

(1) Number of pages 12.

(2) Date of repair _____

(3) Initials of the Referencer _____

MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

G.O. No.	190 (9)	Press Mis.
Dated	20 . 1 .	18 77.

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*Proceedings of the Madras Government, Public Works Department,
20th January 1877. No. 190.*

Read the following :—
No. 44 W.

No. 370. *Note by the Chief Engineer for Irrigation.*
THE following estimates from the No. 1 or Northern Range are forwarded by the
Officiating District Engineer, Tinnevely,
No. 154, dated 3rd January 1877. with his letter marginally noted :—

Taluq.	Village.	Work.	Amount.
Strivilliputtur	Ayeradarmam	Sirukulam Tank	RS. 1,510
Do.	Sholapurum	Tholacudi Tank and supply channel	2,720
Do.	Karakunnee	Palamathurai Tank	570
Do.	Poovany	V. Tank	110
Total ..			4,910

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 CT.
Sirukulam Tank	102	594	628	711	157	125	1,385	53.0
Tholacudi Tank and supply channel	333	2,544	1,492	1,500	41	600	2,120	37.0
Palamathurai Tank	67	534	485	645	308	78	492	23.5
Poovany do.	60	400	408	433		110		20.4
Total ..	562	4,072	3,013	3,239	506	913	3,997	36.0

II.—Hydraulic Details.

11.—Hydraulic Details.

Name of Work.	Catchment Basin Area.	MAXIMUM SUPPLY.		LENGTH OF ESCAPE.		AVERAGE HEIGHT OF BUND.		Surplus discharged at M.T.L. per Sec.	Tanks above.
		Catchment per Second.	Channels per Second.	Total.	Effective.	Above F.T.L.	Above M.T.L.		
Sirukulam Tank	SQ. M. 1.5	C. FT. 472.5	C. FT. ..	K W					

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 flush crest. 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:—

Sirukulam Tank.—The position of this tank is at the foot of the Satharagherry ghats, and is immediately above a number of tanks which are situated to the west of Road No. XI. This tank has not been repaired for a number of years, and the bund is in very bad condition, it was breached in eight places during the monsoons of 1874-75, but they were closed immediately at a cost of Rupees 200. The tank is provided with two irrigation sluices which are falling into disuse for the want of repair, it has also a calingulah connected with a discharging sluice of two vents; it is proposed to repair and extend the irrigation sluices and to convert the calingulah and discharging sluice into a weir by the following arrangement. The crest of the calingulah, which is at present 1 foot below F.T.L., will be raised 1 foot, and the dam stones removed. The crest of the discharging sluice which is 2 feet higher than F.T.L. is to be lowered to F.T.L., and the vents are to be closed. The damaged wing-walls in rear are to be rebuilt, and an additional apron is to be constructed.

The estimate provides for repairing the bund, extending and improving two irrigation sluices, converting the calingulah and discharging sluice into a weir, and for constructing an additional weir at the south end of the tank.

Tholacudi Tank.—This is an important tank, situated at the south of the taluq, and is supplied by means of an offtake from the Sholapuram river and also by a drainage area of 1 square mile. The tank has three outlets, of which two are weirs situated at the east end of the bund, one of which has four under sluices, and at the west end of the bund there is a calingulah with two vents. The weir with four vents and the calingulah discharge into the river and the other weir into the tanks below.

The calingulah is to be converted into a weir by the removal of the dam stones and the lowering of the crest of the body wall to F.T.L.; a new apron is also to be constructed.

The weir without vents is to have its wings raised, and a vent 3 feet $\times$ 3.5 feet made in the body wall.

The weir with four vents is to have its western abutment and wing rebuilt, and the eastern abutment and wing raised.

The channel bank has several breaches in it, which are to be repaired and protected by stone revetments.

The estimate provides for the thorough repairs of the bund and masonry works. The bund is to be raised 4.5 feet above F.T.L. The irrigation sluice is to be constructed on a larger scale, the breaches in the supply channel are to be closed and revetted, and provision is made for the necessary repairs to the upper and lower anicuts.

Palamathurai Tank.—This tank is situated at the north of the taluq, and is the first of a group of tanks supplied by a branch of the surplus channel of the Theren-curichi Peria Colam in the Madura District, and also by a drainage area of 1 square mile. The bund is very low and weak, it is revetted to an extent of 164 lineal yards and the revetment is in good order, the irrigation sluice is in need of trifling repairs;

the tank has no outlet at present and it is intended to construct a masonry weir. This tank has not been repaired for the last fifteen years, it is therefore considered expedient to put it in thorough order for its own safety as well as for the safety of the tanks lying below it which are also in bad order.

The estimate provides for raising and repairing the bund, repairing an irrigation sluice, and constructing a masonry weir.

Poovany Tank.—The bund of this tank was thoroughly repaired in 1873-74 at a cost of Rupees 308; the bund and irrigation sluice are in perfect order, but the tank is without an outlet which is much needed. The estimate provides for constructing a masonry weir at the south end of the bund.

4. It is clear from the reports which accompany these estimates that each of the three tanks first mentioned above belongs to a group. It has been pointed out in Circulars issued from this office that in such cases the whole group should be taken up and provided for at once in a comprehensive manner, or that at any rate if it is absolutely to deal with one tank at once the particulars of revenue and assessment of the group and the outlay on it for a series of years should be given. It would be necessary under ordinary circumstances to return the estimates to the District Engineer, Tinnevely, for the additional information referred to, but as work is stated to be urgently required in the district to afford relief to persons suffering from the prevailing scarcity, it is recommended that the estimates be sanctioned. The District Engineer should however supply a statement of revenue, cultivated area, and outlay for the past four years for the group in each case; he should also state what progress is being made towards the grouping of tanks in his district, and he should explain why, in the cases under notice, he did not deal with each group as a whole.

5. 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 IRRIGATION.		Total for each Tank, &c.
		Original Works.	Repairs.	
		RS.	RS.	RS.
Sirukulam Tank	Repairing the bund and improving two irrigation sluices	..	1,125	1,510
	Improving and converting calingulah, and discharging sluice into a weir	..	260	
	Constructing a masonry weir	125	..	
Tholacudi Tank and supply channel	Repairing the bund, calingulah and weirs	..	1,370	2,720
	Repairing the channel and anicuts	..	750	
	Reconstructing an irrigation sluice	600	..	
Palamathurai Tank	Repairing the bund and irrigation sluice	..	492	570
	Constructing masonry weir	78	..	
Poovany Tank	Constructing a masonry weir	110	..	110

FORT ST. GEORGE,
15th January 1877.

(Signed) A. DE C. SCOTT, Major, R.E.,
Dy. Chief Engineer for Irrigation,
for Chief Engineer for Irrigation.

To the Secretary to Government, Public Works Department.

Proceedings of the Madras Government, Public Works Department,
20th January 1877. No. 190.

No. 371. ORDER THEREON, 20th January 1877, No. 190.

IRRIGATION, No. 43.

Account.

No. 44 W, dated 15th January 1877.

THE following estimates for Irrigation Works in the No. 1 or Northern Range, Tinnevely District, forwarded by the Chief Engineer for Irrigation with his memorandum marginally noted, are sanctioned.

Name of Work.	Item of Estimate.	Fund, Ordinary Agricultural Irrigation.	Amount.	Irrigation Registry No.
Sirukulam Tank	Repairing bund and sluices	Repairs	Rs. 1,125	1
	Converting calingulah and sluice into weir	Do.	260	2
Tholacudi Tank and Supply Channel.	Repairing bund, calingulah and weirs	Original Works	125	3
	Do. channel and anicuts	Repairs	1,370	1
Palamathurai Tank	Reconstructing irrigation sluice	Do.	750	2
	Repairing bund and sluice	Original Works	600	3
Poovany Tank	Weir	Repairs	492	1
	Weir	Original Works	78	2
		Do.	110	274-I.

2. These sanctions are registered as shown above.

(True Extract.)

(Signed) G. W. WALKER, Major-General, R.E.,
Secretary to Government.

To the District Engineer, Tinnevely.
" Collector of do.
" Chief Engineer for Irrigation.
" Examiner of Public Works Accounts.
" Revenue Department.

E. I. Form No. 1.

OFFICE OF CHIEF ENGINEER FOR IRRIGATION,

Int. St. George - 15th January 1877.

No. 44.W.

Note by the Chief Engineer for Irrigation.

No. 154

Dated 3rd Jan 1877.

Encls. 8.

THE following Estimates from the No. 1 or Northern Range are forwarded by the District Engineer *Simuvelly* with his letter marginally noted:—

Taluq.	Village.	Work.	Amount.
Strivillipattur	Ayadarmam	Sirukulam Tank	1,510
do	Sholapuram	Tholacudi Tank & Supply channel	2,720
do	Karaimunne	Palamathurai Tank	570
do	Poovany	V. Tank	110
Total Rupees			4,910.

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 5 years.	Highest Revenue for 5 years.	During the previous 4 years.	OUTLAY.		
						Original Works	Repairs	Average annual proportion of Charges to Revenue.
	Acres.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	per cent.
Sirukulam Tank	102	594	628	711	17	125	1305	53.0
Tholacudi Tank & supply channel	333	2544	1492	1500	41	600	2120	37.0
Palamathurai Tank	67	554	485	645	"	78	492	23.5
Poovany Tank	60	400	208	433	308	110	"	20.4
Total	562	4092	3013	3289	506	913	3997	36.0

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 Sec.	Tanks above.
		Catchment per Second.	Channels per Second.	Total.	Effective.	Above F. T. L.	Above M. T. L.		
						Sq. M.	C. ft.		
Sirukulam Tank	1.5	42.5	"	7.57.5	28	Not stated	12.5	Nil	
Tholacudi Tank and Supply channel	1.0	562.5	173.1	W. 34.5	28	1.5	0.0	12.5	"
				W. 24.5	28	1.5	0.0	12.5	"
				K. 22	88	1.5	0.0	12.5	"
				W. 36	88	1.5	0.0	12.5	"
				W. 34.5	88	1.5	0.0	12.5	"
Palamathurai Tank	1.0	300	85.69	W. 34.5	Nil	Not stated	0.0	"	
Dorray Tank	1.5	405	"	W. 34.5	57	4.5	2.5	18.1	"
				W. 36	42	4.5	2.5	39.7	"

NOTE.—The proposed dimensions of escapes and heights of bund are entered in red. The existing dimensions in black. The following abbreviations are used:—K.—Kalingulah with dam stones. W.—Weir with flush crest. 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—

Sirukulam Tank—The position of this tank is at the foot of the Satharagheri Ghats and is immediately above a number of tanks which are situated to the West of Road No. II. This tank has not been repaired for a number of years, and the bund is in very bad condition, it was breached in 8 places during the monsoons of 1874-75 but they were closed immediately at a cost of Rs 200. The tank is provided with two irrigation sluices which are falling

Notes for Sirukulam—Red entries in this note are to be printed in Clarendon type. & note in para 2 altered to Grid

into disuse for the want of repair, it has also a Kalingulah connected with a discharging sluice of 2 vents, it is proposed to repair and extend the irrigation sluices and to convert the Kalingulah and discharging sluice into a weir by the following arrangement. The crest of the Kalingulah which is at present 1 foot below F.T.L. will be raised 1 foot, and the dam stones removed. The crest of the discharging sluice which is 2 feet higher than F.T.L. is to be lowered to F.T.L. and the vents are to be closed. The damaged wing walls in rear are to be rebuilt with an additional apron is to be constructed.

The Estimate provides for repairing the bund, extending and improving two irrigation sluices, converting the Kalingulah and discharging sluice into a weir and for constructing an additional weir at the South end of the tank.

Tholacudi Tank—This is an important

Tank

Tank situated at the South of the taluk and is supplied by means of an offtake from the Sholapuram river and also by a drainage area of one square mile. The tank has three outlets of which two are weirs situated at the East end of the bund, one of which has 4 under sluices, and at the West end of the bund there is Kalingulak with 2 vents. The weir with 4 vents and the Kalingulak discharge into the river and the other weir into the tanks below.

The Kalingulak is to be converted into a weir by the removal of the dam stones and the lowering of the crest of the body wall to F.T.I. a new apron is also to be constructed.

The weir without vents is to have its wings raised and a vent 3×3.5 made in the body wall.

The weir with 4 vents is to have its western abutment and wing

rebuilt and the Eastern abutment and wing raised.

The channel bank has several breaches in it which are to be repaired and protected by stone revetments.

The estimate provides for the thorough repairs of the bund and masonry works. The fund is to be raised to 4.5 feet above F.T.I. The irrigation sluice is to be constructed on a larger scale, the breaches in the supply channel are to be closed and revetted and provision is made for the necessary repairs to the upper and lower canals.

Dalamathurai Tank - This tank is situated at the North of the taluk and is the first of a group of tanks supplied by a branch of the surplus channel of the Shevencurichi Peria Colam in the Madras District and also by a drainage area of one square mile. The fund is very low & weak, it is revetted to an extent 1/4 mile.

yards, and the pavement is in good order, the irrigation sluice is in need of trifling repairs, the tank has no outlet at present and it is intended to construct a masonry weir. This tank has not been repaired for the last 15 years, it is therefore considered expedient to put it in thorough order for its own safety as well as for the safety of the tanks lying below it which are also in bad order.

The estimate provides for raising and repairing the bund, repairing an irrigation sluice and constructing a masonry weir.

Porvany Tank - The bund of this tank was thoroughly repaired in 1873-74 at a cost of Rs 308 the bund and irrigation sluice are in perfect order, but the tank is without an outlet which is much needed. The estimate provides for

Constructing a masonry weir at the south end of the bund.

It is clear from the reports which accompany these estimates that each of the three tanks first mentioned above belongs to a group. It has been pointed out in circulars issued from this office that in such cases the whole group should be taken up & provided for at once in a comprehensive manner or that at any rate if it is absolutely to deal with one tank at once the particulars of Revenue and Assessment of the group and the outlay on it for a series of years should be given. It would be necessary under ordinary circumstances to return the estimates to the District Engineer. However for the additional information referred to, but, as work is stated to be urgently required in the District to afford relief to persons suffering from the prevailing scarcity, it is recommended that the Estimate be sanctioned. The District Engineer should however supply

1	27
2	27
3	27
70	1
750	2
600	3
492	1
78	2
110	274

supply a statement of Revenue, cultivated area, and outlay for the past four years of the group in each case, he should also state what progress is being made towards the grouping of tanks in his district and he should explain why, in the cases under notice, he did not deal with each group as a whole.

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 Irrigation		Total for each Tank
		Original Works	Repairs	
	Repairing the bund and improving two irrigation sluices		1125	
Serikulam Tank	Improving & converting Kalingulath & discharging sluice into a weir —		260	1570
	Constructing a masonry weir —	125		
	Repairing the bund & Kalingulath & weirs —		1370	
Tholacudi Tank	Repairing the channel and sluices —		750	2720
Supply channel.	Reconstructing an irrigation sluice —	600		

Name of Tank	Items of Estimate	Fund Ordinary Agricultural Irrigation		Total for each Tank
		Original Works	Repairs	
Palamathurai Tank	Repairing the bund and irrigation sluice		492	
	Constructing a masonry weir —	78		570
Poorany Tank	Constructing a masonry weir —	110	110	

And I certify

Major R.E.

Dy Chief Engineer for Irrigation
H. Chief Engineer for Irrigation

The Secretary to Government
Public Works Department.

P.W.D.
17 JAN 77
From No. 448
The Chief Engineer for Irrigation

Dated 15th } January 1877
Recd 17

Encls 8

No. 44 - W.

Tank Repair - Tinnevely District. - Note forwarding for sanction, estimates for repairs to certain tanks.

No 370.

Ar 18-1-77. Ptd 19-1-77

E. I. Form No. 3.

No 190 of 20 Jan 77

The following Estimates for Irrigation works in the No. 1 or Northern Range, Tinnevely District, forwarded by the Chief Engineer for Irrigation with his Memo. marginally noted are sanctioned :-

No. 44 W.
dated 15th January 1877.

Name of Work.	Item of Estimate.	Fund Ordinary agri- cultural Irrigation	Amount	Irrigation Registry No.
Sirkulam Tank -	Repairing bund and sluices.	Repairs	125	1
	Converting Kalikulah & sluice into weir - - -	Repairs	260	2
	Weir - - - - -	Original Works	125	3
Tholacudi Tank supply channel.	Repairing bund Kalikulah and weir - - - -	Repairs	1370	1
	Repairing channel and outlets -	Repairs	750	2
	Reconstructing irrigation sluice	Original Works	600	3
Palamathurai Tank -	Repairing bund and sluice -	Repairs	492	1
	Weir - - - -	Original Works	78	2
Porray Tank	Weir - - - -	Original Works	110	274 I

2. These sanctions are registered as

Dr. Tinnevely Revenue. above.

Chf. Engr. Irri. with 8 Encls

Ar 18-1-77

Defd 25-1-77

And

mk

Govt. of 1877 Madras.

PUBLIC WORKS.

To *Mr. D. G. Linnovally*

Dated

Issued

Recd.

Encl.

G. O., 24/1/1877, No. 190

Nos. 370 + 371.

Mr. D. G. Linnovally
The estimates for
the repair of certain
sanctuaries.

Left in 1877