

(1) Number of pages 6
 (2) Date of repair 6/8/85
 (3) Initials of the Referencer long ✓

TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

Rev DEPARTMENT

G.O. No.	3177	Press.
B.P. No.		Mis.
Dated	7-6-1877	197

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GOVERNMENT OF MADRAS.
PUBLIC WORKS DEPARTMENT.

28th May 1877, No. 40 I.

Irrigation.

Account.

Read the following papers:—

No. 19 I.

No. 77. *Note by the Chief Engineer for Irrigation.*

THE following estimates from the Chingleput Range are forwarded by the
No. 4,090, dated 28th February 1877. Superintending Engineer, Chingleput,
with his letter marginally noted:—

Taluk.	Village.	Work.	Amount.
Conjeveram ...	Mannoor, S. No. 258 ...	V. large tank ...	Rs. 1,735
Chingleput ...	Appur, S. No. 67 ...	Anjanthangal ...	130
Do. ...	Ninnakurai, S. No. 61 ...	V. Thangal ...	120
Madranticum ...	Surai, S. No. 324 ...	V. large tank ...	685
Total ...			2,607

2. The financial and hydraulic details of the Irrigation works concerned are exhibited in the following statement:—

I.—Financial Details.

Name of Work.	Aycut Area.	Assessment.	Average Revenue for five Years.	Highest Revenue for five Years.	During the previous Year.	OUTLAY.		
						Proposed Ordinary Agri- cultural Irrigation.		
						Original Works.	Repairs.	Average Annual Proportion of Charge to Revenue.
	ACRES.	RS.	RS.	RS.	RS.	RS.	RS.	Per cent.
Mannoor large tank ...	197	760	800	890	Not known	470	1,265	40.3
Appur Anjanthangal ...	16	49	49	49	...	...	109	44.5
Ninnakurai Thangal ...	8	27	32	40	NIL	...	120	75.0
Surai large tank ...	91	245	210	261	626	...	622	118.8
Total ...	312	1,081	1,151	1,240	626	470	2,116	55.8

II.—Hydraulic Details.

Name of Work.	Catchment Basin Area.	MAXIMUM SUPPLY.		LENGTH OF ESCAPE.		AVERAGE HEIGHT OF BUND.		Surplus discharged at No. 1, per second.	Total discharge.
		Catchment in Sq. M.	Channel in C. FT.	Total.	FT. 1/2 in.	Above F.T.C.	Above M.T.L.		
Mannoor large tank	6.0	1,857	...	NIL	NIL	5.5	2.5	0.0	1
Appur Anjanthangal	1.5	737	...	E 160	160	6.0	2.0	2,304.0	NIL
Ninnakarai Thangal	0.5	354	...	E 240	240	4.0	2.5	740.8	Not stated.
Surai large tank	2.5	1,033	...	E 114	114	4.5	3.0	351.2	2
				E 336	336	4.0	2.5	1,036.8	

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.—Canal with dam stone. W.—Weir with fish crest. E.—Escape at ground level. B.—Bund of tank. V.—Village. S.—Revenue Survey.

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

Mannoor Large Tank.—The bund of this tank is in good order except at the north end where it is low and of small section and it has there been breached. The surplus of the tank at present escapes through the breach.

The tank has two Irrigation sluices and a cut in the bund for irrigating high level lands. No. 1 sluice is very old and needs a new head. No. 2 sluice is beyond repair.

The estimates provide for—

1st.—Repair of the bund, Rupees 795, with which is included the cost of excavating the channel to the proposed escape. This is not a correct arrangement, the cost being in item of provision for discharge of surplus, but apparently the bund will be in part repaired from the spoil and the estimate shows only one item.

2nd.—Repair of sluice No. 1.

3rd.—Building two new Irrigation sluices, one in place of the ruined No. 2, and one at the site of the present cut in the bank for the supply of high lying lands.

4th.—Construction of a rough stone escape 160 feet long at a suitable place near the north end of the bund, to which escape a channel some 600 feet long and 160 feet wide will have to be cut, the cost of this channel is included in the estimate for the repair of the bund.

The estimates are recommended for sanction. It should have been stated whether the three tanks above this one have efficient escapes, and if not what steps have been taken to provide the necessary works; the Superintending Engineer should report specially on this subject. He should also state the cost of repairs, if any, of this tank during the last four years; in all cases in which there has been no such expenditure, this should be distinctly stated.

It will usually be desirable to provide sluices with more plug holes than one and to take care that the waterway is ample.

Appur Anjanthangal Tank.—This is an isolated tank, the bund is low and weak and was breached in several places in the year 1873 for want of a sufficient escape. The tank has one Irrigation sluice, which is in need of repair.

The estimate provides for raising and repairing the bund, securing its front slope with a belt of kuskus up to M.W.L., and with turf above that level, extending the grass planted escape to a total length of 240 feet, and for repairing the Irrigation sluice.

The estimate is recommended for sanction, reduced however from Rupees 130 to Rupees 109 by the disallowance of the item for turving above M.W.L.

Ninnakarai Thangal Tank.—The ends of the bund are low, the inner slope is much cut up, the revetment is 3 feet below R.T.L. and the stone is loose, the waterway of the escape is also insufficient.

The estimate provides for raising and repairing the bund, repacking the revetment, securing the front slope above revetment with a belt of kuskus up to M.W.L., repairing the Irrigation sluice, and for extending the grass planted escape to a total length of 114 feet.

The estimate is recommended for sanction.

Surai Large Tank.—This tank is situated in latitude 12° 34' 0", longitude 79° 55' 0". The tank was breached and otherwise much damaged by a cyclone in 1872, was repaired at a cost of Rupees 626 and was again injured by the floods of 1874, and was put in order as a work of emergency at a cost of Rupees 73, which forms one of the items in the estimate under review. On both occasions the giving way of this tank was owing to the tanks above it having breached.

The tank has two Irrigation sluices, one masonry and the other earthenware; the former is in need of repair.

The estimate provides for raising and repairing the bund, securing the front slope with a belt of kuskus up to M.W.L., and with turf above that level and on a foot and a half at top edge of back slope, for closing the existing opening in the bund and forming an escape of a total length of 33 feet planted with grass, for repairing the masonry Irrigation sluice, and for constructing a brick pipe 9 inches thick in place of the pot pipe.

The Rupees 73 stated to have been spent on emergency should not have been left uncovered by sanction till now; the Superintending Engineer's attention is requested to this office circular memorandum No. 2 of 1876. It is noticed in the

* August 1876.

report that "estimates are submitted n/v* for the whole group" connected with this tank, and it is therefore supposed that the safety of all the high lying tanks has been thoroughly ensured by the provision of adequate escapes. On this supposition the estimate for the tank under notice is recommended for sanction,

† Rupees 37-12-6

‡ " 25.

less however the provisions for turving and for the "brick pipe"† sluice, the former of which would probably not live, and the latter of which would probably be no better than the "pot pipe," it is intended to replace, but which is not stated to be in bad order; with these reductions the estimate will be Rupees 622.

The following statement shows the proposed distribution of the outlay recommended for sanction to the debit of the several heads of account involved:—

Name of Tank.	Items of Estimate.	FUND, ORDINARY AGRICULTURAL, MAIN HEAD, IRRIGATION.		Total for each Tank, &c.
		Classes.		
		Original Works.	Repairs.	
		RS.	RS.	RS.
Mannoor large tank	Raising and repairing bund, closing breach, and forming a channel and guard bank.	...	795	1,735
	Repairing a sluice	...	300	
	Reconstructing a sluice	...	170	
	Constructing an additional sluice.	170	...	
	Do. a rough stone escape.	300	...	

Rev: 1877 Separa
No 2781

IRRIGATION
ACCOUNT.

Sept. of 1877 Madras.

PUBLIC WORKS.

To

THE SUPERINTENDING ENGINEER,

CHINGLEPUT.

&c., &c., &c.