

(1) Number of pages.....

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MADRAS RECORD OFFICE

Government of Madras

Public Works

DEPARTMENT

G.O. No. 2140
B.P. No.

Press
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 Officiating District Engineer, North Arcot, with his letter marginally noted:—

Taluk.	Village.	Work.	Amount.
Poloor	Oogoor	V. Chittary	Rs. 694
Do.	Gunganelloor	V. Tank	1,889
Do.	Arnachery mangalam	V. Pashya Tank	860
Do.	Do.	V. Large Tank	1,550
Wandewash	Coracotta	V. Tank	1,620

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

I.—Financial Details.

Name of Work.	Ayant 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 2000.	Per.
						Ordinary Agri. cultural.	Original Works.	Repairs.	
	ACRES.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
Oogoor Chittary	47	221	221	Not stated.	...	195	495	62.4	
Gunganelloor Tank	43	134	155		...	112	883	121.3	
Arnachery mangalam Pashya Tank	63	266	253		799	230	730	75.9	
Do. Large do.	106	491	476		...	360	1,200	65.1	
Coracotta Tank	67	431	514	Not stated.	...	320	1,300	65.0	
Total	326	1,643	1,829		799	1,207	4,613	81.2	

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.	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	150	737	...	E 72 B 80	72 80	150 400	000 250	000 360	NH.
Gunganelloor Tank	150	737	...	E 90 B 45	90 45	450 200	250 000	720 360	1
Arnachery mangalam Pashya Tank	150	737	...	W 80 Not stated.	80 Not stated.	450 215	250 015	640 Not stated.	3
Do. Large Tank	250	1,036	...	E 110 B 45	110 45	450 200	250 000	880 360	...
Coracotta Tank	15 to 2	800	...	E 90	90	450	250	720	...

NOTE.—The proposed dimensions of escapes and heights of bund are entered in large type. The existing dimensions in small type. The following abbreviations are used:—C.—Canal with dam across. W.—Weir with flush crest. B.—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 :—

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 1½ 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 turfing has been reduced to Rupees 50 for grass planting where necessary and likely to thrive.

Gunganellloor 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.

Arnacherry-mungalam 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 100, including rebuilding the sluice.

Arnacherry-mungalam Large 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, Gunganellloor, Arnacherry-mungalam Pashya, and Arnacherry-mungalam 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	
Gunganellloor Tank	Raising and repairing the bund and closing the breaches	...	888	1,000
	Constructing a dry stone escape	112	...	
	Raising and repairing the bund and rebuilding sluice	...	730	
Arnacherry-mungalam Pashya Tank	Constructing a masonry weir	230	...	960
	Raising and repairing the bund, repacking the revetment, and planting navel	...	1,200	
	Constructing a masonry escape	350	...	
Arnacherry-mungalam Large Tank	Raising and repairing the bund, repacking the revetment, and reconstructing the head of the present sluice	...	1,300	1,550
	Constructing a masonry escape	320	...	
	Constructing a masonry escape	...	...	

OOTACAMUND,
11th August 1876.

(Signed) A DE C. 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.

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

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.	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	
Gunganellloor Tank	Raising and repairing the bund and closing the breaches ...	Repairs	888	102-L.
	Constructing a dry stone escape ...	Original Works	112	
	Raising and repairing the bund, and rebuilding sluice ...	Repairs	730	
Arnacherry-mungalam 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	
Arnacherry-mungalam Large 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	
	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.
" Examiner of Public Works Accounts
" Revenue Department.

R. I. Form No. 1.

OFFICE OF CHIEF ENGINEER FOR IRRIGATION,

Postdamund 11th August 1876.

No. 131-W.

Note by the Chief Engineer for Irrigation.

No. 1461

Dated 8th Aug 1876.

Enclos. 32

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

Taluk.	Village.	Work.	Amount. Rs.
Poloor.	Dogore	V. Chittary	690
do.	Gungunelloor	V. Tank	1000
do.	Arinagherr	V. Pookiya Tank	960
do.	do	V. large tank	1550
Wandiwash	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.	Assessment.	Average Revenue for 5 years.	Highest Revenue for 5 years.	OUTLAY.			
					During the previous 4 years.	Proposed.		
						Ordinary Maintenance	Extraordinary Repairs	Average annual proportion of Charges to Revenue.
	Acres	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Dogore Chittary	47	221	221	Not stated	Nil	195	495	62.4
Gungunelloor Tank	43	164	165		"	112	888	121.2
Arinagherr Pookiya Tank	63	266	263		799	230	730	75.9
do. large do.	106	491	476		Nil	350	1200	65.1
Coracotta Tank	67	431	514		"	320	1300	63.0
Total	326	1643	1629	-	799	1207	4613	81.2

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.	C. ft.	Ft.	Ft.	Ft.	Ft.	C. ft.
Rogoor Chittary - - -	1.50	737	"	Nil	Nil	1.50	0.00	0.0	Nil
Gunganulloor Tank.	1.50	737	"	E 30	80	2.00	0.00	640	"
Anagaherrygungalam Baskin Tank	1.50	737	"	E 45	45	2.00	0.00	360	1
Do. - - large Tank	2.50	1056	"	Nil	Nil	2.16	0.16	67.5	2
Coracotta Tank. - -	1.50 2	800	"	E 45	45	2.00	0.00	360	Nil

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.—Kalingulath with dam stones. W.—Weir with Rush 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—:

Rogoor 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. Now revetment for a tank of this class is inadmissible without special explanation of necessity. It appears from the District Engineer's letter No. 68 para 2 that 2 feet are intended to be discharged over the surplus weir though 12 feet are shown in the report attached to the estimate as with the bund at 4 feet above F.T.L.

2 feet or even 2 1/4 feet can be safely discharged, the length of weir, 72 feet, will do. The item for turfing has been reduced to Rupees 50 for grass planting where necessary and likely to thrive.

Gunganulloor Tank. Raising & 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 & extensively breached.

Anagaherrygungalam Pashia Tank. Raising and repairing the bund and repacking the revetment, constructing a masonry weir and reconstructing an irrigation sluice. The past & proposed expenditure on this tank exceeds 9 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 750, including rebuilding the sluice.

Anagaherrygungalam large Tank. Raising & repairing the bund, repacking the revetment, planting manel and constructing a masonry escape. There should be some saving on earthwork by reduction of rate, & 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 During preparing the bund repairing the movement reconstructing the head of the present sluice and constructing a masonry escape. The earthwork makes an too high Rupees 50 will be ample for stopping the bund and Rupees 100 for grass planting where necessary. The total of the estimates for repairs has been reduced to Rupees 1000.

The District Engineer states in his report that increase in the revenue (consequent on the repairs) may be expected in the case of the Aggar Chittarg, Gangannello tank, Arungherrymungalam Pashya & Arungherrymungalam large tanks. He bases his opinion on the circumstance that the rates of assessment over the Agent area are small. The signification of the term 'Agent' 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 Agent can be regularly irrigated.

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

Aggar

3

Aggar Chittarg	147 feet
Gangannello tank	92
Arungherrymungalam Pashya	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

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	
Dugoor Chittary	Raising and repairing the bund - - - - -	"	410	690
	Constructing a masonry escape - - - - -	195	"	
	Reconstructing an irri- gation sluice - - - -	"	85	
Gunganelloor Tank.	Raising and repairing the bund & closing the breaches - - - - -	"	888	1000
	Constructing a dry stone escape - - - -	112	"	
	Raising and repairing the bund and rebuilding sluice - - - - -	"	730	960
Arinagherumangalam Pashiga Tank.	Constructing a masonry wall - - - - -	230	"	
	Raising and repairing the bund repacking the revetment and planting navel.	"	1200	1550
Arinagherumangalam Large Tank.	Constructing a masonry escape - - - - -	350	"	
	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 - - - - -

1300
320
1620

Robert Scott

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.

12/8/76

from
The Chief Engineer for
Irrigation
to
The Secretary to Govt
P. W. D.

Dated 11 } August 1876
Recd. 12 }
Encls. 30

No. 131-W.

Tank Repair - North
Arcot District - Note
Submitting for sanction
Estimates for certain
- Poor tanks.

No 240 3rd Aug 76

The following Estimates for Irrigation
Works in the Arcot District, forwarded by
the Chief Engineer for Irrigation with the
Memorandum marginally noted are sanctioned.

No. 131-W of 11 August 1876.

Irrigation.

Name of Tank.	Provision of Estimate.	Fund. Agricultural	Amount	Irrigation Register No.
Longer Chitany	Repairing the head.	Repairs	450	1031
	Constructing a masonry escape	Original works	192	
	Reconstructing an irrigation sluice	Repairs	90	
	Repairing the head & covering	Repairs	288	
Mangalash Palath	Reconstructing a drop	Original works	112	1032
	Reconstructing a drop	Original works	112	
	Reconstructing a drop	Original works	112	
Longer mangalash Palath	Repairing the head and rebuilding sluice	Repairs	750	1033
	Constructing a masonry escape	Original works	230	
	Repairing the head and rebuilding sluice	Repairs	1200	
	Constructing a masonry escape	Original works	320	
Longer mangalash Palath	Repairing the head and rebuilding sluice	Repairs	1200	1042
	Constructing a masonry escape	Original works	320	
	Repairing the head and rebuilding sluice	Repairs	1200	
Ponnacott Palath	Reconstructing a drop	Original works	1500	1052
	Reconstructing a drop	Original works	1500	

Constructing a measuring tape	Original work	320	2
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These cautions are requested
as shown above

Bill
18

W. H. 18

18 372/3

CTP
Aug 14-876 P.M. 18.4
W. H. 18 18.4

J. E. H. 18.4
Collector - do
C. E. for I with 36 Inelos
In P. 18.4
Receipt

Expd 8/9/76

5961 B

Dept. of U.S. Marine
PUBLIC WORKS.

The N. & South Coast

10th August

2/40

No 372 - 373

Tampa - North West St.

Estimates for the
repair of culam
canal of.

sent to Mr. J. J. 9/7/96

Mr. J. J. J. J.

Sept 8/9/96