

(1) Number of pages.....

(2) Date of repair.....

(3) Initials of the Referencer.....

MADRAS RECORD OFFICE

Government of Madras

Public Works

DEPARTMENT

G.O. No.	2140	(2)	Press
B.P. No.			Mis.
Dated	16-8-		1876.

Not to be folded or roughly handled

Proceedings of the Madras Government, Public Works Department,
16th August 1876. No. 2,140.

Read the following:—
No. 131-W.

No. 372. *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 marginally noted:—
No. 461, dated 8th May 1876.

Taluk.	Village.	Work.	Amount.
Poloor	Oogoor	V. Chittary	Rs. 654
Do.	Gunganelloor	V. Tank	1,450
Do.	Arnacherry-mungalam	V. Pashiya Tank	1,450
Do.	Do.	V. Large Tank	1,350
Wandewash	Coracotta	V. Tank	1,320

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

I.—Financial Details.

Name of Work.	Approx. Area.	Assessment.	Average Revenue for 5 years.	Highest Revenue for 5 years.	During the previous 4 years.	OUTLAY.			
						Proposed.			Average annual proportion of Charges to Revenue.
						Original Works.	Repairs.	Ordinary Agri-cultural.	
	ACRES.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	
Oogoor Chittary	47	221	221	221	799	195	495	62.4	
Gunganelloor Tank	43	184	185	185	799	112	888	121.9	
Arnacherry-mungalam Pashiya Tank	63	263	253	253	799	230	720	75.9	
Do. Large do.	186	431	476	476	799	350	1,200	65.1	
Coracotta Tank	67	481	514	514	799	320	1,300	63.0	
Total ...	336	1,643	1,639	1,639	799	1,207	4,613	81.3	

II.—Hydraulic Details.

Name of Work.	Catchment Basin Area.	MAXIMUM SUPPLY.		LENGTH OF ESCAPE.		AVERAGE HEIGHT OF BEND.		Surplus discharged at M. T. L. per Sec.	Tanks above.
		Catchment per Second.	Channel 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.
Oogoor Chittary ...	1.50	737	...	E 72	72	1.50	0.00	0.0	Nil.
				E 80	80	4.00	2.50	360	
Gunganelloor Tank ...	1.50	737	...	E 90	90	2.00	0.00	640	...
				E 45	45	4.50	2.50	790	
Arnacherry-mungalam Pashiya Tank.	1.50	737	...	W 80	80	2.00	0.00	300	1
				Not stated.	Not stated.	4.50	2.50	640	
						2.16	0.16	Not stated.	2
Do. Large Tank ...	2.50	1,936	...	E 110	110	4.50	2.50	880	
				E 45	45	2.00	0.00	360	
Coracotta Tank ...	1.5 to 2	800	...	E 90	90	4.50	2.50	720	...

NOTE.—The proposed dimensions of escapes and heights of bend are entered in large type. The existing dimensions in small type. The following abbreviations are used:—C.—Catchment with dam stony. W.—Weir with bush crest. R.—Ranapa 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:—

Oogoor Chittary.—Raising and repairing the bund, raising revetment with new stones, constructing a masonry escape, and reconstructing an irrigation sluice. The rates are capable of reduction as regards earthwork. New revetment for a tank of this class is inadmissible without special explanation of necessity. It appears from the District Engineer's letter, No. 461, paragraph 2, that 2 feet are intended to be discharged over the surplus weir, though 1½ feet are shown in the report attached to the estimate. As with the bund at 4½ feet above P.T.L., 2 feet or even 2½ feet can be safely discharged, the length of weir, 72 feet, will do. The item for tarring has been reduced to Rupees 50 for grass planting where necessary and likely to thrive.

Gunganelloor Tank.—Raising and repairing the bund, closing the breaches, and constructing a dry stone escape. The estimate is high, but the longitudinal section shows the bund to be in wretchedly bad order and extensively breached.

Arnacherrymungalam Pashya Tank.—Raising and repairing the bund and repacking the revetment, constructing a masonry weir and reconstructing an irrigation sluice. The past and proposed expenditure on this tank exceeds nine years' revenue. The rates for earthwork are excessive, and the reductions noted in the repair estimate require to be made. The revised total is Rupees 730, including rebuilding the sluice.

Arnacherrymungalam Largo Tank.—Raising and repairing the bund, repacking the revetment, planting navel, and constructing a masonry escape. There should be some saving on earthwork by reduction of rate, and the repacking of revetment should be omitted unless deemed by the District Engineer to be really necessary. The masonry apron to the surplus weir, there being no overfall, is unnecessary; 12 feet of dry rubble will be sufficient and the rear wings may be shortened.

Coracotta Tank.—Raising and repairing the bund, repacking the revetment, reconstructing the head of the present sluice, and constructing a masonry escape. The earthwork rates are too high. Rupees 50 will be ample for stepping the bund, and Rupees 100 for grass planting where necessary. The total of the estimate for repairs has been reduced to Rupees 1,300.

4. The District Engineer states in his report that increase in the revenue (consequent on the repairs) may be expected in the case of the Oogoor Chittary, Gunganelloor, Arnacherrymungalam Pashya, and Arnacherrymungalam large tanks. He bases this assertion on the circumstance that the rates of assessment over the ayacut area are small. The signification of the term "Ayacut" appears from paragraph 10 of the District Engineer's letter, No. 461, to differ from that in other districts, but it must depend upon the character of the water-supply whether land in excess of the ayacut can be regularly irrigated.

5. It is necessary that arrangements should be made for taking up irrigation works of this kind by groups and bringing forward complete estimates for the necessary repairs and improvements. Abstract statements can then be made out showing the particulars of the outlay and revenue in connection with each group and a more comprehensive view obtained of the results of expenditure. Estimates for tanks of groups submitted hereafter unless under special circumstances which must be explained, otherwise than in groups will be returned for revision.

6. 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.		Total for each Tank, &c.
		Original Works.	Repairs.	
		rs.	rs.	rs.
Oogoor Chittary	Raising and repairing the bund	...	410	690
	Constructing a masonry escape	195	...	
	Reconstructing an irrigation sluice	...	85	
Gunganelloor Tank	Raising and repairing the bund and closing the breaches	...	883	1,000
	Constructing a dry stone escape	112	...	
	Raising and repairing the bund and rebuilding sluices	...	730	
Arnacherrymungalam Pashya Tank	Constructing a masonry weir	230	...	980
	Raising and repairing the bund, repacking the revetment, and planting navel	...	1,200	
	Constructing a masonry escape	350	...	
Arnacherrymungalam Largo Tank	Raising and repairing the bund, repacking the revetment, and reconstructing the head of the present sluice	...	1,200	1,620
	Constructing a masonry escape	320	...	
Coracotta Tank	Constructing a masonry escape	...	...	

OOTACAMUND,
11th August 1876.

(Signed) A. DEC. SCOTT, Major, R.E.,
Deputy Chief Engineer for Irrigation,
for Chief Engineer for Irrigation.

To the Secretary to Government, Public Works Department.

No. 373.

ORDER THEREON, 16th August 1876, No. 2,140.

IRRIGATION, No. 36.
Account.

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:—

No. 131-W., of 11th August 1876.

Irrigation.

Name of Tank.	Provision of Estimate.	Fund, Ordinary Agricultural.	Amount.	Irrigation Register No.
			rs.	
Oogoor Chittary	Raising and repairing the bund	Repairs	410	101-L.
	Constructing a masonry escape	Original Works	195	
	Reconstructing an irrigation sluice	Repairs	85	
Gunganelloor Tank	Raising and repairing the bund and closing the breaches	Repairs	883	102-L.
	Constructing a dry stone escape	Original Works	112	
	Raising and repairing the bund, and rebuilding sluices	Repairs	730	
Arnacherrymungalam Pashya Tank	Constructing a masonry weir	Original Works	230	103-L.
	Raising and repairing the bund, and repacking the revetment, and planting navel	Repairs	1,200	
	Constructing a masonry escape	Original Works	350	
Arnacherrymungalam Largo Tank	Raising and repairing the bund, repacking the revetment, and reconstructing the head of the present sluice	Repairs	1,300	104-L.
	Constructing a masonry escape	Original Works	320	
Coracotta Tank	Constructing a masonry escape	Original Works	...	

Proceedings of the Madras Government, Public Works Department,
16th August 1876. No. 2,140.

2. These sanctions are registered as shown above.

(True Extract.)

Colonel,

Offg. Under Secy. to Govt., P.W.D.

To the District Engineer, North Arcot.
Collector of do.
Chief Engineer for Irrigation.
Secretary of Public Works Accounts.
Revenue Department.

S. I. Form No. 1.

6

OFFICE OF CHIEF ENGINEER FOR IRRIGATION,

Madras, 11th August 1876.

No. 131-W.

Note by the Chief Engineer for Irrigation.

No. 461

Dated 8 May 1876.

Enclos. 36

The following Estimates from the Poloor Range are forwarded by the Offg District Engineer North Arcot with his letter marginally noted:—

Taluq.	Village.	Work.	Amount. Rs.
Poloor	Dogoor	V. Chittaray	690
do	Gunganelloor	V. Tank	1000
do	Aringherumungalam	V. Pookya Tank	860
do	do	V. large tank	1550
Wandiarach	Coracotta	V. Tank	1620

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

1.—Financial Details.

Name of Work.	Acreage Area.	Assessment.	Average Revenue for 5 years.	Highest Revenue for 5 years.	During the previous 4 years.	OUTLAY.		
						Proposed.		
						Average annual proportion of Charges to Revenue.		
	Acres	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Dogoor Chittaray	41	221	221	Not stated	Nil	195	495	62.4
Gunganelloor Tank	43	184	165	Not stated	..	112	888	121.2
Aringherumungalam Pookya Tank	63	266	263	Not stated	799	230	730	75.9
do large do.	106	491	476	Not stated	Nil	350	1200	65.1
Coracotta Tank	67	481	514	Not stated	..	320	1300	63.0
Total	320	1643	1629	..	799	1207	4613	81.2

rear wings may be shortened

Coracotta Tank During repairing the bund repacking the revetment reconstructing the head of the present sluice and constructing a masonry escape. The earthwork rates are too high Rupees 50 will be ample for stopping the bund and Rupees 100 for grave planting where necessary. The total of the estimates for repairs has been reduced to Rupees 1500.

The District Engineer states in his report that increase in the revenue (consequent on the repairs) may be expected in the case of the Bogoor Chittary, Gungunellore, Arungherrymungalam Parkya & Arungherrymungalam large tanks. He bases his assertion on the circumstance that the rates of assessment over the Ryant area are small. The signification of the term 'Ryant' appears from para 10 of the District Engineer's letter No. 10 to differ from that in other districts but it must depend upon the character of the water supply whether land in excess of the Ryant can be regularly irrigated.

The escapes provided in the estimates are generally of insufficient length to pass the drainage with the depth of water allowed. The lengths of crest should be as shown below

Bogoor

Bogoor Chittary	157 feet
Gungunellore tank	92
Arungherrymungalam Parkya	92
do do large	149
Coracotta Tank	100

In the fourth case an additional depth of 6 has been allowed

The necessary additions have been made to the amounts provided in the estimates to

It is necessary that arrangements should be made for taking up irrigation works of this kind by groups & bringing forward complete estimates for the necessary repairs and improvements. Abstract Statements can then be made out showing the particulars of the outlay and revenue in connection with each group and a more comprehensive view obtained of the results of expenditure.

Estimates for tanks of groups submitted hereafter unless under special circumstances which must be explained otherwise than in groups will be returned for revision.

The following statement shows the proposed distribution of the outlay recommended for sanction, to the debit

of

of the several heads of account involved:-

Name of Tank.	Items of Estimate	Fund Ordinary Agricultural		Total for each tank &c
		Original works	Repairs	
Bogoor Chittary	Raising and repairing the bund	"	450	690
	Constructing a masonry escape	195	"	
	Reconstructing an irrigation sluice	"	85	
	Raising and repairing the bund & closing the branches	"	888	
Gunganelloor Tank.	Constructing a dry stone escape	112	"	1000
Arumatherymangalam Pashigo Tank.	Raising and repairing the bund and rebuilding sluice	"	730	960
	Constructing a masonry wall	230	"	
	Raising and repairing the bund repacking the revetment and planting navel.	"	1200	
Arumatherymangalam Large Tank.	Constructing a masonry escape	350	"	1550
	Raising			

Name of Tank

Items of Estimate

Fund
Ordinary
Agricultural
Original
works
Repairs
Total for
each tank &c

Coracotta
Tank

Raising and repairing the
bund repacking the re-
vetment and recon-
structing the head of
the present sluice
Constructing a masonry
escape

1500
320
1620

Major R. E.

Deputy Chief Engr for Irrigation
for Chief Engineer for Irrigation

To The Secretary to Government
Public Works Department

C. M. S.

P.W.D.

19/8/76

From
The Chief Engineer for
Irrigation

To
The Secretary to Govt.
P. W. D.

Dated 11 } August 1976
Recd. 12 }

Encls. 36

No. 131-W.

Tank Repair - North
Arcot District - Note
Submitting for sanction
Estimates for certain
— Poloor Range.

No 240 3/6 Aug 76

Form No. 1

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.

No. 131-W. of 11 August 1976.

Name of Tank.	Provision of Estimate.	Fund Ordinary Agricultural	Amount	Irrigation Register No.
D. S. G. S. Chellur	Raising & repairing the bund	Repairs	450	1
	Constructing a masonry escape	Original works	105	2
	Reconstructing an irrigation channel	Repairs	85	3
G. S. G. S. D. S. G. S.	Raising & repairing the bund & sloping	Repairs	885	1
	Reconstructing a stone escape	Original works	112	2
	Raising & repairing the bund and rehabilitating channel	Repairs	710	1
D. S. G. S. D. S. G. S.	Constructing a masonry weir	Original works	250	2
	Raising & repairing the bund and rehabilitating channel	Repairs	1200	1
	Constructing a masonry escape	Original works	550	2
D. S. G. S. D. S. G. S.	Raising & repairing the bund and rehabilitating channel	Repairs	1300	1
	Constructing a masonry escape	Original works	550	2
	Raising & repairing the bund and rehabilitating channel	Repairs	1300	1
D. S. G. S. D. S. G. S.	Constructing a masonry escape	Original works	550	2
	Raising & repairing the bund and rehabilitating channel	Repairs	1300	1
	Constructing a masonry escape	Original works	550	2

Constructing a masonry escape	Original works	320	2
----------------------------------	----------------	-----	---

2. These conditions are registered
as shown above

~~W.H.
J.~~

14372/3

CTW

Aug 14 876 P.M. 16-2

P. E. H. Macdonald
Collector - do
C. E. J. with 36 Inelos
In P.M. 16-2
Receipt

5961 1/2

Vol. of 1870 31st
PUBLIC WORKS.

The N. E. & South street

18th August 1870 2140

Nos 372 - 373

Tambs - North Street St
Estimates for the
repair of culam
sanctioned of.

Est. in B. 1870
9-9-70