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TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

Revenue DEPARTMENT

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GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

12th September 1877, No. 317 I.

Irrigation.
Account.

Read the following paper :—

No. 151 I.

No. 73. *Note by the Chief Engineer for Irrigation.*

No. 552, dated 16th May 1877.

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

Taluq.	Village.	Work	Amount.
			Rs.
Trivellore	Attupakkam...	S. No. 197 V. tank ...	1,520
Do.	Perumbakkam	S. „ 44 V. „ ...	670
Ponnery	Medavoil Bommasamudram ...	S. „ 48 V. „ ...	1,190
		Total ...	3,380

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

I.—Financil Details.

Name of Work.	Ayacut Area.	Assessment.	Average Revenue for five Years.	Highest Revenue for five Years.	OUTLAY. During the previous four Years.	OUTLAY. Proposed. Ordinary Agricultural, Irrigation. Original Works.	OUTLAY. Proposed. Ordinary Agricultural, Irrigation. Repairs.	OUTLAY. Proposed. Ordinary Agricultural, Irrigation. Annual Proportion of Charges to Revenue
								PER CENT.
	ACRES.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Attupakkam tank	173	665	558	673	Nil.	570	950	54·4
Perumbakkam tank	102	510	503	670	Do.	...	670	26·6
Medavoil Bommasamudram ...	260	1,007	682	962	Do.	220	970	34·8
Total ...	535	2,182	1,743	2,305	...	790	2,590	38·7

II.—Hydraulic Details.

Name of Work.	Catchment Basin Area.	Maximum Supply.		Length of Escape.		Average Height of Bund.		Surplus * discharge 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.
Attupakkam tank	4·0	1,417	..	W 50	50	4·5	3·0	308·6	None.
				W 50 / E 360	410	4·5	3·0	1,419·5	
Perumbakkam tank ..	4·0	1,417	..	K 22	18	2 & 1·5	5 & 0	105·2	,,
				E 442	442	4·5 & 3	3 & 1·5	1,364·0	
Medavoil Bommasamudram tank.	4·0	1,417	..	Natural ground.		1·0	0·0		3
				E 460	460	3·5	2·0	2,341·8	

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.—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:—

Attupakkam Tank.—This tank was breached in 1874 by the breaching of Kakkavakam tank (since thoroughly repaired and furnished with adequate escapes); the breaches were closed on emergency, the cost of which is included* in the estimate under review. The existing surplusing work is a weir 50 feet long which is insufficient.

*An emergent estimate ought to have been sanctioned at the time.

The bund requires to be raised and widened in parts, and the existing weir is insufficient.

A masonry sluice is required to supply the lands of Ariambakkam from the drainage of Kakkavakam fields, which was previously passed by a cut in the bund.

The estimate provides for—

(1). Raising and widening the bund where necessary and for turfing it.

(2). Forming an escape 360 feet long planted with grass with masonry wing walls.

(3). Constructing a masonry irrigation sluice.

Rupees 350 of the provision for turfing may be struck out of the estimate for repair of the bund, leaving it Rupees 600 which is recommended for sanction.

Rupees 355 may be allowed for an escape, but masonry wings to a grass-planted escape are out of place, and it will probably be better to make a much shorter escape without grass, but with a pavement and revetments at the ends. If the escape be grass-planted, the ends of the bund should be grass-sod revetted (not merely turfed).

It may be noticed that while grass-planted escapes are cheap and suitable in many cases their indiscriminate use is to be deprecated as likely to lead ultimately to greater expenditure.

The estimate for the irrigation sluice is recommended for sanction.

Perumbakkam Tank.—This tank which lies above the Taluq Cutcherry at Trivellore is in very bad order, the bund is low and weak, the two old masonry calingulahs are in a dilapidated condition, and the two irrigation sluices are in need of repairs.

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The estimate provides for—

(1). Repairing and raising the bund to 4½ feet at centre and 3 feet at ends above F. T. L. with top widths of 4½ and 3 feet respectively, turfing the side slopes, removing the old calingulahs, and forming in their place a grass-planted escape 442 feet long, and repairing the two irrigation sluices.

It is recommended for sanction, but the undersigned has some doubt as to whether the surplus arrangements are good.

Medavoil Bommasamudram Tank.—This tank receives the surplus of the Minjoor tank which is a Shrotriem tank requiring slight repairs, and two other tanks also lie above it. The bund was breached (*when* it is not said) by the overflow of the Corteliar, and the breaches were closed on emergency, the cost of which is included in the estimate under review.

The estimates provide for—

(1). Raising, repairing and turfing the bund including the cost of closing the breaches.

(2). Forming a natural escape 460 feet long with rough stone wings.

(3). Constructing a masonry irrigation sluice.

They are recommended for sanction.

For these tanks the cultivation per square mile of drainage is shown below:—

	Cultivation.	Basin.	Per Square Mile.
	ACRES.	SQ. MS.	ACRES.
(1)	145	1	36
(2)	100	4	25
(3)	176	4	44

These results are reasonable though the variation is considerable.

FORT ST. GEORGE,
29th August 1877.

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

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

No. 74. ORDER THEREON, 12th September 1877, No. 317 I.

THE following estimates for Irrigation works in the Serulur Range, Chingleput District, forwarded by the Chief Engineer for Irrigation with his memorandum No. 151 I of 29th August 1877. marginally noted, are sanctioned:—

Irrigation.

Name of Tank.	Provision of Estimate.	Fund, Ordinary, Agricultural, Irrigation.	Amount.	Irrigation Register Number.
			RS.	
Attupakkam tank.	Repairing bund and closing breaches.	Repairs	600	1 } 175 I.
	Planted escape with masonry wing walls.	Original Works.	355	2 }
	Irrigation sluice	Do. ...	215	3 }
Perumbakkam tank.	Repairing bund and two sluices.	Repairs	620	1 } 176 I.
	Planted escape with rough-stone wings.	Do.	50	2 }
Medavoil Bommasamudram tank.	Repairing bund and closing breaches.	Do.	940	1 } 177 I.
	Natural escape with rough-stone wings.	Do.	30	2 }
	Irrigation sluice	Original Works.	220	3 }

2. These sanctions are registered as shown above.

(True Extract.)

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

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

Exd. A. Grubert.
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Revenue Department

No 4086

IRRIGATION.

ACCOUNTS.

Govt. of [illegible] Madras.

PUBLIC WORKS.

To

The DISTRICT ENGINEER,

CHINGLEPUT.

Dated September 12th.

Issued 20 September

G. O. 19th September 1877, No. 847.

G. Otter

SEPTEMBER.

Nos. 73-74.

To Dy Accountant 21-9-77

Trans. Chingleput District — Sanction

estimates for repairs to tanks

No 5610

Comm.r

Board of C

20: Sept