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MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

G.O. No. 2795	Press Mis.
240-1	
Dated 11-9-1867	

Not to be folded or roughly handled

29/4/43

No. 240. Read the following Proceedings of the Government of India, in the Public Works Department, (Establishment,) dated Simla, 20th August 1867, No. 1,158 E:—

Remarks on the recommendations of the Commissioners on the Famine of 1866 in Bengal and Orissa.

Read—

Report of the Commissioners appointed to enquire into the Famine.

RESOLUTION.—The recommendations of the Commissioners relating to matters connected with the Public Works Department, have been considered by the Governor General in Council separately under the following heads:—

I.—*Measures relating to Orissa specially.*

2. These are to be found in paragraphs 24 to 33 in the end of the 2nd part of the Report, and relate to the following:—

- 1.—Progress of the works of the East India Irrigation and Canal Company;
- 2.—The Trunk Road to Cuttack;
- 3.—The use of the anchorage at False Point as a harbour;
- 4.—Extension of local roads;
- 5.—Protection of the country round Cuttack from floods.

3. In regard to the first, the Governor General in Council would press on the attention of the Government of Bengal the suggestion of the Commission in paragraph 25. Doubtless, the East India Irrigation Company will at once act upon these suggestions, if it has not done so already. But as far as regards holding out hopes to the Company of some subsidy for additional benefits, beyond the supply of the means of irrigation, which their works may confer on the country, the Governor General in Council, as at present informed, is not disposed to adopt this recommendation. His Excellency will be ready to consider what the Local Government may have to say on the subject, after the Report of the Committee on the means of preserving the country from floods has been received and considered.

4. It is recommended that the Trunk Road from Balasore to Midnapoor should be completed as rapidly as possible. The Governor General in Council has already issued orders having in view the completion of metalled communication throughout the whole distance between Calcutta and the Madras frontier by the beginning of 1869, and the Government of Bengal has been requested to apply for additional funds, if any are necessary. The attention of the Madras Government has been called to the portion of the road connecting Calcutta with Madras that lies within the Madras Presidency, and a rough estimate of completing the road for rapid wheel traffic has been called for.

5. The thirteen roads referred to in Colonel Morton's Memorandum (page 146), or as many of them as the Government of Bengal may desire to put in hand, ought to be taken up at once—a grant of imperial money being made for the purpose. The necessary surveys, plans, and estimates, should of course be prepared.

6. The supply of a receiving vessel and small steamer for False Point harbour, and other arrangements that may be deemed necessary for improving the access by sea to False Point, should be considered in the Military Department (Marine).

7. The Bengal Government should take steps to obtain a report on the entrance of the Dhamra river.

*Proceedings of the Madras Government, Public Works Department,
11th September 1867.*

8. The subject of protecting the country round Cuttack from floods, will receive consideration on receipt of the report of the Committee now investigating the matter.

II.—Projects beyond Orissa.

9. The scheme for a canal, or system of canals, from the Ganges at Rajmahal to irrigate Lower Bengal (see page 163, paragraph 45 of the 3rd part of the Report), suggested by Sir Arthur Cotton, will be referred to Colonel Strachey, Inspector General of Irrigation, for opinion and suggestion of the measures to be undertaken.

10. The utilization of the waters of the Damoodah and neighbouring rivers, and the formation of reservoirs on the hills west of Bengal, have already long engaged the attention of the Governments of Bengal and of India, and Reports from Lieutenants Garnault and Heywood, of Royal Engineers, have been received; but now that a Chief Engineer of Irrigation for Bengal has been appointed, the subject should at once be taken up and dealt with more vigorously and systematically than hitherto.

11. Irrigation in Tirhoot, mentioned in paragraph 48, page 164 of the Report, has also received the attention of the Governments of Bengal and of India, and it is hoped that a survey of the country will be in progress after the rains.

12. The Soane project (paragraph 48), for the execution of which the East India Irrigation Company is going on with its preparations, will afford at least the commencement of irrigation in South Behar. But with reference to Colonel Rundall's views adopted by the Commission, as to the extension of the works and their adaptation chiefly to rice irrigation, the Commissioners seem not to have been aware that wheat and barley are largely grown in Behar, and that the Soane has a sufficient supply of water for a large area of such crops in the spring. The subject of monsoon irrigation generally will, however, be fully considered and reported on by the proper Officers.

13. The Sutlej project, referred to in paragraph 55, is now under re-investigation, and partly with the object of ascertaining how far it should partake of the character of a monsoon canal.

III.—Irrigation generally.

14. The subject of constructing separate canals on the Madras plan, discussed in connexion with the possibility of extending rice irrigation into Northern India, in paragraphs 54, 55, has long been under consideration by the Government of India, and will be carefully investigated. It has been noticed in reference to the scale on which the re-modelling of the Ganges Canal is to be carried out, and will be fully considered in designing the new Jumna Canals.

15. The establishment of a separate Irrigation Branch of the Public Works Department for Bengal, suggested in paragraph 57, page 168, has already been sanctioned, and the keeping up of a body of Officers, specially trained to irrigation engineering, has also been practically carried out in the Punjab and North-Western Provinces, where alone separate Irrigation Departments have up to the present been formed, and is a result which will follow as a matter of course wherever an Irrigation Establishment is organized. A complete and rigid separation of Irrigation from the Regular Public Works Establishment, is not considered desirable, at least for the present, nor is it possible.

*Proceedings of the Madras Government, Public Works Department,
11th September 1867.*

16. A re-consideration of the system under which Civil Engineers are got out from England for service in India, is recommended in paragraph 58, page 168. The Commission was evidently not aware of the very full consideration this subject has already received from the Government of India, nor of the difficulties with which it is beset.

17. The Commission notice that, even after the changes made in 1865, there is still a difference between the salaries of Civil and Military Engineers in the lower grades, and recommends a higher standard of examination and higher rates of pay for the successful candidates for employment as Civil Engineers.

18. It does not seem to have occurred to the Committee that the difficulty of arranging the matter of salaries arises out of the difference between European candidates for employment in the Department and those who are Natives of India, and to whom this line of employment is equally open. The latter will often pass easily the highest test in theoretical examinations, and yet prove useless as Engineers from want of practical energy and strength of character. With the former, these last are so seldom found entirely wanting, that the examination tests alone are almost sufficient to ensure the requisite qualifications. It has always been considered impossible to make a distinction between Europeans and Natives in the tests to be laid down for admission into the service as Civil Engineers. This being so, the scale of qualifications and pay cannot be fixed as if all the candidates were sure to be Europeans. There is no means of testing practical energy and strength of character, except by putting the person to actual work or business. Thus, in order to eliminate a number of unqualified Native young men without driving away such as are qualified, it is necessary to admit Civil Engineers, who enter on theoretical examinations only, at a low scale of pay, and to let them advance by promotion as soon as they are found to possess the other necessary qualifications. The only alternative is to insist on some length of approved professional experience as Civil Engineers, and to admit the candidates so qualified in higher grades of Assistant Engineer. This is done to some extent.

19. With Royal Engineer and Staff Corps Officers there are no such difficulties. Their college and Military service, before they enter the Public Works Department, suffices to make known to some degree their capacity for business and their character, so that they can be admitted at once at a rate of pay that could not be offered to a Native candidate of untested powers in these respects; while, at the same time, other departments of the Staff and Civil employ, which do not require such severe theoretical tests, are open to Staff Corps Officers at pay as good as that of the Public Works Department. These are the reasons why the pay of Military Engineers cannot be lower, nor that of Civil Engineers higher, in the lower grades of the service. The discrepancy is, however, greater apparently than actually, because the number in the lowest grade, where the difference is greatest, is small.

IV.—Meteorology and Agriculture.

20. The Governor General in Council quite admits the importance of obtaining data of the kind referred to in paragraphs 61 and 62, pages 169, 170, of the Commissioners' Report, and of giving more attention to the general meteorology of the country, and the study of the progress of the rain-bearing currents of air,

Proceedings of the Madras Government, Public Works Department.
11th September 1867.

as recommended in paragraph 60. With this latter object it will be suggested to the Secretary of State to consult Professor Tyndall whether he could be of use to Government in investigating on the spot the meteorology of India during a visit of a year or so. And if there be any sufficient prospect of usefulness, the Secretary of State will be requested to arrange the necessary preliminaries, and to fix the terms of the visit accordingly.

V.—Works of relief in times of Famine.

21. The recommendation of the Commission in regard to designs and working plans for useful works to be taken up in times of famine, is to a great extent already provided for by the present system of Public Works administration, which not only requires that works shall be widely distributed over the country, but that plans and estimates shall be prepared beforehand, so that no works shall be commenced until they have had such previous consideration as is necessary in framing designs and estimates.

22. It seems unnecessary to prepare designs and estimates solely as part of the provisions against famines. This would only be a useless expenditure of means and money. His Excellency in Council is of opinion, it is better to leave it to Civil Officers and Engineers to do their best, when occasion arises, to propose wisely and carry out correctly what works are necessary to relieve the people; and that the Government should accept the risk and loss from mistakes which may be made on such occasions. The relief of the people should be attained with as much permanent advantage to the country as it is possible under the circumstances, and more than this can scarcely be looked for.

23. The Commissioners' recommendation in paragraphs 75, 76, 77, and 84, relative to the conduct of relief works, deserve careful consideration; and the Government of India will at once take up the subject in view to a set of rules being framed and incorporated in the Public Works Code, for the guidance of Engineers in future cases of relief works being undertaken in times of scarcity and famine.

VI.—Communications generally.

24. With regard to the suggestion of the Committee to urge on the doubling of the arterial lines of Railway in advance of the immediate requirements of the traffic, the Government of India is, and has been, fully alive to the necessity for taking steps in this direction; and has already applied for and obtained the necessary orders from the Secretary of State to double as much of the Railways as it is desirable to operate on at once.

25. The establishment of differential charges according to the season so as to induce greater uniformity of working on the Railways, suggested in the 38th paragraph, will be specially recommended to the attention of Local Governments, who are requested to consider and report on the subject in a full and systematic way.

26. The subject of navigable canals urged upon the Government by the Commissioners in paragraph 39, and that of feeder roads and their possible construction on some occasions, so as to be convertible into tramways or light railways noticed in paragraph 40, should receive the attention of Local Governments.

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Proceedings of the Madras Government, Public Works Department,
11th September 1867.

ORDERED that a copy of this Resolution be forwarded to the Government of Bengal, for information and guidance.

Ordered also, that it be communicated to all other Local Governments and Administrations, and that attention be drawn to the portions of the Famine Commissioners' Report noted above, and that their opinions be invited on such of them as have a special interest and importance in their respective territories.

(Signed) C. H. DICKENS, Colonel, R. A.,
Secretary to the Government of India.

ORDER THEREON, 11th September 1867, No. 2,795.

No. 241.

CIVIL WORKS, No. 26.

1. Ordered to be recorded.

2. The rough estimate referred to in paragraph 4 was forwarded to the

Government of India with letter No. 2,598, under date the 21st August 1867.

(True Extract.)

(Signed) CHARLES A. ORR, Colonel, R. E.,
Secretary to Government.

Exd. S. T. Augustin.

No. 1158 E.

GOVERNMENT OF INDIA.
PUBLIC WORKS DEPARTMENT.
Establishment.

SIMLA, the 20th August 1867.

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(Wichens) Colonel, R. A.,
Secretary to the Govt. of India.

*The Secretary to the Government of Madras
Public Works Department*

GOVERNMENT OF INDIA
PUBLIC WORKS DEPARTMENT.

Establishment.
Pr. of Govt for September
To *No. 3329*
11.9.67

No. . E.

Dated Simla, the 20th August 1867.

Received *2^d Sept*

2795

1. Received -

2. The rough estimate referred to in

being 4 more forwarded to the Govt.

of India with letter No 2598, under date

the 24th August 1867 -

Start at Bombay

11th Sept 1867

2795-11th Sept 1867

Remarks on the recommendations of the Commis-
sioners on the Famine of 1866 in Bengal and
Orissa.

With an Order

240-241