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TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

Revenue DEPARTMENT

G.O. No. 5612.	Press.
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GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

8th September 1877, No. 308 I.

Irrigation.
Account.

Read the following paper :—

No. 156 I.

No. 55. *Note by the Chief Engineer for Irrigation.*

THE following estimates from the Serur and Chingleput Ranges are forwarded by No. 754, dated 5th June 1877. the Superintending Engineer, Chingleput, with his letter marginally noted :—

Taluq.	Village.	Work.	Amount.
			RS.
Ponnery	Pralayambakkam	S. No. 167 V. tank ...	1,537
Do.	Gummidipundy	S. „ 203 V. small tank	710
Trivellore	Guruvoil	Do. 98 V. tank ..	766
Do.	Palavakam	Do. 212 V. „ ...	1,188
Conjeveram	Purisai	Do. 199 V. „ ...	385
Do.	Netteri	Do. 23 V. tangal ...	360
		Total ...	4,946

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.	Revenue for five		OUTLAY.			
			Average Years.	Highest Years.	During the previous four Years.	Proposed Ordinary—Agricultural Irrigation.		
						Original Works.	Repairs.	Average Annual Proportion of Charges to Revenue.
	ACRES.	RS.	RS.	RS.	RS.	RS.	RS.	PER CENT.
Pralayambakkam tank ...	431	1,388	1,121	1,241	Nil.	...	1,537	27·4
Gummidipundy small tank ...	137	415	435	440	...	130	580	32·6
Guruvoil tank	239	711	643	697	...	...	766	23·8
Palavakam tank	185	747	878	1,034	...	390	798	27·0
Purisai tank	91	492	363	464	...	...	385	21·2
Netteri tangal	66	123	111	123	...	105	255	64·8
Total ...	1,149	3,906	3,551	3,999	...	625	4,321	27·8

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 Second.	Tanks above.
		Catchment per Second.	Channels per Second.	Total.	Effective.	Above F.T.L.	Above M.T.L.		
	SQ. M.	C. FT.	C. FT.	FT.	FT.	FT.	FT.	C. FT.	NO.
Pralayambakkam tank ..	4	1,417	..	..	..	1·5	0·0	0·0	1
				E. 460	460	4·0	2·5	419·5	
Gummidipundy small tank..	2	893	..	Nil.	Nil.	0·5	0·0	0·0	None.
				E. 290	290	3·0	1·5	894·9	
Guruvoil tank	2	893	..	Nil.	Nil.	1·5	0·0	0·0	
				E. 290	290	3·5	2·0	894·9	
Palavakam tank	4	1,417	..	K. 60	40·25	3·0	1·5	288·0	1
				W. 60	400	4·5	3·0	1419·5	
Purisai tank	0·5	354	..	E. 340					
				E. 30	30	1·25	0·0	152·7	
				E. 114	114	3·75	2·25	351·8	
Netteri tangal	0·5	354	..	E. 57	57	2·5	1·0	290·1	None.
				E. 114	114	4·0	2·5	351·8	

NOTE.—The proposed dimensions of escapes and height 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 overfall. 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 :—

Pralayambakkam Tank.—This tank was injured by the spill of the Narrayanaveram river in 1874; since then the river has been embanked.

The bund of the tank is low and weak, and the irrigation sluices are in need of repair.

The estimate provides for—

(1). Raising, repairing and turfing the bund, and also repairing the two irrigation sluices.

(2). Forming an escape planted with grass having rough stone wings.

No sections have been submitted from which to check the large provision for earthwork. Ramming the whole of it is provided for.

It is not clear what portion of the front slope it is proposed to turf, but the sum (Rupees 282-10-3) entered for the work is more than it is advisable to spend on what is likely to be of doubtful success or utility, and Rupees 50 will probably be enough to provide for all "turfing" that is advisable to do.

It is not stated what are the exising means of surplusing; the length of the proposed escape is to be 460 feet; and as it is to be planted with "coarse grass" and the velocity through it thereby retarded, that length is not unnecessarily great.

The ayacut area is upwards of 100 acres per square mile of catchment basin, and it is possible that the latter has been under-estimated; the matter should receive the attention of the Superintending Engineer with a view to increasing the provision for surplusing if necessary.

The Vinjeevakam tank is said to lie above this one and to be in "good order;" the name of the group to which these tanks belong should have been stated.

Gummidipundy Small Tank.—This tank is said to be the first of a chain of tanks, but the name of the group is not given. It was breached in 1874. The existing arrangements for getting rid of surplus water are not stated.

The bund is low and weak, and the irrigation sluice is in need of repairs.

The estimate provides for—

(1). Raising, repairing and turfing the bund, also repairing the irrigation sluice.

(2). Forming a grass planted escape, having masonry wing walls.

The estimates are recommended for sanction, reduced however by Rupees 155 under the head of "turfing" and by Rupees 79, which may be saved by substituting rough stone* pitching as a protection to the ends of the bank at the escape for the plastered brick wing walls provided for in the estimate. The plan for the escape should have been countersigned by the Superintending Engineer.

* 20 cubic yards at Rupees 1-8-0.

Guruvoil Tank.—This tank is situated to the south of the Cortillyar and near the Velleyoor road; it was breached and otherwise injured in 1874. There are no tanks above it, but it is not stated if there are any below it.

The bund is low and weak, the sluice is in need of repair, and the tank requires an outlet.

The estimate provides for—

(1). Raising, repairing and turfing the bund, closing the breaches and repairing the irrigation sluice.

(2). Forming a grass planted escape 290 feet long, having rough stone wings.

The estimates are recommended for sanction, less a reduction of Rupees 130 in the provision for "turfing." The ayacut and apparently also the irrigated area is so large in comparison with the area assumed for the catchment basin that the matter requires the attention of the Superintending Engineer in connection with the sufficiency of the proposed surplusing arrangements.

Palavakam Tank.—This tank was breached in 1874.

The bund is low and weak, and the revetment is in disorder.

The estimate provides for—

(1). Raising and repairing the bund, closing breaches, re-packing the revetment and raising it with new stones to a height of 1·5 feet above F.T.L., and turfing the slopes above revetment, also repairing the two sluices and calingulah and converting the latter into a weir.

(2). Forming an escape 340 feet long, planted with grass and with rough stone wings.

The estimates are recommended for sanction, less the Rupees 190 for turfing above M.W.L.

Purisai Tank.—This tank in addition to its catchment basin supply receives a further supply by a spring channel from the east bank of the Virthacheranady river.

The tank is in bad order.

The estimate provides for raising and repairing the bund, planting tank grass up to M.W.L., and turfing above that level, closing the gap and forming a planted escape 114 feet in length, and repairing the irrigation sluice.

It is recommended for sanction, less the Rupees 50 provided for turfing above M.W.L.

Netteri Tangal.—This tank was breached in October last and also in 1872; the breaches have been closed as a work of emergency, and the cost is included in the estimate under review.

The bund of the tank is much eroded and otherwise damaged. There are no tanks lying above this one, and it is supposed to be "isolated."

The estimate provides for—

(1). Raising and repairing the bund, protecting the front slope with a belt of tank grass up to M.W.L., and turf above that level, closing the existing escape breach and forming a grass planted escape 114 feet in length.

(2). Constructing an irrigation sluice.

The estimates are recommended for sanction.

The plan for the irrigation sluice should have been countersigned by the Superintending Engineer. Colonel Moberly's attention should be given to the rate for tamping in these estimates. It appears to be very much higher than is necessary.

FORT ST. GEORGE,
30th August 1877.

(Signed) G. T. WALCH,
Ag. Dy. Chief Engr. for Irrigation,
for Chief Engineer for Irrigation.

To the Joint Secretary to Government, Public Works Department, Irrigation Branch.

No. 56. ORDER THEREON, 8th September 1877, No. 308 I.

THE following estimates for Irrigation works in the Serulur and Chingleput Ranges, Chingleput District, forwarded by the Chief Engineer for Irrigation with No. 156 I, dated 30th August 1877. his memorandum marginally noted are sanctioned :—

Irrigation.

Name of Tank.	Provision of Estimate.	Fund Ordinary—Agricultural. Main Head Irrigation.	Amount.		Irrigation Register No.
		CLASS.	RS.		
Pralayambakkam tank.	Repairing bund and two sluices.	Repairs	1,225	1	157 I.
	Planted escape	Do.	77	2	
Gummidipundy small tank.	Repairing bund and sluice and forming planted escape.	Do.	485		158 I.
Guruvoil tank...	Closing breaches and repairing bund and sluice.	Do.	600	1	159 I.
	Planted escape	Do.	36	2	
Palavakam tank.	Closing breaches, repairing bund, two sluices and calingulah, and converting the latter into a weir.	Do.	550	1	160 I.
	Planted escape	Do.	58	2	
	New stone revetment to the bund.	Original Works ...	390	3	
Purisai tank ...	Repairing bund and sluice and forming a planted escape.	Repairs	335		161 I.
Netteri tangal.	Repairing bund and forming a planted escape.	Do.	255	1	162 I.
	Irrigation sluice	Original Works ...	105	2	

2. These sanctions are registered as shown above.

(True Extract.)

Colonel., R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Superintending Engineer, Chin
„ Collector of Chingleput.
„ Chief Engineer for Irrigation.
„ Examiner of Public Works Acco
„ Revenue Department.

Exd. A. Grubert.

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5612/3

Report C

No 4090

IRRIGATION.

ACCOUNT.

Govt. of {1877} Madras.

PUBLIC WORKS.

To

THE SUPERINTENDING ENGINEER,
CHINGLEPUT,
&c., &c., &c.

Dated September 8th.

Issued

Read 20th September

G. O., 8th September 1877, No. 308 I.

SEPTEMBER.

Nos. 55-56.

Tanks, Chingleput District.—Sanctions estimates for repairs to certain —.

No 5612

Comm.r to the Board of Revenue

20 Sept.r

Read 21-9-77