(1) Number of pages 3 Sheets.

(2) Date of repair 28-10-81

(3) Initials of the Referencer

TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

Revenue DEPARTMENT

G.O. No. / B.P. No.	540b	Press. / Mis.
Dated	12.9.1877	197 .

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Archives 1—10,006—19-4-79.

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1

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

4th September 1877, No. 294 I.

Irrigation.

Account.

Read the following paper:—

No. 153 I.

No. 29. *Note by the Chief Engineer for Irrigation.*

No. 73, dated 19th August 1877.

THE following estimates from the Northern Range are forwarded by the Officiating District Engineer, Tinnevelly, with his letter marginally noted:—

Taluq.	Village.	Work.	Amount.
			RS.
Sattur	Anuppankulum	V. Periakulum tank... ...	655
Do.	Metamalay	V. Do.	590
Strivelliputtur ...	Rajakolaramen	V. Pappankulum tank ...	825
Do. ...	Do.	V. Shengolum tank	298
Do. ...	Do.	V. Karuvalenkulum tank ...	297
Sunkaraninarkovil ...	Areyur	V. Panjakulum tank ...	750
Do. ...	Perumbattoor	V. Punnavanapary tank ...	470
		Total...	3,885

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 five years.	Highest Revenue for five years.	OUTLAY.			
					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. RS.
Anuppankulum Periakulum tank ..	49	194	188	195	..	375	230	69·6
Metamalay Periakulum tank ..	19	120	150	176	..	117	473	78·6
Rajakolaramen Pappankulum tank ..	52	368	205	212	..	425	400	80·4
Do. Shengolum tank ..	29	207	169	194	146	108	190	52·5
Do. Karuvalenkulum tank ..	14	96	103	106	..	73	224	57·6
Areyur Panjakulum tank	41	219	54	216	..	346	405	277·7
Perumbattoor Punnavanapary tank ..	19	128	50	84	..	257	213	188·0
Total ..	223	1,332	919	1,183	146	1,700	2,185	87·7

II.—Hydraulic Details.

Name of Work.	Catchment Basin Area.	Maximum Supply. Catchment per Second.	Maximum Supply. Channels per Second.	Length of Escape. Total.	Length of Escape. Effective.	Average Height of Bund. Above F.T.L.	Average Height of Bund. Above M.T.L.	Surplus discharged at M.T.L. per Second.	Tanks above.
	SQ. M.	C. FT.	C. FT.	FT.	FT.	FT.	FT.	C. FT.	NO.
Anuppankulum Periakulum tank.	1·5	405	..	C 30 W 63	22 63	Not stated. 3·75	2·25	128·6 398·8	None.
Metamalay Periakulum tank.	1·0	300	..	C 27 W 47	21 47	Not stated. 3·75	2·25	122·8 290·1	Do.
Rajakolaramen Pappankulum tank.	1·5	495	..	Cut in bund. W 43	43	Not stated. 4·5	2·5	0·0 408·6	Do.
Do. Shengolum tank.	1·0	300	..	Nil W 48	Nil 48	Not stated. 3·75	2·25	0·0 296·2	1
Do. Karuvalenkulum tank.	0·25	105	..	Nil W 17	Nil 17	Not stated. 3·75	2·25	0·0 104·9	None.
Areyur Panjakulum tank ..	0·5	177	79	Nil W 40	Nil 40	Not stated. 3·75	2·25	0·0 246·8	2
Perumbattoor Punnayanapary tank.	0·25	105	79	Nil W 30	Nil 30	Not stated. 3·75	2·25	0·0 185·1	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 :—C.—Calingulah with dam stones. W.—Weir with overfall. E.—Escape at ground level. B.—Bund of tank. V.—Village.

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

Anuppankulum Periakulum Tank.—The bund of this tank is low and weak especially at the west end. There has been no outlay on the tank for many years.

The estimate provides for—

1*st.*—Raising and repairing the bund, also repairing the channel bank.

2*nd.*—Reconstructing one of the two Irrigation sluices.

3*rd.*—Extending and converting the calingulah into weir with crest at F.T.L. and 63 feet long.

It is recommended for sanction.

The earthwork is already in progress for the employment of famine labor.

Metamalay Periakulum Tank.—This tank has had no outlay upon it for many years, and its bund is consequently very low and weak ; one of the Irrigation sluices also is in bad order. The tank is provided with a calingulah, which is insufficient for the discharge of surplus.

The estimate provides for—

(1). Raising and repairing the bund, also repairing the channel banks.

(2). Reconstructing the head of Irrigation sluice.

(3). Extending and converting the calingulah into a weir with crest at F.T.L. and 47 feet long.

It is recommended for sanction.

The earthwork has already been taken in hand for famine relief.

Rajakolaramen Pappankulum Tank.—This isolated tank has had no outlay upon it for many years, and its bund is low and weak. The lands under the tank are at present irrigated by a pot sluice, and the surplus is discharged through a cut in the bund.

The estimate provides for—

(1). Raising and repairing the bund.

(2). Constructing a masonry Irrigation sluice to replace the pot sluice.

(3). Constructing a masonry weir 43 feet long.

5906

It is recommended for sanction.

The barrel of the sluice being of considerable length it should not be less than 2′ × 2′ — 6″ inside measurements to admit of interior inspection, and the other modifications noted on the plan as necessary should be attended to.

The earthwork is in progress as a famine relief work.

Rajakolaramen Shengolum Tank.—This tank has not been repaired for many years, and its bund is very low and weak. It has an Irrigation sluice constructed in 1875-76 at a cost of Rupees 146 which is in good order, but the tank is without a surplusing work.

The estimate provides for—

(1). Raising and repairing the bund.

(2). Constructing a masonry weir 48 feet long.

The only tank Kadambencolam which surpluses into this is provided with a masonry Irrigation sluice and weir, and was thoroughly repaired in 1873-74 at an outlay of Rupees 200 and is now in fair order.

The estimate is recommended for sanction.

The level of the "hard kunkur" should have been more clearly shown on the weir plan, so that the necessity or otherwise for a rough stone apron might have been considered.

The earthwork has already been almost all carried out by famine labor.

Rajakolaramen Karuvalenkulum Tank.—This is an isolated tank and has had no outlay upon it for many years. Its bund is very low and weak. It has an Irrigation sluice in fair order, but its head requires remodelling. The tank is without a surplusing work, which is much needed.

The estimate provides for—

(1). Raising and repairing the bund.

(2). Altering the Irrigation sluice.

(3). Constructing a masonry weir 17 feet long.

It is recommended for sanction.

Areyur Panjakulum Tank.—This is the last of a series of three tanks fed by a channel taken off the Kanganuddee river. The two high lying tanks are the Kandiaperi tank and the Punnavanapary tank ; the former is now under repair as per estimate of Rupees 510 sanctioned in G.O., No. 1,714, dated 5th July 1876 ; an estimate for the repair and improvements of the latter is now submitted.

The tank under review has had no outlay on it for many years ; its bund is low and weak ; its only Irrigation sluice is in a dilapidated condition, and the tank is without a surplusing work.

The estimate provides for—

(1). Raising and repairing bund, also repairing the channel bank.

(2). Reconstructing the Irrigation sluice.

(3). Constructing a masonry weir 40 feet long.

The estimate is recommended for sanction.

The interior dimensions of the sluice should be not less than 2′ × 2′ — 6″.

Perumbattoor Punnavanapary Tank.—This is the second of the series of three tanks mentioned in the remarks on the last noticed tank.

The tank under notice has had no outlay upon it for many years and its bund is low and weak, the Irrigation sluice is in a dilapidated condition, and the tank is without a surplusing work.

The estimate provides for—

(1). Raising and repairing the bund.

(2). Deepening the supply channel.

(3). Reconstructing the Irrigation sluice.

(4). Constructing a masonry weir 30 feet long.

The estimate is recommended for sanction.

The interior dimensions of the tunnel of the sluice should not be less than $2' \times 2' - 6''$.

On several of the plans remarks have been made, and it may be noticed—

1*st*.—That the sill of the lower vent of a tank sluice should not be below tank bed level, the floor of the tunnel may be as much lower as may be convenient.

2*nd*.—That, in order that water may be regulated by the plugs until the tank water falls very low, it is desirable to make the plug holes of ample size and to give generally more than one hole.

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

FORT ST. GEORGE,
30th August 1877.

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

No. 30. ORDER THEREON, 4th September 1877, No. 294 I.

THE following estimates for Irrigation works in the Northern Range, Tinnevelly District, forwarded by the Chief Engineer for Irrigation with his memorandum No. 153 I, dated 30th August 1877, marginally noted are sanctioned :—

Irrigation.

Name of Tank.	Provision of Estimate.	Fund, Ordinary Agricultural; Main head, Irrigation.	Amount.		Irrigation Register Number.
			Rs.		
Kangarutdiee river, Areyur Panjakulum Group. — Anuppankulum Periakulum tank.	Repairing tank and channel banks.	Repairs ...	280	1	141 I.
	Rebuilding sluice ...	Do. ...	220	2	
	Extending and converting calingulah into weir.	Original Works.	155	3	
Metamalay Periakulum tank.	Repairing tank and channel banks.	Repairs ...	388	1	142 I.
	Reconstructing head of sluice.	Do. ...	85	2	
	Extending and converting calingulah into weir.	Original Works.	117	3	
Rajakolaramen Pappankulum tank.	Repairing bund ...	Repairs ...	400	1	143 I.
	Sluice	Original Works.	200	2	
	Weir	Do. ...	225	3	
Rajakolaramen Shengolum tank.	Repairing bund ...	Repairs ...	190	1	144 I.
	Weir	Original Works.	108	2	
Rajakolaramen Karuvalenkulum tank.	Repairing bund ...	Repairs ...	200	1	145 I.
	Do. sluice ...	Do. ...	24	2	
	Weir	Original Works.	73	3	
Areyur Panjakulum tank.	Repairing tank and channel bank.	Repairs ...	405	1	146 I.
	Rebuilding sluice ...	Do. ...	240	2	
	Weir	Original Works.	105	3	
Perumbattoor Punnavanapary tank.	Repairing bund ...	Repairs ...	176	1	147 I.
	Do. ...ly channel.	Do. ...	37	2	
	Rebuilding sluice ...	Do. ...	180	3	
	Weir	Original Works.	77	4	

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, Tinnevelly.
" Collector of Tinnevelly.
" Chief Engineer for Irrigation.
" Examiner of Public Works Accounts.
" Revenue Department.

...d. E. C. Shunker.
...are Copies

Revenue Department
No 3968

IRRIGATION.
ACCOUNT.

Govt. of 1877 Madras.

PUBLIC WORKS.

To

The DISTRICT ENGINEER,
TINNEVELLY,
&c., &c., &c.

Issued

Read 11 September Encl.

G. O., 4th September 1877, No. 291 I.

SEPTEMBER.

Nos. 29-30.

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

No 5405
Comm.r to the
Board of Revenue
7 Sept 1877

7 R to Rd of Revenue 13-9-77