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REVENUE DEPARTMENT

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GOVERNMENT OF MADRAS.

FINANCIAL DEPARTMENT.

5th August 1878, No. 1374.

Famine Commission.

Read the following papers:—

No. 36. *From C. A. ELLIOTT, Esq., C.S.I., Secretary to the Famine Commission, to the Secretary to Government, Revenue Department, dated Simla, 22nd June 1878, No. 21.*

I have the honor to forward, for submission to His Grace the Governor in Council, copies of a circular containing inquiries suggested by the Famine Commission on matters relating to the general condition of the people, to famine relief, and to famine prevention; the answers to which will, it is hoped, materially assist the Commission in forming their views on the different points submitted to them by the Government of India.

2. It has occurred to the President and Members of the Commission that the best method of obtaining answers to these questions speedily would be to select the most competent and experienced of the officers under orders of the Government of Madras, and to direct them to reply to such of the questions as refer to matters within their particular sphere. For instance, the greater part of the first Chapter* might be made over to some one specially qualified officer, who would compile for the whole Presidency, and if possible for each district of it, such statistics as are required to throw light on its economic condition. The other questions which are less susceptible of purely statistical treatment might be made over both to officers of the department specially concerned, and also to those District Officers who have most experience in administrative matters, and whose opinions are most trusted by the Madras Government. The inquiries contained in question 1 might be separately answered by the Meteorological Reporter; those in questions 6 and 7 by the Director of Agriculture where such an official exists, or by some officer who has made a special study of agricultural subjects; those in question 23 by the head of the Forest Department, as well as by District Officers who have taken an interest in Forest management; those in questions 24 and 25 by the Sanitary Commissioner or any officer of the Medical Department who has given his attention to vital statistics and the general health of the population. The answers to questions 11, 12, and 26 would only be of value if given by officers of wide administrative experience and accustomed to a close and thoughtful observation of the country and people. The facts desiderated in question 9 could perhaps be best ascertained if they were recorded in the first place by some capable native official in each district, and the results tested and compared by some specially selected superior officer in each division or considerable number of districts.

3. In the same way Chapters II and III can only be answered by officers who have had practical experience in dealing with famines in their different stages; and it is requested that the questions may be sent to all such officials, whether District Officers or in subordinate grades, who have been in responsible charge of any definite part of the relief operations, including officers of the Department of Public Works or the Medical Department, with the instruction that each should answer those queries regarding which he has direct personal knowledge.

4. The questions contained in Chapter IV are of a more technical character, and can, it is conceived, be best answered in the form of a memorandum drawn up by the Chief Engineer and the head of the Irrigation Department, respectively, though

the opinions of selected Executive Officers may also usefully be invited. There are certain points, such as those involved in questions 6, 11, 13, 14, 15, 17, 19, 21, 22, 24, 25, 26, 27, and 28 (wholly or in part), on which the views of the most experienced Civil Officers should also be obtained.

5. It has been arranged that the duty of superintending the compilation and the preliminary consideration of the replies received from the various parts of India shall be undertaken by the members of the Commission named in the margin, and the President would suggest that you should, with the permission of His Grace the Governor in Council, communicate to the local member of the Commission who is specially accredited to your Province the names of the officers to whom the different parts of this set of questions are to be sent; and that their replies should be forwarded direct to him, in order to be compared, examined, and, if necessary, returned for correction

Bengal	..	Mr. Batten.
Assam	..	Mr. Cunningham.
Punjab	..	Mr. Elliott.
Burmah	..	Mr. Peile,
N.-W.P. and Oudh	..	aided by
Central Provinces	..	Mr. Vasudeo.
Bombay	..	Mr. Ballard,
Madras	..	aided by
and	..	Mr. Runga Charlu.
Mysore	..	

or amplification before they are submitted to His Grace the Governor in Council, and before the general opinion of the Local Government is recorded, so far as it may be the desire of His Grace the Governor in Council to do so.

6. The above remarks refer to the detailed questions contained in the circular; but the Commission trust that they may also be favored with the opinions of the Government of Madras on any subjects connected with famine on which the Governor in Council may be inclined to record his views.

7. I am further to request that it may be enjoined on all officers consulted that they should submit their replies with as little delay as possible, with a view to these being brought into a shape for consideration by the whole Commission not later than the 1st October next; and that the circular may be published in your Gazette for general information.

ENCLOSURE No. 1.

PRELIMINARY OBSERVATIONS.

THE Commission has been led to the conclusion that the most convenient way of commencing their enquiries will be to frame a series of questions, answers to which they would desire to obtain before proceeding to form opinions on the matters submitted for their judgment.

The questions now circulated form a part of such a series. It is not anticipated that full and trustworthy answers to all these questions could be obtained from all parts of India within the necessarily limited time over which their enquiry could be reasonably prolonged. But so far as such answers can be got, they will be of great value, and the attempt to collect them from the parts of the country to which the present enquiry chiefly refers, may be made as far as practicable.

Under these circumstances the Governments of the Madras and Bombay Presidencies, and of certain selected Provinces in the Bengal Presidency, have been addressed with a view to their taking such steps as appear to them best calculated to supply the desired information so far as it seems possible to obtain it within a definite period. At the same time the questions are published so that the opportunity may be given to any one interested in the enquiry (not officially called on to do so) to supply answers if he feels so disposed. Any such answers should be addressed to the Secretary to the Famine Commission.

It is not necessary that every one who answers these questions should attempt to answer them all. It will be more advantageous to the Commission if each person answers those questions regarding which he has most practical experience, or to which he has devoted special attention.

Every gentleman who answers these questions, or any of them, is requested to preface his replies by stating in a precise manner, what district he proposes to write of, and what is the nature of his connection with or knowledge of that district, over what length of time it has extended, and specially what opportunities he has had for observing famines, and what experience in carrying out measures of famine relief.

SIMLA,
The 22nd June 1878.

(Signed) C. A. ELLIOTT,
Secretary to the Famine Commission.

CHAPTER I.

CONDITION OF THE COUNTRY AND PEOPLE.

WHAT is the normal system of rainfall in your Province? From what quarter does the rain come, and in what months does it fall? Give any returns you possess showing the average amount gauged in each month; and state whence they are obtained, and how the registers of rainfall are kept. Within what limits can the rainfall vary without doing serious injury? What is the amount of rainfall for each month, and for the whole year, which, judging from past experience, you consider to be sufficient for agricultural necessities? What are the different agricultural operations depending on the due arrival of each of the expected monsoons or seasonal rains? What is the effect on the crops of the failure of any of these elements of rainfall, and what is the combination of circumstances under which the worst results have been produced? So far as necessary differences in the several districts should be distinguished and separate returns supplied for them.

2. What part of the country is most subject to famine and freest from it, and why? What is known as to past famines, their causes, their dates, their extent locally, and their severity as tested by prices, mortality, loss of revenue and expenditure on relief? Give, as far as possible, precise figures. Has the Province suffered from any other destructive calamity, such as floods, frost, hail, locusts, blight, &c., to such an extent as to produce distress amounting to famine or to create any general and widespread failure of the crop? To what extent do famines in any past period appear to have affected the general condition of the country, and how long has the effect lasted? Has the condition of the country improved in spite of such calamities? What is the normal increase in the population of the country, and how far has it been affected and kept down by famine? What are the facts on which your opinion on these last points is based?

3. Give any statistics you possess as to the average area in each district under cultivation yearly, distinguishing food crops from others; the average amount of the chief food-grains produced per acre; the total consumption in the district of such grains; the surplus that remains for export, or the deficiency that has to be supplied by import in ordinary years. How are these statistics collected, what amount of reliance may be placed on them, and what suggestions can you make for their improvement? If you have no statistics on these subjects, give any approximation or estimate you can.

4. What area of your Province and of its several districts is protected from drought in an average year by irrigation from wells, tanks or jhils, canals, or channels from rivers? To how much of this area is the protection complete and permanent, and how much is dependent on the local rain? How much of the area so protected is devoted to food crops, and what is the total amount of produce from that area? What is the effect of irrigation of crops (other than food crops) in adding to the powers of the population to resist famine? Supposing canals, tanks, wells, and jhils to be utilized to the utmost extent and kept in the highest possible order, what extent of the country would be protected from drought in a year when there was a failure of the rain?

5. What grains form the staple food of your people? When are they sown and harvested, and what are the critical times at which rain is essential to each of them, or at which a failure or an excessive fall of rain may be mischievous or ruinous?

6. What proportion of the cultivated land and what class of crops is manured yearly, and what is the average weight of manure given to the acre—(1) in land constantly manured; (2) in land occasionally manured? If there is any customary rotation of crops or fallows, state it.

7. Have any attempts been made by the Government or private persons to improve agriculture in your Province, either in the way of introducing new or improved implements, or new staples, or improved seed, or better methods of cultivation, or better breeds of cattle, and so forth? and with what result? Have you any suggestion to make for such improvement? Is there any Government model farm in your Province? Or have any estates under the management of Government or of the Court of Wards been used for the object of making experiments or setting examples of improved agriculture? If so, state the system of management, whom they were placed under, and what the results, financial and agricultural, have been? Have any improvements been made in the breed of cattle, in the forms of ploughs, carts, sugar-mills, or any other agricultural instruments, or in the mode of drawing water from wells? Have any agricultural exhibitions been held in your Province, and have you observed that any good result has been obtained from them? Was anything exhibited the imitation or adoption of which would have been useful to and practicable by the ordinary cultivator? And, if so, was there any willingness to imitate or adopt such improvements? Have you observed that there has been any deterioration of the soil, or that crops are worse than they used to be within your own experience? Does any such question specially arise in case of irrigated land? State specifically on what facts you base your replies. Where there is any popular belief in such deterioration, state what facts are adduced in support of it.

8. What proportion of your population is agricultural, that is, either directly engaged in the cultivation of the soil, solely or in combination with some other occupation, or deriving their chief income from the land? And of this class what proportion live entirely by the profits of the cultivation of their own land, and what proportion support themselves wholly or in part by field labor for others?

9. What is the ordinary economic condition of the portion of the agricultural population directly engaged in the cultivation of the land and possessing any proprietary or occupancy interest in land? Illustrate your reply by giving the actual facts as to a few typical instances of such persons taken from

four or five different villages in several districts of your Province. State with regard to each, what area of land he holds for tillage or grazing, what his family consists of, what amount of food-grain and what value of other produce he raises on an average off his land in a year, what rent or revenue or cesses he pays for his land, what expenses he incurs in hired labor other than his own labor and that of his family, what amount he spends in a year in purchases of necessities which he cannot produce on his land, what kind of house he lives in, how many rooms it possesses, and how many out-houses, what quantity of cattle or other live-stock he possesses, what other property, and what stock of grain. How does he dispose of any surplus income, whether by hoarding or lending his money, or investing it in ornaments, or spending it on marriage ceremonies, or otherwise? What are his debts, and to what are they commonly due? State what proportion of the agriculturists of your district you believe to be in debt, and what proportion their average indebtedness bears to their average yearly income. Endeavor to obtain the opinions on these points of well-informed and trustworthy native residents of different districts, and in submitting such opinions explain the position of your informants, and the probable means at their command of forming correct conclusions.

10. Describe the tenures of land (proprietary and occupancy) which are most common, and as nearly as you can the area of cultivated land held by each kind of tenure. How far does the character of the tenure appear to affect the economic condition of the person holding it? Are there any conditions of tenure (such for instance as unrestricted freedom of transfer) which might be changed with advantage to the holder and without injury to other parties?

11. Are the holders of the above tenures in the habit of carrying out material improvements, such as digging wells, or channels necessary in order to use the water in a canal? Are their actions in this respect affected most by the security or insecurity of their tenure, or by their wealth or poverty? Or are there any other reasons which hinder such investments of their labor and capital? What have been the effects of recent Land Improvement Acts? Have they tended to enlarge or narrow the making of advances by Government? Does the condition of the country render it desirable that the operation of these Acts should be facilitated, or their scope enlarged, and are there any apparent difficulties in the way of doing this that could be removed? Is the demand for interest on Government advances obstructive or prohibitory?

12. How far is the landowner's or the cultivator's readiness to improve the land checked by any operation of the law? Is the digging of wells checked in any such way? How far does the expectation of having to pay increased revenue or rent in consequence of any improvement check the execution of improvements?

13. What is the general incidence of land revenue on the cultivated area, both for the arable land as a whole and for the different classes of such land (irrigated, dry, &c.)? What proportion does such revenue bear to the value of the gross produce? Is the incidence on the various classes of land fairly distributed, or would you propose any re-adjustment of it? When was the assessment fixed? Has there been any practical difficulty in realizing the land revenue as now assessed? At what dates are the instalments of revenue payable, and what relation do these bear to the ordinary periods of harvest or of realization of rents, as the case may be? Do the several instalments bear a fair proportion to the value of the several harvests from which the revenue or rent has to be made good? What rate of interest, if any, is charged on land revenue in arrear?

14. What is the average price of land per acre? What amount of land on an average is sold every year for arrears of revenue and for decrees of Court? What quantity of land has been transferred in your district to non-agricultural and non-resident landlords?

15. What are the wages usually paid to hired field laborers? Are they paid in kind or money? Give the rates as far as you can for the chief kinds of labor in ordinary years. Is the hired laborer usually able to subsist with fair ease on the grain or other payments he receives at harvest and other periods during the intervals between such payments, or is he frequently forced to borrow and forego future payments?

16. What is the normal rate of prices of each of the chief staples of food in certain typical districts? What is the usual variation between the prices at harvest time and other times of the year? What rise in price would indicate the approach of alarming scarcity? In past times of severe scarcity what effect has been produced on prices; has the rise been sudden or gradual, and has it affected one staple more than another? Or has the rise been of such a character as to tend to equalise the prices of all staples?

17. What is the state of your Province as to the activity of commerce? Has it an energetic and enterprising trading class? Do any of the districts subsist mainly on its own resources, and export or import little? Or is there an active and constant ebb and flow of trade?

18. What are the facts in your Province as regards the means of communication? Do bridged and metalled roads connect all the important centres of trade that should be thus connected? Are the roads in good working order and sufficient for the traffic on them, or not? Are they open through the year, or closed for wheeled traffic in the rains? Is the ordinary means of conveyance by wheeled carriage, or by pack-bullocks; and if by wheeled carriage, is there a sufficient number of carts in the district for all its wants? What is the ordinary cost per mile of conveying one ton of merchandise either by wheeled or by pack carriage?

19. To what extent are railways developed in your Province? What districts are not traversed by them, and what distances have to be gone to reach the railways from the districts furthest from them? Are any districts so much isolated as to make it desirable to extend railways to them to

facilitate the introduction of food in time of famine? Has the effect of the existing railways been to equalise prices and stimulate trade to any important extent? Give any facts that support this view.

20. If there is water communication in your district, give an account of it: what kinds of boats are used, what their number is, what the nature is of the traffic they convey; state whether the navigation is capable of any improvement, and whether it is conducted on natural channels, or by canals, and if by the latter, under what regulations? What is the ordinary cost per mile of boat carriage for one ton?

21. Is there any portion of your Province into which by reason of the want, or the badness, of the roads or other means of access, or of local or temporary disturbing causes of weather, &c., it might be impossible or difficult for unassisted trade in time of scarcity to throw enough grain to feed (say) one-quarter of the population for six months? If there is such a part, state where it is, what is its area and population, and what are the special difficulties to be overcome, and how they might best be removed.

22. To what extent has telegraphic communication been established between the chief towns of your Province? Having in view the value of rapid communication in time of distress, are there any important lines which it might be desirable to construct?

23. Has there been within the historic period any sensible denudation of the forest in, or bordering on, your Province? Can it be tested by statistics showing over how much area forest or scrub jungle has been cut down? Can you state any specific facts which lead you to think that such deforestation has caused injurious effects in any way, either in respect to the fall of rain, or the abundance or permanence of water in streams, or wells or the subsoil, or the denudation of the surface soil so as to render it unfit for cultivation? And what injury has been produced, and to what extent? Can you adduce any direct evidence that such injury as you think has been caused by the clearing of forest, has been remedied by its reproduction? If you think the clearing has been injurious, what steps would you propose to take towards reboisement? Should it be done by artificial planting, or by conservation of the tract, so as to keep out cattle-grazing and fires? Can such conservation be effected without interfering with any vested rights of the people, or with their consent, if interference is necessary? Which of the two methods would be easiest, cheapest, quickest of operation, and most effectual? To what extent and on how large an area could either method be followed?

24. Can any estimate be made of the number and proportion of deaths which are the inevitable consequence of famine, not being due directly to starvation, but to such privations as adults in health can bear with safety but which prove fatal to children or the old and sickly; or to such diseases as follow in the train of famine from eating unwholesome food, roots, berries, leaves, &c., or arise from other and obscure causes like cholera and fever commonly concomitant on famine? What statistics exist as to past famines to show the depopulation that they have caused, and how far it is due to an increased death-rate, to emigration, or to a decreased birth-rate? If any special census was taken after the famine, state whether any trustworthy information was obtained as to the different classes of population which have suffered most; whether the early stages of a famine affect certain classes more, or less, severely than its later stages; whether the loss of life has been greater among males or females, among adults or children; to what extent the birth-rate has been affected; and how far local influences, peculiarities of administration, or tenure, climate, soil, water, density of population, systems of cultivation, &c., have tended to mitigate or intensify the inevitable effects of scarcity.

25. If no such census was taken, state what information is to be got from the mortuary returns for the period embraced by the last famine in your Province as compared with those for ordinary periods, and what conclusions may be drawn from those returns.

26. It has been laid down by the Government of India as a settled principle that local financial responsibility should be enforced in the case of a famine as far as possible. With this view special taxation has recently been imposed on the country, the proceeds of which the Government has proposed to apply as a mutual assurance fund which will be available for the benefit of the people on whom the calamity of famine may actually fall. But it has been recognized that it would be preferable if some portion of this taxation could be made more strictly local, both in its levy and its application to relief purposes. Can you suggest any way by which it might be rendered practicable to provide that where State funds have been expended on the relief of famine, such expenditure should be recovered from the locality which has benefited by it under any system of (taxation in modification of or in substitution for that recently adopted and not in addition to it) in a manner that should bring into operation a sense of local responsibility, first in the direction of securing the lives of the people, and second of protecting them from unnecessary expenditure on relief? How could such a principle be applied to a smaller area than that of a Province or Presidency? Could the expenditure in a single district, or sub-division of a district, be recovered from that district or sub-division by such special taxation wholly or in part, or under any special circumstances, or in reference to any class of the community requiring relief, leaving a smaller or larger portion of the charge to be made good from the Province or Presidency at large, or from the resources of the Government of India? Could any plan be suggested under which, subject to similar limitations, a municipality might be required to bear the cost of feeding its own poor? What kind of special local taxation should be adopted for this purpose? What would be the probable effect (1) on the minds of the people, (2) on the temper of the officials, of the knowledge that the cost of famine relief expended on their behalf or by them, would have to be recouped by local taxation? Is there any reason to suppose that the sense of local responsibility, if it could be brought to bear, would not operate beneficially in the case of relief of the distressed portion of the population in India?

CHAPTER II.

RELIEF DURING EARLIEST STAGES OF DISTRESS.

1. How does distress consequent on drought first make itself felt among the people, and how is it first brought to the notice of the district officers? What are the indications by which the district officer would judge whether the distress is due to temporary or local scarcity, or is likely to be the forerunner of very severe general distress ending in famine? What steps should be taken to ensure that such indications are brought to his notice? To what extent does the existing district organization suffice to ensure early and trustworthy reports, and if not sufficient, what other measures are suggested as requisite?
2. Which classes of the rural population are first affected by serious failure of crops likely to produce famine? In what way are they affected, and how is the effect manifested? Do the early applicants for relief consist of whole families or of isolated individuals? Are all sexes and ages equally represented, or do women and children preponderate among them? So far as the applicants are field laborers deprived of employment, does this arise because the employers have no money or grain to spend on wages, or because there is nothing to do in the fields?
3. What classes of the urban population are the first to feel the effects of famine, and in what way do those effects operate on them, and how do they manifest themselves? How may they best be watched and met in their first stage?
4. There is a considerable number of poor and infirm persons, who in ordinary years are supported by their richer relations and friends or caste fellows, and of habitual mendicants, but who become claimants of State relief when scarcity or famine arises. What is, approximately, the proportion of this class to the total population, and at what stage do the springs of private charity begin to dry up?
5. It is obvious that if an accurate forecast of the condition of the people during the approaching season, following any more or less serious failure of the ordinary harvest, could be made by the district officer, it would be of great utility; in what way could he make it, and on what data should his calculations be based? Suppose for instance that he estimates that half the average food-crop has been lost; for the support of how many people does the balance that is saved suffice? How are the rest of the people to be fed? He must form an estimate of the food-stocks in the country and of the power of trade to bring in more. Supposing these two elements sufficient to supply what is wanted, there would be no famine of food. But there may be lack of money to purchase food; how is an estimate to be framed of the number of persons who would probably be able to purchase, and of the number who must be assisted by the State, either by employment which will bring them wages, or by food if they cannot work? These would consist mainly of the classes indicated in questions 2, 3, 4, viz., the field laborers, the urban poor, and infirm dependents or mendicants. What numbers approximately of these classes would you expect to have on your hands if the food-crops in your district failed to the extent of $\frac{1}{2}$, $\frac{1}{3}$, or $\frac{1}{4}$? and if this happened in two consecutive years?
6. What measures should the district officer adopt for relief, supposing that he believes the distress to be temporary, or is not satisfied that it is indicative of approaching famine? Should applicants be first employed as far as practicable on the ordinary works in progress, whether under provincial or local officers or under agents of the Public Works Department or Municipalities? Under what tests should applicants be admitted? Under what circumstances may it be desirable to open special works? How should such special works be arranged? Whether so as to collect the applicants in comparatively large numbers at a few localities, or to give them employment in smaller bodies at many places in the distressed region and in the vicinity of their homes? May such works be best placed under the Public Works Department or under Civil supervision? State the arguments in favor of, and against, either course. How may the Public Works officers be best placed in communication with the district officers for these purposes? How should the Public Works officers be guided in their selection of works for relief? And on whom should the responsibility rest, in the district, for seeing that all needful steps are taken by all branches of the public service concerned?
7. Under what circumstances should poor-houses be opened to give relief without a labor test? Are there any other practical ways of affording relief at this stage, except through private charity?
8. Is there at this stage of the operations any field specially appropriate for the intervention of private charity? If so, what is that field, and how should the charity be organized and directed?
9. To what extent and in what manner may the organization of Municipalities and Local Fund Committees, so far as they exist, be utilized in this stage? In the absence of such local bodies how could the co-operation of influential non-official persons be best organized and utilized either in connexion with the regular district authorities, or otherwise? State specifically what plan would be suitable in your district?
10. Have cases occurred in which such measures as those referred to in paragraph 31 of Chapter III, regarding village inspection, would properly be introduced during this, the earliest stage of distress?
11. What local charities exist in your district for distributing food to the people? Are they appropriated to any particular class, or are they available in times of distress for feeding people of all classes? What is their annual value, and how many people are benefited by them? How are they managed? Could they be made more effectual for charitable purposes in times of famine?

12. It is assumed in question 6 that the district officer believes the distress to be temporary, or is not satisfied that it is indicative of approaching famine. But it is possible that he may be mistaken in his appreciation of the facts he at first observed. What indications would lead him to conclude that he had been mistaken and that famine is imminent? What steps should he take to have any such indications brought to his notice? The most obvious points would be such as these: to obtain the best information as to the character and progress of the crops on the ground; as to the prices and the kind of grain exposed for sale in the markets; as to the fullness of stocks in the market and the quarter whence they come; as to police returns of lawlessness and crime; mortuary returns of deaths; reports of deaths by starvation in villages, and more especially roadside deaths; emigration or movements of the people in any direction; sales of ornaments and jewels. Are there any other such indications, and in what way should he secure that such facts should be immediately brought to his notice?

13. On the other hand, the distress which the district officer has held to be serious, though temporary, may turn out to be so slight as to require no special measures of relief. What are the indications which would lead to the conclusion that this is the case; and what steps should he take when he comes to that conclusion? Are any precautions requisite to guard against an erroneous estimate of the necessity for offering relief other than those which are supplied by the application of suitable labor or other tests?

CHAPTER III.

FAMINE RELIEF.

N.B.—In answering this and all other questions in this chapter, remember to draw the distinction (where necessary) between the three periods of Famine,—its beginning, height, and decline,—and also between P.W.D. and Civil relief-works.

It may be assumed that the State is responsible for offering the means of support to all persons not able to provide for their own maintenance during time of famine, subject to the imposition of such tests as will prevent relief being given to persons not really in want, and will protect the public finances as far as is practicable. The methods of affording direct famine relief to persons in want in time of famine hitherto adopted by Government are—

- (1) Relief given, subject to a labor test, or in return for labor.
- (2) Gratuitous relief, not subject to any labor test.

Relief-work may be divided into that which involves—

- (1) Unskilled labor, commonly earthwork.
- (2) Skilled labor for artisans.

Gratuitous relief may be divided into—

- (1) Relief given at poor-houses.
- (2) Relief at home.

SECTION I.

2. The first division of relief-works for unskilled laborers may be into works supervised by Officers of the Public Works Department and works supervised by the Civil officers: the former will generally be works of greater permanent utility, requiring more skilled supervision, and taking a longer time to complete; the latter will usually be less important, less generally useful, and simpler in character. State what are the circumstances under which either class of work is preferable. Referring to the considerations mentioned in para. 7 of the Resolution of the 16th May 1878, quoted in the margin, state also if you consider that there is any class of laborers to whom the one kind of work is more suitable than the other; and what are your reasons for this division.

"Officers trained in the Public Works Department should possess the knowledge and experience necessary for keeping order among crowds of relief laborers, for exacting from them adequate tasks, and for turning their work to the best advantage; but works conducted under their agency are not free from the danger of providing insufficiently for those who are feeble or unable to give a fair return of labor. District officers, without professional training, do not ordinarily possess the above qualifications in the same degree, and are commonly occupied with other duties. On the other hand it is peculiarly the province of district officers to make arrangements for receiving applicants, and admitting them to relief, for classifying them according to their strength and capacity for labor, for organizing them into gangs, and thus encouraging members of the same village to keep together."

3. Relief-works, again, may be conveniently divided into small and large: that is to say works employing (say) 300 or 500 laborers for about one month only, and works employing a larger number of laborers for a longer period. Though this division generally corresponds with the division into Civil and Public Works Department works, it does not necessarily do so: a small work might be under a Public Works Department officer, and a large one under a Civil officer. State under what circumstances you consider small works to be admissible, and what the advantages and disadvantages attached to them are, at different periods of a famine.

4. The three main tests hitherto adopted to justify the admission of persons to relief-works are—

- THE DISTANCE TEST.—Under which the need of relief is proved by willingness to go a certain distance to obtain it.
- THE WAGE TEST.—Under which the need of relief is proved by willingness to accept a wage which is little more than a bare subsistence.
- THE LABOR TEST.—Under which the need of relief is proved by willingness to do a fair day's work according to the strength of the laborer.

Would you propose to adopt any other tests? If so, describe them. Would you reject applicants for labor because their appearance, dress, or the ornaments they wear do not indicate penury? If so, would you do this equally at the beginning, during the height, and in the decline of a famine?

5. *The Distance Test.*—State how this test has been applied within your experience of famine, and how you think it should be applied. What amount of distance has been considered sufficient for the test? Was it enough that the laborers should have to go some distance to and from the work? Or was it insisted on that they should live away from their homes? If A is a work near village Z, and B is another work 10 miles off, have the inhabitants of Z been refused admittance at A and directed to go to B? If so, what measures were taken to ensure that they did go to B? If the test has been relaxed, state under what circumstances. Has the test been effectual, and has it kept away persons who were not in distress? Has it both been severe and kept away people who were in distress? What modifications would you, from the experience now gained, propose in applying the test?

6. *The Wage Test.*—Where relief is given in the form of money wages, the wage will be chiefly based on the quantity, kind, and price of food required to support life, with a margin for condiments and contingencies. What are the assumptions as to the quantities of food to be given to laborers of different ages, sexes, and capacities for labor, and the extra allowance for condiments, &c.? Have you any data by which to test the accuracy or error of the assumption made as to the quantity of food required? State your experience as to the physical condition of laborers who have for some time subsisted on any given relief wage, giving the amount of that wage, and the quantity of food it supplies? What have you ascertained as to the actual kind and quantity of food purchased by laborers with their wage? How is the price ascertained of a standard kind of food on which the wage is based? How would you, with your present experience, fix the conditions of the wage test?

7. What is the best way of paying wages, day or less frequently; at morning before work begins, during the day, or at evening when work is over; by calling out nominal rolls or by tickets, or by a combination of these? To whom should the payment of wages be entrusted? Explain the system of supervision most approved by experience, of checking payments, and of preventing laxity and fraudulent practices in the disbursement of wages? Have laborers been paid in grain, or partly in grain and partly in money? Under what circumstances is this desirable, and, if necessary, how is it best arranged? Have wages ever been paid by tickets, on presentation of which at a trader's shop food would be delivered? What would you advise in this respect?

8. What system do you recommend to prevent frauds by persons on the works, such as the receipt of wages by those who have not worked? What steps should be taken in the case of persons who have been absent at any of the roll-calls, or who have worked part of the day, but not all of it, or who, having worked during the day, are absent when wages are paid?

9. What wage should be given to those who are prevented from working by sickness, (1) when there is a hospital attached to the work, (2) when there is none?

10. *The Labor Test.*—What are the principal descriptions of work on which fixed daily tasks are applicable, and what tasks have been insisted on? How are the laborers classified according to their physique; by whom and in how many classes? What steps are taken for raising laborers from one class to another, according as their physique improves, or vice versa? How are they gauged, and into how large gangs? How is their work measured up; by whom, and how often? How are they punished for not completing their tasks? What steps should be taken to test the report of the measuring official, to secure that the laborers are justly punished or deservedly paid in full? What steps are necessary to compel persons receiving relief to work? In those sorts of work on which it is impossible to apply the task test, what test can be applied to ensure that the laborers earn their wage properly?

11. Under what conditions, if any, is payment by piece-work practicable on relief-works, that is, payment for quantity of work done at a fixed rate, irrespective of the amount of daily earnings? What are the advantages and disadvantages of the system? When it is advantageous, how can it be best adopted on a large scale, and what precautions would be necessary to prevent its abuse?

12. What is the best form of hut for laborers on a relief-work, and what the best method of arranging them in a camp? What is the cost of sitting per head? Should the huts be erected by specially hired labor or by the relief laborers themselves? What points require consideration in selecting a site for such a camp? What sanitary arrangements should be prescribed in it, especially as regards latrines? What establishment is necessary to look after these arrangements? What Police or other establishment is necessary to preserve discipline and to prevent robberies? How should this be organized?

13. What arrangements do you recommend for a Bazar? Should an arrangement be made with one man to supply the laborers on certain specified terms, or should any traders who wish to do so be permitted to open shops? If the supply of trade is for any cause insufficient, what steps should be taken to induce persons to open shops, or otherwise to provide for the sale of food, &c.? Where should the Bazar be located? Should the huts be erected for the traders at the cost of Government or at their own cost? Should any supervision be exercised over what they sell (for instance, to exclude luxuries or unwholesome food), or over the prices at which they sell? And, if so, in what way? Should they be allowed to keep their shops open all the day, or only when the laborers are off work?

14. In what cases should a hospital be attached to a relief-work? What system of sanitary inspection of the laborers is desirable? How should the sick be treated without being sent to hospital? If there is no hospital, what arrangements should be made for those who fall sick? When a hospital is necessary, what should be the site and material of the sheds, what space should be allowed to each patient, what clothing, bedding, &c., what provision should be made, and what class

of people entertained for cooking and nursing? What professional supervision should be provided over the Hospital Assistant? What authority should be exercised over him by the Public Works Department officer, or the Civil officer in charge of the work, if there is one?

15. What system do you recommend for the admission of applicants for relief on works for securing that no hindrances are placed in the way of their coming, and no bribes taken for admission? How would you provide for classifying them and placing them on gangs? If payment is not made daily, how would you arrange for their receiving advances till the first wage-day comes round? And, if paid daily, what pay should be given to those who come on during the day and work for a broken period?

16. What registers should be kept up of the number and classes of persons on the works, the numbers who are daily admitted, or who leave, the wages paid, the number punished by fine, the quantity and value of the work done?

17. Describe the organization of a well-managed relief-work, the number of gangmen and of laborers in each gang, of overseers over the gangmen, of registering clerks and paying clerks or cashiers, and how the upper supervising staff is constituted. State also in what form, and at what periods, progress and other reports are sent up to higher authorities?

18. What arrangements would you propose for discharging laborers from relief-works when the famine is declining, or over, or when the work is closed? Has it been customary to give money to persons discharged, to enable them to reach their homes and start again in their ordinary way of life? How have persons been dealt with who to the end continue in a physical state in which they are unable to support themselves?

19. Has it been found that persons after admission to relief-works wilfully desert from them, and to what extent do such desertions commonly indicate excessive severity in the application of tests or insufficiency of food, or improper treatment of other sorts? Are they often due to other causes, and if so what? How should such results be guarded against? Under what circumstances would you recommend moving bodies of men to works over considerable distances? Should this ever be done as a preventive measure to weed out those who are not in absolute want of relief or only as a step that is expedient for the sake of transferring them from less useful to more useful work, or to admit of their being more easily fed or supervised, or to prevent sickness and the like? If the distance is more than one day's march, what arrangements should be made for putting them for the night and for paying them or feeding them on the march? Narrate the history of any case within your knowledge in which more than 500 people were moved, or attempted to be moved, more than 20 miles, and state any difficulties the movement involved, and how they might best be avoided.

20. Under what circumstances should a Civil officer be associated with a Public Works Department officer in the management of a relief-work? What is the proper field of duties of the Civil officer? What parts of the duties should be wholly under him, and what parts should be entirely beyond his sphere? If it is proper for him in any way to interfere with or control the discipline of the laborers, the management of the camp and bazar, the tasking, the measuring, and the payment of wages; state how this can best be done without undue friction and annoyance.

21. Besides the persons to whom employment is given with the special object of affording them relief, the Public Works Department usually employs on the works a large number of both skilled and unskilled laborers, who are dependent for their regular livelihood on the receipt of wages more or less all through the year. State how the continued employment of these may best be made compatible with relief labor if the works on which this class of men is employed are closed or turned into relief-works?

22. Have you had experience of any kind of relief-work other than earthwork? If so, describe it. Has any attempt been made to employ artisans, such as weavers, smiths, carpenters, &c., in pursuing their own professions, and with what success? In the case of weaving or spinning, when raw material is given out, and thread or cloth received back, is it best to pay the difference of price between the raw and the worked-up material, or to pay daily wages to the workers? State your views as to the best method of distributing the raw material, and exacting a proper tale of work, and make any general suggestions on this subject that occur to you.

SECTION 2.

Gratuitous Relief.

23. The commonest mode of administering gratuitous relief is through the poor-house. What is the proper situation for a poor-house so as to secure accessibility, discipline, space, water, and proximity to food-supply? Is an enclosure wall or fence necessary, and of what should it be made? What total area is desirable in proportion to the whole number of inmates? What shape and material are best for the huts, and what sleeping space (in superficial area) should be provided for each inmate? How may they best be arranged with a view to ventilation, &c.? How should the latrines be placed and managed? What is the maximum number you would accommodate in one poor-house? How should the inmates be separated and classed together, so as to provide for the requirements of caste, for the keeping of families together, and for the separation of the sexes in the case of persons who do not belong to families?

24. What should be the conditions of admission to relief in a poor-house? The usual conditions are (1) inability to work on a relief-work; (2) willingness to reside within the enclosure; (3) willingness to accept cooked food. Under what, if any, circumstances may these be relaxed, or may the food

be distributed without residence, or may cooked food be given? What arrangements should be made for the admission of applicants, and to whom should the duty of selection be assigned?

25. Under what circumstances does it appear desirable that entry into a poor-house should be made compulsory on persons who appear to be starving or to be in such a state of want as to show that relief in some form is essential to the preservation of their lives? and under what circumstances would you allow them the discretion of refusing to submit to this? If compulsion is used to take them in, what steps are required to ensure their stopping there? How should such a rule be applied to vagrants, and how to persons on relief-works, or seeking relief otherwise? Does it appear necessary or expedient to obtain legislative authority for such action as may be desirable in these respects? If so, suggest what seems most suitable. Would there be any special objections to such legislation, having in view the risk of exciting fears in the population, or for other reasons?

26. What ration should be given to the ordinary inmates of a poor-house, and what special diet to those who are much reduced by innutrition? Have you any experience of the effects of the ration for adults which consists of 1 lb. of raw flour with condiments? What is the proper quantity of condiments? State the results of your experience as fully as possible, whether this ration has or has not shown itself sufficient to support life.

27. Give as fully as possible your views as to the organization of a poor-house. State how the food should be purchased and stored, what stock-register of it should be kept, and by whom, how given out to be ground, what the grinding task should be, how it should be received back and tested when ground, how given out to the cooking department; how information is to be given to the store-keeper or the head of the cooking department as to the number of rations required for adults and children, for ordinary, special, or sick paupers. In what way and in what vessels the food should be cooked, with how much water and fuel, what weight of the cooked ration should be, whose duty it should be to test it, how it should be served out to the people, what discipline should be enforced among them while it is being served out and eaten? What precautions should be taken to see that it is eaten when received and not sold or exchanged, and that the children's portions are not taken from them by their parents or other adults? Under what circumstances should warm clothing be given, of what description, and at what probable cost per head? State what the rules of the poor-house should be as to the hours of rising, ablution, calling the roll-call, distributing food, going to and returning from work, and going to sleep? What arrangements should be made for personal ablution and washing clothes? What supervision is necessary to separate and take in time to hospital those who begin to sicken, or to distribute medicine to such as require it but are not sick enough for hospital? State what work the paupers can be set to, what is most suitable for what cases, and how labor is to be enforced. What establishment is required (per hundred paupers) for cooking, grinding, sweeping the enclosures, cleaning the latrines, maintaining discipline, fetching water or wood or grass for thatching, removing the sick to hospital, or carrying out and burying the dead? To what extent may such duties be performed by the stronger of the paupers, and in case suitable persons cannot conveniently be obtained from among them, how should the necessary establishment be paid? What amount of general supervision is necessary? What registers should be kept up as to cash outgoings, stores in stock and issued, daily number fed, and daily expenditure of food, sickness, and death?

28. Refer to the questions regarding a hospital attached to a relief-work, and consider how far the arrangements suitable for such an establishment would also be applicable to a hospital attached to a poor-house. If any difference of system seems desirable, state in detail what seems requisite.

29. What system would you pursue for drafting into a relief-work those inmates of a poor-house who recover strength and health there, and become fit for labour?

30. There are two classes who ordinarily receive gratuitous relief without being inmates of poor-houses. The first is parda-nashin or gosha women. What test can be applied to prove their necessity? Would you enquire into their cases through an official or a non-official? Supposing they have hitherto been dependent on a person who now refuses to support them, would you admit them to relief or require him to support them if he is able to do so, (1) if they have close natural ties to him, (2) if they have not? Supposing the necessity of relieving them to be established, how would you relieve them, with money or food, or by giving work, such as cotton to spin or grain to grind? How often should this relief be given, and in what quantity? When, and under what circumstances, should this relief cease? Have cases occurred in which dependents of persons in easy circumstances have claimed or obtained relief, and how have such cases been dealt with?

31. Another class consists of the sick, infirm, cripples, and bed-ridden folk in towns or villages, who cannot leave their homes. How would you organise a system for relieving them? How enquire into and ascertain their cases? How convey relief to them when they are put on the registers, and what relief should it be? When should relief of this kind be closed?

32. What has been held to be the duty of Government in respect to orphans or deserted children, and what appears to be the correct principle to follow? What number of such children have been thrown on the State during the recent famine? What arrangements have heretofore been made for receiving and supporting them, and what has been their ultimate destination? What have been the practical results of the measures thus taken in the past? What appears to be the best system to adopt in the future?

33. Another form of relief, independent of a labour test, is by purchasing grain and selling it at or below cost price, and consequently below the retail market rate. Was this measure resorted to in your district, under what circumstances, and with what results? Do you consider that there are any conditions under which it is proper for Government to have recourse to such a step? (This question does not refer to the propriety of Government importation generally, but of importing or purchasing in order to sell cheaper than the market rate).

SECTION

Miscellaneous.

34. State as nearly as practicable the proportion that the whole number of persons that were in receipt of relief in any form in your district on a selected day, or on the average of some week, when the recent famine was at its height, bears to the whole population. Of the whole number so receiving relief, what were the proportions under the following heads:—

1. ON RELIEF-WORKS	Adult males.
	" females.
	Children.
2. ARTISANS SPECIALLY EMPLOYED (IF ANY) AS SUCH	Adult males.
	" females.
	Children.
3. IN POOR-HOUSES (RESIDENT)	Adult males.
	" females.
	Children.
4. RELIEVED NON-RESIDENT (PARA. 30)	Adult males.
	" females.
	Children.
5. RELIEVED IN VILLAGES (PARA. 31)	Adult males.
	" females.
	Children.
6. OTHERS, NOT RESIDENT	Adult males.
	" females.
	Children.

35. Has Government ever attempted to organise emigration, permanent or temporary, from districts suffering from famine to other parts of India or foreign countries as a relief measure? If so, with what success? Under what circumstances could any such emigration be organised or encouraged? To what extent has emigration been resorted to by the people voluntarily? Have any gone beyond sea? Have any permanently gone off to settle in other parts of India? How many (approximately) left their district on a temporary expedition to search for food or employment elsewhere during the recent famine? Did they go alone or with all members of the family, and with their cattle and property? Where did they go to, and were their hopes of alleviating their distress realised? How many (approximately) have not come back, and how many are supposed to have died?

36. If famine-stricken people begin to emigrate to a part where it is known they would not find things better than in the country they left, or if they wander aimlessly from their homes, settling nowhere, should steps be taken to stop this, and how? Would you employ the police under any circumstances to turn them back, or to compel them to go to relief-works or poor-houses? or would you let them learn by their own experience? If they crowd into a town, say the head-quarters of the district or the province, would you do anything to stop them on the way or to prevent their begging and straggling about the town when they get there? Refer to para. 25 in answering this question, and add anything that seems requisite in relation to the points now raised.

37. Is it a recognized feature of the Revenue administration in your district to give relief by the remission or suspension of the demand for land revenue when the crops fail? If there are any established rules, quote them. Is the land revenue assessment based on the principle that profits of good years should cover losses in bad years? Is it assumed that a sufficient margin of profit is left to the landholders to admit of the regular payment of the revenue under all vicissitudes of season, or only in the ordinary fluctuations that occur, excluding seasons of extreme drought? What is the practical state of the case? How far is it found to be possible to collect the land revenue in a year when the crops have totally failed, without pressing unduly on the land-owners? What amount of failure of crops is held to justify what amount of leniency in collection? Where the occupier of land pays rent to a landlord, how is the payment of such rent affected by failure of crops, and to what extent does the remission or suspension of land revenue lead to corresponding treatment of rent? What are the arguments in favour of giving relief in the form of remission or suspension, respectively? To what extent has it been customary in actual practice in your district or province to remit or to suspend in such cases? Up to what limits do you consider that it is practicable to recover in future years the postponed demand of bad years, or does suspension practically mean remission in all but a few cases?

38. Is the duty of searching out distress in time of famine in the villages and the peoples' homes one that properly belongs to Government, or is it sufficient for Government to offer means of obtaining relief, and to expect that the famine-stricken will come of themselves and make use of those means? If it is proper to depute special officers to inspect villages and urge the people to accept the relief offered, what steps do you consider necessary for strengthening the ordinary district staff and enabling them to carry out this duty? What class of officers should be selected for such duties, and what areas assigned to them? May these officers best be servants of Government, or should they be taken from the non-official class? What should be their precise duties, and what supervision should be provided to see that they carry out those duties? At what period may it become expedient to organize such an extra famine establishment? To what extent, and under what general circumstances, has there been any tendency on the part of the people in distress to reject measures of relief offered to them? Where determined disinclination has been shown by any portion of the population to leave their villages and go to relief-works or poor-houses, what has been the probable cause of such a state of things? Can it be traced to improper arrangements for the reception of applicants for relief, or for admitting them to be employed on works, to an insufficient allowance of food, or wages, or to any such causes? Can any other causes be named which may have conduced to the disinclination to seek relief, such as physical prostration, or habitual want of confidence in officials, &c.?

39. Did you in the recent famine lay any stores of Government grain for the purpose of feeding labourers or inmates of poor-houses? Was anything done to stimulate trade by offering advances of money or any kind of assistance or bonus to merchants? Did the Government purchase grain, import it, and sell it again to the general public with the object of keeping the local markets supplied? If any such measures were taken, state the circumstances under which the transactions occurred, the reasons which lead you and your superior officers to think them necessary, the manner in which grain was purchased and imported, the quantity, cost, and price at which it was disposed of, and the monetary gain or loss realized; or the nature of the advance or bonus given to traders; and whether it checked private imports; also the general effect of the whole transaction. If you did not take any such step, do you now consider that it would have been better to do so? If you did it, or it was done, do you think any error was committed in so acting? And generally what are the conditions under which such measures are proper and necessary?

40. Do you consider that the events of the last famine have shown that the system of Civil administration in your district is strong enough to bear the unusual strain laid upon it, or that any defects have been discovered which might be obviated? Is the area of your district too large for one man to supervise, or of a convenient size? Are your official relations with the officers of the Public Works Department in your district such as are most conducive to the carrying on of relief-work? What staff of civil officers have you to carry out your orders, and what duties and responsibilities attach to each? Is that staff of the proper strength and organized in the best possible way, or can you suggest any improvements? Have your native subordinates as a class shown energy, capacity, humanity, and physical activity in carrying out relief measures, have they been wanting in these qualities? Give a general outline of the manner in which the relief operations in your district were conducted. To what extent did your control go, to what extent was there local independence of action? How was the chain of responsibility maintained between the superior and subordinate officers? How far were you yourself controlled in the relief administration, and how far left to act on your own discretion?

41. Through what channels have orders relating to famine-relief reached you from the Government? If references were sent by you, and orders received by you from the Government or its representative in the Famine Department direct, state whether you think that course operated well, whether the necessary business was rapidly conducted with consistency and precision, and with due attention to the exigencies of special circumstances and localities, &c.? Do you think this course best, or that the work would have been more effectually done had there been an official (whether Commissioner or Member of the Revenue Board, or by whatever name called) who should have been in administrative charge of a group of districts, and would thus have become acquainted with their wants and circumstances by personal inspection? If, on the other hand, you received the orders of the head of the Government through any intermediate authority, state if, in your opinion, there were any disadvantages attaching to this course, such as weakening the sense of personal responsibility in the local executive officers, delay in replying to references, or want of uniformity of method in different parts of the province, and so forth?

42. Under what financial control were the operations placed as to the supply of funds and authority to spend money, or sanction and commence works? State generally the system adopted, and what you think of it? Mention if any irregularities or frauds took place in the application of money, or were supposed to have taken place, and how and to what extent? Is it anywhere currently reported that any persons of any class engaged in the relief operations have become subsequently enriched, or is there reason to think that peculation or malversation were rare and exceptional? Were sufficient means available for checking the expenditure and rendering and auditing the accounts? How was this part of the operations conducted and with what general results; has the whole of the outlay been satisfactorily accounted for or not, and, if not, what deficiencies have arisen and in what manner, and how have they been dealt with?

43. What do you consider the proper field for private charity in the beginning, at the height, and in the decline of a famine? To what objects should it be applied, and through what channels? Should the funds be expended by Government servants who are also at the same time carrying out relief measures? Should they be expended in saving life and giving food? or should that be left entirely to Government, and the charitable funds confined to other objects, such as setting people up again to their pre-famine position, starting them again with a little capital, and thus assisting them with appurtenances which, though not luxuries, are not absolute necessities of life?

44. What has the effect of famine been in your experience on the subsequent condition of a district? Where villages were deserted have they permanently depopulated, or has the population returned to them? Has much land been thrown out of cultivation, and for how long has this decrease in the cultivated area continued? Has it been due to want of cultivators, of plough bullocks, or of capital and of seed-grain?

45. In the case of the recent famine, what effects such as those just referred to have been produced? How many villages have been deserted, how many have been seriously affected? What is the reduction in the area under cultivation now compared with what it was two years ago? How many holdings have been abandoned? Have the landlords, or ryots with whom the settlements are made, been permanently impoverished in a serious degree? Is there any reason to anticipate increased difficulty in realizing rents or land-revenue for the next few years by reason of the recent pressure if the seasons are favorable? What proportions of landlords or ryots are likely to be dispossessed of their holdings through the action of the Revenue or Civil Courts as a consequence of distress produced by the famine? Has the agricultural population which has no hereditary interest in the land suffered more in proportion than other classes?

CHAPTER IV.

FAMINE PREVENTION.

Preparation of schemes of work for future use.

1. After 1868 the Government of India gave instructions that schemes of works should be prepared suitable for execution in the event of famine. Were such schemes ever prepared? If so, have they been found of practical use during the recent pressure?

2. Do there appear to be any difficulties in the way of keeping up such schemes in a form which will be really useful in the future.

3. What classes of works would be included in them? Would the works differ in character from the ordinary works of utility brought forward for execution from time to time? And, if so, how? Give a practical example of works now considered suitable to be taken up as elements of such a scheme in two or three districts, if possible.

4. Should the works in such a scheme be looked on as immediately available for giving employment as relief-works at the discretion of the Local Governments, or under what circumstances might the authority of the Government of India be held to be required?

5. If severe drought calling for the employment of labour on a very large scale, and in an exceptional manner, occurs at comparatively long intervals, how will it be best practicable to arrange for suitable projects, which though suspended must yet be fit for early execution? On whom should the responsibility of maintaining such schemes in an efficient state rest, and how could it be enforced?

6. What number of persons is likely to be thrown on relief-works in an extreme case, and how should such a scheme be framed as to indicate what portions of it should be taken up on any particular occasion in order to provide for the employment of the anticipated numbers and for the length of time required?

7. Should the works include only such as had been sanctioned for construction under the regular rules on such subjects, or would it under any circumstances be right to include in such a scheme large works to which sanction had not been given on account of their doubtful financial value, and their not being of a character that would justify their execution under ordinary circumstances? How far might there be risk of the Government being led into unprofitable expenditure in the completion of works of this sort begun under plea of famine pressure?

8. Is it probable that the amount of work executed by unskilled labour on any large work during the pressure of famine would be such that the exclusion of the expenditure on it would reduce the ultimate cost of such a work in any important degree so as to be likely to render it remunerative, though if otherwise executed it would not have been remunerative? Can any illustration be given of such a case as that last referred to?

9. Could large works not sanctioned by proper authority, for whatever reason, be properly included in the scheme of works, and, if so, what preliminary steps should be regarded as requisite before actually putting them in hand if severe scarcity arise?

10. Considering the circumstances under which labour is applied on relief-works, is the risk of waste by reason of there being no regularly prepared scheme ready really great? Is there danger, in the absence of suitable projects ready for immediate execution, of the suffering population being left without proper relief until the necessary relief-works have been prepared for execution? How far might the intelligent action of the several branches of the Public Works Department be made to supply, from among projects in course of execution, or ripe for it, what was requisite? Could this and be sufficiently secured by distinctly making the Public Works Department responsible for bringing forward suitable works whenever pressure from scarcity arose; and, so far as was necessary and practicable, setting aside or postponing the ordinary work not suitable for relief purposes?

11. Has there been practical difficulty in finding suitable relief-works during the recent pressure? If so, where and how? Make any suggestions on the subject of providing relief-works which may aid in meeting the difficulties that are found to arise in practice.

IRRIGATION WORKS.

12. What is the capital expended to date in the construction of the principal canals in your Province, and what the yearly interest on that capital? What is the annual cost of maintenance? What is the present acreage irrigated? From this calculate the several corresponding rates per acre. What is the average local value per acre of the chief crops raised by irrigation from these canals? What is the difference between this and the average value of such crops raised without irrigation?

13. What is the amount per acre paid for the use of water for the chief crops by the occupier in the shape of water-rate? What is the ordinary increased rent on irrigated over unirrigated land? What is paid by the proprietor per acre in the shape of land-revenue or owner's rate? Is there any reason why a proprietor, whether paying land-revenue or not, the yearly value of whose lands is increased by irrigation from canals constructed and maintained at the public cost, should not contribute to the State in return for the advantage he thus obtains? What seems to be the best way of obtaining such a contribution from him; first, where the land-revenue is liable to revision; secondly, where it has been permanently settled; and thirdly, where land is not charged with revenue?

14. In what way, and under what law, are the canal dues recovered in your district? Has there been found to be any difficulty in applying the law in any particular, and, if so, how? And what better system can be suggested? It is commonly said that water is used in too lavish a manner by

agriculturists when the charge is made supplied. Is this the case, and what remedy effect of preventing this? To what extent out of cultivation, or to confine irrigation to the and can this be done? Is it ever charged for a certain portion of the village lands supplied to those lands through a given aperture? Is this system a good one? What are the difficulties attending it? Where it is adopted, what arrangement is made for distributing the water among the cultivators? Have complaints practically arisen where the system has been in force, and how could they best be guarded against? Does there appear to be any objection to making such a system of contract compulsory where the general advantage of the cultivating community calls for increased economy in the use of a limited supply of water?

15. Having reference to the margin of profit on irrigated crops commonly left to a cultivator after payment of the existing water-rates, could these rates be increased without trenching unduly on that margin of profit? How would raising the water-rates operate on a cultivator under a lease, and how on the revenue-paying proprietor if it took place during the currency of the lease or settlement respectively.

16. How are the statistics of irrigation recorded, and are revenue reports of the chief irrigation works prepared by the canal administration, and in what form? Do you think them necessary? To what extent do you think the record of such statistics valuable or necessary for the proper administration of irrigation works? To what degree of detail may the record usefully go, and how may the facts be best collected and recorded?

17. What evidence is there as to any mischief being caused by canal irrigation, such as by increasing sickness or injury to the land by raising the water-level, or production of efflorescent surface salts, &c.? To what extent has drainage accompanied, or ought drainage to accompany, canal irrigation? Has the provision of needful drainage been neglected? Is additional drainage needed to meet the effect of the increased quantity of water thrown on the surface, or to remove obstructions caused by canals, channels, water-courses, &c.

18. Has canal irrigation anywhere been combined with attempts to improve soils previously unfit for cultivation from the presence of noxious salts?

19. What has been the general effect of continued canal irrigation on the character of the cultivation? Has the irrigated area of the poorer grains which supply the chief part of the food of the people been gradually diminished, and has the area of the better crops been increased? If the area of poorer crops has been reduced, is this due to conditions of soil or position of lands and difficulties of access from the water-supply or to the relative profits in the one case being greater than in the other? State the general facts as to the changes in the areas irrigated during the last 10 or 12 years, and make any comments that seem desirable. Is there reason to suppose that prolonged irrigation damages the land under any circumstances? Is there any evidence of a reduced production?

20. Under what conditions is an inundation canal, giving water only during the rainy season, found to be useful? To what extent is it probable that such irrigation could be usefully attempted in the North-Western Provinces, or elsewhere where not now applied, and where a water-supply is available? How far would such irrigation be useful for rabi or kharif cultivation? How far may wells be depended on to supplement the deficiencies of supply in such a canal during the dry season?

21. What is the system of canal administration? Who is responsible for distributing the water and for collecting the dues? May the functions of the Engineer in charge of the works and the technical business of the water-supply, and those of the officer responsible for seeing that the available water is distributed equitably to the land that most requires it, and securing water to the extension of irrigation and the realization of the canal revenues and their due assessment and increase, be best combined, or should they be kept separate? State the reasons for your opinions.

22. What system actually prevails in your Province, and if you think it susceptible of improvement, say how. Do you think a special canal law necessary to admit of proper administration? And have you such a law, and is it satisfactory?

23. Why has the extension of the use of canal water been commonly so slow? What has been the nature of the obstacles, and how can they best be avoided or removed? Are any of the canals now in an unsatisfactory condition in these respects, and can any sufficient explanation be given of the want of progress? This question would specially apply to the Orissa canals, and to the works of the Madras Irrigation Company with reference to the last see question No. 30. Have any of your canals practically reached the state in which further extension is not likely, or is likely to be small? Say how far this is the case in each. Are difficulties met with in preparing land for irrigation for the first time, in the way of sub-dividing fields or levelling the surface or formation of water-courses which require more time and money than can be supplied by a limited population otherwise than slowly? If such difficulties are met with, how may they best be removed? Does the existing system provide sufficiently for making advances to cultivators to adapt their land to irrigation, and if not what changes are desirable? Does shortness of supply during the hot season materially affect progress of canal irrigation?

24. Where the financial prospects of projected irrigation works are not such as to appear to justify the outlay of public money on them in the expectation of the income being at an early date sufficient to cover all the expenses including the charge of interest on capital outlay, do you think that a special rate to make good the deficiency might properly be charged on the district for the benefit of which the works are designed, or on the land that would be protected, and if so, under what conditions? If not, what are your objections? How would you meet the case put in this question if not by some such

special rate? Is it more equitable to place a compulsory charge on other districts which can probably derive no advantage from the works, or only on the districts or lands that can benefit? If the protection to be given by such works to particular districts is deemed of great importance under conditions such as have been above stated, what course do you think should be taken having regard to the necessity for protecting the general finances of the country?

25. Have any customary claims or prescriptive rights in the use of water from tanks or canals or water-courses grown up in your district? What is their nature and history? Have they led to inconvenience in respect to the general utility of such works to the agricultural community that might benefit by them? Would it, in any case that you know, be desirable to buy out such rights as exist, and to prevent the accretion of others? Have such claims or rights to the use of the water in the upper parts of rivers obstructed the application of the water in the lower parts to purposes of irrigation? or *vice versa*? If this has happened in any case, could any remedy be applied which would be equitable? How should disputes on such points be settled? In cases in which the action of the ordinary courts would be impossible or inapplicable, what principles should govern decisions in such disputes?

26. If anywhere it be found that the tanks, &c. are so small and numerous that Government cannot practically carry out their supervision and maintenance, would it be expedient that steps should be taken for imposing on the cultivators or proprietors who benefit by the water, the duty of carrying out all necessary repairs or works for securing the irrigation in an efficient condition? Do you think this principle should apply to all tanks, great and small alike? Might the obligation equitably be held to attach without any corresponding relief being given, or should any privileges (such as lowered rent) be conceded to the ryots, if they are charged with the duty of repair? To what extent should the liability go, whether only to minor works not requiring engineering skill, or to all work? How could such a duty be best enforced, and any neglect of repairs checked at its inception? and what penalties should be legalised to punish such neglect when it does occur? Is there any local or other fund from which to pay for such work if it consisted of more than ordinary earth-work? Could such a fund, in case of need, be established?

27. How far do obligations rest on zamindars or other superior land-holders to maintain tanks or other irrigation works? Are such obligations properly recognized where they exist, or is any additional power called for to enforce them? Where they do not now exist, are there circumstances or localities in which it would be expedient to impose them on some such basis as that referred to in question No. 26, and if so, on what general system should it be done?

28. What are the rules made under Madras Act No. VII of 1865? Give a statement of the works to which this Act has been applied, and what is the revenue realized by means of it? Give an illustration of the cases in which exemptions are granted under Section 4 of the Act. What is the nature of the receipts entered in the Miscellaneous Land Revenue under the head "Cess for repair of tanks?"

29. How has the distribution of water been fixed where the supply is less than the demand? Do customary or other established rights interfere with the extension of irrigation from any Government canal, and if so, where and to what extent, and what remedy should be applied? Is it the duty of any one to see that the available water is made use of to the best possible advantage for the community as a whole, and on whom does the duty fall? Is there any difference in the system of supplying canal water to lands under ryotwari settlement and under zamindari settlement, where the two exist, and what is it?

30. Is there any special difficulty introduced into the spread of irrigation by the intervention of the agency of a company in the management of a canal, and how could such difficulties be best overcome?

31. In reckoning the return obtained from the outlay on canals or other irrigation works, is full credit given them under the existing system of accounts? Where separate water-rates are charged on the cultivators is the indirect profit obtained by the increase of land revenue properly taken into account? Where there has been no distinction made in the payment to Government between the charge made as land revenue and that for the supply of water, is the canal revenue fairly estimated at present, and if not, how do you think it would be best reckoned?

No. 37. From C. A. ELLIOTT, Esq., C.S.I., Secretary to the Famine Commission, to the Chief Secretary to Government, dated Simla, 3rd July 1878, No. 47.

In continuation of my letter, No. 21, dated 22nd ultimo, I am now desirous to forward twenty copies of a series of questions on special medical and sanitary subjects, on which it is believed that the experience recently gained will throw light; and to request that, with the permission of His Grace the Governor in Council, you will be good enough to distribute them in such a way that answers may be drawn up stating the facts regarding, say, ten selected poor-houses, and, say, ten selected relief-camps, those being chosen in which the supervision was most careful and the facts regarding which are most to be relied on. If a larger number than ten poor-houses or camps can be relied upon to furnish trustworthy results, reports on such larger number may be supplied if it is thought worth while to furnish them.

be communicated to the Board of

The Chief Engineer for Irrigation.
 " Consulting Engineer for Railways.
 " Sanitary Commissioner.
 " Conservator of Forests.
 " Director of Revenue Settlement.
 " Superintendent of the Government Farms.

to all Collectors, and to the officers marginally named. The Government desire that the Members of the Board of Revenue will either jointly or severally reply to any of the questions on which they desire to submit remarks or opinions. To all questions of a statistical nature in Chapter I, the Board are requested to furnish complete replies to Mr. Ballard; referring of course to Collectors where accurate information on any point is not available in their own office. The Board will take early steps to inform Collectors what particular questions they may thus decide to deal with finally themselves; and Collectors will understand that, beyond furnishing to the Board, with all the expedition possible, such information as may be called for in respect to those queries, they are under no obligation to send further replies on the same subjects to Mr. Ballard. All other questions in that Chapter are however open for answer by Collectors (as well as by the Board) in consultation with their most experienced subordinates, European and Native, and any non-official persons whom they may select; the replies being sent direct to Mr. Ballard. Besides the replies of the Board and Collectors, it is desirable that Mr. Ballard should be furnished with replies to some of the questions from the officers specified below, viz. :—

- Nos. 6, 7, and 23 by the Superintendent of the Government Farms;
 " 6, 9, 10, 11, 12, and 13 by the Director of Revenue Settlement;
 " 2, 24, and 25 by the Sanitary Commissioner;
 No. 19 by the Consulting Engineer for Railways;
 " 20 by the Chief Engineer for Irrigation; and
 " 23 by the Conservator of Forests.

3. CHAPTERS II AND III.—The questions contained in these Chapters will be referred specially to all Collectors, District Engineers, and Zillah Surgeons, for reply. These officers will further communicate them to such of their respective subordinates as have had practical experience, in a responsible capacity, of any portion of the late relief operations; with instructions that each officer consulted shall answer those queries only, regarding which he has gained direct personal knowledge. These Chapters (II and III) will also be referred to the Inspectors-General of Police and Jails, to the

Major Baynes.
 " Liardet.
 " Shaw.
 " Ross.
 Mr. Howe.
 " Oldham.

Mr. Weekes.
 " Kisch.
 " J. H. Cook.
 " C. Travers.
 Capt. R. Wilson.
 Lieut. Casey.

Deputy Inspectors-General of Police, to all District and Assistant Superintendents of Police, and to the officers marginally noted, for answering, so far as the experience, observation or knowledge of each qualifies him to do so. Each Collector, District Engineer, and Zillah Surgeon will collect the replies of his own subordinates and forward them to Mr. Ballard, as received, with any annotations of his own which he may wish to make.

4. CHAPTER IV will be referred

Mr. Sullivan, C.S.
 " Longley, C.S.
 " H. S. Thomas, C.S.
 " Horsley, C.S.
 " Leman, C.S.
 " Foster, C.S.
 " Grose, C.S.

Mr. Wilson, C.S.
 " H. J. Stokes, C.S.
 " Price, C.S.
 " Crole, C.S.
 " Wilkinson, C.S.
 " McWatters, C.S.
 " E. Turner, C.S.

to the Chief Engineer, Department of Public Works, and to the Chief Engineer for Irrigation, who will reply to the questions in the form of a note or memorandum. Questions 6, 11, 12, 13 to 15, 17, 19, and 21 to 28 of this Chapter will also be referred for the replies of the officers named in the margin.

5. With regard to the second list of queries, which relates to Relief-camps and Working-camps, His Grace the Governor in Council resolves to select the following

as the specimen camps to be reported on: The names of the Medical Officers in charge are given so far as immediately known :—

RELIEF-CAMPS.

1. Red Hills	Dr. Sturmer.
2. Monegar Choultry	Dr. Thompson (now on leave).
3. Kaderbagh, Kurnool	Dr. Fitzpatrick (now at Trichinopoly).
4. Nellore Town	Dr. Ross.
5. Ranipett	Dr. Lancaster (now at Salem).
6. Madanapally	Mr. Apothecary Ward.
7. Pennacondah	Dr. Williams.
8. Trichinopoly	Dr. King (now at Kurnool).
9. Dindigul	Rev. Dr. Chester.
10 and 11, Coimbatore Town, Nos. 2 and 4.	Dr. Morton having left, the Civil Surgeon should report.
12. Chalk Hills, Salem	Civil Surgeon, Salem.
13. Darampuri	Hospital Assistant in charge.
14. Udumalapettah	Civil Surgeon, Coimbatore.
15. Adoni	Dr. Williams, late Sanitary Inspector.
16. Cuddapah	Dr. Iyasawmy.
17. Cuddalore	Dr. Robertson.
18. Vellore	Drs. Fox and Price (now at Ootacamund).
19. Madura	Dr. Williams.
20. Conjeveram	Native Assistant Surgeon.
21. Oosoor	Dr. Wells.
22. Tripasore	Apothecary in charge.

WORKING-CAMPS.

Buckingham Canal Camps	Dr. O'Hara.
Chepauk	
Peapally	

The questions in this list will be referred for reply, through the Surgeon-General, to the Medical Officer concerned; whose report will be furnished to the Collector, Divisional Officer or Public Works Executive Officer who was in general charge of the camp. The latter officer will add his own remarks, and send the whole, direct, to Mr. Ballard.

6. Besides the officers of Government above specified, His Grace in Council resolves to circulate both sets of questions to the marginally-noted gentlemen and Societies, inviting them to furnish replies to such questions as they feel themselves competent to answer. The Bishops and Missionary Bodies named will be requested to circulate copies of the questions to their most experienced Clergymen and Associates; for which purpose twenty additional copies will be furnished to each.

7. The attention of all official and non-official gentlemen, answering any of the questions, is particularly drawn to the preliminary observations annexed to the two

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Lists; and they are requested to use every endeavour to submit their answers to the local Member of the Commission, Mr. G. A. Ballard, before the 15th September next, or as soon after as possible.

(True Extract.)

D. F. CARMICHAEL,
Chief Secretary.

To G. A. Ballard, Esq.	To G. McWatters, Esq., Sub-Collector, Coimbatore.
" H. E. Sullivan, Esq., Member, Board of Revenue.	" E. Turner, Esq., Special Assistant, Madura.
" H. S. Thomas, Esq., Member, Board of Revenue.	" the Superintendent of the Government Farms.
" the Board of Revenue.	" the Hon. Goday Naraen Gajapathi Rau.
" all Collectors and the Commissioner of the Nilgiris.	" " Humayun Jah, Bahadur.
" the Public Works Department.	" " V. Ramiengar, C.S.I.
" the Chief Engineer, Department of Public Works.	" " A. Seshaya Sastri, C.S.I.
" the Revenue Department.	" J. M. Martney, Esq., Sundur, Bellary.
" the Revenue (Famine) Department.	" the Right Rev. the Bishop of Madras.
" the Chief Engineer for Irrigation.	" the Right Rev. Dr. S. Fennelly, Madras.
" the Consulting Engineer for Railways.	" the Very Rev. B. F. Amarante, St. Thomé.
" the Conservator of Forests.	" the Right Rev. the Vicar Apostolic of Vizagapatam.
" the Director of Revenue Settlement.	" " of Madura.
" the Sanitary Commissioner.	" " of Mangalore.
" the Surgeon-General, Indian Medical Department.	" " of Coimbatore.
" all Zillah and Civil Surgeons.	" the Right Rev. Bishop Caldwell, Palamcottah.
" District Engineers.	" Sargeant, do.
" the Inspector-General of Jails.	" the Rev. Dr. Chester, Madura.
" of Police.	" the Secretary, Society for the Propagation of the Gospel.
" Major C. D. Baynes, Government Agent, Chépaik.	" " Church Missionary Society.
" Major C. A. Liardet, on Famine duty, North Arcot.	" " Vepery Mission.
" Major E. W. Shaw, on Famine duty, North Arcot.	" " Church of Scotland Mission.
" Major G. C. Ross, on Famine duty, Coimbatore.	" " Free Church of Scotland Mission.
" Captain R. Wilson, on Famine duty, Madras.	" " Wesleyan Mission Society.
" Lieutenant C. L. Casey, on Famine duty, North Arcot.	" " London Mission Society.
" W. A. Howe, Esq., B.C.S., Bellary.	" " American Madura Mission.
" W. B. Oldham, Esq., B.C.S., Bellary.	" " American Arcot Mission.
" H. M. Kisch, Esq., B.C.S., Bellary (care of Collector).	" " Baptist Telugu Mission (Nellore).
" A. Weekes, Esq., B.C.S., Cuddapah (care of Collector).	" " Leipzig Lutheran Mission (Tranquebar).
" J. H. Cooke, Esq., Revenue Survey, Coimbatore.	" " Danish Lutheran Mission (South Arcot).
" C. Travers, Esq.	" " American Lutheran Mission (Guntoor).
" F. H. Wilkinson, Esq., Acting District and Session Judge, Bellary.	" " Evangelical Lutheran Mission (Nellore).
	" " Basel Evangelical Mission (Mangalore).
	" " Basel Evangelical Mission (Cannanore).

Exd. J. Wright.

Revenue Account
No. 3513
Bolt. of 11878; 30 yards.

FINANCIAL.

To
G. A. BAILLARD, Esq.,
Ac., do., do.

Drawn August, 1884.

Amount

Recd. 1884

G.O., 36 August 1884, N. 171.

AUGUST.
Nos. 36-38.

For the Commission. - List of questions drawn
up by the Commission submitted to certain officers
with instructions.

28/1/84

W. A. C. C.
28/1/84