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MADRAS RECORD OFFICE

GOVERNMENT OF MADRAS

Revenue DEPARTMENT

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Dated 27. 10. 1875 196 .

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Read the following paper :—

No. 1,157.

No. 157. *Note by the Chief Engineer for Irrigation.*

No. 2,385, dated 14th September 1875. The following estimates have been submitted by the Superintending Engineer, Chingleput :—

Attooputty Kotapunjy Tank. Repairs	Rupees	1,435
Dry stone escape 152 feet	,,	285
Total ...		1,720
Ayacut area	Acres	173
,, assessment	Rupees	412
Average revenue	,,	311

The only expenditure incurred recently has been for part of the work provided for in this estimate, which has been undertaken to save the revenue. The area of the catchment basin is reported to be 5 square miles, and there are seven tanks above, two of which are Zemindary. For one of these—the Thundalum Tank—an estimate has been received, and for the whole group a sketch map should have been forwarded showing the relative positions of the several tanks and their connection with each other. The necessity for saving revenue and attending therefore first to breached tanks no doubt interferes much with the treatment at one time of entire groups, but at any rate sketch plans should not in future be omitted, together with such information as may be available regarding those members of a group, for which the preparation of estimates may have to be postponed.

The Attooputty Kotapunjy Tank had a masonry edingudah 30 feet long and a dry stone escape of equal length. The former was washed away in 1872; 182 feet* of escape altogether are to be provided. The bund is to be 4½ feet above F. T. L. and the difference between the latter and M. W. L. will be 2 feet.

* 152 feet of dry stone escape additional.

2. Tatalakarnay Large Tank. Repairs ... ... Rupees 915
Dry stone escape ... ... ,, 295
Ayacut area ... ... Acres 397
,, assessment ... ... Rupees 1,481
Average revenue ... ... ,, 612

No expenditure except on emergent work provided for in this estimate has been incurred in recent years.

The catchment basin is a part of that of the Madrantioum Tank, and is reported to be 2 square miles, and this coupled with the average revenue, which indicates that about 160 Acres are irrigated, shows that the ayacut needs to be revised, and much of the land included therein should be transferred permanently to dry. It is useless to expect that the drainage of 2 square miles will effectively irrigate nearly 400 Acres. Surplus has hitherto been discharged by a cut 30 feet wide at the north end of the bund; except that since 1874 further relief has been afforded by cutting down the

bund at the south end to F. T. L. It is now intended to construct a dry stone escape 99 feet long at the north end. The temporary measures proposed, pending the completion of the escape, *viz.*, cutting down the bund and planting tank grass, will not afford the requisite relief, and should be avoided if possible by the early construction of the escape with stone. The surplus runs into the Balasamoodram Tank, but in this batch of estimates there is none for that tank, though it is indicated in the report that the latter is not in a fit state to receive the surplus.

3. Savoor or Sanoor Tank. Repairs ... ... Rupees 360
Sluice ... ... ,, 135
Ayacut area ... ... Acres 87
,, assessment ... ... Rupees 325
Average revenue ... ... ,, 93

The catchment basin is said to measure half a square mile. This is another case in which the ayacut area is inca pable of effective irrigation, and a transference of at least 50 Acres to dry will be the proper arrangement. The tank has no surplus works, and it is proposed to cut down 53 feet of the bund to F. T. L., and to plant the ground thus lowered with tank grass. It seems to be supposed that this space will be as effective as if left perfectly clear, but really the space so planted must be double the length required to dispose of the surplus were there no grass, and this should be attended to. The bund is to be 3 feet above F. T. L. and M. W. L. 1½ feet above that level. A masonry sluice is to be substituted for a pot sluice.

4. Vadapuhum Vanjy Tank. Repairs... ... ... Rupees 455
Sluice... ... ... ,, 135
Ayacut area ... ... Acres 66
,, assessment ... ... Rupees 281
Average revenue ... ... ,, 229

No repairs have been executed in recent years, except that some of the work included in that estimate has been carried out on emergency. The catchment basin is about 1½ square miles, so that the ayacut should be capable of irrigation. It has no surplus work, and it is intended to lower the bund for a length of 93 feet to F. T. L. and to plant the lowered ground with tank grass. The proper length under this arrangement will be 186 feet. The soil is said to be very sandy, the grass may prevent its being cut away, but this is somewhat doubtful; however the experiment may be tried. A masonry sluice is to be built in lieu of a pot sluice.

5. Nelvoypollien Tank. Repairs ... ... Rupees 370
Dry stone escape ... ... ,, 150
Ayacut area ... ... Acres 40
,, assessment ... ... Rupees 168
Average revenue ... ... ,, 157

Rupees 327 were expended on this tank in 1872-73.

The tank breached in 1872 and again in 1874. Its catchment basin is three-quarters of a square mile, and surplus has been discharged over a limited and inadequate length (18 feet) of rocky ground on the east, and while since 1871 a length of bund at the other end has been cut down to F. T. L. and it is proposal to construct a dry stone escape 62½ feet long, which with 15 inches of water passing over will afford the required relief.

Proceedings of the Madras Government, Public Works Department,
11th October 1875.

6. Seroomulloor Tank. Repairs ... ... Rupees 715
Dry stone escape ... ... ,, 135
Ayacut area ... ... Acres 101
,, assessment ... ... Rupees 443
Average revenue ... ... ,, 424

No repairs have been done for many years. The catchment basin is said to be 1½ square miles, and in this area is included the Moothoocaray Tank which irrigates about 40 Acres. Consequently about 137 Acres are the total irrigation from the drainage of 1½ square miles, or over 90 Acres per square mile. It is thought that the area of the basin must have been under-estimated. The tank has a calingulah 31 feet long in fair order, and this is to be supplemented by a dry stone escape 68 feet in length. The tank suffered in 1872 and 1874, but did not breach. The top of the bund is to be 3¾ feet above F. T. L. and M. W. L. is intended to be 2 feet above that level.

7. Moothoocaray Tank. Repairs ... ... Rupees 505
Ayacut area ... ... Acres 45
,, assessment ... ... Rupees 181
Average revenue ... ... ,, 154

Rupees 31 were expended in 1873-74.

The area of the catchment basin is about 1 square mile. It has no surplus work, but a cut 18 feet wide in the bund which is to be closed and surplus is proposed to be discharged by cutting the bund down to F. T. L. for a length of 96 feet, but, as this ground is to be planted, the proper length will be 180 feet. The bund is to be 3½ feet above F. T. L., which will allow a margin of 2 feet above M. W. L.

8. Karoonacarachuny Tank. Repairs ... ... Rupees 350
Ayacut area ... ... Acres 71
,, assessment ... ... Rupees 193
Average revenue ... ... ,, 172

No outlay has been incurred on maintenance except in connection with this estimate.

The catchment basin is put at three-quarters of a square mile, which is somewhat small for the effective irrigation of about 63 Acres. Surplus has been discharged at a cut 9 feet wide, and 96 feet of bund are to be removed to F. T. L., and the ground planted. The length over which surplus is to be discharged will have to be double that intended.

9. Kolamungalum Tank. Repairs ... ... Rupees 296
Ayacut area ... ... Acres 16
,, assessment ... ... Rupees 67
Average revenue ... ... ,, 79

There has been no recent expenditure on the tank.

The area of the catchment basin is entered as a quarter of a square mile, which appears to be small for the actual cultivation of 16 or 19 Acres. Surplus has gone over the ground at one end of the bund, and a length of 79 feet which should be increased to 150 feet will be levelled and planted with grass.

10. Nanampoondy Tank. Repairs... ... ... Rupees 295
Ayacut area ... ... Acres 20
,, assessment ... ... Rupees 75
Average revenue ... ... ,, 70

There has been no recent expenditure except on emergent work included in the present estimate.

The tank was breached in 1874; the catchment basin is three-quarters of a square mile. Surplus has gone over the ground at one end of the bund and this is to be levelled. The length at F. T. L. with tank grass planting should be 150 instead of 75 feet. The bund is to be 3 feet above F. T. L. and M.W.L. will not exceed $1\frac{1}{2}$ feet above that level.

11. Thiroovadoor Small Tank. Repairs ... ... Rupees 545
Ayacut area ... ... Acres 39
,, assessment ... ... Rupees 157
Average revenue ... ... ,, 162

Rupees 92 were expended in 1873-74. Prior to 1873 no outlay had been incurred for many years. The tank breached in 1872 and again in 1874. The catchment basin is 1 square mile. There is no surplus work, and surplus was discharged at a small cut. The ground is to be levelled to F. T. L., and the length should be 180 feet instead of 90 feet, as it is to be protected from erosion by tank grass planting. M.W.L. will be 18 inches and the top of bund 3 feet above F. T. L.

12. Nulloor Large Tank. Repairs ... ... Rupees 975
Dry stone escape ... ... ,, 180
Ayacut area ... ... Acres 133
,, assessment ... ... Rupees 500
Average revenue ... ... ,, 285

There has been no outlay in recent years. The drainage basin is 1 square mile and is occupied principally by wet lands under the Cottramalloor Tank. It seems to be doubtful whether it would not be better to bring the Nulloor tank bed and ayacut under the former tank which has a river supply, and this point should be considered by the Superintending Engineer and if there be *prima facie* grounds for such an arrangement the Collector should be consulted. The tank has no surplus work, but water has been discharged at a cut 30 feet wide. It is intended to provide a dry stone escape 624 feet long and to make M. W. L. 2 feet, and the top of the bund 4 feet above F. T. L.

13. Nakondrum Tank. Repairs ... ... Rupees 1,735
(Revenue) Dry stone escape ... ... ,, 245
Ayacut area ... ... Acres 383
,, assessment ... ... Rupees 1,111
Average revenue ... ... ,, 1,019

No expenditure has been incurred in recent years except upon emergent work included in this estimate.

This tank was damaged in 1873 and breached in 1874. Its catchment basin is 6 square miles and it has a circular [illegible] feet long which is to have the dam stones removed, and it is intended to supplement this by a dry stone escape 96 feet long. This may do as a temporary arrangement, but it is thought that for a tank of this size it will be better to build a solid body wall in rubble masonry, so that water may be conveniently retained to the proper F. T. L. There are five tanks above, three of which are in private hands, and all are reported to be in need of repair, and it is said that they will shortly be attended to. It seems to be doubtful whether the area of the catchment basin has not been under-estimated, for without any tank above to absorb a part of the drainage 57 Acres nearly per square mile would be a high proportion of cultivation to catchment basin. M. W. L. is intended to be $2\frac{1}{4}$, and the top of bund 5 feet above F. T. L.

14. Poloor Tank. Repairs ... ... Rupees 810
(Revenue) Dry stone escape ... ... ,, 80
Ayacut area ... ... Acres 96
,, assessment ... ... Rupees 393
Average revenue ... ... ,, 307

Rupees 350 were expended in 1872-73.

The catchment basin is three-quarters of a square mile, and is situated at the top of that of the Manicoopum Tank. It has a masonry surplus weir 30 feet in length, and that it breached must have been due to the bund being out of repair, for though a larger weir would be desirable all surplus could have been discharged with less than 3 feet going over; 30 feet of dry stone escape are to be given in addition. This would seem to be a case in which complete repairs in 1872-73 would have saved a good deal of money. M. W. L. is to be $1\frac{1}{4}$ feet, and top of bund 4 feet above F. T. L.

15. Poodooput Tank. Repairs ... ... Rupees 885
Dry stone escape ... ... ,, 130
Ayacut area ... ... Acres 82
,, assessment ... ... Rupees 345
Average revenue ... ... ,, 273

Rupees 592 were spent in 1873-74.

In 1872 there were three breaches, and in 1874 the tank breached again, but not so badly as in the former year.

The catchment basin is 2 square miles, and the tank has a masonry surplus weir $36\frac{1}{2}$ feet long. A dry stone escape $62\frac{1}{2}$ feet long is intended to be added. M. W. L. is to be 2 feet, and the top of bund 4 feet above F. T. L. It is reported that for about twenty years prior to 1873 there had been no expenditure on repairs at this tank. In that year also a sluice was built at a cost of Rupees 315.

16. The plan of disposing of surplus from petty tanks by simply levelling a considerable length of ground and then protecting this ground by planting tank grass is one which is well worthy of a trial, and if the obstruction caused by the grass be allowed for, and the space for discharge be made adequate, the reduction of velocity occasioned by the grass will no doubt save the ground from erosion and prevent the formation of channels which would lead to waste of water. On the other hand, it will have to be remembered that the tendency of the grass wherever it may grow luxuriantly and thickly will be to cause a deposit of silt, and therefore gradually to raise the F. T. L. It will be well therefore in all cases in which this method of getting rid of surplus may be introduced to fix a bench mark stone with the proper level of the tank water when full noted thereon, so that disputes may be avoided and the actual level of the water regulated from time to time as may be necessary.

Ordered, (Signed) JOHN MULLINS, Lieut.-Colonel, R.E.,
5th October 1875. *Chief Engineer for Irrigation.*

No. 158. ORDER THEREON, 11th October 1875, No. 2,903.

IRRIGATION, No. 15.
Account.

THE following estimates are sanctioned.

Chingleput District.

		Capital.	Revenue.
		Rs.	Rs.
1.	Attoopatty Kotapatty Tank	285	1,435
2.	Ledakurney Large do.	295	915
3.	Savoor or Sanoor do.	135	360
4.	Vadaputtinum Vanju do.	135	455
5.	Nolvoypolliem do.	130	370
6.	Semmulloor do.	135	715
7.	Moothoocaray do.		605
8.	Karcombaraharay do.		350
9.	Kolumungalum do.		295
10.	Nunnapoondy do.		295
11.	Thiroovaloor Small do.		545
12.	Nulloor Large do.	180	975
13.	Nokoondum do.		2,030
14.	Polaw do.		800
15.	Poodoopet do.	130	885

2. The sanction of the estimate for the Nullcor Large Tank will be considered to be conditional, on its being ascertained that the maintenance of this tank will be preferable to bringing its ayacut under the Ostramalloor Tank.

3. The attention of the Superintending Engineer will be given to the remarks in the foregoing reviews of the estimates, and especially to the concluding paragraph of the note.

(True Extract.)

J. Major-General, R.E.,
Secretary to Government.

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

Fwd. E. C. Shortage.

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Revenue Depts.

Govt. of {1875} Madras.

PUBLIC WORKS.

No 4184

To

THE SUPERINTENDING ENGINEER,

CHINGLEPUT.

&c., &c., &c.

Fort St. George, 11th October 1875.

Read

Ord. —e— 25

Encl.

G. O. 11th October 1875 No. 2405.

OCTOBER.

Nos. 157-158

19 Sept 1876 No 2298 Copy of Memo & Rec'd from Revenue Dept & Rec'd from Govt

278 1876

Report of the work done in the Chingleput Division—The estimates amounting to Rs. 2,500 for the same noticed with remarks.