns of the year, compared with those of other years, will afford a fairly accurate idea of the excess of mortality due to famine.

Years.	Births.	Deaths.					
		Cholera.	Small-pox.	Fevers.	Bowel-complaint.	Other causes.	Total.
1st Oct. 1877 to 30th Sept. 1878 ..	18,045	10,398	740	15,141	584	4,118	30,981
,, 1878 to ,, 1879 ..	14,569	132	1,378	11,785	403	3,022	16,620
,, 1879 to ,, 1880 ..	26,819	273	3,275	11,588	317	3,426	18,879
,, 1880 to ,, 1881 ..	28,745	393	3,211	14,851	356	3,828	22,639
,, 1881 to ,, 1882 ..	29,658	1,314	3,299	13,985	431	4,195	23,224
,, 1882 to ,, 1883 ..	27,164	251	910	12,781	358	4,013	18,343
,, 1883 to ,, 1884 ..	28,263	85	400	12,358	456	3,873	17,172
,, 1884 to ,, 1885 ..	28,365	4,231	538	12,435	647	4,201	22,054
,, 1885 to ,, 1886 ..	23,099	427	823	10,757	541	3,870	16,418
,, 1886 to ,, 1887 ..	19,838	178	710	14,995	404	3,455	19,742
,, 1887 to ,, 1888 ..	20,027	562	2,322	13,816	434	2,752	19,586
,, 1888 to ,, 1889 ..	18,581	14,041	4,680	14,181	527	5,034	38,463
,, 1865 to ,, 1866 ..	..	25,854	4,330	..	..	26,078	56,262

It is noticeable that cholera was most prevalent in years of scarcity, namely, 1865-66, 1877-78 and 1888-89, and it must be admitted that numbers credited to cholera are really due to famine. Eliminating, however, deaths from cholera from the returns of the above years, we get the following results :—

Years.	Number of deaths.	Years.	Number of deaths.
1878	20,583	1885	17,823
1879	16,488	1886	15,191
1880	18,606	1887	19,564
1881	22,346	1888	19,024
1882	21,910	1889	24,422
1883	18,092	1866	50,408
1884	17,087		

98. The Sanitary Commissioner for Madras in his letter of the 14th September 1889, No. 1380, gave a comparison of the death-rates for the first six months of 1889 compared with the corresponding periods of the past twenty years. From this it would seem that the death-rate, exclusive of cholera, was the highest on record and nearly

twice as great as the average of the past twenty years and including cholera more than three times greater. Government, however, considered that no safe or valid inference could be drawn from them as to the severity of the present scarcity in Ganjam.

99. Dr. McNally, Acting Deputy Sanitary Commissioner, who visited the district in June and again in August and September, was satisfied that, notwithstanding the undoubted great saving of life by relief measures, large numbers of people had died from famine. He states :—

"It is doubtful if any practicable relief measures could prevent some famine mortality from occurring when severe scarcity of food occurs over any considerable tract in India," and adds "imperfect communications, large belts of jungle and mountain, unreliable and ignorant subordinate officers, an uneducated population strongly imbued with caste-prejudices greatly increase the difficulties of famine administration and of the saving of famine mortality in Ganjam."

The same officer in another report writes :—

"Famine cannot exist without increased mortality especially among the very young and the very old. Deaths from direct starvation are rarely recorded during famine, but they are usually attributed to the secondary causes of diarrhœa, dysentery, dropsy, anæmia or debility. No practicable measures of relief can prevent some such mortality; at all events it has not been entirely prevented in any famine of which we have knowledge. Its prevention is specially difficult in a district where the population is very ignorant and is strongly imbued with caste-prejudices and where subordinate officials are of a very inferior type. There appears to have been great difficulty in getting men at all suitable for the posts of circle inspectors and there is little control over them, except over such as happen to have permanent Government posts. With a limited staff of superior officers constantly effective supervision has therefore been impossible and some abuses have occurred; but Mr. Horsfall and his district officers have labored hard and with much success to minimise such abuses. Taking a general view of the measures adopted and considering the local difficulties, it may fairly be concluded that the relief is as efficient as it could be under the circumstances."

100. To distinguish deaths from starvation pure and simple from the general mortality is a hopeless task. Numbers entered as cholera cases were undoubtedly famine, and with a district the major half of which is zemindari, the karnams of which —the registering officers—are under no control or check, it is not unlikely that the mortality has been but very imperfectly registered. Statistics have, however, been maintained of mortality in our kitchen and relief circles and the mortality in some of the latter has, at the instance of Dr. McNally and under the orders of Government, been carefully scrutinized.

101. Tabulating the kitchens according to the number of months they were open, the following results are obtained :—

Number of kitchens.	Total number as per kitchen register.	Maximum number that attended one time.	Number discharged having gained strength.	Number sent to work.	Number died		
					Below 7 years.	7 to 18 years.	18 to 50 years.
1	2	3	4	5	6	7	8
Open for 4 months and less than 5 months .. 12	7,907	3,823	2,195	1,193	29	16	47
,, for 3 and less than 4 months 10	3,960	2,629	1,018	871	23	8	27
,, for 2 and less than 3 months 30	9,516	5,564	3,504	810	23	17	24
,, for 1 month and less than 2 months .. 27	9,005	5,639	3,508	449	16	13	21
Under 1 month 8	1,489	1,069	140	20	..	..	..
Total .. 87	31,877	18,724	10,365	3,343	91	54	119

Number of kitchens.	NUMBER DIED—*cont.*			NUMBER THAT LEFT KITCHEN OF THEIR OWN ACCORD.			
	50 to 70 years.	Above 70 years.	Total.	Number remaining on register at date of closing kitchen.	Whose whereabouts are known.	Whose whereabouts are unknown.	Total.
	9	10	11	12	13	14	15
Open for 4 months and less than 5 months ..	12	21	19	132	1,100	631	2,562	3,193
,, for 3 and less than 4 months	10	15	7	80	1,017	659	455	1,114
,, for 2 and less than 3 months	30	41	9	114	2,778	872	1,383	2,255
,, for 1 month and less than 2 months ..	27	15	24	89	3,189	705	789	1,494
Under 1 month	8	..	1	1	788	358	182	540
Total ..	87	92	60	416	8,872	3,225	5,371	8,596

Note.—The Ichápur kitchen returned 1,595 persons as having left the kitchen whose whereabout was unknown; but, on further inquiry, 827 of these were traced to their villages, the remaining 754 could not be traced owing to their having given false names or false residences. Of the 827 who returned to their villages, 52 are reported to have died. The low mortality—3—reported for the Berhampore kitchen is, no doubt, due to the fact that bad cases were transferred to the Municipal hospital.

102. The appended tables, submitted by divisional officers, show the mortality on the gratuitous relief registers. These returns are known to be far from accurate; they are prepared from the returns of the circle inspectors who failed more conspicuously in correctly registering lapses than in perhaps anything else. Imperfect as they are, they disclose a lamentable rate of mortality.

Abstracted, they give for Mr. Horne's division with eighteen circles and a population of 193,497, 29,062 as the maximum number and 18,077 as the average number relieved for the four months and 1,359 deaths in that period besides 633 lapses by desertions, that is, disappearance from their villages of the recipients who either emigrated or aimlessly wandered. If calculated upon the maximum ever relieved, the death-rate per mille per annum amounts to 199, and if calculated on the average number relieved to 321. That these figures are below the truth has been repeatedly discovered by me when inspecting villages. Mr. Horne writes:—

"To test the accuracy or otherwise of these returns, the three famine officers under me—Messrs. Elphinstone, Lever and Story—made a house-to-house inspection of a few selected villages with the following results:—Mr. Elphinstone examined eight villages. In these the recorded deaths numbered 23 (according to circle inspectors' returns) and Mr. Elphinstone ascertained that 49 had occurred. In nine villages examined by Mr. Lever, 29 deaths were reported and Mr. Lever ascertained that the number was 40. In eight villages examined by Mr. Story the number was raised from 36 to 48."

Similarly in Mr. Carr's division with a population of 100,356 and 16,563, the maximum number ever relieved, there were 518 deaths in the three months and 255 lapses by desertion. The average death-rate for the eight circles being per mille per annum 125 if the maximum number ever relieved is taken. Mr. Carr has not given the average number relieved, but assuming the proportion to be the same as in Mr. Horne's division, the death-rate would be 201.

In 29 circles out of the 30 constituting Mr. Foster's division for which circle returns have been received with a population of 448,837 and an average on the relief list of 30,130, the deaths entered in the circle inspectors' registers amounted to 944 or an average per mille per annum of 179. How unreliable circle inspectors' returns are and how far below the reality is shown by Mr. Brown's inspection of three villages in the Kukkudakhandi Khond circle in which he found 27 deaths against 6 reported by the circle inspector. In Mr. Wedderburn's division, relief was almost entirely restricted to kitchens and no circle returns have been furnished. Mr. D. Venkata Sastri has also failed to submit returns for the Kallikót and Atagadá estates.

Circles.	Population.	Date of commencing relief.	Date of closing.	Total period.	Maximum number relieved at one time.	Average number for the whole period.	Number of deaths amongst those relieved.	Number of desertions.	PERCENTAGE OF DEATHS		Death-rate per mille per annum.
									With reference to maximum number.	With reference to average number.	
1	2	3	4	5	6	7	8	9	10	11	12
Senior Assistant Collector's Division.											
				DAYS.							
1. Sómpet ..	17,593	14th July 1889.	21st Sept. 1889.	70 ..	1,190	28	..	..	2	123
2. Haripur ..	10,399	14th ,, ,,	21st ,, ,,	70 ..	602	35	..	..	5	303
3. Mandasa ..	14,937	14th ,, ,,	21st ,, ,,	70 ..	750	18	..	..	2	125
4. Budarsingi ..	5,848	14th ,, ,,	21st ,, ,,	70 ..	506	16	..	..	3	164
5. Kolloor ..	8,817	14th ,, ,,	21st ,, ,,	70 ..	996	26	..	..	2	131
6. Surangi ..	11,692	28th ,, ,,	21st ,, ,,	56 ..	761	21	..	..	2	100
7. Bhramarapuram.	11,883	21st ,, ,,	14th ,, ,,	56 ..	446	34	..	..	7	223
8. Ichápur ..	23,669	14th ,, ,,	21st ,, ,,	70 ..	866	54	..	..	6	314
9. Mantridi ..	12,286	14th ,, ,,	21st ,, ,,	70 ..	892	53	..	..	5	309
10. Kaviti ..	30,158	28th ,, ,,	21st ,, ,,	56 ..	1,065	36	..	..	3	220
11. Jayantipur ..	17,188	14th ,, ,,	21st ,, ,,	70 ..	1,358	55	..	..	4	211
12. Jarada ..	10,484	14th ,, ,,	21st ,, ,,	70 ..	1,044	23	..	..	2	114
13. Chikatikota ..	11,742	14th ,, ,,	12th Oct. ,,	91 ..	1,169	63	..	..	5	227
14. Nowpada ..	8,717	21st ,, ,,	5th ,, ,,	77 ..	980	58	..	..	5	196
15. Rambha ..	13,538	14th ,, ,,	19th ,, ,,	98 ..	1,084	19	..	..	1	65
16. Humma ..	15,396	7th ,, ,,	26th ,, ,,	112 ..	1,015	22	..	..	2	70
17. Chatrapur ..	27,465	7th ,, ,,	26th ,, ,,	112 ..	2,063	54	..	..	2	87
18. Purushottapur.	21,757	14th ,, ,,	21st Sept. ,,	70 ..	767	41	..	..	5	278
19. Bhatukumarada.	21,604	14th ,, ,,	21st ,, ,,	70 ..	1,100	27	..	..	2	127
20. Injali ..	15,036	14th ,, ,,	21st ,, ,,	70 ..	1,305	26	..	..	2	103
21. Jagannadhapur.	20,756	21st ,, ,,	28th ,, ,,	70 ..	1,466	29	..	..	1	103
22. Berhampore.	43,724	21st ,, ,,	28th ,, ,,	70 ..	1,412	21	..	..	1	77
23. Kukkudakhandi.	17,142	28th ,, ,,	28th ,, ,,	63 ..	2,086	31	..	..	1	86
24. Golantra ..	17,034	21st ,, ,,	28th ,, ,,	70 ..	2,001	55	..	..	2	143
25. Khond villages in Golantra.	732	21st ,, ,,	28th ,, ,,	70 ..	161	16	..	..	9	518
26. Khond villages in Kukkudakhandi.	1,375	21st ,, ,,	28th ,, ,,	63 ..	1,081	7	..	..	..	37
27. Digupúdi ..	16,614	21st ,, ,,	28th ,, ,,	70 ..	1,016	26	..	..	2	133
28. Nimmakhandi	7,927	21st ,, ,,	28th ,, ,,	70 ..	301	22	..	..	7	380
29. Satpaudaya ..	14,226	21st ,, ,,	28th ,, ,,	63 ..	657	28	..	..	4	246
Special Assistant Agent's Division.											
				WEEKS.							
1. Russellkonda.	15,407	23rd June 1889.	19th Oct. 1889.	17	2,612	1,751	80	8	3·06	4·56	138
2. Peddakodanda.	9,039	6th July ,,	19th ,, ,,	15	2,239	1,094	81	24	3·53	7·40	256
3. Bellugunta ..	19,893	23rd June ,,	19th ,, ,,	17	1,508	744	91	24	6·03	12·23	374
4. Baguda ..	14,159	23rd ,, ,,	19th ,, ,,	17	2,212	1,080	65	12	2·93	6·01	184
5. Korcholi ..	5,536	23rd ,, ,,	19th ,, ,,	17	1,503	1,076	35	24	2·32	3·25	112
6. Jagannadhaprasad.	12,163	23rd ,, ,,	19th ,, ,,	17	3,547	1,548	104	69	2·93	6·72	205
7. Kullada ..	12,639	23rd ,, ,,	19th ,, ,,	17	1,907	946	137	125	7·18	14·48	442
8. Kukkuluba ..	5,533	23rd ,, ,,	12th ,, ,,	16	646	446	86	48	13·30	19·28	834
9. Galleri ..	5,618	23rd ,, ,,	5th ,, ,,	15	552	231	66	19	11·95	28·57	870
10. Mujagoda ..	2,864	23rd ,, ,,	12th ,, ,,	16	803	365	60	16	7·47	16·43	501
11. Suradá ..	11,166	28rd ,, ,,	12th ,, ,,	16	1,729	1,343	90	43	5·20	6·72	232
12. Osorobondhoronoba.	4,407	17th Aug. ,,	5th ,, ,,	7	862	615	21	12	2·44	3·41	253
13. Pondakhalkorada.	7,098	17th ,, ,,	5th ,, ,,	7	232	205	4	4	1·71	1·95	141
14. Ballipadra ..	13,396	30th June ,,	19th ,, ,,	16	1,951	1,453	52	20	2·66	3·58	116
15. Vishnuchakram.	8,726	28th July ,,	19th ,, ,,	12	1,369	715	61	32	4·45	8·12	351
16. Bodoborosingi.	4,839	29th June ,,	12th ,, ,,	15	885	545	63	19	7·12	11·56	400
17. Payalpada ..	16,892	29th ,, ,,	19th ,, ,,	16	2,261	1,132	145	57	6·41	12·80	416
18. Aska ..	24,122	29th ,, ,,	19th ,, ,,	16	2,244	2,788	118	77	5·25	4·23	146

Additional Special Assistant Collector's Division.

Circles.	Population.	Total number ever relieved.	Percentage on population.	Removed: By death.	Removed: By desertion.	Removed: By other causes.	Total of columns 5, 6 and 7.	Remaining.	Proportion of death per mille per annum to number in column 3.
1	2	3	4	5	6	7	8	9	10
1. Pattupur	13,452	2,799	20·8	62	50	2,666	2,778	21	89
2. Pudamari	14,525	3,723	25·63	118	77	3,509	3,704	19	127
3. Pratapagiri	10,466	2,119	20·24	57	12	2,035	2,104	15	108
4. Sérgadá	12,056	2,490	20·65	52	54	2,354	2,460	30	84
5. Dowgam	9,726	1,541	15·84	46	15	1,471	1,532	9	119
6. Dhárákót	13,045	1,451	11·12	70	24	1,339	1,433	18	193
7. Ballisira	15,015	1,086	7·23	63	1	1,003	1,071	15	232
8. Bodogodo	12,071	1,354	11·22	50	22	1,282	1,354	..	148

103. Under orders of Government several circles have been carefully tested by Messrs. McMurray and Lever who were specially retained for this duty. In Mr. Foster's division, Mr. McMurray did the Golantra and Chíkati circles with the following results :—

Circles.		Population.	Maximum number relieved.	Average number relieved.	Deaths.	Desertions.	Death-rate per mille per annum.
Golantra ..	As per Circle Inspector's return ..	17,034	..	2,001	55	..	143
	As per Mr. McMurray's		2,567	1,652	98	17	181
Chíkati ..	As per Circle Inspector's return ..	11,742	..	1,109	63	..	227
	As per Mr. McMurray's		1,460	636	107	22	762
Bellugunta ..	As per Circle Inspector's return ..	19,893	1,508	744	91	24	374
	As per Mr. Lever's		1,585	765	127	66	522
Payalpada ..	As per Circle Inspector's return ..	16,892	2,261	1,132	145	57	416
	As per Mr. Lever's		2,115	1,100	120	76	344
Pattupur ..	As per Circle Inspector's return ..	13,452	2,799	..	62	50	143
	As per Mr. Lever's		2,822	1,396	90	91	207

In Mr. Horne's division Mr. Lever did the Bellugunta and Payalpada circles and that of Pattupur in Mr. Carr's division.

Vide appendices C, D, E and F.

104. It must not be forgotten that cholera ravaged the district and carried off large numbers of those who were on the relief lists. At the same time the deaths reported are far from representing the actual number of deaths. In the zemindaries especially the karnams care little for mortuary returns and are subject to practically no control. Again, in the unsettled portions of the Government taluks, it is improbable, if not impossible, that a karnam with some thirty to forty or even more villages under him can correctly record the births and deaths that occur in each and every village. More especially during a cholera scare when the people flee into the jungles or shut themselves up in their houses and the dead are left to bury their dead. On the other hand, the census of 1881 was very imperfectly carried out in outlying portions of the district and the population much understated. The fact was repeatedly noticed by divisional officers and the truth of it verified by my personally taking the census of several villages.

105. One of the results of severe scarcity is increased emigration. When in June 1888 the season began unfavorably a great impetus was given to emigration to Rangoon, and, as distress increased, this was extended in other directions to Orissa, Godávari and the Central Provinces. Of emigration to these latter places no returns have been kept. I give hereunder a statement showing the numbers that emigrated to Rangoon in the past twelve years. The increase in 1888 and 1889 is very marked. In addition to the above, between June and October 1889 about 1,000 persons emigrated to the Mauritius. Thus over 16,000 emigrated by sea within the year and it may

be safely assumed that more than double that number left by land. At the lowest, I estimate that over 50,000 persons migrated to other countries :—

Years.	Emigrants.	Immigrants.	Remarks.
1877-78	1,087	39	These figures include passengers as well as free emigrants.
1878-79	792	186	
1879-80	1,371	938	
1880-81	3,745	1,663	
1881-82	9,291	3,647	
1882-83	7,983	1,302	
1883-84	1,900	3,939	
1884-85	3,024	2,517	
1885-86	6,957	3,790	
1886-87	7,859	1,997	
1887-88	11,400	4,378	
1888-89	15,394	3,118	

106. In a pecuniary point of view, the loss to Government as well as to the people of the district must have been very heavy. I have shown above that the district exports on the average about 17,000 tons of grain annually; this year instead of exporting we had to import at a moderate estimate no less than 40,000 tons, representing, at the low average of Rs. 60 per ton, 24 lakhs of rupees to the consumers, the inhabitants of the district.

107. It has generally been assumed, but, I think, erroneously, because the Ganjam district exports annually so much grain, that it produces more than sufficient for its own consumption. The fact that Ganjam largely exports salt to Orissa and the Central Provinces and receives in exchange therefor grain is, however, lost sight of in this assumption. The following statement shows for the past eleven years the quantity of salt sold for export from the district to the Central Provinces and Orissa in maunds of 82 lb. :—

Year.	INDIAN MAUNDS.
1878-79	360,153
1879-80	309,864
1880-81	326,255
1881-82	432,084
1882-83	478,589
1883-84	385,335
1884-85	341,533
1885-86	315,707
1886-87	493,256
1887-88	457,260
1888-89	460,914
Total ...	4,360,950
Average ...	396,450

Now, in return for this salt, Ganjam receives grain and it may be assumed in the proportion of one bag of 2 maunds grain for each maund of salt and allowing 14 bags to the ton we get the following results $\frac{396,450}{14}$ =28,317 tons or some 11,000 tons in excess of what the Ganjam district exports. It follows then that this quantity is consumed in the district and goes to supplement the deficiency of the food-grain produced.

108. The following statement exhibits the remissions it was found necessary to grant in those estates which are under the management of the Court of Wards.

Names of estates.	Remissions.						
	In cash.			In paddy.			
	Rs.	A.	P.	G.	P.	T.	S.
1. Parlákimedi	82,985	7	8	..	..	..	..
2. Urlam	..			246	25	7	12
3. Chakipalli	797	7	7	..	..	..	..
4. Tarlipeta	416	12	7	..	..	..	..
5. Jarada	10,212	3	2	..	..	..	..
6. Chinna Kimedi	35,749	15	1	..	..	..	..
7. Aska	2,431	10	0	..	..	..	..
8. Karla	2,448	10	4	..	..	..	..
9. Dhárákót	26,224	9	0	..	..	..	..
10. Bodogoda	8,668	3	2	..	..	..	..
11. Kallikót and Atagada ..	*8,244	4	10	Also a reduction of about one lakh in the rental.			

* In the case of Kallikót, including Atagada, the amount recommended by the Jamabandi officer is given, but the present Divisional officer has been requested to revise the list of remissions.

109. The following sums were expended from estate funds upon gratuitous relief before such charges were undertaken by Government:—

Names of estates.	Amount.		
	Rs.	A.	P.
1. Chinna Kimedi	391	13	7
2. Dhárákót	250	0	0
3. Bodogoda	135	4	6
4. Kallikót and Atagada	1,027	13	11
5. Aska	220	11	10
6. Karla	235	4	0
7. Parlákimedi	1,000	0	0
8. Urlam	10	6	1

110. The following sums were also advanced to the ryots of the estates to enable them to purchase seed-grain. These are recoverable:—

Names of estates.	Amount.		
	Rs.	A.	P.
1. Parlákimedi	5,491	5	0
2. Chinna Kimedi	11,200	0	0
3. Dhárákót	8,000	0	0
4. Jarada...	4,275	0	0
5. Bodogoda	936	0	0
6. Aska, including Chakipalli	1,761	0	0
7. Karla ,, Tarlipeta	2,103	0	0
8. Kallikót and Atagada	16,000	0	0

111. I come now to expenditure incurred by Government on works and gratuitous relief so far as accounts have reached me. The statements do not profess to be complete and final:—

Professional Agency works.	Amount.		
	Rs.	A.	P.
1. Rushikulya project ... ... †	13,314	0	0
2. Ganjam-Gopálpur canal	1,07,099	11	6
3. Kallikót-Boirani road	7,005	2	11
4. Jarada-Ichápur road	4,455	2	10
5. Tekkali-Anantagiri road	10,454	0	0
6. Battili road	4,769	11	8
7. Boppayapuram gedda	2,854	0	0
Total ...	1,49,951	12	11

† Total expenditure Rs. 2,14,046. Expenditure debited to famine.

	Rs.	A.	P.
Civil Agency works	14,410	10	2
Improvement of water-supply—tanks and wells	61,321	14	10
Minor relief works	18,622	14	1
Miscellaneous	608	5	11
Total ...	2,44,915	9	11
Gratuitous relief—			
Purchase of food in bazaars	61,447	9	3
Money doles	2,64,865	13	1
Grain doles	2,880	3	10
Petty establishment	7,232	10	2
Sundries	13,011	12	1
Total ...	3,49,438	0	5
Famine establishment, including travelling allowances and tentage	39,231	9	4
Batta to Government servants (about)	20,000	0	0
Do. to Goomsur paiks	7,000	0	0
Land revenue remitted	2,68,851	12	10
Grand Total ...	9,29,437	0	6

112 To the above must be added advances to weavers and advances of seed-grain. These are, in a great measure, recoverable.

Nature of advances.	Amount.		
	Rs.	A.	P.
Advances to weavers	72,899	6	6
To charge for seed-grain	96,667	3	4
Total ...	1,69,566	9	10

	Rs.
Besides the above, ryotwaris collections have been postponed owing to the stay of coercive process to the extent of (about) ..	3,00,000
And zemindars have been allowed to pay in the current year some portion of their peishcush that fell due last year amounting to (about)	75,000
Total ...	3,75,000

113. It has been stated above that the season of 1888 very closely resembled that of 1865 which preceded the Orissa famine. In each year scarcity accompanied by grain riots commenced in October and distress continued for a period of twelve months. In 1866 distress, though confined to a more limited extent, was much more intense and prices higher than in 1889, and, on some occasions, rice was not to be purchased for money; in 1889, on the contrary, a constant stream of food-grains poured in from Orissa and the Central Provinces and by sea, and rice could always be purchased to a limited extent. In 1889 relief measures were commenced earlier and more systematically than in 1866. I estimate the expenditure at about ten lakhs of rupees as against six lakhs in 1866. To the earlier recognition of the existence of famine and to the more liberal expenditure of Government money both on works and on gratuitous relief must, in a great measure, be attributed the saving of life compared with 1866, for, whereas in the latter year 56,262 deaths were recorded and 10,898 put down to starvation, the deaths during the year under report were 38,463 and of these I estimate that not 5,000 were due to starvation. In 1866 the population of the tract of country affected was 600,000 as against 1,100,000 in this year.

114. The year has closed favorably and with the early completion of the Rushikulya project and the contemplated opening of the East Coast Railway it may be confidently predicted that the district will be protected against future famines. At the same time I trust it will not be considered a work of supererogation on my part to note down here some of the lessons that have been taught by the experiences of the past year.

115. First and foremost the substitution of rice for ragi as the standard food-grain of the district.

(2) The inadvisability of a rigid adherence to any fixed scarcity rate.
(3) The advisability, when it is found necessary to commence works for the relief of the laboring classes whether Professional Agency or Civil Agency works, of insisting upon a system of daily payments.
(4) The abolition of money-doles as a form of relief.
(5) An increase in the scale of wages allowed for third-class laborers.
(6) Increased European supervision for famine officers.
(7) Authority over zemindari karnams.

116. The works inaugurated as famine relief works are all much-needed improvements to the means of communication in the district and I have in my weekly reports urged that they may not be left in an unfinished state and that the District Board may be put in funds to complete such of them as they may consider advisable; otherwise the money already expended will be so much money thrown away, more especially will this be the case with the Gopálpur canal. It is, I understand, under contemplation to abandon this work altogether on account of the expense and because it is thought the projected line of railway will obviate the necessity for it. This is, I cannot but feel, a serious error. The produce has always been brought down from Pooree and the East Coast by the Chilka lake by boat and will continue to be so brought, railway or no railway. The present canal, some seven miles in length, was intended to connect Gopálpur, the seaport town, with the Chilka lake and if this is considered too expensive, I would still urge that the Nowgam portion of the canal be completed at least as far as Chatrapur, where it will meet the line of railway and prove a most valuable feeder and auxiliary to it. The work is so near completion that I imagine it would cost comparatively little to finish this portion, but whatever the cost there can be no question that it ought to be done.

117. Two subjects still lie over for final disposal. One, the cloth woven by weavers which will have to be sold in the best market and the other, the orphans who may remain on our hands and who will, I trust, be but few in number.

118. In conclusion, I respectfully beg to bring to the notice of Government the services of those officers who have so ably and zealously co-operated with me in the arduous work entailed by famine operations. Mr. Wedderburn, Principal Assistant, with the Chicacole division; Mr. Foster, Senior Assistant, with the Berhampore taluk and zemindaries; Mr. Horne, Special Assistant, who was selected by His Excellency for the conduct of famine operations in the Goomsur division, including Suradá and Aska; Mr. Carr who had charge of the estates of Chinna Kimedi, Sergada, Dhárákót and Bodogoda and Mr. D Venkata Sastri, Deputy Collector in charge of the Kallikót and Atagada estates, merited my warmest commendation for their unsparing devotion to duty. Mr. Horne had an especially arduous task, as, when he took charge in June, the Goomsur division was in a deplorable condition, and, but for the energy and ability displayed by him, the loss of life there must have been very serious. I would specially notice also the services of Messrs. Elphinstone, Lever, McMurray and Marshall amongst the officers deputed to famine duty. Amongst my native subordinates—

M. R. Ry.	A. Gurumurty Naidu Garu,	Acting Tahsildar,	Berhampore.
Do.	N. Ranganadham Pantulu,	Deputy Tahsildar,	Tekkáli
Do.	N. Venkatarow Pantulu,	do.	Sómpet.
Do.	G. Narasing Row Pantulu,	do.	Purushottapur.
Do.	D. Appiah Naidu,	do.	Suradá.
Do.	U. Gopal Row Pantulu,	Manager of	Chinna Kimedi estate.
Do.	K. Rama Row Pantulu,	do.	of Dhárákót estate.

merit special commendation. Nor must I omit to mention the services of my Treasury Deputy Collector M.R.Ry. W. Venkatappiah Pantulu Garu and Sheristadar M.R.Ry. D. Sreenivasa Row Pantulu Garu, who spared neither themselves nor their establishments in their endeavours to cope with the extra work that necessarily devolved upon them.

Dr. Pemberton, the District Surgeon, was constantly on tour through the district, visiting the kitchens and works and furnished me with valuable notes on his inspections.

223

My thanks are also due to Mr. Higgens who came to relieve me of office routine work in July and who has cordially co-operated with me throughout.

The meritorious conduct of the Chikati Zemindar, Sri Kishora Chendra Rajendra Deo, and of many other private individuals in opening kitchens and in starting relief works has already been brought to the notice of Government and I would only now add the Zemindar of Shergada, Sri Lakshminarayana Deo, who rendered valuable assistance to Mr. Carr. in the administration of relief in his estate.

119. Appended is a sketch-map showing famine circles and operations.

Read—also endorsement of the Public Department, dated 21st March 1890, transferring to the Revenue Department the following letter from the Surgeon-General with the Government of Madras, dated 19th March 1890, No. 250.

I have the honor to submit, for the information of the Right Honorable the Governor in Council, the general report of the District Medical officer on the medical aspects of the famine in the Ganjam district in 1889.

2. From the report it will be seen that some of the kitchens and other temporary buildings were in objectionable sites and badly arranged. The water-supply was fair, but in some cases badly conserved. In some instances the recommendation of the Medical officer that the sick should be supplied with bedding and clothing was not attended to.

3. The supplies of medicines sent up from Madras were distributed throughout the district and any delay that occurred in delivery was due to the difficulties of transport.

4. The most prevalent and fatal diseases were cholera, fever and small-pox. Some "salol," my private property, was sent up for trial in cholera cases, but the experience was not sufficient to give any reliable results.

5. The district was well supplied with medical aid, and Dr. Pemberton brings to notice the services of those under him who did good work. As the duties of the staff under him were severe and trying, I venture to request that some notice may be taken of their services. Special notice has been taken by this office of the subordinates who failed in their duty.

6. As regards Dr. Pemberton, he carried out the administrative and executive work of his position to my entire satisfaction, and I trust that His Excellency in Council will be pleased to take some notice of his devotion to duty during a very trying crisis.

Enclosure.

General Medical Report on the Famine in the Ganjam District in 1389, by Surgeon R. PEMBERTON, Acting District Surgeon, Ganjam, dated 26th December 1889.

The district in 1887 suffered, to some extent, from a deficient rainfall and in 1888 there was an almost entire failure of both monsoons, consequently at the end of the latter year there were signs of a famine setting in. Early in 1889, when I was inspecting dispensaries, I noticed, when at Aska and Russellkonda in March, that the majority of the people were looking very thin and anæmic, especially in the latter place; even the coolies employed on the Rushikulya works, who were supposed to be able-bodied persons, showed signs of emaciation. I reported on their condition at the time. In my sanitary report on Aska I made the following remarks:—"The season has been a bad one; rice and ragi are selling at present almost at famine rates; there is evidently great distress among the poorer classes, especially professional beggars, as private charity has almost been discontinued during the past month."

In April and May the distress was most acutely felt, very little was apparently done to relieve the people; only those who were supposed to have been on the point of death were given a small money dole. In the latter part of these months, to make matters worse, a severe epidemic of cholera broke out, and this I anticipated on account of the great scarcity there was at the time for good drinking-water, the mortality was very great, and in the town of Berhampore, where I personally inspected a large number of those attacked with the disease, it was quite apparent that the deaths were principally among those who were suffering from privation. To relieve their condition private subscriptions were raised and distributed to those who had no means of subsistence in infected houses, the disease appears to have been entirely confined to the poorest classes of people—Dandasees, Huddies and Bowries; after the distribution of food it was most remarkable how the death-rate at once diminished; early in June, when cholera was raging almost throughout the district, and when the mortality was very great, there being about

24

1,500 deaths a week, His Excellency Lord Connemara visited the district, and was convinced that matters were actually worse than represented by the district authorities. On the 11th June I visited Purushottapur, Atagadá, Rambha, Chatrapur, Kallikót, Humma and Ganjam, and in every one of these places I saw a large number of very emaciated people, whom I recommended to the Civil authorities for immediate relief, and my recommendations were promptly attended to. On the return of His Excellency the Governor to Madras, a communication was received from Government that famine had been declared in the Berhampore and Goomsur taluks and that steps should at once be taken to relieve the people. In consultation with the Collector, I wired for medical subordinates and medicine, and in a short time made arrangements for the medical care and treatment of those attending relief works and kitchens, full particulars of which have already been submitted in my famine report for July. I was unable, until the 20th of July, the date of arrival of Surgeon Pereira, who was deputed on famine duty to assist me, to inspect the several relief centres.

In July, Berhampore and Gopálpur kitchens were inspected and on the 5th of August I started on a tour through the Berhampore and Goomsur taluks and returned to head-quarters on the 14th of October, when famine had almost ceased and the majority of relief kitchens were closed.

I inspected the following kitchens and relief works :—

Gopálpur, Berhampore, Ichápur, Sómpet, Báruva, Jarada, Mandasa, Budarasingi, Chíkati, Surangi, Patrapur, Naupada, Digupúdi, Koitakandi, Pudamari, Pattupur, Nowgada, Kukurada, Sirugada, Aska, Mondimoroi, Suradá, Ballisara, Gangupur, Russellkonda, Kullada, Majjagada, Bellugunta, Ballipadra, Bugada, Boirani, Purushottapur, Kallikót-Boirani road, Rambha, Ganjam and Chatrapur. In addition to above, I visited about 50 other villages near the relief centres.

I shall now briefly comment on the working of the kitchens and relief works, the accommodation provided, the sickness and mortality in them, the steps taken for the medical care of the sick, the general health of the public, and the conduct of the Medical officers and subordinates employed on famine duty.

Accommodation and position of the kitchens.—The accommodation and position of the majority of the kitchens and relief works were on the whole satisfactory with the exception of the following :—

(*a*) In Digupúdi the kitchen was situated on a very low ground surrounded by paddy-fields, and the position was as bad a one as could have been selected, the sheds were not sufficiently raised off the ground.

(*b*) On the relief works at Digupúdi there were 35 sheds erected close to the road, a large number of them were in ruins, and very few of the remaining were occupied, the majority of the sheds were badly constructed, being only about 3 feet high, and thatched with a very thin layer of straw, which was no protection against rain, consequently the coolies preferred walking to their houses some distance from the works, instead of living on the spot. If they were better housed, in all probability a large number of them would have willingly lived on the works.

(*c*) The kitchen sheds in Patrapur and Chíkati were erected in the middle of burial-grounds. It was a great pity that the sheds were erected there. Bodies were burnt within a few yards off the sheds, which was most prejudicial to the health of the children attending.

(*d*) In Russellkonda the approach to the kitchen was unsatisfactory, especially the pathway near the slaughter sheds ; the scrub jungle here was filthy, and was used as a latrine by the people of the town.

(*e*) The kitchen in Boirani was built in the backyard of one of the houses. There was only one shed in which the Boiranis were fed, the caste people received their meals in one of the rooms of the house, which was very dark, badly ventilated and overcrowded. The shed accommodation was insufficient, the cooking was done in a large room, which was very dark, with scarcely any ventilation ; it was so hot and full of smoke that I was almost suffocated in it.

Water-supply.—The water-supply was fairly satisfactory and chiefly obtained from wells and tanks. In some of the large kitchens the water was filtered prior to issue, the people invariably preferred drinking tank-water, although wells containing good water were close at hand. Scarcely any of the tanks were guarded, consequently their bunds and surroundings were filthy and covered with human ordure.

No arrangements were made to supply drinking-water to the coolies on relief works in Digupúdi and on the Kallikót-Boirani road. I recommended the construction of water-pandals on the roads, and the employment of watermen, as I was informed that the coolies, when thirsty, drank the water of the nearest stagnant pool, and I considered it very necessary, especially as cholera was prevailing, that the water-supply should be as satisfactory as possible.

Food.—The food supply was not very satisfactory at Kullada, Ballisara, Bellugunta, Patrapur, Ichápur, Russellkonda and Berhampore. The ragi flour was very coarse, badly ground, and unsifted, and the severe diarrhœa that prevailed in these places was attributable to it. I brought the above fact to the notice of the Collector, and recommended the substitution of rice for ragi in all the kitchens in the district, as the mortality from diarrhœa was increasing. The Collector replied, "that Doctor McNally considered it unnecessary to sift ragi flour." How he arrived at that conclusion I fail to understand.

Having been connected with jails for some years, I have always noticed that diarrhœa is invariably traced to coarse ragi flour. The Surgeon-General advised me to recommend the issue of rice diet if ragi was badly ground. I addressed the Collector on the subject, and received no reply from him. In those kitchens where ragi was served out only at one meal, I noticed a reduction of diarrhœa cases, and where rice was issued at both meals, there was scarcely a single case ; this I especially noticed in the kitchens under Mr. Carr's supervision.

Sanitary condition.—The sanitary condition of most of the places that I visited was fairly satisfactory ; wherever I saw scrub jungle and heaps of ashes and rubbish, close to the kitchens and relief works, I ordered their immediate removal.

The sanitary condition of the following places was unsatisfactory :—Patrapur, Chíkati, Jarada, Digupúdi, Bellugunta, Serugada, Budarasingi and Koitakandi. In all these villages, cattle were picketed in the principal streets, heaps of manure were seen everywhere, and in some places, such as Digupúdi and Koitakandi, they were several feet in depth, and it was scarcely possible to walk through the streets, and a very offensive odour emanated from them after a shower of rain ; and it is not to be wondered at that the health of the people in those two latter places was so bad, and it is not a matter of surprise that when villages are kept in such filthy state, that the mortality from cholera and fever should be so high.

Hospital accommodation.—Hospital accommodation was only provided in two places—Digupúdi and Pattupur. In the former, the hospital, which was intended for the reception of the sick from the kitchen and the relief works, and also from the adjacent kitchens, was erected close to the Digupúdi road, it was 30 yards long, 5 broad and 10 feet high. It was divided into seven compartments by means of brush-wood, the walls also consisted of similar material, which afforded no protection against the inclement weather, nor was there any separation of the sexes.

On my recommendation bamboo mats were put around the building and between the several compartments and the caste-people were separated from the other castes. There were no cook-houses or latrines ; these the supervisor in charge of the work promised to have built in a few days.

In Pattupur the hospital shed, which was built close to the kitchen, consisted of two rooms ; no provision had been made for the accommodation of caste-people. As the hospital was overcrowded, another shed was ordered to be built, there was also a shed in front of the hospital, constructed for homeless children, but was occupied by patients. There were no latrines.

At Russellkonda kitchen, where there were over 200 persons being fed and where a large number of them were in a weakly condition and should have been admitted as in-patients, I was surprised to see that no hospital accommodation was provided. I recommended that the large shed used by a very few homeless children should be converted into an hospital, and when completed, would have been quite sufficient for the requirements of the sick from Russellkonda and the adjacent kitchens. I noticed that cases of serious illness were being treated in the contagious shed. I ordered the hospital assistant to discontinue the practice as it was very unlikely that persons, unless bedridden, would remain in a shed in which deaths from cholera occurred.

In Berhampore the sick were treated in the municipal dispensary. I advised the erection of a shed for them, as the dispensary accommodation was hardly sufficient. I regret to say no notice whatever was taken of my recommendation.

In Mandasa and Naupada, where there was a good deal of sickness prevalent, I recommended the erection of hospital and contagious sheds.

In Sómpet and Gopálpur sheds were being erected when I visited these kitchens. In Aska and Ichápur there were small sheds erected near the kitchen for the treatment of infectious cases.

Bedding and clothing.—Pattupur hospital was the only one which was supplied with clothing. In Russellkonda and Digupúdi, where there were a large number under treatment, I recommended the issue of a mat, blanket and cloth to each patient. I have here to state that none of my indents regarding bedding and clothing (with the exception of Pattupur) were complied with, and it was, in my opinion, an absolute necessity that clothing should have been supplied, especially as the famine existed during the monsoons, and probably the mortality would not have been so great if weakly persons had been properly clothed. I am not in a position to state whether my recommendations were carried out.

Medicines.—Portable medicine chests were supplied to Gopálpuram, Digupúdi, Mandasa, Chíkati, Boirani, Hiramandalam, Kasibugga, Mondimoroi, Boirani-Kallikót road, Injily, Kallikót and Naupada. The medical subordinates were ordered to replenish their supplies from the nearest stations supplied with medical indents.

Third-class indents were issued to Purushottapur, Sómpet, Aska, Tekkali, Parlákimedi and Ichápur.

Second-class indents were supplied to Chatrapur, Pattupur, Russellkonda and Berhampore.

Under instructions from the Surgeon-General the annual indents of hospitals and dispensaries in the district are being complied with from the surplus famine medicines and instruments.

General health.—The general health of those attending relief works and kitchens was most unsatisfactory; the diseases most prevalent amongst those treated in hospitals were:—ophthalmia, diarrhœa, dysentery, general debility and anæmia, ulcers, malarial fevers, general dropsy, rheumatism, cholera and small-pox. Out of a total strength of 682,704 under the immediate supervision of medical subordinates, there were 6,404 admissions into hospital with an average daily sick of 311·32. The mortality registered was not great. There were only 147 deaths, being at the rate of 22·95 per mille of those treated. This gives no idea at all of the actual number of deaths which took place among those who deserted the relief works and kitchens, and I have not the slightest doubt that the mortality must have been very much greater, considering the feeble state of health of those receiving relief. I myself have noticed children being fed in the kitchens suddenly disappearing and being sent in a few days to the nearest hospital either by the police or village magistrates in a moribund condition, and suffering from diarrhœa. Very many of these cases were not entered in the famine but in the registers of hospital and Local Fund dispensaries, in which they were admitted. In other instances, emaciated subjects, suffering from diarrhœa, were returned, when a fatal termination ensued, as deaths from cholera, instead of starvation, by the village authorities. The tabular statement given below shows the admissions and deaths in hospitals attached to relief works and kitchens:—

Diseases.	Number of admissions.	Number of deaths.	Remarks.
Ophthalmia	1,586	...	
Diarrhœa	1,009	66	
Dysentery			
Ulcers	711	4	
Malarial fevers	690	1	
Anæmia	373	23	
General debility			
Rheumatism	164	6	
Disease of respiratory system ...	160	6	
General dropsy	37	9	
Cholera	36	21	
Small-pox	33	10	
Abscess	77	1	Probably pyæmic.
All other diseases	1,678	...	
Total ...	6,404	147	

Ophthalmia.—In almost every kitchen that I inspected I noticed that the majority of the children were suffering from some form of ophthalmia. In Surangi, Budarasingi and Jarada the disease was of a purulent type, and all the children affected with it were anæmic and in a very emaciated condition. During the latter period of the famine when the health of the people improved the admissions from ophthalmia considerably diminished.

Diarrhœa and Dysentery.—Diarrhœa and dysentery were very prevalent in most kitchens; there were 1,009 admissions from these diseases with 66 deaths. Several of those admitted for anæmia and general dropsy were also suffering from some form of diarrhœa, they in very many instances concealed the nature of their disease as they were afraid that they would lose their ordinary curry and rice diet and be put on milk; those in which these diseases occurred were invariably typical famine subjects.

I noticed in several kitchens, in which ragi was issued at both meals, that the admissions from diarrhœa were very numerous, and this was caused by the ragi being very coarsely ground and unsifted. I brought this to the notice of the Collector, and recommended the substitution of rice for ragi, as I considered it was impossible during the monsoons to grind ragi sufficiently fine, so as to be assimilated by people in a delicate state of health, and who were prone to diarrhœa.

Diarrhœa was most prevalent in portions of the Berhampore and Goomsur taluks. In the Pattupur zemindari where rice was issued at both meals, there were very few cases under treatment.

I inspected the Russellkonda kitchen on the 14th of August, and I was surprised to see the large number of cases that had suffered from diarrhœa. Out of 422 admissions 223 were entered in the hospital register as cases of diarrhœa or dysentery; this is a very large percentage, being over 50 per cent.; out of 41 cases under treatment, at the time of my inspection, 14 were diarrhœa cases. The hospital assistant in charge informed me that out of 30 admissions during the week, there were 14 cases of diarrhœa and one dysentery. The mortality in this kitchen was great; from the 29th of June to the 14th of August there were 23 deaths and 16 were

either from diarrhœa or dysentery. The general condition of the children here was very bad; a large number were anæmic and emaciated, and in several general dropsy was setting in. The food was carefully examined and the flour was coarse, badly ground and unsifted, and I attribute the unsatisfactory state of health to the ragi flour.

In Berhampore, during June and July, diarrhœa prevailed to a great extent in the kitchen; there were about 100 cases under treatment; here ragi was issued at both meals and great difficulty was experienced, as it was raining during those months, to grind it sufficiently well so as to be easily digested by those in a feeble state of health. The Medical officer in charge recommended that rice should be given once a day at least, and when his suggestion was carried out and rice issued at the evening meal, there was remarkable decrease in the number of cases of diarrhœa, and the general health of those attending improved considerably.

Ulcers.—A very large number, principally adults, attending relief works were suffering from large indolent ulcers in their lower extremities; they only applied for medical relief when they were unable to work any longer. All those suffering from bad forms of ulcers were, as a rule, anæmic and debilitated. Seven hundred and eleven cases were treated by Medical officers and out of this number there were 4 deaths.

I also noticed that those who had suffered from secondary syphilis and who were apparently, before the famine, in a comparatively fair state of health, immediately they became debilitated from privation, intractable ulcers broke almost all over the body, being especially marked on their legs.

Malarial fevers.—There were only 690 admissions from these diseases with one death; the majority of the cases were ordinary: quotidian fever occurred during the monsoons and were probably occasioned by sudden changes of temperature in people who were insufficiently clothed. The disease was most prevalent during the months of September and October and the largest number of admissions were in the following kitchens and relief works:—Ganjam, Russellkonda, Sómpet, Mondemoroi, Purushottapur, Mandasa, Digupúdi and Suradá.

Anæmia, general debility and general dropsy.—These diseases, which are noticed in all famines, are invariably caused by insufficiency of food. Anæmia, as a rule accompanied with diarrhœa, sets in in a very short time in those suffering from privation, and general dropsy is generally the precursor of a fatal termination. There were 373 admissions for anæmia and general debility, and 37 for general dropsy with 23 deaths from the two former and 9 from the latter disease.

In all kitchens a very large percentage, especially of the women and children, were suffering from anæmia, attended with emaciation, and although all the cases were not placed under special medical treatment, still they were all put on special diets; had these cases been admitted in the registers, which it was impossible for the Medical officers to do, as the majority of the people refused to take any medicine but only appearing at meal-time and immediately after their food left the kitchen, the number of admissions for this disease would have considerably increased, and I am of opinion that more than 75 per cent. of those attending the kitchens were anæmic and emaciated.

Cholera.—Cholera prevailed in the following kitchens:—Ichápur, Suradá, Russellkonda, Pattupur and Calingapatam. There were only 36 cases admitted from relief works and kitchens. The mortality was great. There were 21 deaths, 10 of those occurring in Ichápur; the percentage of deaths to admissions was about 66 per cent.

Small-pox.—There were 33 admissions and 10 deaths in the several hospitals attached to the kitchen and relief works in the district. Probably a large majority of those attacked with the disease, while ill, deserted the kitchens, and remained in the houses, knowing fully well that they would be kept under treatment in the infectious shed, and their friends would be prevented visiting them. In Gangupur kitchen, I noticed a child in the caste enclosure suffering from small-pox. He was removed from the kitchen, and was ordered to be fed either in his own house, or in a tope of trees a good distance from the kitchen.

General health of the public in the district during the famine.—The general health also of the public during the famine was very unsatisfactory. Cholera, small-pox and ophthalmia were epidemic. Diarrhœa, dysentery ulcers and malarial fevers were very prevalent. During the first three months of the year, cholera prevailed in a sporadic form in the Goomsur and Berhampore taluks; in Boirani, in the Goomsur taluk, there were 9 deaths in February. In the month of March there was a slight increase in the number of deaths, Goomsur and Berhampore taluks reporting 67 and 45 deaths, respectively. One casualty was also reported in Berhampore Municipality at this time.

Cholera.—As might have been anticipated from the great scarcity of food-grains and water-supply, the result of the failure of both monsoons last year, the epidemic made its appearance about the 11th of April at a place called Tharinammakonda near Purushottapur where a large number of people yearly assemble for a native festival; from this centre the disease spread to every part of the district and broke out simultaneously in the following places:—Berhampore, Ganjam, Suradá, Gopálpur, Aska, Purushottapur, and in several of the villages surrounding these towns. In the Berhampore town alone nearly every one who returned from the Tharinammakonda festival was attacked within 2 days of his or her return and succumbed to the disease which proved to be of a very virulent type. Berhampore taluk alone reported 2,140

deaths in the month, Goomsur having 258 and Chicacole 24. Among the municipalities Berhampore suffered most, having had 386 deaths during the month, in the first week of which there were 100 deaths; the zemindaries together reported 554; among the towns Ganjam had 69, Purushottapúr 29, Aska 24, the total number of deaths throughout the district during the month being 3,367.

During the month of May the disease continued to increase in severity, the total number of deaths amounting to 4,209; of these Berhampore taluk had 1,018, Chicacole 403, and Goomsur 355. Among the municipalities Parlákimedi reported 284, Berhampore 87, and Chicacole 11 deaths. Among the zemindaries Tekkáli 694, Parlákimedi 541 and the other zemindaries together 805. In the towns the mortality was as follows: Mandasa 159, Raghunáthapuram 157, Ganjam and Baruvá 33 each. In June the disease showed a tendency to decline, but the mortality remained high, being 3,218, Berhampore taluk having 558 and Chicacole 386 deaths. Among the municipalities, Berhampore still continued to have the largest number, reporting 57 deaths. Chicacole came next with 50. In the Parlákimedi Municipality the mortality was greatly reduced, there being only 35 deaths as compared with 284 of the previous month. Even in the zemindaries the disease was visibly declining, the number of deaths reported being Parlákimedi 423, Tekkáli 376, and other zemindaries 843. Among the towns that suffered most, Hiramandalam had 59, Baruvá 31, Suradá 24, Berhampore cantonment 22.

July witnessed a still further decrease in the mortality, the total number of deaths reported being 2,040; Goomsur had the most (648). In the other two taluks, the numbers were perceptibly lessened, Berhampore and Chicacole reporting 183 and 110 deaths, respectively. The total number in all the municipalities was also greatly reduced, Chicacole having 35, Parlákimedi 24 and Berhampore 14. Among the zemindaries, Parlákimedi had 314, Tekkáli 54, and the other zemindaries 646. Among the towns the deaths were as follows:—Boirani 19, Baruvá 16, Suradá 14, Mandasa 10.

During the month of August the disease again assumed a sporadic form, the total number of deaths being 701. Out of this number, Goomsur taluk had the greatest, 238, Chicacole 94 and Berhampore 28. Among the municipalities, Chicacole had 32, Parlákimedi 9, Berhampore being free. Among the zemindaries, Parlákimedi had 108 and the others 149. The only town that suffered was Suradá with 17 deaths, Agency tracts 33.

During the month of September there were only 54 deaths reported from the district, the municipalities were almost free of the disease, only one death having been reported in Chicacole. In the Chicacole taluk there were 43 deaths and 20 in Goomsur.

In October the disease almost disappeared, there being only 25 deaths, of which Chicacole reported 23.

The table given below shows the number of deaths in each month and the taluks in which they occurred.

Every precautionary measure was adopted by the medical subordinates and the village authorities in improving the water-supply and sanitary condition of the infected villages and, as far as practicable, tanks and wells were reserved for drinking purposes; the streets and backyards of the villages, which were filled with heaps of rubbish and manure, were ordered to be cleaned. Sulphur and coal tar fumigation was freely used and houses were white-washed.

A short description of the manner in which the epidemic started in the three municipalities is herewith appended.

Berhampore.—The first case reported was that of one Maguni Behara, who was attacked at 5 A.M. on the 30th March 1889 at Chatrapur on his way from Cuttack to Berhampore while accompanying a missionary. He was brought to the Berhampore Municipal dispensary with well-marked symptoms of cholera in its algide state and died within an hour after admission. The second case occurred in an individual, named Thammadu of Chicacole, who was also attacked at Chatrapur on the 3rd of April and brought collapsed to the dispensary here and died two days after admission. The third case occurred in a resident of Berhampore, named Tokasahu, who returned from Kattu about 15 miles distant from this place on the 10th of April and he died shortly after admission.

A large number of inhabitants of this place had been to the Tharinammakonda festival, where the disease then was prevalent in a sporadic form and indulged freely in meat and prawns; there is every reason to believe that the meat was unwholesome as cattle-disease was prevalent at the time. The prawns were caught and brought in great abundance from a distance and there can be no doubt that they were often eaten in a more or less decomposed condition. However induced the disease soon made its appearance amongst them and on the 13th April there were 13 deaths out of 33 attacks in Berhampore, chiefly amongst those who had returned from the festival. The disease soon assumed an epidemic form and spread all over the town. The mortality was chiefly amongst the Bourie caste, whose food, water-supply and habitations are at best the worst in a sanitary point of view These generally sought treatment at the dispensary. The mortality amongst the well-to-do Uriyas was also high; they however in a large measure resorted to native quacks for treatment.

The highest number of deaths recorded in a day was on the 20th April, when 29 deaths were registered. For about a fortnight the disease prevailed in Bijapur and ultimately in Bapur, the total number of attacks being 901 and deaths 546.

The following shows the number of deaths in the several months—March 1, April 387, May 87, June 57, July 14, total 546.

Parlákimedi.—The first case here was reported on the 25th April 1889, which proved fatal on the following morning. This man came in from an outlying village where cholera was very prevalent. A period of quiescence ensued for some time, but on account of the scarcity in the taluk, a large number of beggars and others were constantly coming in from different villages and very probably introduced the disease. The epidemic was first noticed amongst these emigrants and then among the townspeople. The Uriya population of the town who lived in a north-westerly direction suffered more than the rest of the population; the scarcity of food and water in a great measure aggravated the epidemic, 557 attacks with 351 deaths were reported; of these numbers, 34 were treated as in-patients and 138 as out-patients with 18 deaths among the in and 42 deaths among the out patients. The last case of cholera occurred on the 14th August 1889.

Chicacole.—On the 22nd April, two sepoys proceeding on furlough, one from Cuttack and the other from Berhampore, were attacked with cholera on their way and died in the Municipal dispensary. No other case was reported in the town although there were several cases in the taluk. There was a lull in the disease in the town from 22nd April to 7th May, on which latter date no attacks were reported. Immediately after this, five other cases were reported in different localities of the town and were said to have been imported from the taluk in which the epidemic was raging; after this there was a general outbreak. The total number of attacks registered were 204 and deaths 127. The disease from the month of September has prevailed in a sporadic form but has now entirely disappeared.

Salol.—Experiments with salol were made on cholera in the Berhampore and Chicacole municipalities. Six cases were treated with it, three of which recovered; all these cases were received into the dispensaries in an almost moribund condition with temperatures ranging between 95° and 97° F., pulse scarcely perceptible at the wrist, eyes sunken, voice husky, &c. They were put on an alcoholic solution of salol, 31 doses (grs. 10 to the 31) every hour at the beginning, and every second or third hour subsequently, according to the condition of the patient. After a few doses varying between 4 and 5 there was a visible improvement in the pulse, purging and vomiting became less frequent and the warmth of the body returned gradually. Restlessness was also relieved to a great extent. In two of the five cases that showed signs of improvement, a relapse set in and on the 5th day of admission which proved fatal. One of these patients was not at all affected by the administration of the drug, he having been in a state of collapse for some hours previous to admission.

Unfortunately the experiments could not be carried on a larger scale owing to the limited supply of the drug, and the number of cases treated are too small to form any opinion as to its efficacy. Five of the six cases experimented upon were said to have had some treatment previous to admission.

TABLE showing the total number of deaths from cholera in the district in 1889.

Months.	Berhampore taluk.	Chicacole taluk	Goomsur taluk.	Berhampore municipality.	Chicacole municipality.	Parlákimedi municipality.	Tekkáli zemindari.	Parlákimedi zemindari.	Other zemindaries.	Agency tracts.	Total.
January	28	..	..	..	..	..	..	..	..	..	28
February ..	..	..	36	..	..	..	..	..	22	..	58
March	45	..	67	1	..	..	..	..	..	..	113
April	2,140	24	258	386	2	2	24	1	530	..	3,367
May	1,018	403	355	87	11	284	694	541	815	1	4,209
June	558	386	490	57	50	35	376	423	843	..	3,218
July	183	110	648	14	35	24	54	314	646	12	2,040
August	28	94	238	..	32	9	..	118	149	33	701
September ..	2	21	20	..	1	..	..	3	7	..	54
October	..	23	1	..	..	..	..	..	1	..	25
Total ..	4,002	1,061	2,113	545	131	354	1,148	1,400	3,013	46	13,813

The following list gives the names of the subordinates sent to the district on cholera duty and the places that they were posted to. The Medical officers of Local Fund dispensaries and Government hospitals were ordered during the epidemic to treat cases in all villages within a radius of 5 miles from their head-quarters:—

Name.	Station.
1. M. Paul	Doegam.
2. P. P. Joseph, 389	Purushottapúr and Digupudi.
3. P. Santhiago, 342	Berhampore taluk and Digupudi.
4. Abdul Aziz	Purushottapúr, Aska, Atagada, Parlákimedi and Mandasa.
5. P. Appanna Naidu, 369 ...	Berhampore taluk, Chicacole and Luhagudi.
6. M. D. Gnanamani ...	Tekkáli and Chicacole.
7. T. Egappa Naiker ...	Chicacole.

Name	Station.
8. A. G. John	... Kallikót.
9. D. Seetharamaswami, 428	... Parlákimedi taluk.
10. S. Ananthia Naidu, 389 ...	... Digupudi.
11. R. Muniswami, 254 ...	... Chokkapad.

Small-pox.—A severe epidemic of small-pox continued to prevail during the first six months of the year; in January in the district 546 deaths were reported, chiefly from Berhampore, Chicacole, Goomsur and Tekkáli taluks. Among the municipalities 30 deaths were registered, Berhampore alone contributing 26. In February the mortality continued high and 606 were reported for the district in this month; Berhampore taluk recorded 190 deaths, while a smaller number was reported from the other taluks. The death-rate in the Berhampore municipality still continued high during this month, 28 deaths being registered. In March there were 688 deaths, chiefly in the Berhampore, Goomsur and Tekkáli taluks. Out of 42 deaths reported from the municipalities, Berhampore had 34. In April there were 881 deaths, being the greatest number registered during the whole year. Goomsur and Berhampore taluks suffered most, while the Berhampore municipality had 16 and Chicacole 13 deaths, respectively. In May there was a decided improvement in the severity of the disease, 338 deaths only being registered, Goomsur, Berhampore and Parlákimedi taluks having the greatest number. In June the death-rate continued more or less stationary, prevailing much to the same extent in the taluks as in the previous month. In July the mortality was very much less, only 232 deaths having been registered chiefly in the Goomsur, Berhampore and Parlákimedi taluks. In August there were only 170 deaths, out of which 52 were in the Goomsur and 32 in the Berhampore taluk. In the months of September and October the mortality was trifling, 76 and 54 deaths having been reported for each month.

I would here remark that my recommendation to the Collector to vaccinate children attending the relief kitchens and works was objected to on the ground that those attending would desert the relief camp if such a proceeding was resorted to.

The work of the Vaccine Department was most unsatisfactory during the famine, the majority of the people absolutely refusing to have their children vaccinated. A table showing the number of deaths in each month and place is herewith appended :—

TABLE showing the total number of deaths from small-pox in the district in 1889.

Months.	Berhampore taluk.	Chicacole taluk.	Goomsur taluk.	Berhampore municipality.	Chicacole municipality.	Parlákimedi municipality.	Tekkáli zemindari.	Parlákimedi zemindari.	Other zemindaries.	Agency tracts.	Total.
January	137	82	89	22	2	6	50	27	131	..	546
February	190	48	68	28	9	..	43	23	197	..	606
March	157	82	131	34	8	..	49	29	190	8	688
April	252	69	259	16	13	..	21	27	219	5	881
May	92	22	93	13	6	..	11	47	146	8	338
June	61	54	133	4	5	..	1	16	130	18	412
July	38	11	60	1	6	1	6	27	58	24	232
August	32	9	52	1	3	..	9	3	61	..	170
September	16	5	7	..	1	..	6	9	32	..	76
October	11	4	4	..	..	..	4	2	28	1	54
Total ..	976	386	896	119	53	7	200	210	1,192	64	4,003

Fevers.—Malarial fevers as usual prevailed in the district, but with greater severity than usual; 12,526 deaths being recorded for 8 months under report. In January there were 1,037 deaths, Tekkáli, Chicacole and Berhampore taluks recording the greatest number; in February, however, the mortality was much less; there were only 743 deaths recorded, but again in March it increased to 1,048, chiefly prevailing in the Berhampore, Goomsur and Chicacole taluks. In April, the mortality remained more or less stationary; there were 1,080 deaths and it prevailed in the same taluks as in the previous months. In May the onset of the north-east monsoon with its accompanying variations in temperature and raising of the subsoil water induced a marked increase in the mortality from fever, which rose to 1,299 deaths for the month, Berhampore, Parlákimedi, Goomsur and Chicacole taluks reporting the greatest number. In the month of June the disease showed a tendency to decline, but again in July the mortality increased and amounted to 1,369. In August there were 2,037 deaths, this being the greatest number registered in any one month during the year. Parlákimedi, Goomsur, Berhampore and Chicacole taluks suffered most. The mortality continued high, but was much less in September when it declined to 1,744, Chicacole, Berhampore, Goomsur and Parlákimedi as usual having the highest number of casualties. In October, however, there was a sudden decline in the disease, only 953 deaths being recorded, chiefly in the Goomsur, Parlákimedi, Chicacole and Berhampore taluks.

When I visited Kunkurada in August fever of a severe remittent type was prevailing. In one house that I inspected every one of the inmates, 7 in number, were laid up with it; they appeared to be in a most miserable condition. The karnam informed me that there had been 40 deaths during the month and that one death occurred on the morning of my visit. I am of opinion that it was a kind of typho-malarial fever caused by the filthy condition of the town. As long as the town continues in this dirty state, fever is practically certain to prevail with great severity. I ordered the Hospital Assistant at Pattupur to inspect the village and treat cases.

TABLE showing the total number of deaths from malarial fevers in the district in 1889.

Months.	Berhampore taluk.	Chicacole taluk.	Goomsur taluk.	Berhampore municipality.	Chicacole municipality.	Parlákimedi municipality.	Tekkáli zemindari.	Parlákimedi zemindari.	Other zemindaries.	Agency tracts.	Total.
January	205	215	100	31	18	14	162	98	184	10	1,037
February	145	145	74	15	15	14	62	115	154	4	743
March	220	174	115	16	13	11	108	139	230	22	1,048
April	200	129	188	30	10	15	108	99	280	21	1,080
May	326	118	175	7	6	8	87	198	280	21	1,080
June	94	415	325	13	11	14	53	..	365	9	1,299
July	142	253	89	9	6	9	200	269	291	..	1,216
August	330	264	358	13	15	13	131	375	353	39	1,369
September	279	359	257	13	19	17	165	243	526	12	2,037
October	136	264	136	..	7	16	116	191	390	2	1,744
Total ..	2,077	2,336	1,817	147	120	131	1,192	1,727	2,854	125	12,526

LIST of medical subordinates employed on famine duty.

Name.	Station.	Remarks.
1. B. Rangia Naidu, 188 ...	Russellkonda	Temporary.
2. K. K. Velu Menon, 286 ...	Pattupur	Do.
3. P. Veeranna Naidu, 135 ...	Berhampore	Do.
4. P. D. Santhiago, 342 ...	Digupudi	Do.
5. A. G. John	Ganjam-Gopálpur canal works and ghât works, Russellkonda.	Do.
6. Jagannad Pandit, 437 ...	Ganjam-Gopálpur works	Do.
7. Abdul Aziz	Do.	Do.
8. P. Abboy Mudali, 36 ...	Mandasa	Do.
9. K. M. Sreenevasa Naidu, 219.	Boirani and Injili	Do.
10. T. K.M. Sreenevasa Naidu, 262	Digupudi	Do.
11. M. Narayanaswami, 245 ...	Chikati	Do.
12. M. Abboy Naidu, 213 ...	Purushottapúr	Do.
13. T. P. Joseph, 389	Digupudi and Ichápur	Do.
14. W. Parankusam, 345	Berhampore and Sómpet	Do.
15. S. A. Appasawmy	Hiramandalam	Do.
16. N. Rangasawmy, 182 ...	Kasibugga and Tekkali	Do.
17. N. A. Veerasawmy, 196 ...	Mondimorai	Do.
18. M. Rajagopal, 357	Boirani	Do.
19. M. Thulasingam, 299 ...	Digupudi, Tekkali and Kasibugga.	Do.
20. T. Swaminadhan, 325 ...	Naupada	Do.
21. V. A. Jagannadham	Boirani	Do.
22. M. D. Gnanamani	Sómpet	Do.
23. D. Seetharamaswami, 428 ...	Ichápur	Do.
24. C. O. Watkins	Ganjam	Do.
25. Venkataswami	Aska	Permanent.
26. Jagannadham	Suradá	Do.
27. Perimbam	Tekkali	Do.
28. Civil Surgeon Chadwick ...	Chatrapur	Do.
29. A. G. Home	Ichápur	Do.
30. Rajagopal	Sómpet	Do.
31. S. Ananthia Naidu, 389 ...	Digupudi	Temporary.

The following medical officers and subordinates on famine duty are deserving of special mention :—

Surgeon F. C. Pereira was of great assistance to me in attending to the routine duties of the District Surgeon's office and in carrying out my orders regarding the disposal of medical subordinates and medicines. It would have been impossible for me to carry on the duties without his able assistance.

Civil Surgeon Chadwick was placed in charge of the Chatrapur kitchen and relief works for a short time ; he was also in charge of the Gopálpur canal works ; he was most assiduous in his duties.

Assistant Surgeon Gonsalvez assisted Surgeon Pereira in his duties and he worked willingly and gave satisfaction.

First-class Hospital Assistant Veeranna Naidu, lately acting Assistant Surgeon, was in charge of the famine kitchen at Berhampore and was also made responsible for the distribution under the orders of Dr. Pereira of the famine medicines ; he worked well and conducted his duties in a very satisfactory manner.

The following Civil Apothecaries on the permanent staff conducted their duties satisfactorily :—

E. T. Jones	...	...	...	Gopálpur.
R. W. Saldanha	...	...	...	Calingapatam.
V. Rajagopal	...	...	...	Sómpet.
K. Jagannadhan	...	...	...	Suradá.
A. G. Home	...	...	...	Ichápur.

The following subordinates on the temporary establishment worked satisfactorily :—

Civil Apothecary Abdul Aziz.
Second-class Hospital Assistant Velu Menon, No. 286.
Do. do. Ananthia, No. 389.
Third-class do. D. Seetharamaswami, No. 428.

I have to report unfavorably on the following subordinates :—

Civil Apothecary C. Watkins, who has recently been removed from his appointment for neglecting his famine duties.

Civil Apothecaries A. Wells and S. D. Perimbam were careless in the preparation of their famine returns. Frequent reminders had to be sent to them.

Second-class Hospital Assistant P. D. Santhiago, No. 342, performed his duties in a most perfunctory manner and left the district without handing over the famine records into my office.

Third-class Hospital Assistant T. P. Joseph, No. 389, was most insubordinate and was suspended for two months.

Second-class Hospital Assistant K. M. Sreenevasa Naidu, No. 219, reported sick whenever he was sent on any duty, and I consider him an useless medical subordinate.

Second-class Hospital Assistant R. Muniswami Naidu, No. 254, was a very careless man and did very little work.

BERHAMPORE,
26th December 1889.

(Signed) R. PEMBERTON,
Ag. District Surgeon, Ganjam.

Order—dated 19th April 1890, Mis. No. 2417, Revenue.

Referred to the Commissioners of Land Revenue and the Commissioner of Revenue Settlement and Director, Land Records and Agriculture, for remarks in continuation of G.O., dated 30th January 1890, No. 657, the reply to which should be expedited.

(True Extract.)

(Signed) C. A. GALTON,
Secretary to Government.

To the Commissioners of Land Revenue.
„ Commissioner of Revenue Settlement, Land Records and Agriculture.

Resolution—dated 9th September 1890, No. 274.

In the resolution of the Government of India which is forwarded by Government to the Commissioners of Land Revenue and the Commissioner of Revenue Settlement and Director of the Department of Land Records and Agriculture, for remarks and suggestions, the Government of India seeks the opinion and advice of all local Governments and Administrations, especially of those provinces which may have been recently visited by famine, on the working of the existing Provincial Famine Codes.

223

2. The recent famine in Ganjam, the origin, causes and principal features of which are ably described in Mr. Horsfall's report read above, has given full opportunity for ascertaining in what points, if any, the existing Codes are defective, and the Government of India has itself pointed out several points in which the Famine Code is in its opinion in need of amendment.

3. Before, however, entering upon a consideration of the different questions raised by the Government of India, it is desirable that the origin and progress of the recent famine in Ganjam and of the different measures taken from time to time to meet it and their results should be briefly reviewed. The district of Ganjam is the most northern district of the Madras Presidency. It is bounded on the north by the districts of Cuttack and Pooree of the Bengal Presidency, on the east by the Bay of Bengal, and on the south and west by the Vizagapatam district. Its area is 8,311 square miles and population 1,749,604 according to the census of 1881. A large part of the district known as the Maliahs is hilly and jungly and but thinly peopled, and this portion of the district was but slightly affected by famine. The remainder consists of the plain country between the sea and the hills, and in this portion of the district, which is about 3,106 square miles, famine prevailed over a tract of about 2,500 square miles with a population of 1,100,000. This area comprised the Government taluks of Berhampore and Goomsur with the outlying zemindaris, the Tarlá and Tekkali estates and a small portion of the Parlákimedi estate to the south. The principal food-grains grown in the district are rice and ragi. The cultivation season commences in June and terminates in November or December. Rice, which is far the most important crop, requires the rains of both the south-west and north-east monsoons. The south-west monsoon usually sets in early in June and continues up to October, when the north-east monsoon commences and continues for about a month, the average rainfall for the ten years preceding famine being 46·96 inches. The greater portion by far of the rice crop is irrigated solely by the falling rains. In the season of 1888-89 the rainfall under the south-west monsoon was irregular and much below the average, the amount registered between the beginning of April and the end of September being only 18·13 inches, as against an average for the previous five years of 31·86, while the rainfall in the months of June and July, the two most important months for agricultural operations, was only 5·61 against an average of 13·6 inches. The weekly season telegrams of the Collector showed that agricultural operations were retarded and that prices were rising ; but the prices of rice and ragi, the most important grains in the district, when compared with those of previous years did not, until the month of October, show any serious rise, as will be seen from the subjoined table :—

Months.	Rice.						Ragi.					
	1884-85.	1885-86.	1886-87.	1887-88.	1888-89.	1889-90.	1884-85.	1885-86.	1886-87.	1887-88.	1888-89.	1889-90.
April	20·1	15·9	14·2	19·5	18·7	11·4	36·1	28·4	27·9	33·4	31·1	18·8
May	19·3	15·4	14·3	18·4	18·9	11·1	36·1	29·1	27·6	32·5	30·8	17·4
June	18·6	15·7	14·2	19·0	18·5	10·3	34·2	27·4	27·5	31·3	29·0	15·9
July	18·5	16·0	14·2	18·8	17·8	10·3	33·0	27·2	27·4	31·2	26·6	16·3
August	15·2	15·1	13·8	18·8	16·0	10·5	24·6	27·3	28·2	28·5	24·0	18·3
September	15·0	14·3	14·6	18·9	14·5	11·2	27·4	27·4	29·6	30·9	24·2	24·7
October	15·7	13·1	15·0	18·9	11·3	11·9	31·4	26·7	35·1	31·5	21·5	30·5
November	16·2	13·3	15·1	18·5	12·6	11·5	31·9	26·4	34·3	31·2	22·8	27·5
December	16·9	13·6	15·1	18·6	12·4	15·3	30·4	27·8	34·3	31·7	22·1	27·1
January	17·0	14·1	17·3	19·0	11·6	15·3	30·1	28·1	34·3	31·4	19·2	25·8
February	16·5	14·2	17·9	18·0	11·3	16·4	30·2	27·6	34·4	31·2	18·0	25·6
March	15·9	13·8	18·1	19·7	11·2	16·4	28·6	27·4	34·4	31·5	18·8	25·3

It was not till the week ending 13th October, when the fear of a total failure of the north-east monsoon following on the very scanty south-west monsoon led to a

29

sudden rise of prices above the scarcity rates, that the critical state of the district was realised. In his weekly season telegram of the 13th October the Collector telegraphed: "Standing crops withering and withered; prices rising rapidly and merchants holding back stocks of grain; scarcity apprehended." This was followed by a telegram on the 18th as follows in reply to an inquiry from the Board: "Letter despatched yesterday; will report more fully in a day or two; prices continue rising; merchants withholding stocks; famine imminent." A telegram on the 20th October (distinct from the regular weekly season telegram due on that date) reported that scarcity was intensive throughout the district and rapidly approaching famine and that bazaars were not supplied owing to general panic, while merchants were withholding stocks and recommending the opening of the Rushikulya works and the Gopálpur canal to give employment to those in need of work. In a further telegram of the 24th October the Collector stated: "State of affairs rapidly becoming worse and worse; lawlessness setting in; gangs amounting to several hundreds openly looting; police totally insufficient to cope with them; have called in the Goomsur paiks and am using every effort to restore confidence and order; consternation general and holders of stocks will not come forward; have directed Local Fund Engineer, tahsildars and managers of estates to spend up to full allotment for year, and urgently pray immediate reopening Rushikulya works."

4. On receipt of these telegrams the Government deputed Mr. Garstin, First Member of the Board of Revenue, to proceed at once to Ganjam and report with as little delay as possible on the exact condition of affairs in that district and authorised him at the same time to take the necessary steps for putting in hand at once the works connected with the Rushikulya project under the rules prescribed by the Famine Code for professional agency works, if, in his opinion, the condition of the district rendered such a step advisable. Mr. Garstin's arrival in the district on the 4th November was preceded by good falls of rain throughout the district. The rain commenced on the 29th October and continued for about a fortnight and its effect, as reported by the Collector in his letter to the Board, dated 9th November, was to give a supply of water to the tanks, to save the standing dry crops, red-gram, horse-gram, late ragi, &c., which had been in a critical condition, and to secure some yield to all the rice crop which had not already withered though it was impossible at the time to estimate what the yield would be. After a tour throughout a large part of the district, and after the most careful local inquiries in regard to the probable stocks of grain in hand from previous years and the probable harvest, Mr. Garstin came to the conclusion that there was at that date no famine, that is to say, no general failure of food-supply anywhere in the part of the district he had visited, and that no such failure was likely to occur at any rate for some months; that although the south-west monsoon rains were neither timely nor plentiful, the ragi and gingelly harvests in September and the beginning of October were generally fair and in some parts very good and that the dry crop harvest yet to be gathered from the black, red, green and horse grams and the castor-oil crops was likely to be fair. Regarding the rice crop, he considered, that though it was backward in the beginning of October, yet that the harvest would have been of normal quality had the north-east monsoon rains fallen in the beginning of October and been abundant, but that as it was it would probably give a three-eighth yield. Prices, he observed, had fallen during the month (November) from 10·01 to 12·33 seers per rupee of second-sort rice and 20·75 to 24 seers per rupee of ragi, and he considered that they would fall still lower or at least remain stationary till the rice harvest was over about the end of December or the beginning of January as the price of rice was falling in the Godávari. As regards the sufficiency or otherwise of the stock of grain in the district to last till the next harvest, he was of opinion that if prices began to rise slightly in January, but if imports by land and sea did not then begin to increase, it might be assumed that local stocks would be sufficient; while if prices rose fast and imports increased rapidly it might be assumed that stocks were short, in which case laborers would probably begin to crowd to the public works in progress and distress would become severe. He considered it beyond doubt that the high prices of food-grains and the prospect of a bad rice harvest had caused much distress, especially to the poorer classes who sub-

sist on charity and to the weavers. He recommended the opening of large works to be carried out as ordinary public works by professional agency, and under the powers vested in him by Government, at once opened the Rushikulya works as ordinary public works. Under this system work is given to contractors who pay once or twice a week and of course employ no one not capable of doing a full and good day's work. Mr. Garstin, however, anticipated a possible large influx of laborers to the works, and under these circumstances and in the event of daily payments becoming necessary, he made it clear that the Famine Code rules should be applied to the works. Advances to weavers were recommended, and in regard to gratuitous village relief to the helpless and those unable to work, lists of whom had been directed by the Collector to be prepared in accordance with the Famine Code, it was recommended that relief should be granted to them when the price of rice exceeded the scarcity rate.

5. In its order of the 12th December, Government accepted Mr. Garstin's conclusions as regards the non-existence at that date of actual famine. It approved of the recommendation that the Rushikulya and other works ordered to be opened should be carried out as ordinary Public Works and directed that all persons capable of work should be given employment, further works being opened if necessary at the discretion of the Collector. As regards the proposed grant of village relief and of advances to weavers, it considered that Mr. Garstin's proposals were premature, seeing that the price of all food-grains was then below the scarcity rate. It declared that it was not prepared to sanction these measures until the price of ragi, which is the cheapest food-grain in ordinary use (not rice), reached the scarcity rate, when the Collector was authorised to use his discretion.

The Government at the same time directed that its previous order of the 3rd December, which authorised the grant of subsistence batta, but directed that this relief should be kept within the narrowest possible limits, should be considered as cancelled. On the Collector, however, pointing out that this relief could not be withdrawn save at the risk of starvation to its recipients, its continuance was sanctioned in the case of homeless wanderers and beggars suffering from want when the Collector considered such assistance absolutely necessary to preserve life.

6. After a further tour made in the southern portion of the district Mr. Garstin, in a second report submitted to Government on the 13th December, gave it as his opinion that the outturn of crops would generally be very short. He considered no immediate remedial measures necessary at the hands of Government in that portion of the district, though he was of opinion that if no rain fell in December and January and if prices rose to the scarcity rate, distress already existing would be greatly increased and relief works would be necessary.

No further measures for relief of distress beyond the opening of the Rushikulya works and the Gopálpur canal were taken during the next few months. The works in question opened for the relief of the able-bodied were employing in the last week in December about 2,100 laborers, a number which increased to an average of about 3,800 laborers throughout January, when the opening of the Gopálpur canal works afforded a new field of labor and one more congenial than the Rushikulya works. 13,100 were employed on these two works throughout February and 14,800 throughout March, the number employed attaining its maximum in the week ending April 6th, in which week the numbers employed averaged 20,100, a number, however, largely below that—about 30,000—which the works were capable of employing.

7. About this period prices fell and cholera which had up to this time been spasmodic began to be very virulent. The laborers employed on the large public works dispersed in alarm in thousands. The numbers employed on professional agency works in the third week in April averaged only 7,200, and though the numbers shortly afterwards increased, they never again reached 13,000, the numbers employed in May and the early part of June ranging between 10,800 and 11,600. About the third week of June the numbers fell slightly below 9,000; a further fall took place in the subsequent weeks and the numbers went down to 4,500 in the second week of August; the numbers increased again to between 6,000 and 8,000 in the latter end

of August and after a reduction to 3,500 in the middle of October, rose again to about 7,500 in November, at which figures they stood when the cessation of famine had led to a stoppage of all gratuitous relief.

8. The first civil agency work opened by the Collector was the Taptapani ghât road, a ghât leading to the Maliahs and intended to give employment to the distressed in a tract the population of which was estimated at about 10,000. The work was opened about the end of February, but was not largely resorted to, the numbers employed in the first four or five weeks never exceeding 400 and the total employed during any day during the currency of the work never reaching 600. The Chokapad ghât road was also started as a civil agency work about the end of April 1889 to give further relief to the people in the Maliahs. This work was closed towards the end of September; the number employed on it was generally below 200.

In the plains no civil agency works were started until the beginning of May 1889, apparently under the impression that the Rushikulya works were capable of affording employment to at least double the numbers that were really employed on them. Writing in March 1889, * the Collector was unable to account for the unwillingness of the people to resort to those works, seeing that they were situated in places where failure of crops had been greatest and where one would naturally expect distress to be most severe; but he was nevertheless of opinion that it was too early to open any civil agency works. As a matter of fact, the Public Works officers did not admit any but those who were able-bodied and fit to labor, and numbers of people were consequently left without employment. By the beginning of May "matters got rapidly worse" and the Collector issued prompt orders to start work under civil agency on minor irrigation works, drinking-water tanks, and wells. In the season telegram for the week ending 11th May the Collector gives the total number employed during the week on these minor works at 12,293, or an average of 1,756 a day. For over five months, from five to ten thousand coolies were relieved on these works, most of them being weakly persons. On the 9th June 1889 the Digupudi-Govindapur road was started as a civil agency work. At the end of August and in the beginning of September three more road † works were opened and in October the Korachuli road was started. These were all petty works, the numbers employed on them never exceeding a thousand at any one time. The number of people employed on the last day of the week on all professional and civil agency works including the two roads in the Agency tracts is given in the appendix. The figures have been taken from the season telegrams. No information is available as to the number relieved on Local Fund works and works carried out in Court of Wards' estates, but the number was, it is believed, not very large.

* *Vide*—G.O., dated 19th March 1889, No. 203.
" " 2nd April " " 250.
" " 1st " " 2051, Mis.

† (1) Babanda-Pattupur road.
(2) Berhampore-Digupudi road.
(3) Palasa road.

9. *Gratuitous relief.*—The issue of gratuitous relief began early in November 1888. The number gratuitously relieved averaged about 250 throughout December, but with falling prices the number was gradually reduced to between 40 and 50 persons in the end of January and the middle of February, about which date the numbers began again to increase. At this period and up to the date of His Excellency the Governor's visit to the district in June, the issue of gratuitous relief was almost entirely restricted to those portions of the district where the price of ragi, one of the staple dry crops of the district, had risen above scarcity rate, *i.e.*, where the price was dearer than 16·6 Imperial seers per rupee, it being given in the remaining portions of the district only in cases where it was absolutely necessary to preserve life. Systematic village relief was inaugurated in the Bodogoda Maliahs towards the end of February, and in the Chinna Kimedi estate from the 1st April, two Circle Inspectors being appointed to supervise the grant of this relief in the estate. A few kitchens were opened in May by charitable zemindars and gentlemen for the issue of cooked food to the poor. The average numbers on gratuitous relief in March were between 100 and 250, increasing in April to an average of just under 700 throughout the month.

10. During the month of May prices rose steadily. The scarcity of water, the Collector reports, "became very serious and cholera which was virulent in the previous month advanced with rapid strides carrying off no less than 2,500 in the first fortnight; coolies were afraid to remain on the works and stayed at home in their villages without any means of subsistence. In the latter part of the month cholera increased, the number of deaths in the last week being 1,429. Showers had fallen here and there and the ryots had commenced to plough, but prices continued to rise and distress greatly accelerated by cholera increased rapidly. The numbers on gratuitous relief increased to an average throughout the month of 2,365. It was at this juncture that His Excellency the Governor visited the district, reaching Gopálpur on the 1st June, and after a tour through the most distressed parts of the district recorded the conclusions at which he had arrived, which were "that a large amount of distress amounting to starvation existed, and that the most urgent orders and the most prompt action were required if many lives were not to be lost by the most lingering and dreadful of all deaths."

11. The result of His Excellency's visit was the immediate opening of kitchens where cooked food was to be given; the formation of relief circles with Circle Inspectors for the distribution of gratuitous relief to the aged, the poor and the sick and destitute in the villages; the issue of advances to weavers, and the importation by Government of seed-grain.

12. The careful inspection of the villages and the opening of the kitchens revealed the existence of severe and widespread distress which had not previously been adequately realised. The numbers on gratuitous relief, the grant of which under the Code is confined to destitute resident villagers who are idiots, cripples, blind or so decrepid that they are not able to support themselves, and generally to those who are physically incapable of or unfit to labor, increased rapidly, the numbers on village relief increasing to nearly 9,000 in the first fortnight in June and to upwards of 27,000 by the end of the month, the figures at the end of each of the four succeeding weeks being 30,625, 49,431, 69,521 and 70,184, respectively, until the highest figure 93,561 was reached on the 3rd August, while the numbers fed in kitchens which at the end of the first week of their opening were about 1,967, increased to upwards of 9,000 in the second week in July and to 11,632, the highest figure recorded, on the 10th August. The numbers fed in kitchens between this last date and the end of the third week in September fluctuated between 11,000 and 10,000. From this date the numbers began rapidly to decrease and by the last week in October it was found possible to discontinue the grant of cooked food altogether. The numbers on village relief which, in the absence of any very effectual control consequent on the paucity of officers available to superintend the work, had reached the huge figure of 93,561 on the 3rd August were, when it became possible to exercise a strict control, very largely reduced, the numbers on this form of relief in the last three weeks of August averaging only 51,191; by the end of September the numbers had been reduced to a little over 28,000 and by the end of the following month it was found possible to discontinue this relief altogether.

13. At the close of his report (paragraph 96 *et. seq.*), Mr. Horsfall enters into a careful estimate of the cost of the famine in life and money, and a careful report on the medical aspects of the famine by Dr. Pemberton, the Civil Surgeon of the district, is appended to the report. As is invariably the case in India, the effects of severe scarcity and privation rapidly showed themselves in the outbreak and rapid spread of disease. Cholera and small-pox were exceptionally virulent, and the numbers suffering from ophthalmia, diarrhœa, dysentery, general debility and anæmia, malarial fevers, dropsy and rheumatism were unusually large. The following statement extracted from Mr. Horsfall's report shows the births and deaths between the 1st October 1888 and 30th September 1889 compared with similar periods in the previous eleven years, and with a similar period in 1865-66 when famine and scarcity were even more fatal than in the past year. The birth and death registration returns

are very imperfect, but they doubtless give a fairly accurate idea of the mortality due to famine :—

Years.	Births.	Deaths.						
		Cholera.	Small-pox.	Fevers.	Bowel-complaint.	Other causes.	Total. Deaths from all causes other than cholera.	Total. Deaths from all causes including cholera.
1st October 1877 to 30th September 1878 ..	18,045	10,398	740	15,141	584	4,118	20,583	30,981
,, 1878 to ,, 1879 ..	14,569	132	1,378	11,785	403	3,022	16,588	16,720
,, 1879 to ,, 1880 ..	26,819	273	3,275	11,588	317	3,426	18,606	18,879
,, 1880 to ,, 1881 ..	28,745	393	3,211	14,851	356	3,828	22,346	22,639
,, 1881 to ,, 1882 ..	29,658	1,314	3,299	13,985	431	4,195	21,910	23,224
,, 1882 to ,, 1883 ..	27,164	251	910	12,781	358	4,013	18,062	18,313
,, 1883 to ,, 1884 ..	28,263	85	400	12,358	456	3,873	17,087	17,172
,, 1884 to ,, 1885 ..	28,365	4,231	538	12,435	647	4,201	17,821	22,052
,, 1885 to ,, 1886 ..	23,099	427	823	10,757	541	3,870	15,991	16,418
,, 1886 to ,, 1887 ..	19,838	178	710	14,995	404	3,455	19,564	19,742
,, 1887 to ,, 1888 ..	20,027	562	2,322	13,816	434	2,752	19,324	19,886
,, 1888 to ,, 1889 ..	18,581	14,041	4,680	14,181	527	5,034	24,422	38,463
,, 1865 to ,, 1866 ..	..	25,854	4,330	..	..	26,078	30,408	56,262

The deaths from cholera numbered 14,041 as compared with 389, the average of the previous three years, and 4,231, the highest figure in the previous ten years. The losses from cholera in the famines of 1865-66 and 1877-78 were 25,854 and 10,398, respectively. The total deaths during the period 1st October 1888 and 30th September 1889 were 38,463 as compared with 19,586 in the same period of the previous year, and 23,224 the highest figure in the previous ten years. The total deaths in similar periods in 1865-66 and 1877-78 were 56,262 and 30,981, respectively. It is noticeable, as Mr. Horsfall points out, that cholera was most prevalent in years of scarcity, and it must be admitted, he adds, that numbers credited to cholera are really due to famine.

Returns have been compiled by Mr. Horsfall to show the mortality among those fed in kitchens and among those to whom relief was given by grain or money doles. It is difficult to draw any accurate conclusions from them as to the actual death-rate among those under the different forms of relief, but they leave no doubt that the death-rate was very high, and that the bulk of the recipients of relief were the sick and needy, and that without relief the mortality must have been largely increased. The returns are appended. They were in many cases checked by inquiry in the village with the result that the actual mortality shown was found to be understated ; in some cases very largely so.

Number of kitchens.	Number died.						Death-rate per mille per annum.	Number remaining on register at date of closing kitchen.	Number that left kitchen of their own accord.			Total number as per kitchen register.	Maximum number that attended one time.	Number discharged having gained strength.	Number sent to work.
	Below 7 years.	7 to 18 years.	18 to 50 years.	50 to 70 years.	Above 70 years.	Total.			Whose whereabouts are known.	Whose whereabouts are unknown.	Total.				
1	6	7	8	9	10	11	12	13	14	15	16	2	3	4	5
Open for four months and less than five months ..	29	16	47	21	19	132	44	1,100	631	2,562	3,193	7,907	3,823	2,195	1,193
Open for three months and less than four months ..	23	8	27	15	7	80	69	1,017	659	455	1,114	3,960	2,629	1,018	871
Open for two months and less than three months ..	23	17	24	41	9	114	58	2,778	872	1,383	2,255	9,516	5,564	3,504	810
Open for one month and less than two months ..	16	13	21	15	24	89	79	3,189	705	789	1,494	9,005	5,639	3,508	449
Under one month	..	..	..	..	1	1	16	788	358	182	540	1,489	1,069	140	20
Total ..	91	54	119	92	60	416	..	8,872	3,225	5,371	8,596	31,877	18,724	10,365	3,343

Number of circles.	Population.	Date of commencing relief.	Date of closing.	Total period.	Maximum number relieved at one time.	Average number for the whole period.	Number of deaths among those relieved.	Number of desertions.	Percentage of deaths. With reference to maximum number.	Percentage of deaths. With reference to average number.	Death rate per mille per annum.
1	2	3	4	5	6	7	8	9	10	11	12
Senior Assistant Collector's Division.				DAYS.							
12 ..	..	..	..	70	..	17,733	571	..	..	3·22	168
6 ..	286,405	14th July 1889	21st September 1889								
		21st ,,	28th ,,	56	..	2,272	91	..	..	4·01	261
3 ..	53,733	28th ,,	21st ,,	63	..	3,824	66	..	..	1·73	100
3 ..	32,743	21st ,,	14th ,,	112	..	3,078	76	..	..	2·47	80
		28th ,,	28th ,,	98	..	1,084	19	..	..	1·75	65
2 ..	42,861	7th ,,	26th October	91	..	1,109	63	..	..	5·68	228
1 ..	13,538	14th ,,	19th ,,	77	..	980	58	..	..	5·91	281
1 ..	11,742	14th ,,	12th ,,								
1 ..	8,717	21st ,,	5th ,,								
Special Assistant Agent's Division.				WEEKS.							
6 ..	79,797	23rd June 1889	19th October 1889	17	13,289	7,145	512	262	3·85	7·17	219
6 ..	73,973	23rd ,,	12th ,,								
		30th ,,	19th ,,	16	9,634	7,527	551	261	5·72	7·32	238
3 ..	19,466	29th ,,	19th ,,								
		6th July	19th ,,	15	2,676	1,870	210	62	5·71	11·23	389
		29th June	12th ,,								
1 ..	8,726	23rd ,,	5th ,,	12	1,369	715	61	32	4·46	8·53	370
2 ..	11,505	28th July	19th ,,	7	1,094	820	25	16	2·29	3·05	226
		17th August	5th ,,								

14 In paragraph 115 of his report Mr. Horsfall notes down some of the lessons which, in his opinion, have been taught by the experiences of the past year; they are—

(1) That a grave error was made in taking ragi instead of rice as the staple food of the district.
(2) The inadvisability of a rigid adherence to any fixed scarcity rate.
(3) The advisability, when it is found necessary, to commence works for the laboring classes, whether Professional Agency or Civil Agency works, of insisting upon a system of daily payments.
(4) The abolition of money doles.
(5) An increase in the scale of wages allowed for third class laborers.
(6) Increased European supervision for Famine officers.
(7) Authority over zemindari karnams.

15. The several points noticed above will be referred to in dealing with the different questions raised by the Government of India in the resolution read at the head of these Proceedings. The first point raised by the Government of India is the omission in certain Codes to provide any rules under which it is made the normal duty of subordinate officials to submit periodical reports regarding "the condition of the crops and the state of the people," the initial responsibility of keeping himself informed of the agricultural condition of his district being in such Codes imposed upon the Collector. The consequence of this omission, in the opinion of the Government of India, has been that in some of the tracts which during the last few years have suffered from the failure of the crops, the responsible authorities have not become aware of the gravity of the position in time to make all those detailed preparations with which the coming scarcity should be met.

16. In the Madras Code no special responsibility for reporting on the agricultural condition and the health of the people is laid on any officer other than the Collector and his Divisional officers regarding whom the Code (section 33) lays it down as an essential part of their duties that they shall "carefully scrutinize the registers of rainfall and price lists and watch the fluctuations in the latter." Though, however, the Madras Code is silent on the point, it is, as a matter of fact, the duty of the karnam (accountant) of every ryotwari village to submit to the Tahsildar of the taluk a monthly statement showing the extent cultivated in his village, the description of crops, their condition and the outturn of the crops harvested. This statement is compiled in the Taluk office and submitted to the Collector and to the Board of Revenue in the Department of Land Records and Agriculture. Weekly statements of rainfall and prices are also submitted to the Board in the same department through the Collectors from 319 and 269 stations, respectively, an average of 14 and 12 stations, respectively, in each district, and with his weekly season report, the Tahsildar of each taluk reports on the general health of the people, the general condition of the crops, the state of pasturage, &c., in his taluk. So far, therefore, as ryotwari tracts are concerned every village is a "local area" from which the Collector receives in all seasons reports of the condition of the crops and of the health of the people. In tracts other than ryotwari no village reports are received, as in these tracts the karnams (accountants) are not under the control of Collectors. As, however, several of the rain-reporting and the price-reporting stations referred to above are situated in the zemindari tracts, the state of the crops in zemindaris may be very fairly gauged from a consideration of the rainfall and the prices at these stations and of the state of the crops in Government taluks adjoining such zemindaris.

The Board does not think it necessary that the Code should detail the rules under which information as to area of cultivation, rainfall, prices, &c., is furnished by village and taluk officers to the Collector, though it is, perhaps, desirable that section 33 of the Madras Code should be so far modified as to set forth the different sources from which the District officer is supplied with sufficient information to enable him to gauge the probabilities of approaching scarcity. The Collector of Ganjam was never in doubt and never left the Government in doubt as to the fact that the crops had largely failed over a large area. The actual effect of the failure of crops was the only question, regarding the determination of which doubts existed.

17. Another point referred to by the Government of India is the want of sufficient provision in certain Codes for testing the approach of scarcity by prices. While recognizing that inspection alone can furnish the District officer with information of a reliable character regarding the prevalence of distress, it cannot, it observes, "ignore the importance of keeping a systematic watch upon prices as a rough but useful indication of the condition of food-stocks. Some rule requiring the District officer to submit at all times an explanation of any material rise of prices with a brief report as to its effect on the people should find a place in every Code."

The Board entirely concurs in the above views. The Madras Code, as has been already stated, paragraph 16 above, makes it an essential part of the duties of Collectors and their Divisional officers carefully to scrutinize the registers of rainfall and the price lists and to watch the fluctuations in the latter. And the Code prescribes that "as a rule for future guidance it is to be understood that a rise of 40 per cent. above the normal in the price of second-sort rice and of 50 per cent. in that of dry grains is a sure indication of the existence of severe scarcity."

For the purposes of this section of the Code the Presidency was divided into groups, and scarcity rates calculated on the principles described above were fixed for each group. Orders were at the same time issued that when in any district the price of second-sort rice or of any of its staple dry grains reached the scarcity rate as above determined, the officer reporting prices should draw attention to the fact in his season report or telegram. The Board considers that it would be advisable to embody in the Code a provision requiring Collectors to submit an explanation in all cases where the prices of any of the staple food-grains show a rise of more than 25 per cent. over the normal rates.

18. The Board sees no reason to question the correctness of the principle of taking a certain rise of price above normal rates as an index of scarcity, but it considers that where records of the rainfall and state of the crops are available, a consideration of these should be coupled with the consideration of the rise in prices. A local rise in price to scarcity rates may be due to large exports to other districts, and may or may not mean distress; but a rise in price to the rates selected as scarcity rates due to a failure in the local harvest is a sure harbinger of severe distress.

19. The effect of a rise in the price of a particular grain depends upon the extent to which it is locally consumed, and upon the extent to which it is locally cultivated, and it is of extreme importance that the effect of the rise in price of a particular grain should be correctly estimated.

Mr. Horsfall's opinion that a very grave error was made in taking ragi as the staple crop of the district instead of rice has been already referred to. The average area cultivated in the three Government taluks of Ganjam during the five years ending 1887-88 was 488,171 acres, and of this proportion the area under rice was 58·9 per cent. Taking into consideration, however, the total average extent cultivated with cereals and pulses only (431,130 acres), the average area under rice was 66·7 per cent. and that under ragi, the next most important grain, 19·4 per cent., pulses occupying 11·6 per cent. Rice is therefore by far the most widely grown crop in the district, and when it is further remembered, as pointed out by the Collector (paragraph 38 of his famine report), that the yield of an acre of rice land is 1,000 lb.* of husked rice, while the yield of an acre of ragi is only 500 lb., equivalent to 400 lb. of ragi flour, in which form alone it is consumed, the overwhelming importance of the rice crop will be admitted. The actual produce of the district in rice as compared with ragi is as 8 to 1. A large proportion of the rice is doubtless exported, but the outturn of ragi on the area cultivated—acres 83,763—at 500 lb. per acre is only 41,881,500 lb., or if reduced to flour only 33,505,200 lb., equivalent to the food for 1 year, at 1 lb. per day, of only 91,795 persons out of a total population in the area on which the cultivation returns are taken of 550,413.

20. The Board considers that second-sort rice should have been taken as the staple grain in Ganjam, and that the rise in price of rice to a rate 40 per cent. above

* The Collector takes 1,500 lb. of paddy, which is the accepted average yield per acre in Ganjam, as equal to only 750 lb. of husked rice. This, however, is incorrect. The proportion of rice in a pound of unhusked paddy is two-thirds.

normal prices, due solely to a failure in the harvest, should have been accepted as demonstrating the existence of severe scarcity calling for State measures of relief.

The danger of a too rigid adherence to any fixed scarcity rate has been pointed out by Mr. Horsfall. The remedy lies, the Board considers, in fixing the scarcity rate at a reasonable height—the scarcity rates fixed for the different districts are now being carefully revised—coupled with the early opening when the scarcity rate is reached of public works where all laborers and not merely the robust and able-bodied may find employment, the rates of wages being paid as often as may be necessary and being so fixed as to deter all but the really needy from resorting to them. The Board believes that many who sought employment in the early months of the past year on the Professional Agency works in Ganjam were rejected as not being able-bodied, and that had Civil Agency works been opened in time much suffering would have been relieved and obviated at the same time that the existence of widespread distress would have been early established. The number employed on the works carried on by Professional Agency on which none but the able-bodied were received was, as the results showed, a very unsafe guide as to the numbers of the distressed in the district.

21. A third point on which, in the opinion of the Government of India, the Famine Codes require amplification is that which concerns the application of the Forest policy or the Forest law in each province. The Government of India is of opinion that forests should be opened for cattle on the occasion of drought, and that wherever forest produce is utilizable as human food, forests should be open to any one seeking such food, and it desires the inclusion in the Code of explicit rules on the subject. The Board is entirely in agreement with the Government of India in this matter. The necessary modification to section 98 of the Madras Code is proposed below (paragraph 55).

22. The proper maintenance of a scheme of famine works is noticed by the Government of India as a matter on which further precision is required. Past experience, it is pointed out, will probably enable Local Governments and Administrations to submit useful suggestions on this subject and to indicate in what direction the programme of large public works can be supplemented by minor works under Civil Agency.

The Madras Code provides—sections 27 and 28—that the Public Works Department shall constantly maintain in their several budgets a number of Professional Agency works for each district the execution of which in ordinary times would occupy at least four years; and similarly that for the different kinds of Civil Agency works sanctioned projects should be prepared and maintained by Collectors in communication with the Executive Engineer in charge of the District, and the Presidents of the Local Fund and Municipal Boards concerned, special attention being paid to works calculated to improve the agricultural outturn of the ensuing season. Local Fund and Municipal projects it is prescribed should be prepared by the Presidents of the Local Fund Boards and Municipalities concerned, on the same lines as those laid down in regard to Professional Agency works, a budget covering the operations of four or more years in advance being maintained in all cases. They will carefully consider the financial position of the Circle Boards and Municipalities concerned, in view to selecting only such works as can be maintained when completed. For much of the work falling into this class, such as raising tank bunds, clearing channels, metalling and gravelling roads, and other similar works, the formalities in regard to the framing of detailed estimates may be more safely relaxed than in the case of Professional Agency works.

Lists of all works suitable for famine relief in each district of this Presidency, except Malabar and South Canara, where famine is unknown, have recently been prepared under the orders of the Government of India conveyed in their circular, dated 11th October 1887, No. 65-F—11-2. These will be corrected annually and kept up to date.

The want always experienced where a sudden necessity arises for employing large numbers of unskilled laborers is that of supervision, and as a consequence of the limited number of supervising officers available it is always found imperatively necessary to concentrate the labor on a few large works. These works are generally roads or canals, such works, that is to say, as while giving employment to large

numbers do not involve the crowding of masses in a small area—a course which in times of famine is almost invariably accompanied by the outbreak of cholera. The improvements of village-sites and roads, the repair and deepening of drinking-water tanks and wells and of minor irrigation works are very desirable modes of giving employment, inasmuch as they enable the distressed to remain near their houses. It is, however, impossible as a rule to employ large numbers on such works owing to the difficulty of obtaining the large supervising staff which the scattered nature of the works renders necessary.

23. *The best form of gratuitous relief.*—In connection with the administration of gratuitous relief in times of scarcity, the Government of India wishes to be informed what, in the light of recent experience, are considered to be the relative advantages of a money-dole, a grain-dole and the distribution of cooked food. In his report on the famine in Ganjam, the Collector is emphatic in recommending the abolition of money-doles as a form of relief. The objections to this form of relief, he urges (paragraph 76), are very great:—"It is demoralising. Many who would refuse to take cooked food and even hesitate as to raw grain-doles unhesitatingly clamour for money. Circle Inspectors are not above temptation, much less village officers. There is no guarantee that the money paid by Government does actually reach the supposed recipients, and even if it does, it is not always expended upon wholesome diet. Money-doles also tended to keep people back from self-exertion."

He quotes the opinion of the Collector of Nellore in 1876, who protested against the system of money-doles on account of the untrustworthiness of the Village officers and Relief Inspectors and the want of control over the former class in zemindari villages, and who urged, as the chief objection to the scheme, the improbability of its preventing starvation, because much of the dole would be spent on arrack or toddy or other luxuries, and because parents would starve their children to save themselves from suffering; and he adds that the experience gained during the year "confirms the correctness of these views."

24. As between a grain-dole and the distribution of cooked food, the Collector (paragraph 77) has no hesitation in declaring that the most efficacious and cheapest form of gratuitous relief is by cooked food. The recipients are subject to better check; the food given is sufficient and wholesome, and the physical improvement in the appearance of people fed at a kitchen for a month was manifest to the most casual observer. He points out, however, the extreme difficulty that was experienced in getting the Uriya portion of the population to come to the kitchens. "Not caste-people alone," he states, "but all classes objected to this form of relief, and the attendance at our kitchens was never satisfactory. Persuasion was tried, but in vain. Caste kitchens with caste Brahmins as cooks and totally separate sheds and enclosures failed to attract, and finally compulsion was had recourse to and the lowest classes brought in *vi et armis*, yet with what little success may be gathered from the fact that whereas when distress was at its highest over 80,000 were receiving money-doles and raw grain, only 10,000 were being fed in the kitchens."

25. The Board is not disposed to under-estimate the difficulty experienced by the Collector in getting caste-people to visit the kitchens, but it has no doubt that this difficulty was much increased by the facility with which relief by money-doles was obtainable.

It will always, however, be necessary in every famine to give relief in their own villages to those who are unable to leave their homes, and in these cases relief cannot, save in exceptional cases, take the form of cooked food, and must generally be given by means of either a money-dole or a grain-dole. Mr. Horsfall's reasons for condemning money-doles have been given above. The system of grain-doles was adopted to a very limited extent during the last famine in Ganjam, the expenditure on relief by grain-doles being only Rs. 2,880 as compared with Rs. 2,64,866, the expenditure on money-doles, and Rs. 61,418 expended for purchase of food to be issued in the kitchens. It was, moreover, not distributed in the villages generally in the same manner as the money-doles, its distribution being limited to a few of the principal kitchens where reliable supervision could be exercised and where it was issued to caste-people who were permitted to carry it away to their homes and cook it there. The opinions of

Divisional officers were not unanimous in regard to the advantages of the system as above described, but the opinions were given generally, not as between a money-dole and a grain-dole, but between a money-dole disbursed in all villages where gratuitous relief was administered and a grain-dole disbursed in certain central villages at which all the poor of the neighbouring villages who were able to walk were required to attend. Mr. Foster's opinion was that the system was troublesome; that Circle Inspectors were not thereby relieved from the necessity of visiting and examining the villages from which the recipients of the grain-dole had been brought; that it involved a complicated system of accounts; and that there was a tendency to retain on grain-dole relief persons whose circumstances, had they been examined in their own villages, would have shown that relief might safely have been discontinued. Mr. Horne, on the other hand, considers that there was a greater check over the grant of grain than of money-doles, inasmuch as the recipient of the grain-dole after being selected from his village by the Circle Inspector had to pass a further examination weekly before the officer authorized to distribute the raw grain.

Mr. Wedderburn was strongly in favor of grain-doles mainly on the ground that when money is given, it is so often spent otherwise than on food. He and Mr. Carr also were of opinion that there was less chance of fraud on the part of the distributing officers if the payment was made in grain than if made in money. Mr. Horsfall gives it as his opinion that the system wherever tried was eminently successful, and he sees no reason why in a future famine money-doles should not be entirely abolished and gratuitous relief confined to distribution of raw grain to caste-people and people unable from old age or sickness to leave their homes, and of cooked food to non-caste people. Raw grain, he considers, can be distributed at kitchens or at any large village where a grain-dealer flourishes, and he thinks that recipients of grain-doles might be required to walk five miles to a central village to receive their doles.

26. The provisions of the Madras Famine Code in regard to the administration of gratuitous relief are based on the assumption that the most suitable form of gratuitous relief is relief in the shape of a grain or money dole offered to the distressed in their own homes. The decision as to whether the relief shall be in money or in kind is left to the Collector, who, however, is required to give the relief in money in all cases where grain is procurable in the village. Gratuitous relief in poor-houses is a secondary form of gratuitous relief allowed by the Code and takes the form of the issue of cooked food. It is a form of relief intended, the Code prescribes, for destitute wanderers who have no homes or who have cut themselves adrift from their homes, and who are unfit for employment on works, and section 190 of the Code directs that the ordinary diet in relief houses shall be such as not to attract persons on village relief from their homes.

27. Where circumstances require that the system of gratuitous relief in villages shall be introduced, the Board does not see any object and sees much hardship in the proposal to restrict the grant of this kind of relief to caste-people and people unable from age or sickness to leave their homes, and to require all others unfit to work to accept cooked food. The Board sees no objection to require that willingness to accept cooked food shall be used as a test to distinguish the really needy in cases where the acceptance of cooked food would not be contrary to real caste scruples, but where need is undoubted, the Board considers that relief may well be given in the form most congenial to the recipient, where, as in the case under consideration, no extra cost to the State would be involved.

28. The requirement of the Madras Code, Section 64, that gratuitous village relief shall be given in money (and not in grain) so long as grain is procurable in the villages concerned should, the Board considers, be cancelled, and it should be laid down as a general rule that relief should ordinarily be given in the shape of grain-doles in each village or group of villages, money-doles being restricted to very exceptional cases under the orders of the Collector for reasons personal to those cases.

29. Mr. Horsfall in paragraph 43 of his report lays much stress on what he considers the inadequacy of the wages allowed in the Famine Code for laborers of the third class, *i.e.*, those who are not able to perform more than from 50 to 75 per cent. of

the work performed by an ordinary public works laborer, and incidentally draws attention to a serious error committed in the early stages of the grant of relief in taking the weight of ragi to be equivalent to that of rice, and in making no allowance for the fact that when converted into flour, ragi loses by separation of husk, &c., one-fifth of its weight. The provisions of the Code which prescribe the different rates of wages should be so modified as to prevent, it is hoped, in future any mistakes of this nature, but as regards the sufficiency or otherwise of the wage given in the margin for laborers of the class referred to who are required to perform a very limited task, the Board is unable to agree with Mr. Horsfall and thinks that the wage is sufficient. Mr Horsfall's remark that at a time when food-grains were nearly doubled in price a laborer who ordinarily gets 2 annas a day and in harvest time much more, was receiving only one anna four pies, is beside the question. The wage is intended to be only sufficient to keep the laborer in health, and if it satisfies that requirement, all considerations of economy preclude its increase.

Men including boys above 12 years and nursing mothers.	Value of 1¼lb., or 48 tolas of grain,	+ ¾ anna.
Women including girls above 12 years.	,, of 1⅛lb., or 43·2 ,, of ,,	+ ½ ,,
Working children below 12 years.	,, of ⅝lb., or 24 ,, of ,,	+ ⅜ ,,

30. A fact demonstrated by the famine was the adequacy of the private trade of the district to supply all its wants. Mr. Horsfall's proposal repeatedly urged that Government should import and keep in reserve a stock of grain was based on the fear that there would be a failure of supplies in the neighbouring district of Orissa and that Ganjam would be left, as in the famine of 1866, to rely for its food-supply on arrivals by sea at a time when the north-east monsoon might render the landing of supplies on the coast impossible. The determination of Government to interfere in no way with private trade was in accordance with the teachings of the last famine and with the rules in the Famine Code. It was arrived at, at an early stage of the famine, and the activity of the trade in importing supplies left no room for questioning the propriety of the resolution of Government. The imports of grain between October 1888 and October 1889 are estimated by the Collector (paragraph 36 of his report) at 40,000 tons, of which a little less than one-fourth came by sea. There was luckily no failure of supplies in Orissa and no necessity for the district at any time to rely solely on imports by sea. The monsoons, moreover, on no occasion cut off supplies from the sea. It is unnecessary and unprofitable to discuss at this date what might have happened had the supplies from Orissa failed and the district been cut off by long continued stormy weather from its supplies by sea. A railway will shortly connect the district with the rich deltas of the Godávari and the Kistna, which will render it in future independent of such supplies.

31. The only other points dealt with by Mr. Horsfall, which have not been referred to, are (1) the necessity for increased European supervision in famine relief and (2) the necessity for giving to the District officers authority over zemindari karnams. Regarding the necessity for a large and thoroughly trustworthy supervising staff when relief is being administered on a large scale there is no question. It is necessary both to prevent fraud and to ensure that relief reaches all who are in need of it. The most efficient supervision must of course be supplied from the ranks of the Civil Service, but with its present reduced numbers, it would, the Board submits, be utterly unequal to meet the strain of a famine in this Presidency. At the present moment, several officers are unable to avail themselves of the privilege leave which they have earned because there are none to take their places during their absence. One officer who was refused privilege leave was recently compelled to apply for long furlough on medical certificate, which he would probably not have taken if he could have obtained the privilege leave when he needed. When this is the normal condition of things in ordinary seasons, it will be impossible, the Board considers, that a sufficient number of covenanted officers will be readily available for supervision in the event of a serious famine occurring again simultaneously in several districts of the Presidency. Officers from other Provinces can, as a rule, be but of limited use as was found during the famine of 1876–78. They are necessarily ignorant of the languages of the districts to which they may be posted and cannot be expected to keep touch with the people. It is therefore absolutely necessary that the Civil Service of the Presidency should always be

maintained at its full strength. Codes and rules, however perfect in themselves, must be useless unless there are proper officers to work them when the occasion arises. As regards the second point, a Bill is now under consideration of the Government for securing the efficiency of zemindari karnams and for rendering them liable to dismissal by the District or Divisional officer for neglect of duty. The Board has no doubt that the passing of the Bill will give Collectors all the control that is necessary over these officers. The absence of such a control was the cause of the gravest inconvenience during the late famine in Ganjam where 35·6 per cent. of the area of the district (excluding the maliahs) is zemindari. The Bill referred to above has been under discussion for the past 10 years, and the Board earnestly hopes that it may be passed into law at an early date.

32. In paragraph 8 of the Resolution of the Government of India read at the head of these Proceedings, the Government of India desires that the Code shall define precisely—

(1) The functions actually assigned to the Department of Settlement, Land Records and Agriculture in connection with the system under which current and continuous information is provided, whether to District officers or to the Government as to the agricultural condition of the different districts and sub-divisions, especially under the heads of prices, rainfall, state of the crops and agricultural stock, imminence or prevalence of scarcity.

(2) The responsibility of the department for the special inspection of, or report on, the prospects in any seriously-menaced tract and for preparing a minute but compendious analysis of precarious tracts.

(3) The duties of village officers and their supervisors and other subordinate officials so far as they may be connected with reports on the agricultural condition of their villages and circles, or with their responsibilities on the occurrence of scarcity and famine.

33. The system under which current and continuous information is provided to District officers and to the Government, through the Department of Settlement, Land Records and Agriculture, in regard to the agricultural conditions of the different districts and sub-divisions under the head of area cultivated, rainfall, prices, state of the crops, sufficiency or otherwise of pasture, &c, has been already described above, paragraph 16. The Director of the Department of Land Records and Agriculture is responsible for the compilation and submission to Government of the returns of prices, rainfall, area cultivated, state of the crops and pasturage, &c., and his duties in this connection, together with the responsibility of the department for the special inspection of, or report on, the prospects in any seriously-menaced tract, and for preparing a minute but compendious analysis of precarious tracts have been duly prescribed in the Code – *vide* the section which it is proposed should take the place of the present section 33 and sections 34 and 35 as revised. The analysis of precarious tracts above alluded to is now under preparation.

34. The duties of village officers in regard to reports on the agricultural condition of their villages may be gathered from what is stated above and from section 33 of the Code. Their responsibilities on the occurrence of scarcity and famine are laid down in sections 49, 56, 62, 67, 69 of the Code, where their duties in connection with the supervision of petty civil agency works in the neighbourhood of their villages and with the administration of gratuitous village relief are fully described.

35. The following clauses show in one view the alterations which the Board proposes in the Famine Code sanctioned for this Presidency :—

Introductory.—In the first paragraph, first line, omit the words "of a succession."

In line 3 for the words "does not" substitute the words "will not of necessity."

In line 7 for the words "three or four" substitute the words "two or more."

Section 8.—In line 10, after the word "support" insert the following: "If no special officer is appointed, the Board's Member or Director in charge of Land Records and Agriculture will be responsible for the direction of all branches of famine relief subject to the orders of Government."

36

Section 33.—For this section read—Monthly reports on the extent of cultivation and the condition and outturn of the crops are submitted by the village accountant of every ryotwar village to the Tahsildar, through the Revenue Inspector of the circle or range, who is responsible for testing their accuracy by frequent personal inspection. An abstract of these returns is submitted to the Collector and by him to the Board of Revenue in the Department of Settlement, Land Records and Agriculture. Prices and rainfall are registered at a large number of select stations in each district where there is a Tahsildar, Deputy Tahsildar, or some responsible Government official, and are reported both weekly and monthly to the Collector and by him to the Board. These reports afford all the information that is required to enable the Collector, the Board and Government to gauge the condition of every portion of a district, and to say when any failure of crops and consequent scarcity may be apprehended. It is at all times an essential part of the duty of Collectors and their Divisional officers carefully to scrutinize the returns of cultivation, rainfall and prices, and to bring promptly to the notice of the Board, in the Department of Land Records and Agriculture, whenever there is any general failure of crops or abnormal rise in prices. Any increase of over 25 per cent. above normal prices and any serious deficiency of rainfall or cultivation should be at once reported to the Board. As a rule it is to be understood that a rise to the scarcity rate in the staple crop or crops of the district, as determined by Government, is a sure indication of the existence of severe scarcity calling for the immediate introduction of relief measures.

Section 34.—In line 2, after "report," omit the words "to Government his anticipations" and insert the words "his anticipations to Government through the Board in the Department of Land Records and Agriculture."

Section 35, line 1, after "scarcity is" insert "becoming severe and."

Line 2, after "Government" insert "through the Board in the Department of Land Records and Agriculture."

Line 12, after, &c., insert "pending sanction to these relief works he will take care that no sanctioned expenditure in any department which will give employment to laborers remains unutilized, the wages, if necessary, being reduced to such an extent as will exclude all but the most needy."

Same line.—For "the former" read "the funds required."

Section 38, line 4, after "change of system," add "provided, however, that wages are paid at sufficiently frequent intervals, and that no persons seeking employment and capable of work are excluded."

Section 56.—Omit the last six lines and add the following: "These registers will be prepared by the village officers, in the first instance, and be checked by the Revenue Inspectors."

In the form of register given in the margin of the section, insert the following columns before the column of remarks:—

(1) Ordinary means of living.
(2) Relations, if any.

Section 64.—For this section, read: "As a general rule gratuitous relief should ordinarily be given in the shape of grain-doles in each village or groups of villages, money-doles being restricted to very exceptional cases under the orders of the Collector for reasons personal to those cases."

Section 67.—For this section, insert the following section 97 of the Bombay Code:—

The dole prescribed in section 188 will be weighed out by the grain-dealer daily or not less than twice a week and given to each person on the register in the presence of the village headman or karnam (accountant), and at least two respectable villagers. If any person cannot attend by reason of illness, the headman, or, in his absence, the accountant, should receive and deliver the dole to that person.

In each village the Tahsildar will nominate a committee of five respectable villagers, whose duty it will be to prevent fraud in the distribution of the doles, and to see that the intentions of Government are rightly carried out.

The grain-dealer or other person authorized for the purpose by the Taluk Relief officer may receive an advance (for which a receipt will be taken) sufficient to enable him to purchase the food required for three or four weeks' consumption. He should keep an account showing the weekly distribution of food to each village.

Section 69.—For section "186" read section "188."

Section 98.—For this section read "when it appears to the Collector that the pasture of the district or any portion thereof is about to fail, he should, in communication with the Conservator of Forests, open all the forest reserves excepting those especially under reforestry for free grazing, or for grazing at reduced rates, reporting the fact to the Board. The management of pasture reserves and the control of the cattle admitted to them shall be in the hands of the Forest officers. The opening of the reserves should be widely notified.

"In localities where forest produce is utilisable as human food, every facility should be afforded by the Forest officers to persons seeking such food in forest reserves."

Section 124.—For this section read "Laborers on task-work should in the beginning be paid daily, and after a time twice or thrice a week; those on piece-work should be paid on the completion of the piece, but under no circumstances should payment be made to these last seldomer than once in seven days.

In sections 185, 186, 188 and 189, give also the weight in tolas as follows:—

Sections 185 and 186	1¼ lb.	or 57·6 tolas.
	1¼ lb.	or 48·0 do.
	1⅛ lb.	or 43·2 do.
	8¼ lb.	or 28·8 do.
	½ lb.	or 24·0 do.
Sections 188 and 189	24 oz.	or 57·6 do.
	20 oz	or 48·0 do.
	4 oz.	or 9·6 do.
	3 oz.	or 7·2 do.
	2 oz.	or 4·8 do.
	1 oz.	or 2·4 do.
	12 drs.	or 1·8 do.
	8 drs.	or 1·2 do.
	7 drs.	or 1·05 do.
	4 drs.	or 0·6 do.

Section 187, line 3, after the word "payment" insert the following: "and free from husk."

At the end of page 60 insert the following further table for the calculation of money wages:—

Ragi.

When Ragi sells at ——— a rupee.							
Grain.	Flour.	Cost of 1½ lb. of flour.	Cost of 1¼ lb. of flour.	Cost of 1 lb. of flour.	Cost of ¾ lb. of flour.	Cost of ½ lb. of flour.	Cost of ¼ lb. of flour.
Seers.	lb.	A. P.	A. P.	A. P.	A. P.	A. P.	A. P.
3	5·0	4 9	4 0	3 2	2 5	1 7	0 10
3½	5·8	4 2	3 5	2 9	2 1	1 5	0 8
4	6·6	3 8	3 0	2 5	1 10	1 3	0 7
4½	7·4	3 3	2 9	2 2	1 8	1 1	0 7
5	8·2	2 11	2 5	2 0	1 6	1 0	0 6
5½	9·0	2 8	2 2	1 11	1 4	0 11	0 5
6	9·9	2 5	2 0	1 9	1 3	0 10	0 5
6½	10·7	2 3	1 11	1 7	1 2	0 9	0 5
7	11·5	2 2	1 9	1 6	1 1	0 8	0 4
7½	12·3	2 0	1 8	1 5	1 0	0 8	0 4
8	13·2	1 11	1 7	1 4	0 11	0 7	0 4
8½	14·0	1 9	1 6	1 3	0 10	0 7	0 4
9	14·8	1 8	1 4	1 2	0 9	0 6	0 3
9½	15·6	1 6	1 3	1 1	0 8	0 6	0 3
10	16·4	1 5	1 2	1 0	0 8	0 5	0 3
10½	17·3	1 3	1 1	0 11	0 7	0 5	0 3
11	18·1	1 3	1 1	0 10	0 7	0 5	0 3
11½	18·9	1 2	0 11	0 10	0 6	0 4	0 2
12	19·7	1 2	0 11	0 9	0 6	0 4	0 2
12½	20·6	1 2	0 11	0 9	0 6	0 4	0 2
13	21·4	1 2	0 11	0 9	0 6	0 4	0 2
13½	22·2	1 2	0 11	0 9	0 6	0 4	0 2

Ragi—cont.

When Ragi sells at — a rupee.		Cost of 1½ lb. of flour.	Cost of 1¼ lb. of flour.	Cost of 1 lb. of flour.	Cost of ¾ lb. of flour.	Cost of ½ lb. of flour.	Cost of ¼ lb. of flour.
Grain.	Flour.						
Seers.	lb.	A. P.	A. P.	A. P.	A. P.	A. P.	A. P.
14	23·0	1 0	0 10	0 8	0 6	0 4	0 2
14½	23·9	1 0	0 10	0 8	0 6	0 4	0 2
15	24·7	1 0	0 10	0 8	0 6	0 4	0 2
15½	25·6	1 0	0 10	0 8	0 6	0 4	0 2
16	26·3	1 0	0 10	0 8	0 6	0 4	0 2
16½	27·2	0 11	0 9	0 7	0 6	0 4	0 2
17	28·0	0 11	0 9	0 7	0 6	0 4	0 2
17½	28·9	0 11	0 9	0 7	0 6	0 4	0 2
18	29·6	0 11	0 9	0 7	0 6	0 4	0 2
18½	30·5	0 9	0 8	0 6	0 5	0 4	0 2
19	31·3	0 9	0 8	0 6	0 5	0 3	0 2
19½	32·1	0 9	0 8	0 6	0 5	0 3	0 2
20	32·9	0 9	0 8	0 6	0 5	0 3	0 2
20½	33·8	0 9	0 8	0 6	0 5	0 3	0 2
21	34·6	0 9	0 8	0 6	0 5	0 3	0 2
21½	35·4	0 9	0 8	0 6	0 5	0 3	0 2
22	36·2	0 8	0 6	0 5	0 4	0 3	0 2
22½	37·1	0 8	0 6	0 5	0 4	0 3	0 2
23	37·9	0 8	0 6	0 5	0 4	0 3	0 2
23½	38·7	0 8	0 6	0 5	0 4	0 3	0 2
24	39·5	0 8	0 6	0 5	0 4	0 3	0 2
24½	40·3	0 8	0 6	0 5	0 4	0 3	0 2
25	41·2	0 8	0 6	0 5	0 4	0 3	0 2
25½	42·0	0 8	0 6	0 5	0 4	0 3	0 2
26	42·8	0 8	0 6	0 5	0 4	0 3	0 2
26½	43·7	0 8	0 6	0 5	0 4	0 3	0 2
27	44·5	0 8	0 6	0 5	0 4	0 3	0 2
27½	45·3	0 8	0 6	0 5	0 4	0 3	0 2
28	46·1	0 8	0 6	0 5	0 4	0 3	0 2
28½	46·9	0 8	0 6	0 5	0 4	0 3	0 2
29	47·8	0 8	0 6	0 5	0 4	0 3	0 2
29½	48·6	0 8	0 6	0 5	0 4	0 3	0 2
30	49·4	0 8	0 6	0 5	0 4	0 3	0 2

(True Copies and Extract.)

(Signed) P. RAJARATNA MUDALIAR,
Secretary.

To the Secretary to Government, Revenue Department.
" Collector of Ganjam.
Copy to all other Collectors.

APPENDIX.

STATEMENT showing the number of persons who received relief in Ganjam during the famine of 1888-89.

Period.	Professional Agency works.				Civil agency works.	Number receiving money or raw-grain doles.	Number fed in kitchens.	Remarks.
	Rushikulya works.	Gopálpur canal.	Other works.	Total.				
1	2	3	4	5	6	7	8	9
Week ending—								
10th November 1888	..	..	..	..	..	4	..	November.
17th " "	..	..	..	..	..	156	..	
24th " "	..	..	..	..	..	1,588	..	
1st December 1888	..	..	..	..	..	1,865	..	December.
8th " "	..	..	..	..	..	1,781	..	
15th " "	..	..	..	..	..	1,539	..	
22nd " "	..	..	..	..	..	1,919	..	
29th " "	..	..	..	16,642	..	1,730	..	
5th January 1889	21,316	..	..	21,316	..	1,578	..	January.
12th " "	24,484	..	..	24,484	..	1,167	..	
19th " "	28,383	..	..	28,383	..	1,069	..	
26th " "	30,853	2,900	..	33,753	..	318	..	
2nd February 1889	33,572	..	..	33,572	..	233	..	February.
9th " "	4,957	..	..	4,957	..	305	..	
16th " "	35,365	..	..	35,365	..	597	..	
23rd " "	5,246	..	..	5,246	..	848	..	
2nd March 1889	35,862	..	..	35,862	..	..	..	
9th " "	6,138	..	..	6,138	..	..	..	
16th " "	39,523	..	..	39,523	..	813	..	March.
23rd " "	5,691	..	..	5,691	..	..	..	
30th " "	..	..	..	..	..	778	..	
6th April 1889	5,370	..	..	5,370	..	..	..	
13th " "	37,427	..	..	37,427	..	958	..	
20th " "	5,294	..	..	5,294	291	..	..	
27th " "	42,701	..	..	42,701	..	1,757	..	
	6,623	..	..	6,623	..	..	..	
	70,316	..	..	70,316	315	1,602	..	
	11,097	..	..	11,097	..	..	..	
	83,797	..	..	83,797	338	3,060	..	April.
	12,747	..	..	12,747	..	..	..	
	56,053	..	..	56,053	408	4,054	..	
	7,056	..	..	7,056	..	..	..	
	39,731	..	..	39,731	458	4,936	..	
	5,618	..	..	5,618	..	..	..	
	46,641	..	..	46,641	482	7,376	..	
	6,991	..	..	6,991	536	..	..	

The telegrams received from the Collector of Ganjam reported figures sometimes for the whole week, sometimes for the last day of the week and sometimes for both.

Statement showing the number of persons who received relief in Ganjam during the famine of 1888-89—*cont.*

Period.		Professional Agency works.				Civil agency works.	Number receiving money or raw-grain doles.	Number fed in kitchens.	Remarks.
		Rushikulya works.	Gopálpur canal.	Other works.	Total.				
1		2	3	4	5	6	7	8	9
Week ending—									
4th May 1889	For the whole week	47,025	31,022	3,306	81,353	..	..	..	
	Last day of the week	6,791	4,352	569	11,712	641	1,588	..	
11th ,, ,, ...	For the whole week	44,415	31,655	..	76,070	..	..	..	
	Last day of the week	6,327	4,472	..	10,799	2,407	2,156	..	
18th ,, ,, ...	For the whole week	41,141	32,196	6,987	80,324	..	..	..	
	Last day of the week	5,809	4,734	1,140	11,683	7,137	2,575	..	May.
25th ,, ,, ...	For the whole week	39,249	33,649	7,231	80,129	..	..	..	
	Last day of the week	5,731	5,180	831	11,742	10,981	2,960	..	
							* 180	..	
1st June 1889	For the whole week	37,562	36,993	5,827	80,382	..	..	..	
	Last day of the week	5,408	5,394	688	11,490	6,549	3,285	..	
							* 223		
8th ,, ,, ...	For the whole week	38,441	36,607	6,287	81,335	..	..	..	
	Last day of the week	5,681	5,199	854	11,734	7,374	4,292	..	
							* 140		
15th ,, ,, ...	For the whole week	28,863	31,855	5,809	66,527	..	..	..	
	Last day of the week	3,797	2,968	2,099	8,864	9,258	8,071	..	June.
							* 777		
22nd ,, ,, ...	For the whole week	33,480	19,255	5,252	57,987	..	..	..	
	Last day of the week	4,986	2,345	621	7,952	12,768	24,880	1,967	
29th ,, ,, ...	For the whole week	30,509	14,848	5,140	50,497	..	..	..	
	Last day of the week	4,252	1,769	687	6,708	10,165	27,163	2,907	
6th July 1889	For the whole week	28,715	8,072	2,799	39,586	..	..	..	
	Last day of the week	4,118	1,334	347	5,799	9,626	30,625	5,549	
13th ,, ,, ...	For the whole week	28,134	12,291	3,069	43,494	..	..	..	
	Last day of the week	4,105	2,114	464	6,683	8,018	49,431	9,034	
20th ,, ,, ...	For the whole week	22,631	11,219	2,998	36,848	..	..	..	July.
	Last day of the week	2,883	1,473	640	4,996	6,218	69,521	11,377	
27th ,, ,, ...	For the whole week	19,499	9,350	3,129	31,978	..	..	..	
	Last day of the week	2,991	1,396	665	5,052	8,371	70,184	9,318	
3rd August 1889	For the whole week	20,715	9,725	3,087	33,527	..	..	..	
	Last day of the week	3,117	3,082	224	6,423	6,510	93,561	10,163	
10th ,, ,, ...	For the whole week	18,534	8,339	3,680	30,553	..	..	..	
	Last day of the week	2,747	1,183	569	4,499	4,449	66,285	1,1632	
17th ,, ,, ...	For the whole week	17,605	7,958	5,504	31,067	..	..	..	
	Last day of the week	2,835	1,146	2,044	6,025	8,355	54,947	10,498	August.
24th ,, ,, ...	For the whole week	23,162	8,619	7,792	39,573	..	..	..	
	Last day of the week	3,796	677	1,632	6,105	3,879	52,595	11,023	
31st ,, ,, ...	For the whole week	27,421	8,351	7,326	43,098	..	..	..	
	Last day of the week	4,174	1,330	2,187	7,691	3,075	46,032	10,402	

* From the estate funds.

Statement showing the number of persons who received relief in Ganjam during the famine of 1888-89—*cont.*

Period.		Professional Agency works.				Civil agency works.	Number receiving money or raw-grain doles.	Number fed in kitchens.	Remarks.
		Rushikulya works.	Gopálpur canal.	Other works.	Total.				
1		2	3	4	5	6	7	8	9
7th September 1889 ..	For the whole week	26,622	9,306	14,313	50,241	..	..	..	
	Last day of the week	3,699	1,373	2,317	7,389	5,109	46,983	11,187	
14th ,, ,, ..	For the whole week	27,638	10,509	15,978	54,025	..	..	..	
	Last day of the week	4,244	1,436	3,373	9,053	6,255	52,518	11,158	
21st ,, ,, ..	For the whole week	28,951	9,044	18,238	56,233	..	..	..	September.
	Last day of the week	3,604	1,999	3,341	8,044	7,689	38,222	10,628	
28th ,, ,, ..	For the whole week	23,461	6,859	19,887	50,207	..	..	..	
	Last day of the week	3,618	744	2,852	7,214	7,627	28,266	7,173	
5th October 1889 ..	For the whole week	25,680	4,344	15,016	45,040	..	..	..	
	Last day of the week	3,774	730	1,921	6,425	7,175	20,560	5,275	
12th ,, ,, ...	For the whole week	18,964	2,638	6,854	28,456	..	..	..	
	Last day of the week	2,016	472	1,032	3,520	7,789	14,540	4,735	
19th ,, ,, ...	For the whole week	23,561	4,070	7,527	35,158	..	..	..	October.
	Last day of the week	3,378	449	366	4,193	6,003	7,330	3,393	
26th ,, ,, ...	For the whole week	22,674	5,593	5,254	33,521	..	..	..	
	Last day of the week	3,158	803	888	4,849	4,736	511	2,031	
2nd November 1889 ..	For the whole week	27,088	7,140	9,145	43,373	..	..	..	
	Last day of the week	4,848	977	1,600	7,425	3,286	..	..	
9th ,, ,, ..	For the whole week	..	..	3,522	3,522	..	..	..	
	Last day of the week	5,387	1,391	529	7,307	2,108	..	..	
16th ,, ,, ..	For the whole week	..	..	..	..	..	..	..	
	Last day of the week	..	..	..	..	1,200	..	..	November.
23rd ,, ,, ..	For the whole week	..	..	..	..	..	..	..	
	Last day of the week	..	..	..	..	552	..	..	
30th ,, ,, ..	For the whole week	..	..	..	..	..	..	..	
	Last day of the week	..	..	..	..	229	..	..	

ORDER—dated 19th December 1890, No. 1026, Revenue.

Miscellaneous.

The above proceedings contain the views of the Board of Revenue on the administration of relief during the recent famine in Ganjam, together with proposals for amending the Famine Code with reference to the suggestions made by Mr. Horsfall, late Collector of the district, based on the experience gained in dealing with the problems which presented themselves and with reference to the remarks of the Government of India contained in its letter of the 28th October 1889, No. 109—198 F., and in its circular, dated 19th December 1889, No. 63—77 C., Fam.

The Board has reviewed at length the origin and progress of the famine and the various measures of relief adopted, and it is only necessary for Government to state its views on the questions of policy discussed in the papers.

2. The chief points which have to be considered are—

(*a*) To what extent the present system of record and reporting can be improved so as to ensure that the District authorities shall have the means of accurately gauging the condition of every portion of their charge and that the Government shall receive ample warning of the approach of scarcity.

(*b*) What should be the criterion of the necessity for granting relief.

(*c*) How far existing regulations are capable of improvement in respect of—

(i) The provision and prosecution of relief works.

(ii) The administration of gratuitous relief.

(iii) The supervision of relief measures.

3. In paragraph 16 of its proceedings the Board shows that, under the present system, information is received from every ryotwari village regarding the condition of the crops and health of the people and that the returns now submitted afford the means of gauging with sufficient accuracy the probabilities of approaching scarcity. As regards zemindari tracts, the sources of information are not so complete, but as soon as the Madras Proprietary Village Service Bill, now under consideration, is passed, it will be possible to enforce the same system of reporting as in ryotwari tracts. The system of village accounts in force in this Presidency is sufficient to ensure attention being attracted to any locality in which scarcity is likely to arise in ample time to admit of preparation being made to meet it.

Mr. Horsfall points out that his weekly season telegrams as early as July were such as to call attention to the unfavorable character of the season and that in August he personally informed Mr. Wilson, the Member of the Board in charge of the Settlement and Land Records Department, that he entertained grave apprehensions regarding the season which could not be otherwise than disastrous. Mr. Wilson did not communicate this information to Government and Mr. Horsfall did not report his views on the situation until the crisis had come, more than two months later. In paragraph 28 of his report he states that he had considered famine imminent for several months before the middle of October, but it was not until the 17th of that month that he sent any written report to warn the Board and Government of what was impending, and although scarcity rates had not then been reached, there were indications to those on the spot that the position was critical and the Collector ought to have given earlier intimation of his anticipations. The Government of India is mistaken in supposing that the withholding of gratuitous relief was attributable to any defect in the system of reporting. It was due to the fact that Government took a different view of the position from that held by the Collector and refused to allow relief to be given until the price of *ragi* had reached the scarcity rate. The delay in the organization of an effective system of village relief was not in any way caused by ignorance of the local authorities of the state of the district. The passage * quoted by the Government of India in paragraph 3 of its letter, dated 28th October 1889, was intended as an explanation of the continuous rise in the numbers admitted to relief and was not meant to imply that the extent of the distress was not known in a general way. Of course until lists of those entitled to receive relief were framed it was impossible to say exactly what numbers were destitute, but it was certainly known on the spot where the distress was greatest.

* "The organization of an efficient system of village relief has brought to light numerous cases of destitution which had passed unnoticed before."

Whatever view may be held on the question whether the grant of relief was deferred too long in Ganjam or not, no alteration of the Famine Code would have placed Government in a better position to come to a determination as to the necessity for relief. It had before it the views of the Honorable Mr. Garstin formed after a personal inspection of the affected tracts as well as weekly reports from every Divisional officer and if its estimate of the situation was wrong, this was not due to the insufficiency of the information supplied.

4. The Board does not consider it necessary that the code should detail the rules under which information as to area of cultivation, rainfall, prices, &c., is furnished by village and taluk officers to the Collector, but it has modified section 33 of the code so as to set forth the different sources from which the District officer is supplied with sufficient information to enable him to gauge the probabilities of approaching scarcity.

In paragraph 33 of its proceedings the Board states that the revised sections 33, 34 and 35 of the code define, as desired by the Government of India, the functions and responsibilities of the Department of Settlement, Land Records and Agriculture in connection with the compilation and submission of returns of prices, rainfall, cultivation, &c., the special inspection of seriously-menaced localities and the preparation of analyses of precarious tracts.

The Government considers that these points have not been set forth with sufficient precision in the Board's draft and that the village accountants should be required to enter in their monthly reports an estimate of the grain stocks in their respective villages. The want of reliable information on this point has caused no inconsiderable embarrassment in the administration of famine relief in the past and the Government is of opinion that it should form one of the usual subjects of enquiry in ordinary times. The following should be substituted for section 33 :—

"Monthly reports on the extent of cultivation, the condition and outturn of the crops, the estimated amount of the grain stocks and the health-condition of the villagers and their cattle are submitted by the village accountant of every ryotwari village to the Tahsildar, through the Revenue Inspector of the circle or range, who is responsible for testing their accuracy by frequent personal inspection. An abstract of these returns is submitted to the Collector and by him to the Board of Revenue in the Department of Settlement, Land Records and Agriculture. Prices and rainfall are registered at a large number of select stations where there is a Tahsildar, Deputy Tahsildar or some responsible Government official and are reported both weekly and monthly to the Collector and by him to the Board. It is the duty of the Board of Revenue in the Department of Land Records and Agriculture to collect and maintain, corrected up to date, information as to the general agricultural condition of every district or group of districts similarly circumstanced, which will include minute but compendious analyses of tracts peculiarly liable to drought and famine; the statistics thus collected and maintained should give full particulars as to the normal material condition of the ryot and the laboring population, the agricultural practices of the ryots, the average rainfall of normal seasons, the efficiency of communications in the tract, and the extent of its dependence on food supplies from without. The monthly and weekly reports referred to above, together with the standing information maintained by the Department of Land Records and Agriculture as regards the general agricultural condition of precarious tracts, afford the materials necessary to enable the Collector, the Board and Government to gauge the condition of every portion of a district and to say when any failure of crops and consequent scarcity may be apprehended. It is at all times an essential part of the duty of Collectors and their Divisional officers carefully to scrutinise the returns of cultivation, rainfall and prices and to bring promptly to the notice of the Board in the Department of Land Records and Agriculture whenever there is any general failure of crops or abnormal rise in prices. Any serious deficiency of rainfall or cultivation and any extensive mortality among cattle should at once be reported to the Board, as also any increase of over 25 per cent. above normal prices together with an explanation of such increase. As a rule, it is to be understood that a rise to the scarcity rate in the staple crop or crops of the district as determined by Government is a sure indication of the existence of severe scarcity calling for the immediate introduction of relief measures.

"It is the duty of the officer in charge of the Department of Land Records and Agriculture to keep himself thoroughly informed of the progress of the season in all parts of the Presidency, to keep a watchful eye over tracts which are in any way in a critical condition either through deficiency or unseasonableness of rainfall and to see that such tracts are duly inspected by Collectors and Divisional officers, and timely and reliable information obtained as to the degree and locality of the apprehended distress. It will also be his duty to see that adequate programmes of relief works are maintained by Collectors and that all the precautionary measures which this code prescribes with a view to prompt and efficient administration of relief are duly given effect to. He will be the advising officer of Government on all matters of relief administration and all operations under this code will be carried on under his direction and control."

The responsibilities of village officers in respect of the administration of relief are sufficiently indicated already in the sections of the code quoted in paragraph 34 of the Board's Proceedings.

5. The next point for consideration is the criterion of the necessity for granting relief.

In its letter of the 28th October 1889, No. 109, the Government of India invites particular attention to the necessity for giving some assistance even before prices have reached the recognized scarcity rates and suggests for consideration whether the rigid test of prices laid down in section 33 of the Madras Code might not be modified. The Government of India remarks, "it has been made clear during the course of the present famine that this test is an insufficient indication of the need for measures of relief, and both the Collector of the district and His Excellency the Governor have recorded observations to this effect." In paragraph 9 of the circular of the 19th December 1889, No. 63—77 C. Fam., the Government of India points out that some of the codes contain no sufficient provision for testing the approach of scarcity by prices and draws attention to the importance of keeping a systematic watch upon prices as a rough but careful indication of the condition of food-stocks.

The Board sees no reason to question the correctness of the principle of taking a certain rise of price above normal rates as an index of scarcity, but considers that where records of the rainfall and state of the crops are available, a consideration of these should be coupled with the consideration of the rise in prices. It points out the extreme importance of correctly estimating the effect of a rise in prices of a particular grain, and expresses the opinion that second-sort rice should have been taken as the staple grain in Ganjam, and that the rise in the price of rice to a rate 40 per cent. above normal prices, due solely to a failure of the harvest, should have been accepted as demonstrating the existence of severe scarcity calling "for State measures of relief." It is a mistake, however, to suppose that scarcity rates are made by the Madras Famine Code the criterion of the necessity for granting relief. They are only intended to be the danger signal to serve as a warning to District officers to be on the alert. This code nowhere lays down that relief is to be granted only when the scarcity rate has been reached, but leaves Government perfectly free to undertake measures of relief as soon as the circumstances of the people require it, whatever may be the price of grain. The only mention of scarcity rates is, in fact, the statement in section 33 of the code that scarcity rates are a sure indication of the existence of severe scarcity. The wording of the code does not appear to Government to be open to objection in this respect; of course, the state of prices is only one of the factors to be considered in determining whether the time has arrived for granting relief; the condition of the people in ordinary times, the nature of previous seasons, extent of failure of crops, the amount of employment available, condition of food-stocks are also important points which enter into the determination of the question and whatever returns and reports may be prescribed, the Government must rely mainly on the personal inspection of their charges by District officers of all grades and on the watchfulness and judgment of the head of the district.

6. The scarcity rates must, however, be fixed on correct principles if they are to serve as an index of scarcity, and the Government has recently ordered a revision of the scale, pointing out that the present rates, which were fixed in 1880 on the basis of the prices which prevailed during the three years ending with 1875-76, need modification with reference to more recent data, that the grouping of districts is defective and that, differing as districts do widely in respect of the material condition of the population, it is incorrect to assume for the whole Presidency a uniform rate of rise in the prices of food-grains as indicating scarcity involving pressure on the laboring classes. When wages ordinarily rule high a rise of 40 or 50 per cent. in prices may be borne with comparative ease, the wage still covering an ample supply of necessary food, but when they are low a much smaller rise may produce privation. It is true that wages depend in a measure on prices, but unless it can be shown that the two increase and decrease together to the same extent from time to time and from district to district, the adoption of a uniform rate of rise in prices as a standard is obviously incorrect. In Ganjam wages and prices are ordinarily lower than

G.O., dated 9th July 1890, No. 533.

in any other district of the Presidency, and any rise in the price of food-grains is felt more quickly and acutely by the low-paid laborer in Ganjam than the better-paid one elsewhere, because the difference between the prices of food-grains in Ganjam and any other district is much less than the difference between the rates of wages in them, and wages do not alter at once with prices.

Paragraph 15 of Mr. Garstin's second report printed in G.O., dated 18th December 1888, No. 873.

7. Another point which materially affects the value of the scarcity rates as indicating the prevalence of distress is the selection of the grain which should be adopted as the standard for each district. In the case of Ganjam ragi was originally selected as the standard on the ground that it formed the common staple food of the people, but from the facts now brought to notice, it is clear that this was an erroneous assumption and that second-sort rice should have been taken as the staple grain. In selecting ragi, the Government was influenced by the instructions contained in the resolution of the Government of India, dated 28th March 1888, No. 1648, prescribing rules for the grant of compensation to Government servants for dearness of food, wherein it was laid down that such compensation should be given only when the selling price of the cheapest grain of any kind commonly used by the people, that is, "the common staple food of the people of the district," exceeds certain rates. This principle is equally applicable to the determination of the necessity for granting relief to the population generally, so far as this depends on prices of food-grains, and as it was known that ragi was largely consumed by the poorer classes it was thought proper to take this grain as the standard. It was not known that ragi was only consumed in the form of flour mixed with rice and the importance of the rice crop to the laboring classes was thus under-estimated. The mistake was rectified after the visit of His Excellency the late Governor to the district, when the inquiries made on the spot demonstrated the necessity for substituting rice for ragi as the standard.

G.O., dated 30th April 1889, No. 324.

G.O., dated 16th July 1889, No. 597.

If the scarcity rates are fixed on correct principles, there will ordinarily be no necessity to grant assistance before prices have reached that limit, though, as already stated, the price of food-grains constitutes only one of the factors which has to be taken into consideration and the question of the proper time for affording State aid must be determined with reference to the condition of the people as reported by the local officers irrespective of whether prices have reached the limit recognized as scarcity rates.

The amendment of the code, suggested by the Board in paragraph 17, appears sufficient.

8. Turning to the question of administration of relief, the Government of India draws attention to the necessity for the maintenance of a scheme of relief works and for the provision of a sufficient number of civil agency works. The Collector points out that ample work was available for all who required it, although a complete scheme was not submitted by him until July 1889. Schemes of famine relief works have now been obtained from every district, except Malabar and South Canara, for which they are not required, and the lists will be submitted annually so that there is no risk of the matter being lost sight of. The programmes provide a large number of civil agency works and indeed these are more easy to find than large professional agency works in most districts. The Government of India is under a misapprehension in supposing that civil agency works were not established in Mr. Horne's division. Looking to the difficulty of providing adequate supervision, it was considered advisable to concentrate labor as far as possible on large works like the Rushikulya project and Gopálpur canal. It was originally intended that these works although supervised by the Public Works Department as professional agency works should be open for the reception of all laborers who presented themselves (*vide* G.O., dated 12th December 1888, No. 860), but it was subsequently ordered that they should be reserved for able-bodied laborers and the Collector was directed to provide for all who were incapable of performing a full task by opening civil agency works (G.O., dated 19th March 1889, No. 203). Mr. Horsfall in paragraph 73 of his report draws attention to the necessity for daily payments of wages on all relief works whether executed under professional or civil agency. The code (section 124) provides for daily payments for

task work and the District officers could have insisted on daily payments on professional agency as well as on civil agency works.

9. With reference to the remarks of Mr. Horsfall in paragraph 43 of his report regarding the inadequacy of the scale of wages allowed for third-class laborers, the main reason why the rate proved too low in Ganjam was because the value of the grain portion of the wages was incorrectly calculated. The table which the Board has framed for calculation of wages and rations in ragi will obviate a recurrence of the mistake made in Ganjam. There does not appear to be any necessity to raise the rates for third-class labor; this would involve the enhancement of the rates for other classes of labor also and no complaint of their insufficiency has been made. Nothing can prevent people from deliberately starving themselves in order to qualify for gratuitous relief in order to avoid working. But the experience in Ganjam has shown the great difficulty of carrying on civil agency works simultaneously with the distribution of money-doles. The result of the low wages was no doubt that there was so little difference between the earnings on civil agency works and money-doles that there was no inducement to the people to go to the works, but this was not material seeing that labor on civil agency works is, owing to the difficulty of providing efficient supervision, generally a farce and there is little difference between it and gratuitous relief.

10. There can be no doubt that readiness to work for wages on a relief work is the best test of a man's being in need of relief, if able to work, just as willingness to accept cooked food is the best test of his eligibility for gratuitous relief, when he is unable to work. But it is a waste of money to try and work weakly men without proper supervision, which civil officers cannot exercise as well as professional officers, so that it is cheaper in the long run to feed them gratuitously. The Government considers therefore that civil agency works should be abolished and that all works carried on for purposes of relief should be classed as professional agency, the staff of the Department of Public Works being strengthened for the purpose to such extent as may be necessary. All applicants for work, however weakly, should be employed, the task allotted being adjusted to the capacity of each and full wages being paid to all who work up to the full extent of their powers, irrespective of the outturn. The laborers should be roughly classified, as at present, according to their capacity to perform a full task or only 75 or 50 per cent. thereof. Piece-work should be retained only for able-bodied laborers placed in the first class; for task work, payments should be made *daily*, as so strongly insisted upon by Mr. Horsfall, as many paymasters as may be required for the purpose being supplied by the Civil officers. The employment of contractors and middlemen should be prohibited as was done in the Famine of 1877-78. The Government considers that the above plan is best calculated to prevent a waste of money and that by paying full wages for the best day's work a man can turn out according to his classification, the strength of the weakly will be soonest restored and the best return obtained for the money spent.

The works selected for execution should, if possible, be large ones with a view to concentration of labor as much as possible, but when a large work cannot be provided in any distressed area, a group of small ones must be started instead, but under professional supervision. It is essential that plans and estimates for a sufficient number of works capable of being started at a moment's notice should be kept ready in the offices of the Collector and District Engineer. As considerable modifications of the code will be necessitated by the adoption of this plan, the orders of the Government of India on the question will be awaited before revision in this direction is undertaken.

11. In connection with the administration of gratuitous relief, the Government of India desires to be informed what, in the light of recent experience, are considered to be the relative advantages of a money-dole, a grain-dole and the distribution of cooked food. The subject is discussed in paragraphs 23 to 29 of the Board's Proceedings read above. The Collector condemns money-doles altogether and considers that they should be abolished, gratuitous relief being confined to distribution of raw grain to caste-people and people unable from old age or sickness to leave their homes and of cooked food to non-caste people. The Board considers that this proposal involves hardship and, although it sees no objection to requiring that willingness to accept cooked food should be used as a test to distinguish the really needy, in cases where the acceptance of cooked food would not be contrary to real caste scruples, it thinks that where need is undoubted, relief may well be given in the form most

congenial to the recipient when no extra cost to the State would be involved. It recommends that section 64 of the code be modified, the general rule being that relief should ordinarily be given in the shape of grain-doles, money-doles being restricted to very exceptional cases.

12. The Government considers that cooked food is the best form of relief for all who cannot earn wages on relief works. As regards the alleged difficulty of adopting it generally on the ground of caste scruples, the Government does not consider that any such scruples are *bonâ fide* or should be recognized which do not involve loss of caste by accepting the relief; if the food is cooked by Brahmins in a kitchen to which none but Brahmins have access there is no room for any such scruples. There need be no compulsion. The Government offers cooked food under arrangements which do not affect the caste of the recipient in any way, and if the people refuse to accept the food thus offered, the natural presumption is that they have other means of subsistence. Acceptance of cooked food is the truest and safest test of the need for gratuitous relief, but the objection to relying exclusively on this form of relief is that it would be difficult to work on a large scale if there were widespread distress. When a large proportion of a not very dense population has to be relieved, the organization of adequate distribution of cooked food becomes almost impossible. The Government therefore thinks that some discretion should be given to officers in special cases to substitute grain-dole for cooked food.

13. As between the money-dole and grain-dole system there is not much to choose, those who are bent on extortion can levy a contribution on the grain nearly as easily as on the money doles, and grain can be bartered for liquor and other articles, so that the grain system does not really afford any great security that the relief will be properly applied and that the bounty of Government will not be abused, whilst it is somewhat more troublesome to work than the money-dole system, since it generally involves large purchases of grain by Government, carriage, wastage, storage, &c., whereas money is more easily carried about, guarded and counted. Grain-doles, however, possess this advantage over money-doles, namely, that embezzlement of grain is not quite so easy as that of money while its distribution can be more easily supervised. On the whole, therefore, the Government considers that grain-doles should be maintained and money-doles given up.

14. In connection with the difficulty which was experienced in Ganjam in inducing the people to accept cooked food, Mr. Horsfall proposes (paragraph 78 of his report) that it should be made a penal offence for a man to threaten loss of caste for feeding at a Government kitchen, or for a parent to allow his children to starve when within reasonable reach of a kitchen. As regards the first part of the suggestion, the Government considers that the provisions of the Penal Code in regard to defamation are sufficient and as regards the latter part, it is apparently intended that the scruples of the higher classes should be respected and that compulsion should be resorted to only in the case of the lower castes. Legislation of this nature is, of course, out of the question. The great difficulties which were experienced in the administration of gratuitous relief in Ganjam, however, show that it is desirable to strengthen the hands of Famine Relief officers and to give legal sanction to acts which have to be performed by them but which are not in accordance with the law as it stands at present, *e.g.*, the compulsory consignment of wanderers and other weakly persons without any means of support and neglected children to poor houses, their detention there until permitted to leave and the enforcement of discipline in poor houses and on works. The original draft of the Madras Famine Code contained provisions authorising the compulsory detention in poor houses of able-bodied laborers who refused to work and of homeless wanderers, but they were omitted in deference to the objections of the Government of India—*vide* paragraph 6 of letter, dated 11th June 1883, No. 91-F. In paragraph 25 of the resolution which accompanied that communication, however, it was observed that "the question should receive very careful consideration in any future famine or scarcity of a serious character and any cases which appear to show the necessity for legislation may be brought to notice."

The question whether coercion should be legalised was subsequently discussed at some length in connection with the draft of the Bombay Famine Code and the Secretary of State ruled that legislation for this purpose was undesirable (*vide* the correspondence communicated with the letter from the Government of India, dated 21st May 1885, Circular No. 71-F.—1-6). The view then held was that no attempt

should be made to compel people to accept relief; if they refuse it, the risk is their own. The results of this policy must be that in dealing with a population like that of Ganjam there will either be great mortality or a wasteful expenditure in village relief, which with the supervision available it is almost impossible to effectually control. If life is to be preserved at a reasonable cost, it seems essential that authority should be conferred by the Legislature for the removal to poor-houses of all who are found wandering about in a starving condition; this is more especially necessary in the case of children who are themselves incapable of exercising any option in the matter. The revision of those portions of the code which relate to gratuitous relief will be deferred until the decision of the Government of India on this question has been obtained.

15. The other forms of relief adopted during the recent famine in Ganjam were advances of money to weavers and of seed-grain to cultivators. No difficulties were experienced in respect of these forms of relief and no alteration of the code appears necessary; but one of the drawbacks to giving seed-grain to cultivators in Ganjam is now showing itself in the objection of many of them to pay the price agreed on for it at the time of issue. The necessary modification of section 98, to meet the wishes of the Government of India in regard to the extended use of the produce of reserved forests in times of scarcity, has been made by the Board.

16. As regards the supervision of relief measures, the Government concurs with the Board in its remarks at paragraph 31 of its proceedings. The experience gained in Ganjam demonstrated clearly that to ensure the efficient management of relief measures all the responsible officers must be Europeans. The reports of the District officers afford numerous examples of the rascality of the village officials and of the utter heartlessness of relatives. The native officials of Ganjam are, however, inferior to those of other districts, and a great portion of the district being held on zemindari tenure, the village officers are not under the Collector's control as completely as in ryotwari villages. To remedy the latter defect, the Madras Proprietary Village Service Bill will be brought before the Legislative Council at an early date. As regards European supervision, it will be impossible, in the event of a widespread famine, to provide a sufficient number of officers from the ranks of the Civil Service, even if it is maintained at its full strength, which is most essential, and assistance must be given by deputing Europeans from the Salt and Police Departments and by indenting on other Provinces. The possibility of famine, however, affords an additional reason for strengthening the cadre of the Madras Civil Service, the necessity for which has already been strongly urged on the Government of India.

17. In paragraph 116 of his report the Collector urges that the Nowgam portion of the Gopálpur canal at least should be completed. This question will be considered in the Public Works Department

18. The only other point which requires notice is the question of mortality dealt with in paragraphs 97 to 104 of Mr. Horsfall's report. He furnishes a statement of births and deaths between the 1st October 1888 and 30th September 1889 as compared with similar periods in the previous eleven years and in the year of the former famine—1865-66. The deaths registered during the three years of famine were as marginally noted according to the Collector's figures. Returns are also furnished showing the number of deaths which occurred at the kitchens and amongst those in receipt of gratuitous relief in their villages, but these returns are admittedly very imperfect. For convenience of reference the correspondence which has taken place with the Government of India in connection with this subject will be printed as an appendix to this order. In its letter, dated 29th July 1889, No. 57—1-66 F., the Government of India asked for a statement of mortality inclusive and exclusive of cholera deaths during the months November to July inclusive, in the years 1886-87, 1887-88, 1888-89, 1876-77, 1877-78 and 1865-66. Cholera cases were directed to be distinguished because the Government of India was of opinion that, although the poor condition of the people predisposes to cholera, it would not be correct, where cholera has set in, to attribute the death to starvation. The figures furnished by the Sanitary Commissioner were forwarded to the Government of India with the remark that the periods selected by

	Deaths from all causes other than cholera.	Deaths from all causes including cholera.
1865-66	30,408	56,262
1877-78	20,583	30,981
1888-89	24,422	38,463

the Government of India evidently did not furnish sufficient materials for a correct judgment and that the comparison was of little value. The Sanitary Commissioner was requested to investigate the subject further and furnish a full report on the question of the severity of the present famine as indicated by the vital statistics.

G.O., dated 19th August 1889, No. 716.

The further report called for was furnished in the Sanitary Commissioner's letter of the 14th September 1889, with which he forwarded a statement showing for each month, from November to July, from 1865-66 to 1888-89, the deaths exclusive of cholera and the ratio per mille of population The marginal abstract showing the death-rate for the first six months of 1889, compared with the corresponding periods of the past 20 years, was given in the report. Dr. Laing remarked, "that the death-rate "exclusive of cholera for the first six "months of 1889 is the highest on record "and nearly twice as great as the average "of the past 20 years or any of the averages "of five previous corresponding periods. "If, however, cholera deaths are included, "the death-rate is more than three times "greater. The Government of India is of "opinion that cholera cases should be carefully distinguished, as although the poor "condition of the people predisposes to "cholera, it would not be correct, when "cholera has set in, to attribute the deaths "to starvation. It must, however, be "remembered that the men employed to "register deaths are quite unable to "diagnose the correct causes of death and "there can be no doubt that in the present "famine in Ganjam many deaths have "been reported as due to cholera which "in reality were from famine diarrhœa, "&c."

Years.	Total of six months from January to June.			
	Total deaths.	Total deaths exclusive of cholera.	Death-rate per 1,000 of population.	Death-rate per 1,000 of population, exclusive of cholera.
1869	7,914	7,585	6·9	6·6
1870	6,157	6,104	6·2	6·1
1871	6,355	6,292	5·9	5·9
1872	10,050	7,154	9·4	6·7
1873	8,149	8,049	7·3	7·2
Average ..	7,725	7,037	7·1	6·5
1874	6,612	6,535	6·8	6·7
1875	9,833	9,826	7·8	7·8
1876	11,717	10,463	9·0	8·0
1877	10,327	8,847	8·7	7·4
1878	16,334	9,413	15·2	8·8
Average ..	10,964	9,017	5·5	7·7
1879	7,565	7,496	8·8	8·8
1880	8,525	8,297	7·6	7·4
1881	11,712	11,544	9·8	9·6
1882	12,262	11,443	10·4	9·7
1883	7,758	7,649	6·1	6·0
Average ..	9,564	9,286	8·5	8·3
1884	7,240	7,236	6·4	6·3
1885	10,106	7,917	8·9	6·9
1886	7,066	6,942	7·2	7·1
1887	8,287	8,213	10·6	10·5
1888	7,886	7,743	9·3	9·2
Average ..	8,117	7,610	8·5	8·0
1889	23,654	12,659	26·3	14·1

G.O., dated 24th October 1889, No. 871.

In forwarding the report to the Government of India, this Government remarked that the comparison indicated by the Government of India should be restricted to the years 1866 and 1878, which were years of distress, as more attention is paid to registration in famine seasons than in ordinary ones and the effect of this must be to increase the apparent death-rates in years of distress so as to render any comparison of these rates with those of other years wholly misleading. It was pointed out that the figures for 1866 are unreliable because the registration of vital statistics was started only in that year and that the registered death-rate for 1878 appeared to be under-stated. The Government considered that the figures reported by the Sanitary Commissioner have to be accepted with reservations which detract much from their value for purposes of comparison, and that no safe or valid inference can be drawn from them as to the severity of the present scarcity in Ganjam.

January to June.	Ratio per mille.	
	Inclusive of cholera deaths.	Exclusive of cholera deaths.
1866	25·5	10·6
1878	15·2	8·5
1889	26·3	14·1

19. About the same time three reports from the late Dr. McNally, Deputy Sanitary Commissioner, on his tours in the famine-stricken parts of Ganjam, were forwarded to the Government of India.

G.Os., dated 24th and 31st October, Nos. 879 and 888.

The following passage occurs in the first report:—

"Some statistics of deaths among those receiving money-doles in villages have been lately collected by Mr. Horsfall. These show a mortality of about 240 per 1,000 per annum, and the significance of this enormous mortality is increased by the consideration that a great majority of those on the batta lists are children of ages at which the normal mortality is very low. But in addition to this ascertained mortality, considerable numbers have 'disappeared' and there can be little doubt that many of them have died. We have here evidence that, notwithstanding the undoubted great saving of life by relief measures, large numbers of people have died from famine."

This passage attracted the attention of the Government of India and Secretary of State. The former asked in its letter, dated 15th November 1889, No. 2 C.—1-Famine, to be supplied with the statistics of mortality referred to, and the latter drew attention to the discrepancy between the death-rate of 52 per mille per annum, according to Dr. Laing's figures, and of 240 per mille per annum, according to Dr. McNally's report. The despatch called for a further report when anything certain is ascertained concerning the mortality of 1889 in Ganjam as compared with the mortality in ordinary years, and the Secretary of State observed that he would be glad to learn what grounds exist for the estimates quoted above from Dr. McNally's first report and added that if further inquiry shows that these estimates were exaggerated, it would be well that the fact should be made clear. The Government of India, in communicating the despatch, asked to be furnished with any further facts the Government of Madras may be able to collect which will exhibit the true significance of the figures in a clearer light, and reveal any exaggeration in the estimate of mortality during the period of scarcity which might result from their unreserved acceptance.

Dated 16th January 1890, No. 1.

Letter, dated 12th March 1890, No. 343 C.

20. It will be seen that Dr. Laing's figures relate to the mortality throughout the district, whereas Dr. McNally's statement has reference only *to the mortality amongst those in receipt of gratuitous relief in villages*. This section of the community, consisting chiefly of children and old people of the poorest classes was, of course, not representative of the whole population and the implication that a death-rate struck only on the population in receipt of relief applied to the whole population was incorrect and altogether misleading. As an example of the process adopted, in the village of Bellankuddi in the Golantra circle the average number of people relieved was 43, of whom one died. The total period for which relief was given was 20 days; so a death-rate of 424 per mille per annum has been worked out. In many cases the death-rates exceed 1,000 per mille per annum; but, of course, such figures afford no data for a comparison of the mortality of 1889 with that of ordinary years, and are not a true index of the pressure of distress on the whole population of the district. This must be sought for in the general death-rate during the period of scarcity, as compared with that of previous years. The marginal statement, based on the Sanitary Commissioner's returns, exhibits the mortality inclusive and exclusive of cholera for a series of years, but even these figures cannot be accepted unreservedly, for, as Mr. Horsfall points out in paragraph 104, the registration of vital statistics is very defective in Ganjam and

Years.	For the year beginning with the 1st October and ending with 30th September.			
	Total deaths inclusive of cholera.	Total deaths exclusive of cholera.	Ratio per 1,000 of total deaths.	Ratio per 1,000 of total deaths exclusive of cholera.
1865-66 (9 months) .	47,743	23,624	* 45·4	* 22·6
1866-67	20,413	19,243	19·7	18·3
1867-68	13,894	13,529	11·2	10·8
1868-69	16,930	15,974	14·6	13·8
1869-70	13,530	13,122	13·2	12·8
1870-71	12,483	12,386	12·2	12·0
1871-72	18,910	15,525	18·6	15·3
1872-73	15,803	15,612	15·2	14·9
1873-74	14,631	14,383	13·7	13·3
1874-75	18,992	18,947	14·4	14·4
1875-76	24,778	20,883	18·7	15·7
1876-77	19,879	17,765	16·5	14·5
1877-78	29,692	19,863	28·9	19·3
1878-79	16,463	16,332	18·1	18·0
1879-80	18,632	18,359	17·4	17·3
1880-81	22,311	21,918	18·3	18·0
1881-82	22,663	21,303	19·3	18·2
1882-83	17,850	17,646	14·7	14·5
1883-84	16,827	16,742	13·1	13·0
1884-85	19,917	15,779	19·1	15·1
1885-86	16,223	15,794	15·8	15·4
1886-87	19,464	19,286	22·0	21·7
1887-88	19,478	18,919	20·2	19·4
1888-89	38,826	24,784	42·0	25·6

NOTE.—The mortality figures exclude still-born cases.
* The figures are the totals of monthly rates.

the deaths reported are far from representing the actual number of deaths; on the other hand, the census of 1881 was very imperfectly carried out in outlying portions of the district, the population being much under-stated, so that the ratio of reported deaths to the true population is unduly enhanced and in times of famine more attention is paid to registration, the effect being to increase the apparent death-rate. All that can be said is that the mortality of 1889 was much in excess of the normal rate, but it is impossible, with the materials available, to estimate, with any approach to accuracy, the effects of the famine. The approaching census will throw some light on the subject, and the attention of the Superintendent of Census Operations will be drawn to the point.

21. In conclusion, His Excellency the Governor in Council desires to express his appreciation of the services rendered by Dr. Pemberton and the marginally-noted officers, who are specially commended by the Collector and District Medical officer, and his thanks are more particularly due to Mr. Horsfall who devoted himself with untiring energy to the mitigation of distress among the people committed to his charge. The Collector will also convey to the Chíkati and Sérgadá zemindars as well as to all other proprietors of estates and other private individuals who afforded relief to their fellow-countrymen or assisted in the administration of State aid, the warmest thanks of Government.

Mr. A. W. B. Higgens, C.S.
„ F. E. K. Wedderburn, C.S.
„ H. W. Foster, C.S.
„ W. O. Horne, C.S.
„ R. C. C. Carr, C.S.
„ G. W. Elphinstone, C.S.
„ W. C. McMurray.
M.R.Ry. W. Venkatappiah Pantulu Garu, } Deputy
Mr. J. T. Lever, } Collectors.
M.R.Ry. D. Venkatasastri Garu, }
Mr. F. G. Marshall, Inspector, Salt Department.
M.R.Ry. D. Srinivasa Row Pantulu Garu, Collector's Sheristadar.
„ A. Gurumurti Naidu Garu, Acting Tahsildar, Berhampore.
„ N. Ranganadam Pantulu, Deputy Tahsildar, Tekkali.
„ N. Venkata Row Pantulu, Deputy Tahsildar, Sómpet.
„ G. Narasinga Row Pantulu, Deputy Tahsildar, Purushottapur.
„ D. Appiah Naidu, Deputy Tahsildar, Suradá.
„ U. Gopala Row Pantulu, Manager, Chinna Kimedi Estate.
„ K. Rama Row Pantulu, Manager, Dhárákót Estate.
Surgeon F. C. Pereira.
Civil Surgeon J. Chadwick.
Assistant Surgeon B. F. Gonsalves.
First-class Hospital Assistant Veeranna Naidu.
E. T. Jones, } Civil Apothecaries.
R. W. Saldanha, }
V. Rajagopal, }
K. Jagannadhan, }
A. G. Home, }
Abdul Aziz, }
Velu Menon, } Hospital Assistants.
Ananthia, }
D. Seetharamaswami, }

(True Extract.)

Secretary to Government.

To the Public Works Department, Irrigation Branch.
„ the „ General „
„ the Board of Revenue (all Departments).
„ the Local and Municipal Department.
„ the Judicial Department.
„ the Public Department.
„ the Court of Wards.

APPENDICES.

G.O., dated 19th August 1889, No. 716, Revenue.

READ—the following letter from the Government of India, Revenue and Agricultural Department (Famine), dated 29th July 1889, No. 57—1-66 F. :—

I am directed to acknowledge the receipt of your letter No. 573 and enclosures, submitting the report for June on the condition of the Ganjam district and to communicate the following remarks thereon.

2. With regard to paragraph 5 relating to mortality, I am to say that the Government of India considers that a fair gauge of the severity of the present scarcity and of its effect on the physique and vitality of the people may, perhaps, be obtained by an analysis of the death-rate statistics as compared with those of the last two years, with those of the last famine year and, if available, with those of 1866, in which also Ganjam was visited by famine. I am accordingly to ask that with the report for July, or as early as possible afterwards, a statement may be submitted showing for the district of Ganjam *only*—

(*a*) the mortality inclusive of cholera deaths, and

(*b*) the mortality exclusive of cholera deaths during the months, November to July inclusive, in the years 1886-87, 1887-88, 1888-89, 1876-77, 1877-78 and 1865-66. Cholera cases should be carefully distinguished, as the Government of India is of opinion that, although the poor condition of the people predisposes to cholera, it would not be correct where cholera has set in to attribute the death to starvation.

3. With reference to paragraph 6 and having regard to the provisions of section 35 of the Madras Famine Code, the Government of India is constrained to express surprise that a list of relief works has not yet been furnished by the Collector. It is hoped that more satisfactory information will be supplied on this point in the next report.

4. I am to take this opportunity to remind the Government of Madras that the months of August and September will be a critical period in Ganjam.

READ—also the following letter from the Sanitary Commissioner for Madras, dated 7th August 1889, No. 1193 :—

With reference to your telegram, dated 6th instant, I have the honor to forward a statement showing the mortality in the Ganjam district for the periods specified.

Mortality in Ganjam district during the undermentioned periods.

Months.	1886-87. Population for which returns were received.	1886-87. Total deaths including cholera.	1886-87. Cholera deaths.	1886-87. Total deaths exclusive of cholera.	1886-87. Rate per mille of mortality exclusive of cholera deaths.	1887-88. Population for which returns were received.	1887-88. Total deaths including cholera.	1887-88. Total deaths exclusive of cholera.	1887-88. Rate per mille of mortality exclusive of cholera deaths.	1888-89. Population for which returns were received.	1888-89. Total deaths including cholera.	1888-89. Cholera deaths.	1888-89. Total deaths exclusive of cholera.	1888-89. Rate per mille of mortality exclusive of cholera deaths.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
November	917,948	1,407	53	1,354	1·475	1,014,116	1,970	70	1,900	1·877	1,176,756	1,549	134	1,415	1·202
December	821,876	1,548	25	1,523	1·853	880,836	2,289	21	2,268	2·574	1,168,365	1,794	84	1,710	1·463
January	770,467	1,402	55	1,347	1·748	729,607	1,404	..	1,404	1·924	870,350	1,878	28	1,850	2·125
February	579,016	1,046	3	1,043	1·801	711,767	1,044	71	973	1·367	612,272	1,636	58	1,578	2·577
March	818,347	1,398	..	1,398	1·708	713,151	1,380	72	1,308	1·834	1,015,144	2,101	115	1,986	1·956
April	743,302	1,230	2	1,228	1·650	938,152	1,269	..	1,269	1·352	857,040	6,323	3,114	2,209	2·573
May	855,106	1,704	12	1,692	1·955	908,083	1,246	..	1,246	1·372	449,961	3,690	2,576	1,115	2·478
June	873,107	1,507	2	1,505	1·723	1,035,333	1,543	..	1,543	1·490	Returns for June and July 1889 not received as yet.				
July	1,084,908	2,021	..	2,021	1·862	1,070,202	1,613	..	1,611	1·505					
Total ..	830,520	13,263	162	13,111	15·789	889,030	13,758	236	13,522	15·209	878,555	17,971	6,108	11,863	13,503

Months.	1876-77. Population for which returns were received.	1876-77. Total deaths including cholera.	1876-77. Cholera deaths.	1876-77. Total deaths exclusive of cholera.	1876-77. Rate per mille of mortality exclusive of cholera deaths.	1877-78. Population for which returns were received.	1877-78. Total deaths including cholera.	1877-78. Cholera deaths.	1877-78. Total deaths exclusive of cholera.	1877-78. Rate per mille of mortality exclusive of cholera deaths.	1865-66. Population for which returns were received.	1865-66. Total deaths including cholera.	1865-66. Cholera deaths.	1865-66. Total deaths exclusive of cholera.	1865-66. Rate per mille of mortality exclusive of cholera deaths.
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
November	1,205,419	1,689	160	1,529	1·268	1,083,692	2,130	770	1,360	1·255	707,908	2,661	1,508	1,153	1·628
December	1,092,202	1,884	66	1,818	1·664	793,206	1,667	687	1,070	1·349	709,684	3,607	2,618	989	1·393
January	1,162,956	1,505	6	1,499	1·289	934,930	1,707	600	1,207	1·291	709,684	3,168	2,242	926	1·301
February	1,206,839	1,369	73	1,296	1·073	1,127,283	1,754	641	1,113	·987	841,035	2,754	1,631	1,103	1·554
March	1,182,105	2,485	688	1,797	1·520	1,124,460	3,754	1,756	1,998	1·332	709,684	2,757	1,757	1,122	1·580
April	1,176,065	2,062	469	1,593	1·354	1,028,398	3,098	1,573	1,525	1·483	709,725	1,757	635	1,122	1·580
May	1,213,690	1,601	224	1,377	1·134	1,045,827	3,106	1,430	1,676	1·602	709,725	4,945	2,328	2,617	3 687
June	1,156,583	1,305	20	1,285	1·111	1,156,328	3,415	1,021	2,394	2·070	709,725	4,906	2,042	2,864	4·035
July	1,204,232	1,377	6	1,371	1·138	954,409	3,041	1,061	1,980	2·074	709,725	Not available.			
Total ..	1,177,780	15,277	1,712	13,565	11·518	1,027,610	23,162	9,339	13,823	13·461	728,212	23,778	13,004	10,774	14·795

(Signed) J. A. LAING, Surgeon-Major,
Sanitary Commissioner for Madras.

MADRAS,
7th August 1889.

ORDER—dated 19th August 1889, No. 716, Revenue.

Miscellaneous.

Ordered that the Government of India be addressed.

2. The figures furnished by the Sanitary Commissioner tend to show that the mortality in Ganjam (excluding deaths from cholera) from January to June was considerably in excess of that of any of the preceding years adopted by the Government of India for comparison; but the comparison is of little value. Registration was only started in January 1866, and there can be no doubt that the mortality of that year is understated; the defective nature of the registration is indeed apparent from the lowness of the rates, which are considerably below what is known to be the true normal, and from the great fluctuations in ordinary years. There was no famine in Ganjam in 1876 and 1877 though prices were abnormally high in the latter year, yet the death-rate according to the returns was lower in those years than in 1886 and 1887, both good years. The Sanitary Commissioner's report for 1878, however, shows that the mortality in that year in Ganjam was double the normal death-rate as the result of high prices, the ratio being 29·2 per mille as compared with a normal ratio of 14·3. The periods selected by the Government of India evidently do not furnish sufficient materials for a correct judgment, and the Sanitary Commissioner will be requested to investigate the subject further and furnish a full report on the question of the severity of the present famine as indicated by the vital statistics.

3. As the population, for which returns were received, differs in each month, a column should be added to show the ratio per mille.

(True Extract)

(Signed) C. A. GALTON,
Secretary to Government.

To the Sanitary Commissioner.

Copy to the Board of Revenue (Settlement Department).
" to the Collector of Ganjam.

LETTER—from C. A. GALTON, Esq., M.A., C.S., Secretary to the Government of Fort St. George, to the Secretary to the Government of India, Revenue and Agricultural Department, dated Ootacamund, 19th August 1889, No. 717, Revenue:—

In reply to your letter, dated 29th July, No. 57—1-66 F., I am directed to submit a copy of the Proceedings of this Government marginally noted. The statistics of mortality furnished by the Sanitary Commissioner for the periods selected by the Government of India do not furnish sufficient materials for a correct judgment on the question of the severity of the present famine, and the Government of India will be addressed again on receipt of the further report called for from the Sanitary Commissioner.

Miscellaneous.

Dated 19th August 1889, No. 716.

---

(2) G.O., dated 24th October 1889, No. 871, Revenue.

READ—the following letter from Surgeon-Major J. A. LAING, Sanitary Commissioner for Madras, to the Secretary to Government, Revenue Department, dated Madura, 14th September 1889, No. 1380:—

I have the honor to acknowledge the receipt of G.O., No. 716, dated 19th August 1889, Revenue (received on 24th August), requesting me to investigate further into, and report on, the question of the severity of the present famine.

2. I regret the delay in replying to the reference. I was awaiting certain information from Ganjam, which I wired for, and the tabulation of the statistics for a series of years occupied some time, and I have been on tour.

3. Registration of vital statistics in the Presidency generally is defective, and the returns received in my office from the Ganjam district, with its many zemindari estates (where registration is practically *nil*), are especially imperfect. In ordinary years there is no doubt that the results are understated, but in famine seasons I am inclined to think more attention is paid to registration and that the results are then less likely to be understated than at other times. Unreliable though the returns may be so far as the absolute mortality is concerned, still they have a value of their own and may be accepted for the sake of comparison year by year.

4. On comparing the vital statistics of the Ganjam district for nine months, *i.e.*, the last two months of 1888 and the first seven months of 1889 (for which period only the returns are at present available), with those of the corresponding periods for the past 23 years (*vide* table attached), it is seen that (exclusive of cholera) (1) the death-rates from November 1888 to

March 1889 were not excessive; (2) that in April 1889 there was a decided rise in the death-rate which increased in May to 3·4, and that it then began to decrease, the death-rate for June being 2·3 and for July 1·7. It would therefore appear that the famine did not affect the death-rate statistics till the month of April. In 1866, when Ganjam was last visited by famine, the increase in the death-rate (cholera excluded) began in June.

5. In the following table I have given the death-rates for the first six months of 1889 compared with the corresponding periods of the past 20 years:—

Years.	TOTAL OF SIX MONTHS FROM JANUARY TO JUNE.			
	Total deaths.	Total deaths exclusive of cholera.	Death-rate per 1,000 of population.	Death-rate per 1,000 of population, exclusive of cholera.
1869	7,914	7,585	6·9	6·6
1870	6,157	6,104	6·2	6·1
1871	6,355	6,292	5·9	5·9
1872	10,050	7,154	9·4	6·7
1873	8,149	8,049	7·3	7·2
Average ..	7,725	7,037	7·1	6·5
1874	6,612	6,535	6·8	6·7
1875	9,833	9,826	7·8	7·8
1876	11,717	10,463	9·0	8·0
1877	10,327	8,847	8·7	7·4
1878	16,334	9,413	15·2	8·8
Average ..	10,964	9,017	9·5	7·7
1879	7,565	7,496	8·8	8·8
1880	8,525	8,297	7·6	7·4
1881	11,712	11,544	9·8	9·6
1882	12,262	11,443	10·4	9·7
1883	7,758	7,649	6·1	6·0
Average ..	9,564	9,286	8·5	8·3
1884	7,240	7,236	6·4	6·3
1885	10,106	7,917	8·9	6·9
1886	7,066	6,942	7·2	7·1
1887	8,287	8,213	10·6	10·5
1888	7,886	7,743	9·3	9·2
Average ..	8,117	7,610	8·5	8·0
1889	23,654	12,659	26·3	14·1

The death-rate, exclusive of cholera, for the first six months of 1889 is the highest on record and nearly twice as great as the average of the past 20 years or any of the averages of five previous corresponding periods. If, however, cholera deaths are included, the death-rate is more than three times greater. The Government of India is of opinion that cholera cases should be carefully distinguished, as although the poor condition of the people predisposes to cholera it would not be correct when cholera has set in to attribute the deaths to starvation. It must, however, be remembered that the men employed to register deaths are quite unable to diagnose the correct causes of death, and there can be no doubt that in the present famine in Ganjam many deaths have been reported as due to cholera, but which in reality were from famine diarrhœa, &c.

6. Government note that in 1877 though the prices of food were high yet the death-rate was low, and that in 1878 the mortality in Ganjam was double the average death-rate. With reference to this I have to state that in 1877 though the prices were high yet there was no scarcity; food was obtainable and cultivation and field operations were carried on as usual. The high prices were probably due to the large exportations of food-grains to the famine-stricken districts of that year. In 1878 it must be remembered that in the earlier months food supplies were scarce and the people in the district suffered from privation. The late rains of 1877 had failed, crops were short and the prices of food higher than in 1877.

7. In conclusion, I may add that the severity of the present famine in Ganjam cannot, I think, be correctly gauged by the death-rate statistics though a close connection exists between the two, and I would recommend that a census of the district be taken after the calamity has subsided.

ENCLOSURE.

STATEMENT showing the deaths in the district of Ganjam in the months of November to July for the 25 years ending 1888-89.

ORDER—dated 24th October 1889, No. 871, Revenue.

Miscellaneous.

The statement embodied in the report compares the rates of mortality during the first half of each of the last twenty years with those of the present year; the corresponding rates for 1866, 1867 and 1868 are given on the margin. The Sanitary Commissioner says that although the figures are unreliable as indicating the absolute rates of mortality in the district they still have a value of their own and may be accepted for the sake of comparison year by year; the comparison can, however, only be between normal years or between years of distress; for, as the Sanitary Commissioner himself points out, more attention is paid to registration in famine seasons than in ordinary ones, and the effect of this must be to increase the apparent death-rates in years of distress so as to render any comparison of these rates with those of other years wholly misleading. The comparison indicated by the Government of India should therefore be restricted to the years 1866 and 1878; but as has already been pointed out the figures for 1866 are unreliable, because the registration of vital statistics was started only in that year. In 1878 the rise in the prices of food-grains was absolutely and relatively much higher than in 1889 or 1866, and considerable distress was felt by the people in the earlier months of the year; but the condition of the district appears to have attracted but little notice in consequence of the general distress in other districts where the suffering was far severer and which, though recovering from the famine of the previous year, required far more attention. The registered rates for the first half of 1878 are only 15·2 and 8·8, figures which give rise to the erroneous inference that, were it not for the cholera then prevalent, the mortality of the district would have been less than in 1882 or 1887.

	RATE PER MILLE OF POPULATION.	
	Inclusive of cholera deaths.	Exclusive of cholera deaths.
1866	25·5	10·6
1867	7·1	7·1
1868	4·6	4·6

2. The above considerations clearly show that the figures reported by the Sanitary Commissioner have to be accepted with reservations which detract much from their value for purposes of comparison, and the Government is of opinion that no safe or valid inference can be drawn from them as to the severity of the present scarcity in Ganjam.

3. Ordered that the following letter be addressed to the Government of India.

(True Extract.)

(Signed) J. GROSE,
Ag. Secretary to Government.

To the Sanitary Commissioner.
„ the Board (Settlement Department).
„ the Collector of Ganjam.

LETTER from the Honorable J. GROSE, M.A., C.S., Acting Secretary to the Government of Fort St. George, to the Secretary to the Government of India, Revenue and Agricultural Department, dated Fort St. George, 24th October 1889, No. 872, Revenue.

In continuation of Mr. Galton's letter of the 19th August, No. 717, Revenue, I am directed to submit a copy of the marginally-noted Proceedings of this Government embodying the further report called for from the Sanitary Commissioner on the question of the severity of the present famine in Ganjam as indicated by the vital statistics. After a careful examination of the figures furnished by the Sanitary Commissioner, this Government is of opinion that they possess little value even for purposes of comparison and that no safe or valid inference can be drawn from them.

Miscellaneous.

G.O., dated 24th October 1889, No. 871.

---

(3) G.O., dated 24th October 1889, Nos. 879, 879A, Revenue.

READ—again the following G.O., dated 5th October 1889, Mis. No. 1043, Public:—

Read—the following letter from Surgeon-Major C. J. McNALLY, Acting Deputy Sanitary Commissioner, to the Chief Secretary to Government, dated Camp Janomillai, Ganjam, 31st August 1889, No. 23:—

Pending the submission of a complete report on my present tour through the famine-stricken parts of the Ganjam district, I have the honor now to forward, in narrative form, some account of my proceedings up to date.

In order to avoid delay, this account is forwarded direct instead of through the Sanitary Commissioner, to whom a copy of it will afterwards be sent.

223

11th August.—Arrived at Chicacole and was occupied until 14th in inspecting the municipality and incidentally noting the condition of the people. They are poor generally, but there is no appearance of actual famine among them. Mr. Wedderburn, whom I met on 12th instant, informed me that most of the kitchens in the south of Chicacole taluk were being closed immediately.

I visited the Chicacole kitchen on the morning of the 14th, the day of its closure. It was opened on 1st July. The total number admitted was 658, of whom 534 stated that they belonged to the town. The attendance on 13th instant was 318, of whom 111 were children under 12.

No deaths in the kitchen were reported.

There were separate enclosures for Pariahs, caste people and Muhammadans. A good many of the latter, including young and old women, were present.

The food issued consists of grain according to the Famine Code scale, rice being given at the afternoon meal and ragi porridge at the morning. Mr. Henderson himself sees all the food served. He states that 2 oz. of dhal is too much for the people here, and it was reduced to 1½ oz.; and ½ oz. of tamarind being insufficient, the difference of price saved in dhal was used to increase it to ¾ oz.; ½ oz. of chillies was also found to be too much, and mixed curry stuff was given instead. The people liked the change. Tin measures were used for rice, the ragi porridge being served out by "rule of thumb." There has always been a larger attendance for evening than for morning meals, because the people do not like ragi, rice being their usual food.

The following table shows the results of my inspection of the people. Beggars, cripples and old people were very numerous:—

—	Total.	Good.	Fair.	Indifferent.	Bad.	Very bad.
Men	36	1	7	23	5	..
Women	114	20	31	57	5	1
Children	110	14	34	41	20	1
Total ..	260	35	72	121	30	2

A few of the worst cases were to be retained as hospital patients and supported by a charitable fund for some time after the closing of the kitchen. Among the worst were a family from the Vizagapatam district and some pilgrims.

15th August, Parlákimedi.—Here the standing crops look splendid. Some early ragi is almost fit to be harvested.

There is no appearance of famine among the people generally, but some of the beggars, who are very numerous, and a few of the poorest people are in very bad condition.

16th August.—In company with Mr. Taylor I inspected the Parlákimedi kitchen, which is about a mile and a-half from the town. The Apothecary visits it twice a week. I had to reprimand him severely for taking no steps for the treatment of a poor woman who had been admitted into the kitchen with a fractured thigh bone, the fracture having occurred some time before admission. There is a false joint rendering the leg useless at present.

Most of the adults were beggars and cripples—

—	Total.	Good.	Fair.	Indifferent.	Bad.	Very bad.
Men	27	..	..	14	11	2
Women	22	1	..	11	9	1
Children	17	..	2	3	6	6
Total ..	66	1	2	28	26	9

17th August.—In company with Mr. Taylor I visited two villages in the vicinity of Parlákimedi—Parthapatnam and Karandi. The former contains some 3,000 inhabitants, and these people generally are very well to do. We went carefully through all the most parts of the village and found only two orphan children and their aunt in very bad condition; these were sent to the kitchen. The houses of the weavers, of whom there are many here, are remarkably neat and clean with very large barred windows, not for hygienic purposes, but to give light for weaving in-doors. At Karandi no distress was noticeable.

18th August.—In the morning I visited Kasilinga, 25 miles from Kimedi. Here a relief kitchen was opened on 18th June, since which date 418 persons were admitted. The code ration is adhered to, ragi being given in the morning and rice in the afternoon. An Hospital Assistant had just arrived, and I directed him to order special diet for bad cases. The kitchen and a relief work (Palasa road) are close to the village. About half of the people attending the kitchen belong to Kasilinga village—

47

—	Total.	Good.	Fair.	Indifferent.	Bad.	Very bad.
Men	5	..	..	..	1	4
Women	5	..	..	1	1	3
Children	37	5	3	15	9	5
Total ..	47	5	3	16	11	12

An inspection of the coolies employed on the Kasilinga-Palasa road gave the following result:—

—	Total.	Good.	Fair.	Indifferent.	Bad.	Very bad.
Men	52	16	14	17	5	..
Women	101	33	38	19	10	1
Children	102	29	38	26	9	..
Total ..	255	78	90	62	24	1

The overseer said that he could only get nominal work from some of the weakly people, and ¼ or ½ task from others. I told him to send to the kitchen some who were unable to do *any* work.

In the afternoon of 18th I inspected Haripur, a village of over 1,000 inhabitants, 10 miles from Kasilinga. A relief kitchen (to be opened on 20th instant) was being constructed here; but so far as the village is concerned, it is entirely unnecessary (as I informed Mr. Foster). The people are all well here although rice sells at 9½ and ragi at 16 seers. The few beggars and orphans who receive a money-dole could well be supported by private charity as before, and the orphans are not all destitute. I went carefully through the "slums" of the village and could not discover a single individual showing evidence of starvation. One very fat child, who had been struck off the list, was produced as a specimen. The contrast between this village and Kasilinga, which is decidedly famine stricken, is remarkable.

19th August.—On afternoon of 19th I inspected the relief kitchen at Itchápur (population 2,585) in company with Mr. Foster whom I met here. The total admissions to this kitchen since its opening numbered 1,833; the present number is 140; there have been 25 deaths *in* the kitchen and an unknown number outside. Most of the children present now have been here since the opening of the kitchen, and many who were extremely emaciated when seen by the Hon'ble Mr. Price and myself on 14th June are now quite fat. The following are notes of the condition of present inmates:—

On ordinary diet.

88 *Sweepers.*—Eighty-three children, all good and fair, mostly good, except 3 indifferent; 5 women, of whom 2 were good and 3 indifferent.

14 *Pariahs.*—Ten children, all good or fair; 1 man good, a leper; 2 women indifferent, 1 bad.

9 *Caste people.*—Six children, all good; 1 woman good, assists in cooking; 1 boy bad, recovering from dropsy; 1 man bad. The two latter are recent admissions.

On special diet.

Children.—Two good, 3 fair, 2 indifferent (1 leper); 1 bad, 2 very bad (1 infant and 1 with dysentery).

Men.—One fair, 5 indifferent, 3 bad.

Women.—One fair (suckling very bad infant), 2 indifferent, 1 bad.

The Apothecary, Mr. Home, who has been in medical charge since this kitchen was opened, sent me the following particulars of 19 of the 25 deaths which have occurred in the kitchen:—

Cholera—7 adults, 3 children.
Diarrhœa—2 adults, 1 child, all emaciated.
Anæmia—1 adult, 1 child.
Abscesses—1 adult.

"Two children admitted into the kitchen on 14th June died on 29th, both on same day. On admission these were not expected to live, such was the state of emaciation of both. Their survival for 14 days I attribute to the careful diet . . . . They suffered from no particular ailment."

Ninety-eight persons at Itchápur were in receipt of money-dole, some being gosha and some sick; only 61 were produced for inspection; 11 of them were Muhammadan women—

—	Total.	Good.	Fair.	Indifferent.	Bad.	Very bad.
Men	15	3	3	8	1	..
Women	35	1	6	20	8	..
Children	11	1	4	2	4	..
Total ..	61	5	13	30	13	..

21st August.—On the 20th and 21st I began the municipal inspection of Berhampore. The condition of the people shows a marked improvement since His Excellency the Governor's visit. On the 21st I inspected the kitchens. Those for Pariahs and for caste people are separate and about a mile apart. Attached to the latter is a kitchen for Muhammadans, but none of them would come to it.

The present number attending the common kitchen is 251—11 men, 29 women and 209 children. The number has been over 600, but it was recently reduced. I saw many of those who had been turned out and who refused to work on the low wage offered—which is certainly not enough to tempt those on gratuitous relief, especially on money-doles, to go voluntarily to work—and who were clamoring for re-admittance and were gradually starving into a condition which would render them unfit for any work.

Ragi has hitherto, as in other kitchens, been given for the morning meal. The tahsildar has just substituted rice, because *sifted* ragi flour, as he informed me, is actually dearer than rice—rice being at 10½ and ragi at 20 seers per rupee (rice is heavier than ragi, and the grain is purchased by measure, but issued by weight; and ragi loses much in sifting). He stated that the District Medical officer objected to coarse ragi flour, but that must evidently have been for bad cases only. For the ordinary diet I took upon myself to direct him to use ragi, as the people are accustomed to eat it, that is, in coarse flour soaked in water over-night and cooked in the morning. The chillies in the code diet were too much and had been reduced in quantity, no substitute being given.

No deaths have occurred *in* this kitchen. Some cases of extreme emaciation were taken into the dispensary hospital, which is close by and they recovered.

I noted the following cases, the rest being good or fair:—

	Men.	Women.	Children.
Indifferent	3	11	19
Bad	1	2	2
Very bad	...	...	1

In the caste kitchen the following were noted:—

8 men, of whom 4 were indifferent, the rest being good or fair;
13 women, of whom 4 do. and one bad;
10 children, of do. 7 do. do.

I think the number in both kitchens would admit of further reduction. Many of the bigger children are fit to work.

22nd August.—At Aska improvement is also apparent in the general condition of the people. I inspected the town and kitchen in company with Mr. F. J. V. Minchin who naturally takes the greatest interest in the welfare of the people here, and met Mr. Elphinstone at the kitchen. A mixture of rice and ragi (1 to 4) is given in the morning and rice in the evening. The daily number fed since the opening of the kitchen has averaged about 150 and has not varied much. The total admissions were 504. One death of a child 4 years old from "general dropsy" has occurred in the kitchen. There are now 169 persons on the register; I saw the following:—

—	Total.	Good.	Fair.	Indifferent.	Bad.	Very bad.
Men	17	..	1	10	6	..
Women	21	1	8	7	4	1
Children	126	25	51	43	6	1
Total ..	164	26	60	60	16	2

Some of the bigger children are able to work and should be employed on the neighbouring tank work or elsewhere. Most of those marked "fair" and "indifferent" are evidently recovering from a worse condition and might rapidly become reduced again. The ability of

their parents or other relations to support them should be ascertained, if possible, before they are discharged. At all kitchens I am told that children who have been brought into fair condition and discharged have had to be re-admitted soon after.

Forty-two persons are in receipt of money batta at Aska. I only saw 15 of them—1 was good, 2 were fair, 9 indifferent, 3 bad. A tank work at Sunnamba in Aska at present employs 228 persons—70 men, 104 women, 54 boys—of these 10 men were indifferent and 2 bad, 15 women were indifferent and 5 children were indifferent and 1 bad. Most of the others were fair; a few were good. This gang is supposed to contain 10 per cent. of strong coolies for heavy work.

Mr. Elphinstone informs me that he has been distributing raw grain (instead of money) in several villages, and that the people much prefer it to money. No caste objection is raised. I have also been told by a native official that the people prefer it.

23rd August.—I visited the kitchen at Gangapur, 12 miles from Russellkonda. It was opened on 8th August and sheds are now being erected. Here I met Mr. Horne who was actively engaged in getting low caste people on village doles into the kitchen. Ragi, mixed with ¼ its weight of rice, is here given morning and evening according to the code scale.

The condition of the inmates is below noted:—

—	Total.	Good.	Fair.	Indifferent.	Bad.	Very bad.
Men	8	..	2	5	1	..
Women	10	..	3	5	2	..
Children	75	3	12	43	15	2
Total ..	93	3	17	53	18	2

24th August.—Visited the village of Kulada, 4 miles north of Russellkonda, in company with the Collector, Mr. Horsfall.

One-fifth of rice is given with ragi at both meals at the Kulada kitchen. One very emaciated infant in this kitchen did not appear very bad at first glance because it was swelled out with dropsy. Dropsy is now pretty frequently seen among the worst cases in kitchens and villages. It was very rare in June. As observed in 1877 during the great famine, it is a common accompaniment of the most advanced stage of chronic starvation. Eighty-one people were inspected in Kulada kitchen—

—	Total.	Good.	Fair.	Indifferent.	Bad.	Very bad.
Men	7	..	..	2	5	..
Women	24	2	2	8	11	1
Children	50	5	18	16	8	3
Total ..	81	7	20	26	24	4

In the village of Kulada (census population 1,690), 24 were in receipt of batta. Among them were a few very bad cases of "walking skeletons;" one child of 7 or 8 years looked beyond recovery. A weaver, who has been on the batta list since 18th June, was still very bad, suffering from anæmia and dropsy; this was like a case of starvation, but I think it was probably one of disease—though that was denied, and on cursory examination I could detect none—for the man's wife and son were in very fair condition. A tank work at Kulada employed 71 people; of 32 men—1 was good, 8 were fair, 21 indifferent, 2 bad; 23 women, 7 fair and 16 indifferent; of 16 children, 15 were indifferent and 1 was bad.

24th August.—In afternoon inspected Russellkonda kitchen. It was opened on 10th June, since which date 739 persons were admitted. The numbers before 28th June are uncertain owing to a forgery of admission tickets. After that date 311 were admitted. Since 28th June, 17 deaths have occurred *in* the kitchen (and an unknown number outside). Of this, small-pox caused 2, dysentery 4, diarrhœa 11. At the date of inspection, 371 (including 251 children) were on the register, but only 349 were present—

—	Total.	Good.	Fair.	Indifferent.	Bad.	Very bad.
Men	21	..	..	13	6	2
Women	57	..	9	36	11	1
Children	271	18	76	107	49	21
Total ..	349	18	85	156	65	24

25th August.—With Mr. Horsfall to visit some villages near Russellkonda which are at present difficult of access owing to water. The relief lists generally showed a proper selection of people. In one case a man in fair condition was receiving batta for his three emaciated children. In another three people appeared to subsist on the batta which was given to one of them; all these were very bad cases. The arduous work of house-to-house inspection, which is now engaging Mr. Horsfall, is the only thorough method of checking the work of Circle Inspectors and obtaining an intimate knowledge of the condition and resources of the people. Many, if not most, of the Circle Inspectors appear to be very inferior and unreliable men; and the close scrutiny of their work, which is needful, entails incessant labor on European officers who are insufficient in number for thoroughly effective control.

Mr. Horsfall sent a number of low caste people on money-doles to the Russellkonda kitchen.

26th August.—Visited the large tank bund at Russellkonda (part of Rushikulya project) with Mr. DeMorgan. About 1,500 coolies are employed here; but since only able-bodied persons are employed, this can hardly be termed a famine relief work in the ordinary sense, though it may be and probably is useful as a famine preventive. All the coolies were in good or fair condition.

27th August.—Marched to Boraborasinghi with Mr. Horsfall, who kindly invited me to accompany him towards Chinna Kimedi. In the afternoon we visited a small village where a few children in good condition were struck off the list. Afterwards on going unexpectedly to see a small tank work we found a number (about 80) of the people employed still waiting to be paid. Some of them were in a very emaciated state. It was dusk and the gumastah had not his register nor any money, but two comaties were present with grain and condiments as though the people were being paid in kind.

28th August.—To Suradá with Mr. Horsfall. On the way we inspected a small village in a jungle clearing among the hills. The few receiving batta were well selected. Two of them, a man and a child, both dropsical, were very bad. The people generally however were evidently improving in condition and spoke hopefully of their prospects. A good deal of chamulu, a small quick-growing cereal crop, has been harvested here.

Cholera has played havoc in many of the villages visited, whole families having in some cases been swept away, and in some hamlets 10 or even 20 per cent of the population having perished.

Small-pox is also very prevalent everywhere. The people also say that a good many died from want of food, and that others have left their villages for the same reason. The batta lists always show a very heavy mortality among the recipients of money-doles.

29th August.—Visited Balipada village (population 115), 2 miles from Suradá. The people generally are in fair condition, which may be due to the presence of many toddy trees, the only ones visible here. There were 20 on the batta list; 11 of these were struck out by Mr. Horsfall; 4 men were indifferent and 2 bad; 1 old woman was extremely emaciated and dropsical; 5 children were indifferent and 2 bad.

Also inspected the Suradá relief kitchen which has been looked after by the French Roman Catholic Missionaries since its opening on 16th June. The total admissions since were 364, and the number on the register to-day is 334. Ragi with "a little" rice is given in the morning and rice in the evening.

The Civil Apothecary, Mr. Jagannadham, who visits the kitchen daily, informs me that there has been much diarrhœa at the beginning of the rains. There have been 11 deaths *in* the kitchen (including 6 children ranging from 2½ to 11 years of age), 6 from dysentery, 2 from diarrhœa, 2 from "choleraic diarrhœa," 1 from cholera. I examined those present with the following results:—

—	Total.	Good.	Fair.	Indifferent.	Bad.	Very bad.
Men	18	2	1	9	6	..
Women	37	..	10	26	6	1
Children	171	10	52	74	29	6
Total ..	226	12	63	103	41	7

Many of those marked fair and indifferent, especially children, are evidently recovering from a worse condition, as may be judged from their still loose, corrugated skin, thin limbs, flat buttocks and distended bellies.

30th August.—Inspected persons in receipt of raw-grain doles at Suradá. There appears to be some difficulty in obtaining grain, stocks held by local dealers being apparently small. Some *Panos* have come for inspection, others have absented themselves through fear, it is said, of being sent to the kitchen. Some of these so-called Panos are reported to be Christians!

The numbers on the relief register were 275—men 43, women 73, children 159. I saw only the following:—

—	Total	Good.	Fair.	Indifferent.	Bad.	Very bad.
Men	27	..	4	9	12	2
Women	55	6	15	21	11	2
Children	128	14	36	47	26	5
Total ..	210	20	55	77	49	9

Many of these people also appear to be recovering from a worse condition—a good many are fit for light work—some are cripples, old or sick. Mr. Horsfall selected 37 for light work in clearing jungle close to the village.

31*st August*.—With Mr. Horsfall to Janomillai, 12 miles from Suradá, inspecting two villages on the way. The people appear to be improving, but are generally thin. Mr. Horsfall took a few off the batta lists. In one village of 490 inhabitants, of 45 on the register since relief began, 14 have died. The only presently bad cases we saw in this village were two children, one of them a Brahman, and an old man with dropsy.

Ragi is more backward about Suradá than in other places which I have visited, and some of the higher rice lands and jungle clearings are left uncultivated.

Considerable quantities of chamulu, a quick-growing crop raised on dry lands, are now to be seen in every village Its price *unhusked* is quoted at about one-third that of rice, but it undergoes great reduction in husking, and its real value appears to be between that of rice and of ragi. It is largely eaten by the ryots and does not appear to be sold in the markets.

Some statistics of deaths among those receiving money-doles in villages have been lately collected by Mr. Horsfall. These show a mortality of about 240 per 1,000 per annum, and the significance of this enormous mortality is increased by the consideration that a great majority of those on the batta lists are children of ages at which the normal mortality is very low.

But, in addition to this ascertained mortality, considerable numbers have "disappeared," and there can be little doubt that many of these have died. We have here evidence that, notwithstanding the undoubted great saving of life by relief measures, large numbers of people have died from famine.

It is doubtful if any practicable relief measures could prevent some famine mortality from occurring when severe scarcity of food occurs over any considerable tract in India. Imperfect communications, large belts of jungle and mountain, unreliable and ignorant subordinate officers, an uneducated population strongly imbued with caste prejudices greatly increase the difficulties of famine administration and of the saving of famine mortality in Ganjam.

Read—also the following letter from Surgeon-Major C. J. McNALLY, M.D., F.C.S., Acting Inspector of Vaccination and Deputy Sanitary Commissioner, to the Chief Secretary to Government, dated Madras, 18th September 1889, No. 1372:—

I have the honor, in continuation of my report, dated 31st August, to submit particulars of the rest of my tour in the Ganjam district.

2. 1*st September*.—In company with Mr. Horsfall I inspected some small villages between Janomillai and Mondimorai. A few were taken off the relief lists by Mr. Horsfall.

(i) Mondimorai is a large village containing apparently fully 3,000 inhabitants, though according to the last census it had only 1,313. Many people here are emaciated, but they are evidently improving. Considerable quantities of *chamulu* are grown in the neighbourhood and this grain is now much eaten, more by ryots than by laborers. It makes a very palatable porridge. Several people here were struck off gratuitous relief and sent to work on one of the village tanks—

Mondimorai kitchen.

—	Total.	Good.	Fair.	Indifferent.	Bad.	Very bad.
Men	3	..	..	..	3	..
Women	7	1	2	2	2	..
Children	73	12	31	26	4	..
Total ..	83	13	33	28	9	..

A Brahman woman and 3 children are the only occupants of the caste division, which may well be closed. Some of the bigger children are fit to work. There have been 248 admissions since this kitchen was opened on 8th July. Five deaths have occurred *in* the kitchen, 4 attributed to cholera and 1 to diarrhœa.

3. 2*nd September—Sergada*.—I met Dr. Pemberton and Mr. Carr here. The following is the result of my inspection of people working on a tank at this village. Many of those at work are hardly in condition to do any work:—

—	Total.	Good.	Fair.	Indifferent.	Bad.	Very bad.
Men	70	10	16	30	13	1
Women	107	19	34	35	19	..
Children	221	18	56	86	52	9
Total ..	398	47	106	151	84	10

(i) *Recipients of money-dole at Sérgadá*.—The following were seen of 91 on register:—

—	Total.	Good.	Fair.	Indifferent.	Bad.	Very bad.
Men	8	..	..	6	2	..
Women	16	..	2	7	6	1
Children	45	7	5	17	11	5
Total ..	69	7	7	30	19	6

On 13th August 334 were on the register. One hundred and thirty-seven were struck off on that date. The circle inspector, who has just been dismissed, had been putting large numbers of well-to-do caste people on the relief list. Only 4 deaths are noted in the register. The karnam is unable to state or ascertain the total number of persons admitted to relief. I saw several persons in bad and very bad condition who had been struck off gratuitous relief. They would not work and had been starving since—

Sérgadá kitchen.

—	Total.	Good.	Fair.	Indifferent.	Bad.	Very bad.
Men	2	..	..	1	1	..
Women	5	1	..	4	..	..
Children	41	10	12	12	4	3
Total ..	48	11	12	17	5	3

Total admissions 182; only one death (infant) *in* kitchen.

4. *Money-dole recipients at Srichandrapuram (pop. 365) between Sérgadá and Pattupur*—

—	Total.	Good.	Fair.	Indifferent.	Bad.	Very bad.
Men	8	..	..	..	..	..
Women	45	2	8	4	2	2
Children				20	15	
Total ..	53	2	8	24	17	2

84 admissions since opening in April; only one death *recorded*.

5. 3*rd September*.—Visited Chudangipuram (population 409), 2½ miles from Pattupur, with Mr. Carr. The present number on relief list is 64. Seventy-eight have been entered since the beginning of relief in April. The kargi says that 4 persons died from want of food before relief was opened. The village death register shows 5 deaths in April, none in May, 2 in June, 2 in July, all entered as due to "fever."

(i) The people on relief in this village go to Pattupur to receive weekly doles of raw grain. Fifty of them were seen—

—	Total.	Good.	Fair.	Indifferent.	Bad.	Very bad.
Men	2	..	..	2	..	..
Women	10	..	..	4	5	1
Children	38	2	7	15	11	3
Total ..	50	2	7	21	16	4

(ii) I made special inquiries regarding the three "very bad" children. One was an orphan infant in charge of its grandmother, who was also receiving relief.

(iii) The mother of the second child was *gosha* and I saw her at her house; both she and an infant which she was nursing were in very good condition. Her husband had gone to Rangoon. Her mother was living with her and was in bad condition.

(iv) The third child had a sister, 4 years old, also on batta list and in nearly as bad condition. The father was said to be in poor condition and at work. The mother and a third child who was with her was fair. She does not deny that she lives on her children's rations.

(v) The karnam of this village looked reduced. I found that 4 persons of his family were receiving grain doles. The women being *gosha*, I went to his house and found all his family, except a grown-up son, markedly emaciated. He had *inam* land which yielded nothing last year.

6. *Digupudi kitchen*—

—	Total.	Good.	Fair.	Indifferent.	Bad.	Very bad.
Men	6	..	..	1	1	4
Women	7	..	1	1	3	2
Children	77	15	23	23	14	2
Total ..	90	15	24	25	18	8

One infant here was as bad as the worst cases in the great famine of 1877. All had not arrived at the time of my visit. The registered numbers were 11 men, 17 women, 114 children. 211 have been admitted since opening. The man now in charge of this kitchen only arrived yesterday and can give no information regarding mortality. A number were marked in the register "sent to hospital," the hospital being at a neighbouring road work. The Hospital Assistant informs me that since he arrived, 20 days ago, 4 deaths have occurred of persons sent from the kitchen—a child of 10 died of dysentery, two adults of diarrhœa, and an old person of diarrhœa and dropsy—all being very emaciated.

7. *Digupudi village.*—This is the residence of the Pedda Kimedi Zemindar and contains a large population of well-to-do Brahmans, who are in excellent condition. Distress appears to be confined to some of the lowest castes.

(i) The village is exceedingly dirty and a large square tank which affords its drinking water is polluted in every way. Cholera created great ravages here in June, and it is said that about three-fouths of the population fled and some 200 of them never returned. Large herds of cattle, in worse condition than any seen elsewhere, were noticed. Their emaciation is remarkable, for the cattle in most parts are now fairly well nourished. It was difficult to obtain assistance from the village officials. Forty-five are on the money-dole list; 13 others have lately been added by the circle inspector, but have not yet been paid, no money for them having been received. A man on the list died yesterday of dysentery. The following were seen after much delay:—

—	Total.	Good.	Fair.	Indifferent.	Bad.	Very bad.
Men	5	..	..	2	3	..
Women	8	1	2	3	1	1
Children	22	3	2	9	3	5
Total ..	35	4	4	14	7	6

In the road-work hospital 6 deaths have occurred (including some from kitchen), 4 from diarrhœa and 2 from dropsy, all in very emaciated people.

8. *Pattupur kitchen*—

—	Total.	Good.	Fair.	Indifferent.	Bad.	Very bad.
Men	10	..	1	5	3	1
Women	8	..	..	7	1	..
Children	115	40	36	32	6	1
Total ..	133	40	37	44	10	2

Rice is given at both meals in this kitchen, and Mr. Carr attributes the rapid improvement in the condition of the children to its use instead of ragi.

Total admissions to kitchen since opening 386.

(i) *Deaths registered.*—Five at their houses and 13 in hospital. The causes of the latter were diarrhœa 4, anæmia and dropsy 1, anæmia 1, cholera 4, debility 2, choleraic diarrhœa 1. Five of the deceased were children, one was adolescent, 2 were young and 5 old adults; one person absconded from hospital and one was sent to another hospital.

(ii) *Grain-doles—Pattupur*—

—	Total.	Good.	Fair.	Indifferent.	Bad.	Very bad.
Men	3	..	..	..	2	1
Women	8	1	2	3	1	1
Children	41	2	14	14	7	4
Total ..	52	3	16	17	10	6

The total present number on list is 8 men, 19 women, 95 children. 205 was the highest number reached.

Three deaths of persons receiving doles have been *registered* since April—2 children from fever and 1 man from cholera.

9. *5th and 6th September.*—Finished municipal inspection of Berhampore.

10. *7th September—Chatrapur kitchen*—

—	Total.	Good.	Fair.	Indifferent.	Bad.	Very bad.
Men	..	..	..	..	..	..
Women	11	1	4	5	1	..
Children	32	19	4	6	3	..
Total ..	43	20	8	11	4	..

Ragi and rice (½) is given morning and evening.

Total admissions 130. Two deaths occurred *in* the kitchen—a child of 2 died of diarrhœa and an old man of "stomach ache;" both were greatly emaciated. Forty-two persons "went away"; the rest were discharged as "fit for work."

11. *Coolies on tank-work at Chatrapur*—

—	Total.	Good.	Fair.	Indifferent.	Bad.	Very bad.
Men	1	..	..	1	..	..
Women	9	2	3	4	..	..
Children	31	9	13	8	1	..
Total ..	41	11	16	13	1	..

12. *8th September—Rambha.*—This is a place of considerable importance as the grain and salt traffic by the Chilka lake from and to Orissa is here transhipped. Cholera from Orissa is also said to habitually invade Ganjam by this route, yet Rambha possesses no dispensary nor medical officer.

(i) A fine tank, with walls and steps, of cut stone, has lately been cleaned out, and Mr. Minchin informs me that the water was very clear and clean a week ago. Now it is dirty again. The people had been strictly cautioned not to use it except for drinking. We found people washing clothes and bathing in it. The kargi said, in an apologetic manner, that a man who was bathing was "only a madman."

(ii) *Village-doles—Rambha.*—The following were seen out of 105 on register:—

—	Total.	Good.	Fair.	Indifferent.	Bad.	Very bad.
Men	4	..	..	1	3	..
Women	14	..	1	6	5	2
Children	23	..	3	4	7	9
Total ..	41	..	4	11	15	11

(iii) A child of 7, who is very bad, has a mother in fair condition, who appears to eat the child's ration.

(iv) Four applicants were recommended to be inscribed and one person to be removed.

(v) Five children on this list are ill with small-pox; 2 died last week, 1 of leprosy, the other of "emaciation." Mr. Minchin kindly got some chamulu carefully husked and measured for me. The yield is little over one-half (by measure). The present price of this grain here is 48 measures per rupee. That is equivalent to more than 25 measures of cleaned grain. Chamulu has the reputation of being unwholesome as a continued article of diet.

13. I was prevented from stopping at the village of Ganjam as intended by a slight attack of fever. The unusual composition of the relief list at that place is remarkable—a large number of women and few children—and I took occasion to mention it in writing to the Collector.

14. *9th September—Gopálpur kitchen*—

—	Total.	Good.	Fair.	Indifferent.	Bad.	Very bad.
Men	11	1	1	8	1	..
Women	16	1	6	9	..	..
Children	87	38	26	19	3	1
Total ..	114	40	33	36	4	1

(i) One-fifth of rice is given with ragi in the morning and rice only in the evening. Butter-milk and vegetables occasionally supplied by the contractor.

(ii) The one man in good condition is a youth "in charge of a blind caste man." I had him very promptly discharged.

(iii) Admissions since opening on 12th June, 239. Deaths *in* kitchen—old age 2, marasinus (wasting) 1, small-pox 1, debility 1, total 5. "Left" 55 in June; of these 15 emigrated and the rest went to their villages.

(iv) Grain-doles (1½ lb. + ½ anna) are issued at Gopálpur to persons of 13 villages. Only 154 are at present on the list; but the numbers have been very largely in excess of this, Gopálpur itself having had no less than 213 and Gulabunda (a village of about 2,500 population) 204. The numbers have been reduced by degrees since about 25th July.

15. *10th September.*—Examined recipients of grain-doles from 3 villages—

—	Total.	Good.	Fair.	Indifferent.	Bad.	Very bad.
Men	3	..	..	..	2	1
Women	5	..	1	3	..	..
Children	20	2	2	7	7	2
Total ..	28	3	3	10	9	3

An old weaver, who emigrated last year to Mushedapur from Parlákimedi, because he could not obtain work, and two of his children are in a very bad state and extremely emaciated though they have been on relief list since July. The man states that he has a wife and *six* children all bad. I desired him to bring the others for Mr. Hamilton to see. The whole family appears to have been slowly starving on doles given to three.

16. Small-pox is very prevalent all over the district. The wife of the postmaster of Gopálpur died of it this morning. The disease might readily be conveyed by letters.

17. I left Ganjam on the 11th September.

Order—dated 5th October 1889, No. 1043, Public.

The papers read above will be communicated in original to the Revenue Department.

(True Extract.)

(Signed) W. S. MEYER,
Assistant Secretary.

To the Surgeon-General with Government.
„ the Sanitary Commissioner.
„ the Revenue Department, with original papers.

223

Order—dated 24th October 1889, No. 879, Revenue.

Miscellaneous.

Recorded.

2. The remarks of the Deputy Sanitary Commissioner in paragraph 12 of the second report read above as to the want of a dispensary at Rambha will be referred to the Local and Municipal Department.

(True Extract.)

(Signed) J. GROSE,
Ag. Secretary to Government.

To the Public Department.
„ the Local and Municipal Department (with copy of Honorable Member's remarks about Rambha).
„ the Collector of Ganjam.
„ the Commissioner of Revenue Settlement, Land Records and Agriculture.
„ the Surgeon-General with the Government of Madras.

No. 879A.

Copy to the Government of India, Revenue and Agricultural Department.

(Signed) J. GROSE,
Ag. Secretary to Government.

---

(4) G.O., dated 31st October 1889, Nos. 888, 888A, Revenue.

Read—G.O., dated 15th October 1889, R. No. 1102, Public.

Read—the following letter from Surgeon-Major C. J. McNALLY, M.D., Acting Deputy Sanitary Commissioner, to the Sanitary Commissioner of Madras (for favor of transmission to Government), dated Madras, 27th September 1889, No. 768:—

I have the honor to submit some concluding remarks on my recent tour in the Ganjam district.

2. The statistics collected are here summarised and calculated to a uniform scale.

3. This places them in a much clearer light, and is a necessary arrangement for comparative purposes.

4. The total number of persons tabulated in various inspections was 3,683, the number in kitchens being 2,094, on grain-doles 340, on money-doles 274, and on small relief works 975.

5. The percentage proportions of men, women and children were—

	Men.	Women.	Children.
Kitchens	9·5	19	71·5
Grain-doles	10	23	67
Money-doles	14	30	56
Works	23	35	42

(i) The small proportion of men and women, compared with that of children in kitchens, is explainable by the more constant and rigid supervision of kitchens and the immediate discharge of persons fit to work, as well as by the facts that many persons who are earning a bare sustenance for themselves on relief works, or otherwise, leave their children in kitchens, and some who, on account of caste, will not themselves accept cooked food, do not object to their children being fed.

(ii) The *men* now receiving gratuitous relief in kitchens or in the form of grain or money are mostly crippled, sick or old. A certain number are persons who, having been unable to obtain a living by their customary work, have not done other work, and have been reduced to a very low ebb by starvation.

(iii) The *women* are of the same classes, besides many whose husbands have emigrated or died, some pregnant women, and some with young infants.

6. The condition of the people receiving gratuitous relief (of all kinds), and that of those employed on small relief works near villages is here shown *per* 1,000 *of each population* :—

Gratuitous relief.

—	Total.	Good.	Fair.	Indifferent.	Bad.	Very bad.
Men	1,000	44	99	496	299	62
Women	1,000	95	211	479	179	39
Children	1,000	201	296	313	143	47
Total ..	1,000	163	259	365	166	47

Village works.

—	Total.	Good.	Fair.	Indifferent.	Bad.	Very bad.
Men	1,000	200	347	351	98	4
Women	1,000	241	413	259	84	3
Children	1,000	187	288	345	158	22
Total ..	1,000	209	345	316	119	11

7. The *per mille* proportion was as follows :—

	Bad and very bad.	Indifferent.	Good and fair.
Kitchens	128	356	516
Grain-doles	312	367	321
Money-doles	368	430	202
Works	130	316	554

(i) These figures point to the much greater efficiency of gratuitous relief in the form of cooked food than in the form of grain or money.

This superior efficiency is attributable to several causes : the supervision is better, the entire amount expended is consumed in the form of wholesome food, the people being unable (as they often do with money and to a less extent with grain) to buy sweetmeats, liquor, tobacco, &c., instead of food. Money and grain doles, besides being difficult to supervise and affording much opportunity for peculation on the part of dishonest officials, are liable to the further abuse of being consumed by the wrong persons, children's shares being sometimes appropriated by their parents, and old peoples' by their children.

(ii) The large proportion of " good " and " fair " in kitchens is largely due, no doubt, to the retention of many young children ; but, with every allowance for this, I think there cannot be any doubt of the superior efficiency of kitchen relief. The mortality in kitchens also appears to be considerably lower than among those on village relief.

(iii) The condition of the people employed on small relief works shows almost the same proportions as that of those fed in kitchens ; but the constitution of the two populations is very different, kitchens having 71·5 per cent. of children, and works only 42.

(iv) It may be observed, however, that the people on works are—as they ought to be—in much better condition than those on gratuitous village relief (grain and money doles).

8. In many cases the work performed is merely nominal, and many of the small works are practically useless ; but it is certainly better for even weakly people to nominally earn their living than to be exposed to the demoralizing effect of gratuitous support.

9. The comparatively small proportion of adults on gratuitous relief compared with works is a gratifying fact.

(i) Their proportion would doubtless be larger if the wages given were a little better. At present it is hardly sufficient to tempt people to work rather than apply for gratuitous relief, and many who are discharged from the latter starve until they are unfit to work.

(ii) The larger Public Works Department works, where good wages are given, but where only first-class coolies are employed, can hardly be termed *relief* works, though they may, no doubt, be of great value as *preventive* works.

10. *Diseases.*—The rarity of dropsy in the early stages of famine is as remarkable as its prevalence later on. During His Excellency the Governor's tour in June, it was very rarely to be seen ; but now it is common in bad cases.

Anæmia is also prevalent as a result and indication of chronic starvation. Diarrhœa and dysentery exist to a considerable extent, and account for a good many deaths. These are the commonest famine diseases. Ophthalmia, though often seen, is not epidemic, as it was in many of the crowded famine camps of 1877.

11. I have given a few statistics of sickness in notes on inspections of kitchens, &c., but they are insufficient to tabulate with advantage, and the medical returns from Hospital Assistants employed at kitchens and works will afford better information.

Small-pox is at present extremely prevalent all over the district. The relief kitchens offer a tempting opportunity for vaccinating many children, but Mr. Horsfall agrees with me that it would be better to defer it until the kitchens are being closed, as it might easily create a scare. I have known a stampede from a relief camp in the famine of 1877 caused by much less reason. The local Deputy Inspectors of Vaccination have been warned to see that the vaccinators are active and well supplied with lymph.

12. *Mortality* —In the first report of this tour I mentioned some figures (of over 6,000 persons, principally collected by Mr. Lever) which I obtained from Mr. Horsfall and which showed the mortality of those on village relief to be about 240 per 1,000 per annum.

(i) The registers of eight of the kitchens which I inspected showed 77 deaths and 3,966 total admissions (some of which were re-admissions) during an average time of about 2½ months. This gives a death-rate of more than 91 per 1,000 per annum ; but the true rate must have been much higher ; for those who died at their houses have usually not been registered as dead, and there can be no doubt that many struck off as " gone away " have died. Both in kitchens and among the recipients of village-doles there is a large proportion of children of ages at which the normal mortality is low : this fact, as already pointed out, increases the significance of their high death-rate.

(ii) On the other hand there is no doubt that the mortality of those on the relief list has been swelled to some extent by the inclusion of sick persons.

13. I would respectfully suggest, for the consideration of Government, that an estimate of the mortality of persons on gratuitous relief in villages should be obtained by means of a careful scrutiny of the relief registers, and inquiry on the spot as to what became of every person struck off, the scrutiny being confined to a few selected circles. Each divisional officer might be asked to select one circle as a fair sample of his division.

14. Famine cannot exist without increased mortality, especially among the very young and the very old. Deaths from direct starvation are rarely recorded during famine ; but they are usually attributed to the secondary causes of diarrhœa, dysentery, dropsy, anæmia or debility. No practicable measures of relief can prevent some such mortality—at all events it has not been entirely prevented in any famine of which we have knowledge. Its prevention is especially difficult in a district where the population is very ignorant, and is strongly imbued with caste prejudices, and where subordinate officials are of a very inferior type. There appears to have been great difficulty in getting men at all suitable for the posts of circle inspectors ; and there is little control over them, except over such as happen to have permanent Government posts. With a limited staff of superior officers, constantly effective supervision has therefore been impossible, and some abuses have occurred ; but Mr. Horsfall and his district officers have labored hard and with much success to minimise such abuses.

15. Taking a general view of the measures adopted, and considering the local difficulties, it may fairly be concluded that the relief is as efficient as it could be under the circumstances. The good harvest prospects have cheered the people and relief officers during a period of hardship which is now happily drawing to a close.

No. 1419.

Forwarded to Government.

TRICHINOPOLY, 29th September 1889.

(Signed) J. A. LAING, Surgeon-Major, Sanitary Commissioner, Madras.

Order—dated 15th October 1889, R. No. 1102, Public.

Communicated to the Revenue Department, in original, in continuation of G.O., R. No. 1043, dated 5th October 1889.

(True Extract.)

(Signed) W. S. MEYER, Assistant Secretary.

To the Revenue Department, with current, in original.

ORDER—dated 31st October 1889, No. 888, Revenue.

Miscellaneous.

Recorded.

2. The Government quite concurs in the conclusion which Dr. McNally has worked out from his vital statistics that the best form of gratuitous relief is the distribution of cooked food. The scrutiny of the relief lists suggested in paragraph 13 of the report with a view to ascertain the rate of mortality among persons in receipt of gratuitous relief in villages commends itself to Government, and the Collector will be called upon to submit a report on the subject after careful local inquiries by divisional officers in the manner suggested by the Deputy Sanitary Commissioner. The consideration of the other points referred to in this report and the two previous ones, notably the insufficiency of famine wages on works and the difficulty of carrying on civil agency works simultaneously with the distribution of money doles, will be postponed for the present.

(True Extract.)

(Signed) J. GROSE,
Ag. Secretary to Government.

To the Sanitary Commissioner for Madras.
" Collector of Ganjam.
" Commissioner of Revenue Settlement, Land Records and Agriculture.
Copy to the Public Works Department.

No. 888-A.

Copy to the Government of India, in continuation of endorsement No. 879A, dated 24th October 1889.

(Signed) J. GROSE,
Ag. Secretary to Government.

---

(5) G.O., dated 25th November 1889, No. 7595, Mis., Revenue.

READ—the following letter from J. W. P. MUIR-MACKENZIE, Esq., C.S., Under Secretary to the Government of India, Revenue and Agricultural Department (Famine), to the Secretary to the Government of Madras, dated Calcutta, the 15th November 1889, No. 2-C—1, Famine:—

In acknowledging the receipt of Mr. Grose's endorsement, No. 879A, dated the 24th ultimo, giving cover to two reports by Surgeon-Major McNally, Acting Deputy Sanitary Commissioner, of his Proceedings in the Ganjam district, I am directed to request that, with the permission of His Excellency the Governor in Council, the Government of India may be supplied with the statistics of mortality referred to by Dr. McNally on page 8 of the printed papers as having been lately collected by Mr. Horsfall.

ORDER—dated 25th November 1889, No. 7595, Mis., Revenue.

The Collector will be requested to furnish the statistics referred to by the Government of India as well as those the collection of which was ordered in G.O., dated 31st October 1889, No. 888, at an early date.

(True Extract.)

(Signed) J. GROSE,
Ag. Secretary to Government.

To the Collector of Ganjam.
Copy to the Commissioner of Revenue Settlement, Land Records and Agriculture.

---

(6) Letter from J. W. P. MUIR-MACKENZIE, Esq., C.S., Under Secretary to the Government of India, Revenue and Agricultural Department (Famine), to the Secretary to the Government of Madras, dated Calcutta, the 12th March 1890, No. 343-C:—

With reference to my letter, No. 2-C.—1 (Famine), dated the 15th November last, I am directed to forward the accompanying copy of a despatch from Her Majesty's Secretary of State for India commenting on Dr. McNally's reports on the mortality in the distressed tracts

of Ganjam. I am to take this opportunity to invite attention to the request made in the communication above referred to, and to ask that the Government of India may be furnished with any further facts the Government of Madras may be able to collect which will exhibit the true significance of the figures in a clearer light, and reveal any exaggeration in the estimate of mortality during the period of scarcity which might result from their unreserved acceptance.

ENCLOSURE.

From the Right Hon'ble Viscount CROSS, G.C.B., Her Majesty's Secretary of State for India, to the Government of India, dated India Office, London, the 16th January 1890, No. 1 (Revenue).

Among the papers forwarded with your Secretary's letter, No. 1-C. (Famine), dated the 19th November 1889, I find two reports by Surgeon-Major C. J. McNally, Deputy Sanitary Commissioner, concerning his visit to the distressed tracts of Ganjam. On receipt of these reports your Excellency's Government caused enquiry to be made as to statistics regarding the ascertained mortality from want in Ganjam. A subsequent letter from your Secretary, No. 3 C. (Famine), dated 26th November, forwarded a third and final report from Dr. McNally.

2. In his first report the Deputy Sanitary Commissioner wrote that certain statistics of deaths, compiled by the Collector, "showed a mortality of about 240 per mille per annum"; also "that, notwithstanding the undoubted great saving of life by relief measures, large numbers of people have died from famine." The third report from Dr. McNally, dated the 14th September, gives a comparison of the Ganjam death-rate during the first six months of 1889 with the corresponding months of the past 20 years. In that report the death-rate of 1889 is put at 26 per mille or 52 per mille per annum, which, though considerably above the rate of ordinary years, is yet far below 240 per annum. The Madras Government, remarking upon the statistics offered in Dr. McNally's third report, observe that the figures must be accepted with reservation, and do not form safe ground for estimating the severity of the recent famine.

3. I desire to receive a further report, when anything certain is ascertained, concerning the mortality of 1889 in Ganjam as compared with the mortality in ordinary years. And I should be glad to learn what grounds exist for the estimates quoted above from Dr. McNally's first report. If further enquiry shows that those estimates were exaggerated, it would be well that the fact should be made clear.

(7) STATEMENT showing the deaths in the district of Ganjam for the undermentioned periods.

Years.	OCTOBER.			NOVEMBER.			DECEMBER.			JANUARY.			FEBRUARY.		
	Total deaths.	Total deaths exclusive of cholera.	Ratio per 1,000 of total deaths.	Total deaths.	Total deaths exclusive of cholera.	Ratio per 1,000 of total deaths.	Total deaths.	Total deaths exclusive of cholera.	Ratio per 1,000 of total deaths.	Total deaths.	Total deaths exclusive of cholera.	Ratio per 1,000 of total deaths.	Total deaths.	Total deaths exclusive of cholera.	Ratio per 1,000 of total deaths.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1865-66	3,948	3,601	4·4	4·0	2,557	2,315	2·9	2·6	4,014	1,638	3·6	1·4	5,664	1,418	5·0	1·2
1866-67	927	920	0·7	0·7	1,147	1,029	0·9	0·8	2,847	2,748	2·5	2·4	1,806	1,764	1·6	1·5
1867-68	1,235	1,229	1·0	1·0	1,289	1,284	1·0	1·0	1,053	1,041	0·8	0·8	806	798	0·6	0·6
1868-69	1,238	1,229	1·2	1·2	1,040	1,024	1·0	1·0	1,306	1,289	1·0	1·0	1,098	1,084	0·9	0·9
1869-70	985	983	1·0	1·0	905	903	0·9	0·9	1,274	1,267	1·2	1·2	985	982	0·9	0·9
1870-71	981	975	1·0	1·0	1,062	1,054	1·2	1·2	1,215	1,204	1·1	1·1	1,053	1,038	0·9	0·9
1871-72	1,470	1,463	1·5	1·5	1,185	1,128	1·3	1·2	1,243	1,237	1·1	1·1	968	967	0·9	0·9
1872-73	1,004	1,003	1·0	1·0	988	988	1·0	1·0	1,899	1,859	1·8	1·8	1,404	1,375	1·2	1·1
1873-74	1,139	1,139	0·8	0·8	1,384	1,384	1·0	1·0	1,100	1,073	1·2	1·2	923	895	0·9	0·8
1874-75	1,663	1,663	1·3	1·3	1,682	1,504	1·3	1·2	1,871	1,871	1·7	1·7	1,518	1,517	1·1	1·1
1875-76	1,574	1,472	1·3	1·2	1,689	1,529	1·4	1·4	1,913	1,887	1·4	1·4	1,733	1,714	1·3	1·3
1876-77	1,371	1,224	1·2	1·0	2,130	1,360	1·9	1·2	1,505	1,499	1·2	1·2	1,369	1,296	1·1	1·0
1877-78	1,903	1,885	1·8	1·8	1,400	1,392	1·4	1·4	1,707	1,707	1·8	1·7	1,764	1,113	1·5	0·9
1878-79	1,484	1,484	1·4	1·4	1,617	1,617	2·0	2·0	1,644	1,407	1·7	1·2	1,267	1,260	1·3	1·3
1879-80	1,537	1,537	1·3	1·3	1,706	1,669	1·4	1·4	1,688	1,407	1·2	1·2	1,305	1,304	1·2	1·2
1880-81	1,388	1,387	1·2	1·2	1,470	1,470	1·4	1·4	2,373	2,322	2·1	2·1	2,030	2,027	1·5	1·4
1881-82	1,628	1,615	1·4	1·4	1,649	1,641	1·4	1·4	2,330	2,350	2·0	2·0	1,643	1,643	1·3	1·3
1882-83	1,559	1,558	1·0	1·0	1,609	1,609	1·1	1·1	1,529	1,505	1·1	1·1	1,148	1,146	0·8	0·8
1883-84	1,069	1,068	1·2	1·2	947	945	1·3	1·3	1,698	1,696	1·1	1·1	1,088	1,088	1·0	1·0
1884-85	1,688	1,562	1·4	1·3	1,633	1,586	1·6	1·5	1,372	1,342	1·1	1·1	1,084	1,084	1·0	1·0
1885-86	1,372	1,368	1·4	1·4	1,407	1,354	1·5	1·4	1,669	1,662	1·2	1·2	1,153	1,147	1·0	1·0
1886-87	2,423	2,391	2·1	2·0	1,970	1,900	1·9	1·8	1,402	1,347	1·8	1·7	1,046	1,043	1·8	1·8
1887-88	1,251	1,217	1·3	1·2	1,549	1,416	1·3	1·3	1,404	1,404	1·9	2·1	1,044	973	1·4	1·3
1888-89									1,878	1,850	2·1		1,636	1,578	1·7	1·6

Registration came into force in 1866.

NOTE.—The ratios are monthly rates and not annual.

223

Statement showing the deaths in the district of Ganjam for the undermentioned periods—*cont.*

Years.	MARCH.			APRIL.			MAY.			JUNE.		
	Total deaths.	Total deaths exclusive of cholera.	Ratio per 1,000 of total deaths.	Total deaths.	Total deaths exclusive of cholera.	Ratio per 1,000 of total deaths exclusive of cholera.	Total deaths.	Total deaths exclusive of cholera.	Ratio per 1,000 of total deaths exclusive of cholera.	Total deaths.	Total deaths exclusive of cholera.	Ratio per 1,000 of total deaths exclusive of cholera.
	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
1865-66	5,104	1,404	4·0	1·1	4,064	1,612	3·5	1·4	3,102	1,957	2·7	1·7	8,232	4,210	7·3	3·7
1866-67	1,336	1,320	1·1	1·1	1,108	1,087	0·9	0·9	732	714	0·6	0·6	816	790	0·7	0·6
1867-68	939	907	0·7	0·7	1,067	1,054	0·8	0·8	1,093	1,063	0·8	0·8	1,217	1,205	0·9	0·9
1868-69	1,403	1,345	1·1	1·1	1,368	1,313	1·1	1·1	1,392	1,367	1·3	1·3	1,347	1,187	1·3	1·1
1869-70	1,063	1,055	1·0	0·9	794	782	0·9	0·8	1,043	1,029	1·0	1·0	998	989	1·0	0·9
1870-71	1,170	1,158	1·0	1·0	1,055	1,047	1·0	0·9	972	965	0·9	0·9	890	880	0·9	0·9
1871-72	1,157	1,098	1·0	1·0	1,860	1,227	1·6	1·1	2,636	1,428	2·6	1·4	2,186	1,197	2·0	1·1
1872-73	1,468	1,453	1·3	1·3	1,244	1,244	1·1	1·1	1,037	1,014	0·8	0·8	1,107	1,064	1·0	0·9
1873-74	1,061	1,044	1·0	1·0	939	926	0·8	0·8	1,455	1,444	1·6	1·6	1,146	1,143	1·1	1·1
1874-75	1,742	1,741	1·3	1·3	1,631	1,627	1·2	1·2	1,556	1,555	1·2	1·2	1,615	1,615	1·1	1·1
1875-76	1,810	1,764	1·3	1·3	1,938	1,767	1·4	1·3	1,923	1,768	1·4	1·4	2,400	1,663	1·8	1·1
1876-77	2,485	1,797	2·1	1·5	2,062	1,593	1·6	1·3	1,661	1,377	1·3	1·1	1,305	1,295	1·1	1·1
1877-78	3,254	1,498	2·8	1·3	3,098	1,525	2·4	1·2	3,106	1,676	2·9	1·6	3,415	2,594	2·9	2·0
1878-79	1,282	1,268	1·3	1·3	1,215	1,214	1·1	1·1	995	995	1·1	1·1	1,118	1,115	1·7	1·7
1879-80	1,312	1,312	1·1	1·1	1,423	1,382	1·3	1·3	1,525	1,394	1·3	1·2	1,547	1,498	1·3	1·3
1880-81	1,940	1,939	1·4	1·4	1,989	1,939	1·6	1·6	1,840	1,836	1·6	1·6	1,640	1,490	1·3	1·2
1881-82	2,006	2,002	1·6	1·6	1,943	1,792	1·7	1·6	2,063	1,906	1·7	1·6	2,277	1,770	2·0	1·5
1882-83	1,281	1,281	0·9	0·9	1,258	1,243	1·0	0·9	1,362	1,314	1·2	1·1	1,180	1,160	1·2	1·2
1883-84	1,082	1,082	1·0	1·0	1,051	1,051	1·0	1·0	1,183	1,189	1·0	1·0	1,138	1,137	1·0	1·0
1884-85	1,439	1,361	1·1	1·1	1,763	1,437	1·4	1·2	2,430	1,389	2·1	1·2	2,018	1,333	1·9	1·2
1885-86	1,215	1,215	1·2	1·2	1,293	1,274	1·2	1·2	1,084	1,018	1·2	1·1	1,252	1,226	1·2	1·2
1886-87	1,398	1,398	1·7	1·7	1,230	1,228	1·5	1·5	1,704	1,692	1·9	1·9	1,607	1,505	1·7	1·7
1887-88	1,308	1,308	1·9	1·8	1,269	1,269	1·8	1·8	1,246	1,246	1·3	1·3	1,543	2,065	6·0	1·4
1888-89	1,986	1,986	2·0	1·9	5,969	2,602	6·5	2·8	6,787	2,578	9·0	3·4	5,283			2·3

NOTE.—The ratios are monthly rates and not annual.

Statement showing the deaths in the district of Ganjam for the undermentioned periods—*cont.*

Years.	JULY.				AUGUST.				SEPTEMBER.				TOTAL FROM 1ST OCTOBER TO 30TH SEPTEMBER.			
	Total deaths.	Total deaths exclusive of cholera.	Ratio per 1,000 of total deaths.	Ratio per 1,000 of total deaths exclusive of cholera.	Total deaths.	Total deaths exclusive of cholera.	Ratio per 1,000 of total deaths.	Ratio per 1,000 of total deaths exclusive of cholera.	Total deaths.	Total deaths exclusive of cholera.	Ratio per 1,000 of total deaths.	Ratio per 1,000 of total deaths exclusive of cholera.	Total deaths.	Deaths exclusive of cholera.	Rate per mille per annum of total deaths.	Rate per mille of deaths exclusive of cholera.
	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53
1865-66	8,748	4,915	7·8	4·4	3,920	2,292	5·8	3·4	4,885	4,168	6·0	5·1	47,743	23,624	45·4	22·6
1866-67	622	607	0·5	0·5	1,147	1,029	0·9	0·8	923	908	0·8	0·7	20,413	19,243	19·7	18·3
1867-68	1,377	1,337	1·1	1·0	1,586	1,571	1·3	1·2	1,382	1,367	1·1	1·1	13,894	13,529	11·2	10·8
1868-69	1,688	1,389	1·6	1·3	1,795	1,596	1·7	1·5	1,513	1,404	1·4	1·3	16,930	15,974	14·6	13·8
1869-70	1,133	1,087	1·1	1·1	1,422	1,224	1·5	1·3	1,291	1,225	1·2	1·2	13,530	13,122	13·2	12·8
1870-71	888	881	1·0	0·9	959	955	1·1	1·1	1,107	1,103	1·2	1·2	12,483	12,386	12·2	12·0
1871-72	1,719	1,417	1·8	1·4	1,988	1,847	2·1	2·0	1,980	1,952	2·1	2·0	18,910	18,525	18·6	15·3
1872-73	987	975	0·9	0·9	1,148	1,143	1·2	1·2	1,198	1,198	1·3	1·3	15,803	15,612	15·2	14·9
1873-74	1,432	1,382	1·5	1·4	1,884	1,789	1·3	1·2	1,617	1,596	1·2	1·2	14,631	14,383	13·7	13·3
1874-75	1,670	1,667	1·2	1·2	1,636	1,621	1·2	1·2	1,632	1,612	1·3	1·3	18,992	18,947	14·4	14·4
1875-76	3,243	1,827	2·5	1·4	2,668	1,944	2·0	1·5	1,841	1,637	1·4	1·2	24,778	20,883	18·7	15·7
1876-77	1,377	1,371	1·1	1·1	1,463	1,403	1·2	1·1	1,565	1,325	1·3	1·1	19,879	17,765	16·5	14·5
1877-78	3,041	1,980	3·1	2·0	2,729	2,504	2·9	2·6	2,360	2,312	2·9	2·8	29,692	19,863	28·9	19·3
1878-79	1,214	1,213	1·3	1·3	1,401	1,399	1·5	1·5	1,483	1,483	1·9	1·9	16,463	16,332	18·1	18·0
1879-80	1,537	1,501	1·3	1·3	1,894	1,886	1·6	1·6	1,840	1,840	1·5	1·5	18,632	18,359	17·4	17·3
1880-81	1,721	1,719	1·4	1·4	1,893	1,893	1·5	1·5	1,562	1,562	1·3	1·3	22,311	21,918	18·3	18·0
1881-82	2,248	1,843	1·8	1·5	2,033	1,925	1·7	1·6	1,837	1,810	1·5	1·5	22,663	21,303	19·3	18·2
1882-83	1,516	1,515	1·3	1·3	1,793	1,791	1·5	1·5	1,745	1,744	1·2	1·2	17,850	17,646	14·7	14·5
1883-84	1,343	1,329	1·1	1·1	1,523	1,508	1·3	1·3	1,712	1,662	1·2	1·1	16,827	16,742	13·1	13·0
1884-85	2,233	1,310	2·3	1·3	2,479	1,756	2·2	1·5	2,133	1,859	1·9	1·7	19,917	15,779	19·1	15·1
1885-86	1,415	1,384	1·4	1·3	1,532	1,525	1·4	1·4	1,457	1,450	1·4	1·4	16,223	15,794	15·8	15·4
1886-87	2,021	2,021	1·8	1·8	2,384	2,383	2·6	2·6	2,445	2,424	2·4	2·3	19,464	19,286	22·0	21·7
1887-88	1,613	1,611	1·5	1·5	1,572	1,398	1·4	1·2	1,725	1,668	1·5	1·4	19,478	18,919	20·2	19·4
1888-89	4,228	2,188	4·4	2·3	3,882	3,181	3·7	3·0	2,468	2,414	2·5	2·4	38,826	24,784	42·0	25·6

NOTE.—The ratios are monthly rates and not annual.

Exd. A. Aubert.

Gobt. of {1890} Madras.

REVENUE.

Issued

Recd. Encl.

G.O., 19th December 1890, No. 1026.

DECEMBER.

Recent famine in Ganjam.

Passing orders on Board's Proceedings containing its views on the administration of relief during the — and proposals for amending the Famine Code.

No. 223 Wks/23 Jan 1891

Communicated to Officers of the P.W. Dept for information.

2. The subject of Para 17 of the Govt. order will be dealt with in the Irrigation Branch.

20.1.91

To The Chief Engr for Irrn
" C. E. for Rys
" Supdg Engrs
" S. of W. P. Projects
" C.A. Coast
" Ex Officio