

(1) Number of pages _____

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(3) Initials of the Referencer _____

MADRAS RECORD OFFICE

Government of Madras

Public Works

DEPARTMENT

G.O. No.

2269

Press

B.P. No.

Mis.

Dated

17. 8

195-

1874

Not to be folded or roughly handled

Read the following papers:—

No. 330. From the District Engineer, North Arcot, dated 3rd July 1874,
No. 959.

No. 523A.

No. 331. *Note by the Chief Engineer for Irrigation.*

THE following estimates received from the District Engineer, North Arcot,
are submitted for sanction:—

Mustavasacoopum Tank, estimate Rupees 210. This estimate is additional
to that of Rupees 1,960 submitted with the note No. 334B of the 20th May
last. Subsequently to the preparation of that estimate this tank breached, owing
to the inadequacy of its escape, the necessary lengthening of which has been
provided for in the former estimate. The total sanction will now be Rupees 2,170,
which is nearly four times the average revenue. It will be observed from the
observations noted on the estimate that the work done to this tank after the
storm of 1872 was not efficiently executed. If the instructions which have been
issued in Circular No. 48 be attended to, tanks should not fail at the site of old
breaches.

Moonjoorput Tank, Estimate Rupees 1,360.

Ayacut area	...	...	...	...	...	Acres.	125
„ revenue	...	...	...	...	...	Rupees.	977
Average „	...	...	...	...	...	„	907
The outlay on repairs in the last four years has been							
in 1870-71	...	...	...	...	...	„	2,387
in 1873-74	...	...	...	...	...	„	2,432

The history of the tank, as given in the District Engineer's letter, shows
No. 959, 3rd July. how easy it is to waste money on
Agricultural Repairs, and how much the

introduction of an improved system of management was called for. In 1872 an
additional escape was provided, and probably the tank would then have been
rendered safe and efficient had the breaches been closed with sufficient care, and
had the state of the bund at the sluice been ascertained and its defects attended
to. The District Engineer should warn his Range Officers that serious notice will
be taken in future of defective work at tank breaches. The Collector also may
with advantage be asked to require the villagers to pay due attention to their

*Proceedings of the Madras Government, Public Works Department,
17th August 1874.*

tanks for one or two years after breaches have occurred and been closed. A little care, and the making good of settlements, which to some extent are unavoidable, together with the filling in of cracks would often save a tank, and with it the whole cultivation under it. The failure of this tank occasioned the breaching of the Thuttiput and Chittary tanks to which part of its surplus passes. Estimates for these have been separately submitted for sanction. The District Engineer should take care that trees, which are so situated on tank bunds as to be likely to occasion damage should they be overturned, are removed. The sluice plan requires some modifications as noted thereon in pencil.

Covelay Large Tank, Estimate Rupees 1,920.

Ayacut area ...	...	Acres.	239
„ revenue ...	...	Rupees.	1,800
Average „	...	„	1,468

Expenditure on repairs in the last four years Rupees 2,197.

This tank breached in two places in May last. The drainage, which ordinarily supplies the tank, is from about one and a half square miles, but it receives the surplus of several other tanks, and it has an open channel from the Cleear. Its escape is 117 feet in length, of which 54 feet are occupied by upright stones, and the spaces between these were closed at the time of the accident. These stones are to be removed and the crest of the escape raised 1½ feet; and, with the bund 5½ feet above full tank or revised crest level, the tank will probably then be safe, as the means of disposing of surplus will be more than doubled. The District Engineer has mentioned that the crest might be raised another 6 inches, and, if greater storage capacity be needed, this may be done after the lapse of a year or two, but at present no raising of the former full tank level is advisable, and this should be postponed at any rate until the earthwork of the breaches has finally settled.

The rate for nanul planting will always be higher at tanks than in the beds of rivers, but it may be useful to the District Engineer to know that in Tanjore, under favorable circumstances, this work costs 3 Annas for 100 square yards, or nearly three yards for 1 Pie, so that probably 1 or 1½ instead of 4 Pies a square yard may in time be found sufficient. It is thought that a top width to the bund* of 6 feet instead of 9 feet will probably suffice, and that about

1. Except at the breaches.
250 Rupees will thus be saved. This is one of the tanks the breaching of which has twice endangered the Madranticum tank.

2. The remaining estimates are for a number of small tanks situated in the valley of the Cleear. Many of them cannot be identified on the atlas sheet, although their positions have been indicated.*

* District Engineer's letter, paragraph 8. The District Engineer proposes to make their bunds 4½ feet high, and to provide them with escapes of sufficient length to discharge maximum floods with a depth of 2 feet passing over. These arrangements are as definite as, under the circumstances of so many tanks having to be dealt with, can be determined; and no doubt, even if some modifications should hereafter be found desirable, the condition of these works will be very materially

*Proceedings of the Madras Government, Public Works Department,
17th August 1874.*

improved by the works now to be carried out. The following are the particulars for the several tanks:—

Names of Tanks.	AYACUT.		Average Revenue.	Expenditure on repairs last 4 years.	PRESENT ESTIMATE.		Remarks.
	Area.	Revenue.			Repairs.	Minor New Works.	
Iroombada Moroocary	54	325	318	303	510	..	Length of escape provided for 72 feet.
Agrium	67	421	395	95	430	..	Do. do. for 81 feet.
Covilcoopum	37	220	214	97	410	..	Do. do. for 120 „
Keelurmale	85	533	503	373	380	..	Do. do. for 133 „
Moomanny	157	633	544	47	850	..	Has a surplus weir of 60 feet length, 40 feet effective. Dam stones will be removed and crest lengthened 45 feet.
Chennaveram	33	223	215	70	290	..	Has a rough-stone escape which is to be lengthened from 10 to 13 yards and repaired.
Salavadu Chittary	36	252	248	37	465	..	Has a rough-stone escape which is to be lengthened from 30 to 90 feet.
Keelpakum large tank	83	583	577	213	930	..	Has a rough-stone escape which is to be lengthened from 30 to 120 feet.
Do. Chittary	7	43	43	90	145	..	Do. do of 18 feet to be lengthened to 60 feet.
Mamundoor	45	185	185	43	230	..	Do. do. of 36 do. 84 feet.
Mungalum large	29	187	181	145	263	..	Do. do. of 48 do. 84 „
Do. Chittary	9	70	67	..	220	..	Do. do. of 36 do. 73 „
Malecodungalur	34	234	233	78	400	..	Do. do. of 30 do. 103 „
Manbut	33	191	142	..	315	..	Do. do. of 30 do. 60 „
Karany	94	377	352	153	560	160	Do. do. of 30 do. 133 „ and an irrigation sluice.

The escapes are described in the estimates as to be constructed with loose stones, by which the Overseer who prepared the estimates probably means uncemented stone; the stone should be carefully packed. For some few of the larger of these tanks it may be desirable at some future time to provide masonry surplus weirs instead of the simpler escapes, but the great increase of means of surplusage included in the estimates will be of much advantage, and it can quickly be afforded by these simple works. This is of great importance, as apparently all these tanks surplus into the Madranticum tank. Rupees 20 have been added to the estimate of the Karany tank sluice on account of the alterations noted on the plan as required.

3. The District Engineer also mentions that for certain of these tanks sluices are required in supersession of pot sluices, which are dangerous, and he asks that a plan and estimate for each may be dispensed with. The sluices, however, cannot be properly built without a plan being drawn out for each according to the exact circumstances of the site, nor can the cost of any sluice be determined without an estimate, and working drawings and estimates are, therefore, indispensable. Information has not been given as to whether any of the tanks enumerated in paragraph 9 of Captain Pennycuick's letter are already provided with one or more sluices, but even if not the proposal to allow two sluices for the Iroombada Moroocary, the ayacut area of irrigation under which is only 54 acres, is one which should not be accepted without special reasons. Again, the Mungalum Chittary irrigates only 9 acres, and an expensive sluice for it, costing

Proceedings of the Madras Government, Public Works Department,
17th August 1874.

nearly two and a half years' revenue, should be avoided by the substitution of some cheaper form of work.

4. It appears to be improbable that additional funds to any considerable amount will be available for supplementing the Minor New Works grant of the North Arcot District, but its urgent wants in this respect will not be lost sight of should there be money to spare from other districts later in the year.

OOTACAMUND,
22nd July 1874.

(Signed) JOHN MULLINS, Lieut.-Colonel, R.E.,
Chief Engineer for Irrigation.

No. 332.

ORDER THEREON, 17th August 1874, No. 2,269.

IRRIGATION, No. 24.

THE under-mentioned estimates for the repair or improvement of tanks in the North Arcot District are sanctioned:—

		Repairs.	
Mustavasacoopum Tank, in addition to the estimate of Rupees 1,960, sanctioned in G. O., No. 1,799, dated 6th July 1874		Rs.	
Moonjoorput Tank...	...	210	
Covelay Large do.	...	1,360	
Iroombada Moroocary Tank	...	1,920	
Agrum do.	...	510	
Covilcoopum do.	...	430	
Keelnurmale do.	...	410	
Moomanny do.	...	380	
Chennaveram do.	...	850	
Salavadu Chittary do.	...	290	
Keelpakum Large do.	...	465	
Do. Chittary ...	...	930	
Mamundoor Tank ...	...	145	
Mungalum Large do.	...	280	
Do. Chittary ...	...	263	
Malecodungalur Tank ...	...	220	
Mambut do.	...	400	
Karany do.	...	315	
New Irrigation sluice for Karany Tank...		560	
Minor New Works.			
(True Extract.)		160	

Lieut.-Colonel, R.E.,
Joint Secretary to Government.

To the Chief Engineer for Irrigation.
" District Engineer, North Arcot.
" Officiating Controller of Public Works Accounts.
" Revenue Department.
Exd. E. C. Shunker,
Spare Copies

Note by the Chief Engineer for Irrigation.

The following estimates received from the District Engineer North Arcot are submitted for sanction.

Mustavasacoopum Tank. Estimate Rupees 210

This estimate is additional to that of Rupees 1,960 submitted with the Note N-334 B of the 20th May last. Subsequently to the preparation of that estimate this Tank breached, owing to the inadequacy of its escape, the necessary lengthening of which has been provided for in the former estimate. The total sanction will now be Rupees 2,170, which is nearly 4 times the average revenue. It will be observed from the observations noted on the estimate, that the work done to this Tank after the storm of 1872 was not efficiently executed. If the instructions which have been issued in Circular N-48 be attended to, Tanks should not fail at the site of old breaches.

Moonjoorput Tank. Estimate Rupees 1,360

By a cut area acres 125
— revenue Rupees 977
Suray do — 907

The outlay on repairs in the last 4 years has been in 1870-71 - Rupees 2,387
in 1873-74 — 2,432

The history of the Tank, as given in the District Engineer's letter, shows how easy it is to waste money on Agricultural repairs, and how much the introduction of an improved system of management was called for. In 1872 an additional escape was provided and probably the tank would then have been rendered safe and efficient had the breaches been closed with sufficient care, and had the state of the bund at the sluice been ascertained, and its defects attended to. The District Engineer should warn his Range officers that serious notice will be taken in future of defective work at tank breaches. The Collector also may with advantage be asked to require the villagers to pay due attention to their Tanks for one or two years after breaches have occurred and been closed. A little care, and the making good of settlements, which to some extent are unavoidable, together with the filling in of cracks would often save a tank, and with failure of this Tank occasioned the breaching of the Thuttiput and Chittary Tanks to which part of its surplus

N-959-3rd July
papers

papers. Estimates for these have been separately submitted for sanction. The District Engineer should take care that the trees, which are so situated on Tank bunds as to be likely to occasion damage should they be overturned, are removed. The sluice plan requires some modifications as noted therein in pen. ar. cil.

Cowlay Large Tank Estimate Rupees 1920
— present area acres 239
— revenue Rupees 1800
— average do do 1468
Expenditure on repairs in the last 4 years Rupees 2197

This tank breached in two places in May last. The drainage, which ordinarily supplies the tank, is from about $1\frac{1}{2}$ square miles, but it receives the surplus of several other tanks, and it has an open channel from the Chear. Its escape is 117 feet in length, of which 54 feet are occupied by upright stones, and the spaces between these were closed at the time of the accident. These stones are to be removed and the crest of the escape raised $1\frac{1}{2}$ feet; and, with the bund $5\frac{1}{2}$ feet above full tank or revised crest level, the tank will

will probably then be safe, as the means of disposing of surplus will be more than doubled. The District Engineer has mentioned that the crest might be raised another 6 inches and, if greater storage capacity be needed, this may be done after the lapse of a year or two, but at present no raising of the former full tank level is advisable, and this should be postponed, at any rate until the earthwork of the breaches has finally settled.

The rate for navel planting will always be higher at tanks than in the beds of rivers, but it may be useful to the District Engineer to know that in Tanjore, under favourable circumstances, this work costs 3 annas for 100 square pias or nearly 3 yards for one pie, so that probably 10 or 12 instead of 4 pies a square yard may in time be found sufficient. It is thought that a top width of the bund 6 feet instead of 9 feet will probably suffice, and that about

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Names of Tanks	Area				Present		Remarks
	Area	Revenue	Revenue	Revenue	Revenue	Revenue	
	acres	Rupies	Rupies	Rupies	Rupies	Rupies	
Boombedu Morocary	54	325	318	303	510	-	Length of escape provided for 7 feet
Agrani	67	421	385	95	430	-	do do 81-
Cori coorini	37	220	214	97	410	-	do do 120-
Kelnamale	85	533	503	373	380	-	do do 132-
Moosanny	157	633	544	47	850	-	Has a surplus weir of 60 feet length - 40 feet effective - Dam stones will be removed and crest lengthened 45 feet
Chennavaram	33	223	215	70	290	-	Has a rough stone escape which is to be lengthened from 15 to 18 yards and repaired
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Mamundoor	45	183	185	43	280	-	do do of 36 - do 84-
Mungalum Large	29	187	181	145	263	-	do do of 48 - do 84-
do Chittary	9	70	67	-	220	-	do do of 36 - do 72-
Matecodungalur	34	234	233	78	400	-	do do of 30 - do 108-
Mambut	33	191	142	-	315	-	do do of 30 - do 60-
Karany	94	377	352	158	560	160	do do of 30 - do 132- and an irrigation sluice

The escapes are described in the estimates as to be constructed with loose stones, by which the overseer who prepared the estimates probably means uncemented stone: the stone should be carefully packed. For some few of the larger of these tanks it may be

be desirable at some future time to provide masonry surplus weirs instead of the simpler escapes, but the great increase of means of surplusing can be included in the planing estimates will be of much advantage, and it can quickly be afforded by these simple works. This is of great importance as apparently all these tanks surplus into the Madhavaram Tank. Rupees 20 have been added to the estimate of the Karany Tank since in account of the alterations noted in the plan as required.

3. The District Engineer also mentions that for certain of these Tanks sluices are required in surplusing of pot-slucies, which are dangerous, and he asks that a plan of estimate for each may be dispensed with. The sluices however cannot be properly built without a plan being drawn out for each according to the exact circumstances of the site, nor can the cost of any sluice be determined without an estimate, and working drawings and estimates are therefore indispensable. Information has not been

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Obtained 3 Wundunlinu Lt Col Rb.
22nd July 1874 Chief Engineer for Irrigation
To The Secretary to Govt P.W.D.

P. W. 1874 Sept.
No: 1846

From

The Chief Engr.
for Irrigation

Dated 22 July 1874
Recd. 3 Aug 1874

E. 23.
+ 2360

Note on the estimates
for repair of tanks in
the Chittoor, Arcot
And Wandewash
Talugs.

G.O. No: 2269. 17-8-74

Public Works Department
Proceedings of the Madras Government
From 2269 Recd. the following
The St Engineer (H. C. No. 959 dated 30 July 1874)
" Chief Engr for Mad (H. C. No. 22 dated 22 July 1874)

The undermentioned
estimates for the repair
or improvement of tanks
in the North Arcot
District are sanctioned

Repairs.

Mustarasa coorpu Tank, in addition to the estimate of Repairs 1960 sanc. tiated in G.O. No. dated	Rs 210
Moonjorput Tank	1360
Corlay large	1920
Broombedu Moorocary	510
Agrium	430
Covilcoorpu	410
Keelusermale	380
Moomaray	850
Chennaveram	290
Salavadu Chittary	465
Keelpattum large	930
Ch Chittary	145

Mamundoor Tank ——— Pipes 280
 Mangalam large ——— 263
 ——— Chittary ——— 220
 Malecodungalur Tank ——— 400.
 Mambut ——— Ch ——— 315
 Karany ——— Ch ——— 560.

Minor new work.

New Irrigation sluice for Karany
 Tank ——— 160

by 25/7/74

G.M.

P

To The Chf. Insp. for H.E.
 — D.E. North West
 — Controller Mr. Acers
 — Res. Dept. ✓
 S. Capis despt. 22/8/74.

330-332

Cw 30/1/74 Rd 31/1/74
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4397
3 July 74

1874: Madras.

IC WORKS.

C. S. S. P. W.
Mijata

Encl. 23

Sup. No. 2269

Nos. 328-332

to for the
present of certain
in the North
District, sanctioned

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