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TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

Revenue DEPARTMENT

G.O. No.		Press.
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GOVERNMENT OF MADRAS.
PUBLIC WORKS DEPARTMENT.

20th July 1877, No. 181 I.

Irrigation.
Accounts.

Read the following paper:—

No. 90 L.

No. 106. *Note by the Chief Engineer for Irrigation.*

The following estimates from the Poloor Range are forwarded by the District Engineer, North Arcot, with his letter No. 372, dated 2nd May 1877, marginally noted.

CHRYSTAL ANICUT SYSTEM.

Group Annacavoor Large Tank.

Taluk.	Village.	Work.	Amount.
			RS.
Wandewash ...	Erroongal...	V. large tank ...	2,140
Do. ...	Do. ...	V. small tank ...	430
Do. ...	Chengadco ...	V. Vellary tank ...	915
Do. ...	Do. Coopum ...	V. tank ...	215
Do. ...	Colathoor ...	Do. ...	1,300
		Total ...	5,000

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

I.—Financial Details.

Name of Work.	Ayan Area.	Assessment.	Years.	Highest Revenue for five Years.	During the previous four Years.	OUTLAY.			
						PROPOSED ORDINARY AGRICULTURAL IRRIGATION.			Average Annual Proportion of Charges to Revenue.
						Original Works.	Repairs.		
	ACRES.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	PER CENT.
Erroongal large tank	182	1,248	187	Not stated	173	1,060	1,060		38.6
Do. small do.	17	111	133		NH.	216	220		54.6
Chengadco Vellary tank	9	63	64			415	500		235.9
Do. Coopum do.	22	153	155		125	115	109		45.1
Colathoor tank	83	406	519			430	870		60.0
Total ..	313	1,981	968		308	2,230	2,770		61.3

II.—Hydraulic Details.

Name of Work.	Catchment Basin, Area.	MAXIMUM SUPPLY.		LENGTH OF ESCAPE OR AREA OF SURPLUS SLUICE VENT.		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.		
Erroongal large tank	sq. m.	C. FT.	C. FT.	FT.	FT.	FT.	FT.	C. FT.	No.
	4	1,417	..	36	30	1.88	0.12 less	270.0	5
Do. small tank	0.5	354	..	36	151	4.50	2.50	1720.9	..
Chengadoo Vellary tank	0.6	354	60	36	10	2.0	0.0	78.3	Nil.
Do. Coopum tank	0.25	158	30	42	10	3.50	1.50	342.1	..
Colathoor tank	0.33	275	8	20	20	4.00	2.00	329.2	..
				36	36	4.50	2.50	292.1	..

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: E.—Escape at ground level. B.—Bund of tank. C.—Calingulah with dam stones. W.—Weir with over fall. S.—Sluice vent area. V.—Village. F.—Masonry flush escape.

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

Erroongal Large Tank.—The savor large tank, which is the terminus of this (Erroongal) tank was breached in 1873-74 at a cost of Rupees 100 and a portion of the revetment is in a ruined state, and the calingulah is in a ruined state, and the estimate provides for—

- (1.) Raising and repairing the bund, repacking the revetment where required, and for repairing the calingulah.
- (2.) Converting the calingulah into a weir by removing the dam stones and repairing the existing apron and providing a masonry flush escape.
- (3.) Constructing a masonry flush escape which water brought from the savor large tank. In the estimate for "turfing with natural grass" the rate for the former is 10 Annas 5-8. The latter cannot be done.

* Per 100 square feet.

Deduct—
On turfing front slope ..
Planting rear ..
Sundries ..

having been reduced of design noted on the plan of the Erroongal Small Tank.—This tank, which is a small tank, into which however its surplus water passes, but goes directly to the Annacavoor

of this tank passes directly to the Annacavoor, and gives its name to the group. It was breached by a cyclone in 1872, and the breach was not repaired; but the bund is low and weak throughout. The head of the high level sluice is insufficient in length to discharge the surplus.

The estimate provides for—

- (1.) Raising and repairing the bund, repacking the revetment where required, and for repairing the calingulah.
- (2.) Converting the calingulah into a weir by removing the dam stones and repairing the existing apron and providing a masonry flush escape.
- (3.) Constructing a masonry flush escape which water brought from the savor large tank. In the estimate for "turfing with natural grass" the rate for the former is 10 Annas 5-8. The latter cannot be done.

with three vents in its body wall through which the Cheyaur may be passed on to the Annacavoor. The estimate for repairing the bund are entries for "turfing with natural grass" the front and rear slopes, 10 Annas per 100 square feet, and for the description the exact nature of the work is not perhaps turfing of the front slope and planting of the rear one with kuskus grass are meant. It will probably be enough to plant the front slope only, and this at 10 Annas 5-8 will amount to Rupees 410, reducing the estimate of Rupees 850 to Rupees 575, which is recommended for sanction, as are also the estimates for the other works; that for the new weir however is 900 with reference to the modifications proposed to the east of the one above noticed, but goes directly to the Annacavoor

the bund of this tank is low and weak. The head of the irrigation sluice is out of order and the present means of escape for surplus is a cut in the bund. The estimate provides for—

- (1.) Raising and repairing the bund, turfing front and rear slopes, and repairing the head of the irrigation sluice.
- (2.) Constructing a masonry weir with 36 feet length of crest. In the report attached to the estimates the area is given as 17.22 acres, whilst in the statement of financial, & it appears as 72 acres. As the assessment is only Rupees 11, the former is probably the correct area. The estimates less Rupees 50, which is about what has been provided for, are recommended for sanction, if the land under this petty tank is not commanded by the large tank of the same name; if it is commanded, the tank should have nothing further spent upon it.

Chengadoo Vellary Tank.—The bund of this tank is low and weak and the means of escape for the surplus is through a cut in the bund. The irrigation sluice is in such a condition as to necessitate its reconstruction from the Cheyaur as well as from the drainage of its catchment basin. Its estimate provides for—

- (1.) Raising and repairing the bund, turfing front slope, and sowing grass seeds on rear slope.
- (2.) Reconstructing the irrigation sluice.
- (3.) Constructing a masonry flush escape. The estimates for putting this tank into rights amount to Rupees 915, the ayacut being 9 acres and the revenue Rupees 64. The lands are commanded by the Chengadoo Naikenary tank through which the Cheyaur ancient channel passes. There can be no necessity for continuing to maintain this petty tank and expenditure on it should cease.

Chengadoo Coopum Tank.—As the Cheyaur ancient main channel passes just above the tank, it receives the little water from drainage, and the supply is from the channel regulated by a sluice constructed in its bank; nevertheless the tank was breached by the rain of 1874; it was repaired as a work of emergency at a cost of Rupees 135.

The bund is low in places. The present means of escape for the surplus is through a cut at the end of the bund. The estimate provides for—

- (1.) Raising and repairing the bund, turfing the front slope, and sowing grass seeds on rear slope.
- (2.) Constructing a masonry flush escape with 20 feet length of crest. This tank also should be abandoned and the irrigation brought under the Chengadoo Naikenary, which will be able to supply it.

Colathoor Tank.—The Cheyaur ancient channel intercepts all the upland water from the channel regulated by a sluice in its bank. The bund is low and the sluice is out of order and beyond repair.

The calingulah is badly situated, and surplus passing over it damages the earthen bank, and when necessary to block up the surplus, which answers the purpose, it causes great wastage of water, it is proposed to block up the existing calingulah with a masonry wall and to provide for—

- (1.) Raising and repairing the bund, turfing the front slope and sowing grass seeds on rear slope.
- (2.) Reconstructing the low-level sluice.
- (3.) Blocking up the calingulah with a masonry wall.

- (4.) Constructing a masonry flush escape with 36 feet length of crest. The first two of the above items of the estimates are recommended for sanction, but the remainder would involve a waste of money. If the sluice in the ancient channel which supplies the tank be properly regulated the surplus will be nominal and it may well be discharged by the present surplus work. The remarks on the design for the sluice should be attended to.

All these tanks are members of the Annacavoor large tank group, and the surplus of each and all of them except the 2nd (Erroongal small tank) passes on its way to that tank through the Eroongal large tank. Into this last-named tank also passes the surplus from two others not now dealt with; one of these, the Chengadoo Naikenary, is reported to be in good order; for the other (the Navel tank) the District Engineer promises an estimate shortly. He intends to provide for the repairs of the tanks which drain into it together. This way of dealing with tanks by group and surplus is the proper one, the only one by which the safety of all can be assured and a waste of money avoided.

FORT ST. GEORGE,
6th July 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. 107. ORDER THEREON, 6th July 1877, No. 181 I.

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

Irrigation.

Name of Tank.	Provision of Estimate.	Fund, Ordinary Agricultural, Irrigation.	Amount.	Irrigation Register, Number.
Ancient System; Group, Annacavoor large tank.	Erroongal large tank ...	Repairing bund and sluice	Rs. 660	1
		Converting calingulah into weir.	Do. ...	2
	Erroongal small tank.	Repairing bund and sluice.	Original Works. 900	3
		Weir	Repairs ...	1
	Colathoor tank...	Repairing bund ...	Original Works. 210	2
		Reconstructing sluice ...	Repairs 430	1
			Original Works. 600	2

2. These sanctions are registered as shown above. That for the Eroongal small tank is subject to the condition as shown above. That for the Eroongal tank is subject to the condition as shown above. That for the Eroongal tank is subject to the condition as shown above.

(The Extract.)

G. T. Walch
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the District Engineer North Arcot.
" Collector of North Arcot.
" Chief Engineer for Irrigation.
" Examiner of Public Works Account.
" Revenue Department. ✓

Exd. E. C. Shunker.
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No 3531

IRRIGATION
ACCOUNT

Govt. of Madras.

PUBLIC WORKS.

To

The DISTRICT ENGINEER,

NORTH ARCOT.

&c. &c. &c.

Dated July 20th.

Issued

Recd.

3 August

Each

G. O., 20th July 1877, No. 181 L.

See Memo

JULY.

Nos. 106 107.

Tanks, North Arcot District.—The estimate for repairs, &c., to certain — sanctioned.

No. 4323

Comm. to the
Board of Revenue

4th Aug. 1877