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MADRAS RECORD OFFICE

GOVERNMENT OF MADRAS

Revenue DEPARTMENT

G.O. No. / B.P. No.	146	Press / Mis.
Dated 25-11-1872	196 .	

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Proceedings of the Madras Government, Public Works Department, 16th November 1872.

No. 260. Read the following paper:—

No. 246.

Note by the Acting Chief Engineer for Irrigation.

THE Superintending Engineer re-submits estimates for repairing the tanks noted below with letter No. 3,062 of 19th October.

		Original.	Revised.
	Vellore Taluq.	RS.	RS.
1.	Closing breaches in Chittary Tank	3,050	1,500
2.	Do. do. in Singanary do.	1,600	1,380
3.	Do. do. in Cattupattoor do.	1,350	1,130
4.	Do. do. in Pootoor do.	2,087	1,800
5.	Do. do. in Thorapudi do.	7,400	5,700
	Arcot Taluq.		
6.	Closing breaches in Mooranum Tank	150	87
7.	Emergent repairs to Vellum do.	1,380	950
	Total ..	17,017	12,547

2. These estimates were returned with G. O. No. 2,051 of 28th August 1872, and the revised estimates show a saving of Rupees 4,530, or rather more than 25 per cent. on the original estimates.

3. All the estimates, except No. 4, fall within the revenue derived from the tanks during the last four years, and hence do not require the sanction of Government.

4. The revenue derived from the Pootoor tank during the last four years has been Rupees 1,333, while the estimate amounts to 1,800; an increase of revenue of Rupees 150 is stated to be expected, but no reasons are given for anticipating this increase, while no provision is made for retaining more water in the tank, but, on the contrary, the bank is to be cut away to form, what the Assistant Engineer calls, safety valves. From sections sent of the ground in the neighbourhood of the calingulah of No. 5, where it is proposed to remove a part of the bank to afford extra means of escape, it is clear that the Assistant Engineer should not be entrusted with the selection of the sites for the natural weirs, for, in the case in point, unless there is rock at the spot at which the water is to be allowed to escape, the only result of removing the bank would be that a breach below soil level would be made long before the water in the tank rose to what may be termed the maximum safe level.

5. In almost all the tanks provision has been made for aiding the weirs by allowing water to escape at or near them over the natural surface of the country; this should not be done by cutting away the existing bank as appears to be intended, but the site for the overflow of the tank should be selected where the country is tolerably flat for some considerable distance, or where the soil is gravelly or stony; if no such site can be obtained, the bank should be weakened at the spot most favourable for the discharge of surplus, the crest of the bank being at least 1½′ above the highest level to which it is desired to retain water, and when the water rises above this level the small bank should be removed. The selection of these sites should not be left to the Assistant Engineer.

6. The drainage of the tanks appears to be very small, so much so that it is probable that by "the drainage" the Assistant Engineer intends to signify the area of the water-spread of the tanks, and not the area of the drainage basin. It is on the latter and not on the former that the capacity of the weirs must be calculated, and hence the term drainage should not be used by itself to signify the area from which a tank receives its supply.

7. In addition to the estimates noted above, estimates are submitted for a sluice* in the Thorapudi tank and for a weir† across the Allapuram surplus channel for the supply of the Thorapudi tank. The former may be carried out from the allotment for Minor New Works, with reference to the observations on the plan. The latter appears to be a restoration, but no information is afforded as to the dimensions of the original work, the cause of its destruction, the probable quantity of water the new work may have to discharge, or how the dimensions proposed have been arrived at. The plan provides for a weir placed obliquely to the stream; this may probably be modified by slight alterations at the channel head. This estimate should be revised. The clearing of the channel appears to be unnecessary as also the cutting away of the bank of the Thorapudi tank for the purpose of providing additional means of escape. These items should more properly have appeared in the estimate for repairing the tank.

* Rupees 200.
† Rupees 940.

8. The estimates for increasing the capacity of the surplus weirs where necessary should be submitted as early as possible, but where a series of tanks in a valley are connected with each other, and the lower tanks receive a supply from or through the upper, the latter should be first provided with means of passing off the surplus water safely, or, in other words, in improving a chain of tanks, the tank in the chain which is in the highest part of the valley should be the first to be rendered safe.

9. The rates for earthwork are high, but this is stated to be due to the fact that earth had to be brought in some cases from considerable distances; in checking the work care should be taken that the rates paid are fairly due to the distances from which earth has actually been brought.

10. The ayacut is stated to represent the area ordinarily cultivated under the tanks some years back, and all revenue derived from land irrigated beyond the ayacut limit is said to be entered in the accounts as Teervajasti. In the south the ayacut signifies the area under the influence of a work which could be irrigated if sufficient water were available for the whole area. It would be well if the ayacut were everywhere calculated as in the south, for it would then be possible to tell at a glance what area under the influence of any work remained uncultivated owing to the want of water or to defective drainage, etc. The ayacut accounts, as prepared in the North Arcot District, do not afford the information required by this department. Where the Revenue Survey has been completed there would be little or no difficulty on the part of the village authorities in determining the area which might be brought under the influence of the tanks and channels generally.

Proceedings of the Madras Government, Public Works Department,
16th November 1872.

11. There appear to have been some errors in the ayacut statements originally sent, for the Vellum tank, which was shown to have yielded an average revenue of only Rupees 5 during five years, is now stated to have yielded an average of Rupees 38-3-11.

FORT ST. GEORGE,
2nd November 1872.

(Signed) R. F. OAKES, Major, R.E.,
Acting Chief Engineer for Irrigation.

No. 261. ORDER THEREON, 16th November 1872, No. 2,695.

IRRIGATION, No. 19.

HIS Excellency the Governor in Council sanctions the estimates submitted with the papers recorded above with the exception of that for the weir in the Allapuram surplus channel, the estimate for which should be revised with reference to the remarks by the Acting Chief Engineer for Irrigation.

2. The Superintending Engineer's special attention is called to paragraphs 4, 5, 7, 8 and 9 of the Note by the Acting Chief Engineer for Irrigation.

3. It would appear that in different parts of the country the term "Ayacut" bears different significations; where its signification is limited to the area cultivated some years ago under a tank or channel, the ayacut returns do not afford the information required by the members of the Department Public Works. The Revenue Board will state whether there will be any difficulty in having the ayacut statements revised, where necessary, in order to include in them the total area which is under the command of the various works as proposed in paragraph 10 of the Acting Chief Engineer's Note.

4. The term "Ayacut" should universally be held to mean the total irrigable area.

(True Extract.)

Colonel, R.E.,
Secretary to Government.

To the Superintending Engineer, 4th Division, with thirteen Enclosures.
,, Acting Chief Engineer for Irrigation.
,, Revenue Department.
,, Board of Revenue.
,, All other Superintending Engineers.

Exd. E. C. Shunker.

Revenue Dept.

Ft. 3755

Govt. of {1872} Madras.

PUBLIC WORKS.

THE SUPERINTENDING ENGINEER,

4TH DIVISION.

&c., &c., &c.

Dated November 16th.

Recd. " 22nd Instt.

G. O., 16th November 1872, No. 2,695.

NOVEMBER.

Nos. 260-261

Tanks.—Passing orders on the Note by the Chief Engineer for Irrigation on the estimates for the repair of tanks damaged by the cyclone in May last in the North Arcot District.

Ft. 1146.

Lodged

25 Bundles