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MADRAS RECORD OFFICE

GOVERNMENT OF MADRAS

Revenue. DEPARTMENT

G.O. No.	56.	~~Press~~
B.P. No.		Mis.

Dated 11-1-1875 ~~196~~ .

Not to be folded or roughly handled

Proceedings of the Madras Government, Public Works Department, 7th January 1875.

Read the following papers:—

No. 50. Proceedings of the Madras Government in the Revenue Department, dated 24th November 1874, No. 1,449.

ABSTRACT—*Relief measures in the Nellore District.*—Placing at the disposal of the Collector the sum of Rupees 50,000 for the purpose of satisfying immediate requirements; referring, for consideration by the Public Works Department, the question of embanking the northern side of the Pennair; and observing with satisfaction the energetic efforts made by all officers to aid the sufferers.

No. 999.

No. 50A. *Note by the Chief Engineer for Irrigation.*

THE embanking of the Pennair from Sungum eastwards on the north or left bank, and on the south side from the flood bank which connects the head sluice of the Nellore tank supply channel with the high ground at the foot of Nursimmakonda will involve difficulties of a formidable description, and I am not at all certain at present whether it will be found to be feasible to confine such a flood as that of October last within embankments.

2. The first thing to be done is to make the best approximation possible to the actual discharge of the river. This will be no doubt a difficult matter, but some conclusion on this point will be essential to a determination of arrangements affording even a probability of success.

3. With the discharge approximately known, it will be practicable to say to what height the water would rise in a similar flood at the anicut when the length of this shall have been extended across the breach behind the north wing wall. In making the calculation the actual water levels above and below should be first taken, and then it should be assumed that the tail water would have been raised as much as the upper water had all the flood passed between the wings. In this manner maximum flood level at the anicut will be determined and actual flood level at Sungum being likewise noted, the surface fall between Sungum and Nellore can be laid down with sufficient accuracy, with such corrections as actual flood level at the gorge at Jennawada may show to be required. Means should be taken to record actual flood levels at as many points as possible between Sungum and the sea, and accurate information will be obtainable, if inquiries be made at once, either from flood marks, or from the evidence of villagers who were on ground or hills which were high enough to make them quite sure of their safety. At Sungum, Jennawada and perhaps at some few other points the villagers were safe, and will be able to give reliable evidence.

4. In the next place, even with embankments of sufficient height, their alignment will require careful consideration. The width of the river varies greatly, and to ensure the stability of the embankments their distance apart should be nearly equal throughout those parts of the river which have a nearly equal fall, and there must be no abrupt bends for flood waters to strike against or erode. Moreover, wherever, from the alignment of the river itself, it is certain or likely that there will always be sets, the points affected will need the protection of revetments.

5. The outlay involved will certainly be large, and it would be unwise to incur it except upon works which can be relied on in the time of danger. Flood banks which fail just when they are most wanted are a mistake, though I am not prepared to say that it will not be worth while to protect this delta from floods of a severity likely to occur three or four times in twenty years, even should it be found impracticable to shut out such floods as that which has just occasioned so much suffering and damage, for these do not take place oftener than about once in twenty-five years.

(Signed) JOHN MULLINS, Lieut.-Colonel, R.E.,
2nd December 1874. *Chief Engineer for Irrigation.*

No. 51. ORDER THEREON, 7th January 1875, No. 26.

IRRIGATION, No. 9.

COMMUNICATED to the District Engineer, Nellore, for early consideration of the subject of embanking the Pennair on the north, or left, bank east of Sungum, and of strengthening the south embankments from the high ground near the head sluice of the Nellore tank channel.

2. This project is undoubtedly a difficult one to deal with, but the remarks contained in the foregoing Note by the Chief Engineer for Irrigation will serve to indicate the points to be attended to in collecting the information on which a decision will have to be based.

(True Extract.)

Colonel, R.E.,
Secretary to Government.

To the District Engineer, Nellore.
,, Chief Engineer for Irrigation.
,, Revenue Department.

Exd. S. T. Austin.

20 Spare Copies

No 70
Revenue Department
Govt. of 1875 Madras.

PUBLIC WORKS.

To

THE DISTRICT ENGINEER, NELLORE,

&c., &c., &c.

Dated January 7th.

Recd. — a g a Encl.

G. O., 7th January 1875, No. 26.

JANUARY.

Nos. 50-51

To Bd of Revenue 15 Jany

Pennair Embankment.—Papers on the subject of embanking the Pennair on the north, or left, bank east of Sur[illegible]d of strengthening the south em[illegible] from the high ground near the head slu[illegible] of the Nellore tank channel, communicated to the District Engineer, Nellore, for early considera[illegible]

No 56
Comm. to the
Board of Rev[illegible]
11 Jany 1875