Archives I 10,006—16-8 77.

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TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

Public Works Rw. DEPARTMENT

G.O. No. 1533 / B.P. No.	Press. / Mis.
Dated 22.6.1878	197 .

Not to be folded or roughly handled

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

31st May 1878, No. 454 I.

Irrigation.
Account.

Read the following paper:— No. 140 I.

No. 126. *Note by the Chief Engineer for Irrigation.*

The District Engineer, Cuddapah, forwards, with his letter marginally noted, an estimate in connection with the Appatuvaripully Murrimannoo Coontah, belonging to the Godaganur group. The tank is situated in the Budwail Taluq, Sidhout Range, latitude 14° 40′ 15″, longitude 79° 8′ 50″.

No. 3,265, dated 12th March 1878.

2. The nature of the work proposed for execution and the heads of account to which it is chargeable are as follow:—

ORDINARY AGRICULTURAL.

Irrigation.

	Rs.
Original Works.	
Converting the natural escape into a weir	138
Repairs.	
Raising and repairing the bund and repacking the revetment partly with new stone and gravel backing	294
Repairing the irrigation sluice	128
Total ...	560

3. The following particulars of this tank are recorded:—

Ayacut area	Acres	48	Circar 38, Inam 10
Assessment	Rupees	357	Circar 244, Inam 113
Average revenue	,,	273	Circar 226, Inam 47
Highest do.	,,	317	Circar 215, Inam 102
Expenditure during the previous four years			Not stated.
Average cultivation per square mile of catchment basin			Acres 36·7

4. The area of the catchment basin is 1 square mile; the maximum flood supply is calculated at 500 cubic feet per second, for discharging which as surplus there is a natural escape 84 feet in length at the south end of the bund, the soil being gravelly and loose is very much cut up by the flow of the surplus waters. Consequently it is proposed to convert the escape into a weir by constructing a body wall which is to be of concrete faced with stone at top and having but one wing and a rough stone apron.

5. The bund of this tank is very weak and irregular, and the whole of the revetment has slipped for the want of gravel backing.

6. The tank has one irrigation sluice needing repairs, which were carried out as a work of emergency.

The estimate provides for—

1*stly*.—Raising and repairing the bund, repacking the revetment with partly new stones and gravel backing.

2*ndly*.—Repairing the irrigation sluice.

3*rdly*.—Converting the natural escape into a weir.

7. The following statement shows the proposed distribution of the outlay recommended for sanction to the debit of the several heads of account involved :—

Head of Service.—IRRIGATION.

Fund.—ORDINARY AGRICULTURAL.

Name of System or Group.	Distinguishing Number or Letter of Group.	Name of Tank.	Description of Work.	Main Head.	Class.	Amount of each Item.	Amount to be separately accounted for.
						RS.	RS.
Godaganur group.	Not stated.	Appatuvaripully Murrimannoo Coontah.	Converting natural escape into weir.	Irrigation.	Original Works.	138	138
			Repairing bund and revetment and sluice.		Repairs.	422	422

(Signed) JOHN MULLINS, Lt.-Col., R.E.,
Chief Engineer for Irrigation.

23rd May 1878.

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

No. 127. ORDER THEREON, 31st May 1878, No. 454 I.

THE following estimates from the Sidhout Range forwarded by the District Engineer, Cuddapah, are sanctioned :—

Head of Service.—Irrigation.

Godagaaur Group.

Appatwaripully Murrimannoo Coontah.

	RS.
1. WORK.—Converting natural escape into weir, Original Works ...	138
2. Repairing bund, revetment, and sluice, Repairs	422
Total ...	560

To be carried out by the Public Works Department Officer in charge, Sidhout Range.

2. These sanctions have been registered as No. 73 I of 1878-79.

(True Extract.)

(Signed) JOHN MULLINS, Lt.-Col., R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

(True Copy.)

Major, R.E.,
Under Secy. to Govt, P.W.D,
Irrigation Branch.

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

Exd. C. Howarth.

11 Spare Copies

1535 I

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

3rd June 1878, No. 463 I.

Irrigation.
Account.

Read the following papers :—

No. 10. From Colonel P. O'CONNELL, R.E., Superintending Engineer, Chingleput, to the Chief Engineer for Irrigation, dated Ennore, 8th March 1878, No. 1,010 A.

I HAVE the honor to forward the undermentioned tank estimates, amounting to Rupees 3,620, for Pallikaranay Narayanapuram tank series in Sydapett Taluq, No. 2 or Mount Division, for your approval and submission to Government for sanction.

One group map.
Seven estimates.
Four plans.

2. The remaining tanks of the above series are in good order.

Fund—ORDINARY AGRICULTURAL.

	RS.
Repairing Pallikaranay Narayanapuram tank	570
Constructing an irrigation sluice to Narayanapuram tank	210
Do. a rough-stone floors to do. do.	115
Repairing Pallikaranay Chitteri or Annayeri and Thangal	1,055
Do. Pallikaranay large tank and clearing its drainage channel...	1,330
Constructing a rough-stone floor do. do. do. ...	130
Do. an irrigation sluice do. do. do. ...	210
Total ...	3,620

No. 148 I.

No. 10-A. *Note by the Chief Engineer for Irrigation.*

THE following estimates from the No. 2 or Mount Range are forwarded by the Superintending Engineer, Chingleput, with his letter marginally noted. These tanks appertain to the group of which the Pallikaranay Narrayanapuram tank is the terminal.

No. 1,010 A, dated 8th March 1878.

Taluq.	Village.	Work.	Amount.
			RS.
Saidapet ...	Pallikaranay...	S. No. 231 V. Narayanapuram tank ...	895
		S. No. 231 V. Chitteri or Annayeri and Thangal.	1,055
		S. No. 231 V. large tank and its drainage channel.	1,670
		Total ...	3,620

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.
Pallikaranay Narayanapuram tank ..	133	206	215	259	10	325	570	84·1
Do. Chitteri or Annayeri and Thangal.	127	326	325	340	Not stated.	..	1,055	64·9
Pallikaranay large tank	274	777	699	870	None.	340	1,330	47·7
Total ..	534	1,309	1,239	1,469	10	665	2,955	58·5

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.	Area irrigated per square mile of drainage.
	SQ. M.	C. FT.	C. FT.	FT.	FT.	FT.	FT.	C. FT.	NO.	ACRES.
Pallikaranay Narayanapuram tank.	2¾	1,095	..	E 54	54	1·25	0·25 below.	274·9	9	138·8
				E 190	190	3·75	2·25	463·2		
				K 24·5	90	3·0	1·5	499·2	5	
				F 70						
Pallikaranay Chitteri or Annayeri.	1·75	803	..	W 24·5	140	3·75	2·25	507·5		101·3
				F 115·5		2·25	0·75	356·3	..	
				F 70	70	3·75	2·25	356·3		
Do. Thangal ..	0·5	354	..	E 70	70	2·0	0·5	149·1	2	246·4
				K 30·5	25·5					
Pallikaranay large tank ..	1	731·8	..	W 30·5	118·5	3·75	2·25	636·2		
				E 60+28						

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. F.—Flush escape.

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

Pallikaranay Narayanapuram Tank.—This tank is the terminal of the group. The bund is low and in bad condition. The surplus is discharged through a deep cut in the bund 54 feet in length, in lieu of which it is proposed to construct a rough-stone escape 91 feet in length; but, as this would provide for the drainage of only one square mile, while the entire drainage area of the basin alone is $2\frac{3}{4}$ square miles,

it will be necessary to provide an escape of 190 feet, and for this the estimate may be increased to Rupees 230. The tank has no sluice, and one is required.

The estimate provides for—

1*st.*—Raising and repairing the bund.

2*nd.*—Constructing a rough-stone escape.

3*rd.*—Constructing a masonry irrigation sluice.

Pallikaranay Chitteri or Annayeri and Thangal.—The bunds of these tanks are in very bad order and liable to be breached. The Chitteri or Annayeri has two irrigation sluices, one calingulah 24·5 feet in length, and a flush escape 70 feet in length. As the entire drainage area above this tank appears to be $1\frac{3}{4}$ square miles instead of only $\frac{3}{4}$ of a square mile, it will be necessary to increase the length of the flush escape to 115·5 feet and a sum of Rupees 75 may be allowed for this. The Thangal has one irrigation sluice and a flush escape 70 feet in length. The sluices need to be repaired and improved and the calingulah converted into a weir.

The estimate provides for—

1*st.*—Raising and repairing the bund of the Chitteri or Annayeri, repacking the revetment, repairing and improving the two irrigation sluices and converting the calingulah into a weir and increasing the length of the flush escape to 115·5 feet.

2*nd.*—Raising and repairing the bund of the thangal, repacking the revetment, and also repairing and improving the irrigation sluice.

From the sketch map it seems hardly necessary to retain this tank, which has but a very small independent catchment basin, and probably a slight addition to the capacity of the large tank would be a more economical way of storing water. The areas of irrigation per square mile of drainage are so large that it is difficult to accept the information given as correct, and the Superintending Engineer should make further inquiry on the subject and should ascertain whether the retention of this tank is really necessary.

Pallikaranay large tank and its Drainage Channel.—This tank receives the surplus of the Maddapakkam Chitteri and the local drainage. The bund is low and in bad order and the drainage channel requires to be cleared. The tank has four irrigation sluices and a calingulah; three of the former are in need of repairs and improvements, and one of the sluices requires to be reconstructed; the length of the calingulah is insufficient, it is therefore proposed to convert it into a weir and to construct two rough-stone escapes.

The estimate provides for—

1*st.*—Raising and repairing and tu ; the bund and clearing the drainage channel.

2*nd.*—Repairing and improving th irrigation sluices and converting the calingulah into a weir.

3*rd.*—Reconstructing an irrigation s .

4*th.*—Constructing two rough-stone pes.

What is meant by the drainage channel is clear, but it is probably the surplus channel of the Madapakam Chitteri.

The index map which accompanies th estimates does not indicate as clearly as is desirable the areas of the drainage ba and the disposal of surplus waters. It would have been better to have utilise e Revenue Survey map of the locality for this purpose.

There should have been longitudinal cross sections of the bunds, without which the circumstances of the tanks cann properly understood.

The sluice plans do not conform to th quirements of Circular No. 87, and the instructions given in Circular No. 87 shou attended to in constructing them.

The following statement shows the proposed distribution of the outlay recommended for sanction to the debit of the several heads of account involved :—

Head of Service—IRRIGATION.

Fund—ORDINARY AGRICULTURAL.

Name of System or Group.	Distinguishing Number or Letter of Group.	Name of Tank or Channel.	Description of Work.	Main Head.	Class.	Amount of each Item.	Amount to be separately accounted for.
						RS.	RS.
Pallikaranay Narayanapuram Group.	1	Pallikaranay Narayanapuram tank.	Repairing bund ..	Irrigation.	Repairs.	570	570
			Constructing rough-stone escape.		Original Works.	230	440
			Constructing an irrigation sluice.		Do. ..	210	
		Pallikaranay large tank and drainage channel.	Repairing bund and clearing drainage channel.		Repairs.	1,180	1,540
			Repairing three irrigation sluices and converting calingulah into weir.		Do. ..	150	
			Reconstructing an irrigation sluice.		Do. ..	210	
			Constructing two rough-stone escapes.		Original Works.	130	

OOTACAMUND,
29th May 1878.

(Signed) JOHN MULLINS, Lt.-Col., R.E.,
Chief Engineer for Irrigation.

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

No. 11. ORDER THEREON, 3rd June 1878, No. 463 I.

THE following estimates for irrigation works in the No. 2 or Mount Range, Chingleput District, forwarded by the Chief Engineer for Irrigation with his No. 148 I, dated 29th May 1878. memorandum marginally noted are sanctioned :—

Head of Service—IRRIGATION.

Name of System or Group.	Name of Tank.	Description of Work.	Class.	Amount.	Irrigation Register No.
				RS.	
Pallikaranay Narayanapuram Group.	Pallikaranay Narayanapuram tank.	Repairing bund ..	Repairs	570	1
		Rough-stone escape ..	Original Works ..	230	2
		Irrigation sluice ..	Do. ..	210	77 I.
				440	
	Pallikaranay large tank and drainage channel.	Repairing bund and clearing drainage channel.	Repairs	1,180	1
		Repairing three sluices and converting calingulah into weir.	Do.	150	
		Irrigation sluice	Do.	210	78 I.
				1,540	
		Two rough-stone escapes. ..	Original Works ..	130	2

1533/B

2. These sanctions are registered as shown above.

(True Extract.)

(Signed) JOHN MULLINS, Lt.-Col., R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

(True Copy.)

Major, R.E.,
Under Secy. to Govt., P.W.D.,
Irrigation Branch.

2076

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

Exd. T. D. Ryan.
11 Spare Copies sent to Madras

Revenue 1878 Dept

No 2649. 533

IRRIGATION.
ACCOUNT.

Govt. of [1878] Madras.

PUBLIC WORKS.

To

THE DISTRICT ENGINEER,
CHINGLEPUT,
&c., &c., &c.

Dated June 3rd.

Rcvd. 20 Encl.

G. O., 3rd June 1878, No. 463 I.

JUNE.

Nos. 10-11.

No 1533

Communicated to the Board of Revenue

22 June 1878

Tanks in Chinglepat.—The estimates for certain —, sanctioned.

11

Write order