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TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

Revenue DEPARTMENT

G.O. No.	755	Press
B.P. No.		Mis.
Dated	28-3-1876	187

Not to be folded or roughly handled

125

*Proceedings of the Madras Government, Public Works Department,
8th March 1876.*

Read the following :—

No. 223.

No. 86. *Note by the Chief Engineer for Irrigation.*

THE following estimates from the Surooloor Range are forwarded by the Superintending Engineer, Chingleput, with his letter marginally noted :—

No. 3,716, dated 2nd December 1875.

Talug.	Estimate No. 187	Work.	Amount.
Trivellore	...	Eacadoo Poothary Tank	RS. 830
Do.	...	Poonnapattoo Tank	305
Do.	...	Majankarandi small Tank	270
Do.	...	Kalianacoopum small Tank	520

2. The Financial and Hydraulic details of the irrigation works concerned are exhibited in the following statement :—

I.—Financial Details.

Name of Work.	Ayacut Area.	Assessment.	Average Revenue for 5 years.	Highest Revenue for 5 years.	Expenditure during previous 4 years.	AMOUNT OF ESTIMATE.		
						Capital.	Revenue.	Total.
Eacadoo Poothary Tank	ACRES. 460	RS. 179	RS. 836	RS. 1,084	RS. 398	RS. ...	RS. 830	RS. 830
Poonnapattoo Tank	89	227	175	204	89	85	220	305
Majankarandi small Tank	86	262	339	621	305	...	270	270
Kalianacoopum small Tank	100	227	156	178	144	135	385	520

II.—Hydraulic Details.

Name of Work.	Catchment-Basin Area.	MAXIMUM SUPPLY.		LENGTH OF ESCAPE.		AVERAGE HEIGHT OF BUND.		Surplus discharged at M.T.L. per Section.	Tanks above.
		Catchment per Second.	Channels per Second.	Total.	Effective.	Above F.T.L.	Above M.T.L.		
Eacadoo Poothary Tank	SQ. M. 8	C. FT. 2,250	C. FT. Not stated	FT. C 60 48 E 303 305 W 60 } E 305 } 365	FT. 12	FT. 3	FT. 1.5	C. FT. 998.1	NO. 1
Poonnapattoo Tank	3.5	1,396	Do.	E 12 12 E 210 210	12	3.37	1.87	49.3	Not stated
Majankarandi small Tank	.75	464	Do.	E 75 75 E 39 39	75	2.25	.75	9.0	Do
Kalianacoopum small Tank	6	1,485	Do.	E 303 303	39	1.87	.37	231.4 160.4	5

NOTE.—The proposed dimensions of escapes and heights of bund are printed in large type. The existing dimensions in small type. The following abbreviations are used :—C.—Calingulah with dam stones. W.—Weir with flush crest. E.—Escape at ground level. B.—Bund of tank.

3. The following is a summary of the work proposed to be carried out :—

Eacadoo Poothary Tank.—This tank has breached, the bund is to be repaired, sectioned, and turfed, a surplus escape at the ground level is to be improved, the calingulah is to be repaired and the dam stones removed.

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Poonnapattoo Tank.—The bund is in bad repair and requires sectioning. Escapes at ground level are to be provided.

Majankarandi small Tank.—This work was breached by freshes from the Kusastala river. The bund is to be repaired, sectioned and turfed, and an escape at ground level is to be formed at the flank.

Kalianacoopum small Tank.—The bund is to be repaired and sectioned. An escape is to be formed at the flank, and an outlet sluice for the supply of Kalianacoopum large tank which is below constructed.

4. It will be noticed from the Statement No. II. above that the escape provided for the Eacadoo tank would hardly suffice with a head of $1\frac{1}{2}$ feet as proposed, but probably that head may on occasion be considerably increased.

The same remark applies to the Poonnapattoo tank.

The Kalianacoopum catchment basin has probably been over-estimated. The connection of the earthwork with the outlet sluice in the bund of the Kalianacoopum small tank should be shown and generally in all such cases. If the large tank was in the habit of deriving its supply partly, during rainfall, through the cut in the bund of the small tank and thus intercepting water that would otherwise surplus into the Eacadoo Poothary tank, the size of the outlet sluice should not be so much regulated by the amount of irrigation under the large tank as by a consideration of the maximum supply which the tank formerly received during rainfall by means of the cut which the sluice replaces.

5. The Superintending Engineer forwards with the estimates three designs for tank sluices, which he proposes as types to be adopted in the district generally. This is a step entirely in the right direction. The subject will however be dealt with separately and generally. In the meantime the drawings will be registered as Chingleput District type designs, Minor Works Irrigation, Tank Sluices Nos. 1, 2 and 3; and they may be so referred to by the Superintending Engineer in future estimates, but it is necessary that they should be revised before adoption for the works under review or for general use. The following are the defects noticed :—

First and Second class Sluices.—The head should be advanced horizontally a distance equal to from $\frac{2}{3}$ ths to $\frac{1}{2}$ the height of the sluice, towards the tank bed. The wings should be adapted to a slope of $1\frac{1}{2}$ to 1; there should be a rough stone apron between the wings. The foundation from the face wall towards the ends of the wings and the outlet should be gradually and not suddenly shallowed, so as to correspond with the gradual diminution of superincumbent weight. Either the tunnel should be lengthened so as to clear the outer toe of the bund, or the wing walls at the outlet should be lengthened. The sluice would usually tail into an irrigation channel, and its connection with a channel might be shown. There should be some rough stone at the outlet. An average height should be assumed as that of F.T.L. and M.T.L., and the head on the tunnel vent due to the maximum discharge necessary for cultivation should be stated and *vice versa*. Hydraulic concrete should be specified on the plan. All the above observations, except the first, apply to the third-class sluice. As the alterations are not of much moment the present estimates may be sanctioned.

Fort St. George, (Signed) A. DE C. SCOTT, Major, R.E.,
21st February 1876. *Depy. Chief Engineer for Irrigation,
for Chief Engineer for Irrigation.*

To the Secretary to Government, Public Works Department.

*Proceedings of the Madras Government, Public Works Department,
8th March 1875.*

No. 87.

ORDER THEREON, 8th March 1876, No. 606.

IRRIGATION, No. 9.

Account.

No. 223, of 21st February 1876.

The following estimates for Irrigation Works in the Surooloor Range, Chingleput District, forwarded by the Chief Engineer for Irrigation with his memorandum marginally noted, are sanctioned :—

Name of Work.	Provision of Estimate.	Fund.	Amount.	Irrigation Registry No.
			RS.	
Eacadoo Poothary Tank.	Repairing bund and calingulah.	venue (Repairs.)	830	36 I. of 1875-76
Poonnapattoo Tank ...	Repairing bund and forming an escape.	Do. do. ...	220	37 I., do.
Do. ...	Irrigation sluice ...	Capital (Ordinary.)	85	
Majankarandi small Tank.	Repairing bund and forming an escape.	venue (Repairs.)	270	38 I., do.
Kalianacoopum small Tank.	Repairing bund and sluice and forming an escape.	venue (Repairs.)	385	39 I., do.
Do. ...	Outlet sluice ...	Capital (Ordinary.)	135	

2. Sluice plans should be revised in accordance with the remarks of the Chief Engineer for Irrigation.

3. These sanctions have been registered as shown above.

(True Extract.)

Comdant Major-General, R.E.,
Secretary to Government.

To the District Engineer, Chingleput.
„ Collector of do.
„ Chief Engineer for Irrigation.
„ Examiner of Public Works Accounts.
„ Revenue Department.

Exd. S. T. Austin.

Spare Bopies

9 to the Board of Rev. Dr. Sghner

Revenue Department

N^o. 1240

Govt. of 1876 India.

PUBLIC WORKS.

THE DISTRICT ENGINEER,
CHINGLEPUT.

Ac. - Ac. - Ac.

Dated March 8th.

Issued

Recd. 25-3-76

Encl.

G. O., 8th March 1876, No. 606.

MARCH.

Nos. 83-87

Dis. Min.

N^o. 755

Communicated to
the Board of Revenue

28: March 76

Repair of certain Tanks in the Surulloor
Range, Chingleput District.—Estimates
for the —, sanctioned.

With order