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# TAMIL NADU ARCHIVES

## GOVERNMENT OF TAMIL NADU

Revenue. DEPARTMENT

| G.O. No. / B.P. No. | 5405 | Press. / Mis. |
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| Dated | 12-9-1877 | 197 . |

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5405
1

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

4th September 1877, No. 293 I.

Irrigation.
Account.

Read the following paper :—

No. 27. No. 141 I.

*Note by the Chief Engineer for Irrigation.*

THE following estimates from the No. 3 or Chingleput Range are forwarded by the Superintending Engineer, Chingleput, with his letter marginally noted :—

No. 754, dated 5th June 1877.

*Kuam Group.*

| Taluq. | Village. | Work. | Amount. |
|---|---|---|---|
| | | | RS. |
| Conjeveram ... ... | Kottavakkam ... ... ... | S. No. 186 V. tank ... | 1,167 |
| Do. ... ... | Pallambakkam ... ... ... | S. ,, 188 V. ,, ... | 465 |
| Do. ... ... | Velattur ... ... ... | S. ,, 191 V. Madura tangal. | 300 |
| Do. ... ... | Ekanapuram ... ... ... | S. No. 195 V. large tank. | 1,035 |
| Do. ... ... | Ettikuttumedu ... ... ... | S. ,, 216 V. tank ... | 575 |
| | | Total ... | 3,542 |

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 REVENUE. Extension and Improvements. | Maintenance and Repairs. | Average Annual Proportion of Charges on Revenue. |
|---|---|---|---|---|---|---|---|---|
| | ACRES. | RS. | RS. | RS. | RS. | RS. | RS. | PER CENT. RS. |
| Kottavakkam tank ... ... | 340 | 951 | 935 | 950 | None. | 202 | 965 | 24·9 |
| Pallambakkam do. ... ... | 106 | 457 | 420 | 530 | Do. | ... | 465 | 22·1 |
| Velattur Madura tangal ... | 39 | 151 | 139 | 183 | Do. | 143 | 157 | 43·1 |
| Ekanapuram large tank... ... | 194 | 623 | 535 | 574 | Do. | ... | 1,035 | 38·7 |
| Ettikuttumedu tank ... ... | 57 | 248 | 151 | 163 | Do. | 290 | 285 | 76·1 |
| Total ... | 736 | 2,430 | 2,180 | 2,400 | ... | 635 | 2,907 | 32·5 |

*II.—Hydraulic Details.*

| Name of Work. | Catchment Basin, Area. | Maximum Supply. | | Length of Escape or Area of Surplus Sluice Vent. | | Average Height of Bund. | | Surplus discharged at M.T.L. per Second. | 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. | NO. |
| Kottavakkam tank .. | 2 | 893 | .. | V. 36·5<br>A. 17·25 | 36·5<br>17·25 | 2·75 | 1·25 | 360·8 | 2 |
| Pallambakkam do. .. | 2·5 | 1,036 | .. | V. 36·5<br>E. 217<br>78 | 253·5<br>78 | 4·50<br>1·50 | 3·00<br>0·00 | 894·3<br>397·0 | 3 |
| Velattur Madura tangal. | 0·5 | 354 | .. | E. 336<br>15 | 336<br>15 | 3·75<br>1·12 | 2·25<br>0·00 | 1036·8<br>76·3 | None. |
| Ekanapuram large tank. | 0·5 | 354 | .. | V. 114<br>24<br>A. 33 | 114<br>24<br>33 | 3·37<br>2·00 | 1·87<br>0·50 | 351·8<br>407·6 | None |
| Ettikuttumedu tank .. | 1·5 | 737 | .. | V. 24<br>I. 66<br>16<br>E. 240 | 90<br>16<br>240 | 4·50<br>2·75<br>3·75 | 3·00<br>1·25<br>2·25 | 351·8<br>81·4<br>740·6 | 2 |

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. A.—Surplus sluice vent area. S.—Revenue Survey.

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

*Kottavakkam Tank.*—This tank is the highest, but two of the Akkamapuram tank sub-group of the Kuam main group receving surplus from the "Maniyachi keel tangal" and itself surplusing into the Pallambakkam tank.

The bund and revetment are in bad order.

The irrigation sluices require repair.

The estimates submitted provide for—

(1). Repairing the bund, repacking the revetment, planting tank grass from the top of the stone revetment (said to be 1 foot below F.T.L.) to M.W.L., and "turfing" above that level and with this is included the cost of forming a grass-planted escape of 217 feet in length.

(2). Repairing three of the irrigation sluices.

(3). Lowering the crest of the existing masonry weir by 1 foot, and blocking up for 2 feet in height, the two vents each 5 feet 9 inches broad by 3 feet high which exist in that work.

(4). Constructing a masonry sluice to take the place of an open cut in the bund.

The estimate for the first (two) of the above-named works is recommended for sanction, reduced however from Rupees 947 to Rupees 662 by taking out the allowance for "turfing."

In the absence of any explanation of the reasons for lowering the crest of the existing calingulah or weir (probably the latter, as no dam stones are mentioned) and for reducing materially the means of disharging surplus by closing two-thirds of the water-way of the sluice vents in it, this part of the estimate cannot be recommended for sanction. The reduction of the crest level and consequently that of the full tank is an important matter which cannot be disposed of without a proper record of the reasons for the alteration.

The plan for the sluice has neither date nor countersignature of the Superintending Engineer. The breadth of the tunnel had better be made 2 feet which can be done at a very slight increase in cost.

The estimate for it is recommended for sanction.



The area of the catchment basin of this tank is given as only 2 square miles, whilst it irrigates 340 acres; it is very evident therefore that it must receive supply from some other source, probably from the Govindavady or Maclean's channel by way of the high-lying tanks; this should have been explained.

*Pallambakkam Tank.*—This tank is the next of the group below the one just noticed, and its surplus passes into the "Velattur tank," for repairs of which an estimate has been sanctioned in G.O. No. 140 I, dated 7th July 1877.

The inner slope of the bund of this tank is much eroded, and holes have formed at the top of the bund.

The surplus is discharged by means of three gaps in the bund.

The irrigation sluice is in good order.

The estimate provides for raising and repairing the bund, closing gaps, planting tank grass from foot of slope up to M.W.L., and turfing above that level, and also for forming an escape planted with grass.

The estimate is recommended for sanction, but reduced from Rupees 465 to Rupees 340 by the removal of the provision for turfing.

*Velattur Madura Tangal.*—This tank lies a little to the north of the one last noticed, and like it sends its surplus into the Velattur tank.

The bund is in bad order; there is no provision for surplusing beyond an opening of 15 feet in the bank, and the three pot sluices are beyond repair.

The estimates provide for—

1*st.*—Raising and repairing the bund, closing the gap in it, planting tank grass from toe of inner slope to M.W.L., and turfing above that level, and for forming an escape planted with grass.

2*nd.*—Constructing a masonry irrigation sluice in lieu of the pot sluices.

The estimates are recommended for sanction.

In this case also the plan for the sluice is not dated, and bears nothing to show that it has been seen, or is recommended by the Superintending Engineer.

*Ekanapuram Large Tank.*—This tank is supplied by the Kambakal channel through a head sluice.

The bund is low, and the revetment is half a foot below F.T.L., and the two irrigation sluices are in need of repair, as is also the weir.

The estimate provides for—

1*st.*—Raising and repairing the bund planting tank grass above revetment up to M.W.L., and turf above that level, and also forming an escape 66 feet long planted with grass.

2*nd.*—Repairing the two irrigation sluices.

3*rd.*—Repairing the weir and closing its vents.

The estimate is recommended for sanction.

*Ettikuttumedu Tank.*—This tank lies just to the south of the Kuam tank into which its surplus passes. Its bund is low, and the two irrigation sluices are in very bad condition and beyond repair. The surplus is discharged through a gap 16 feet in length in the bund.

The estimate provides for—

1*st.*—Raising and repairing the bund, closing gap, planting tank grass up to M.W.L., and turfing above that level, and for forming a planted escape.

2*nd.*—Reconstructing two irrigation sluices.

The estimates are recommended for sanction.

The remarks already made in these notes about the plans for irrigation sluices are applicable also to the plans sent for the two sluices for this tank. The Superintending Engineer should invariably countersign plans and estimates forwarded by him for sanction.

Colonel Moberly's attention should be specially given to the entry of 3 Pies a cubic yard for the watering and tamping of earthwork. The value of well-consolidated work is considerable, but it ought not to cost nearly as much as the provision made for it.

The Superintending Engineer states in his letter of 5th instant that he has desired the earthwork of these estimates to be put in hand in anticipation of sanction "to afford employment to the villagers."

FORT ST. GEORGE,
24th August 1877.

(Signed) G. T. WALCH,
Ag. Dy. Chief Engr, for Irrigation,
*for* Chief Engineer for Irrigation.

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

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No. 28. ORDER THEREON, 4th September 1877, No. 293 I.

THE following estimates for Irrigation works in the No. 3 or Chingleput Range, Chingleput District, forwarded by the Chief Engineer for Irrigation with his memorandum marginally noted, are sanctioned :—

No. 141 I, dated 24th August 1877.

*Irrigation.*

| | Name of Tank. | Provision of Estimate. | Fund, Revenue. | Amount. | | Irrigation Register Number. |
|---|---|---|---|---|---|---|
| | | | | RS. | | |
| | KUAM TANK GROUP. | | | | | |
| Palar Ancient System. Kambakal Channel. N. Tanks and Reservoirs. | Govindvady or Maclean's Channel. N. Tanks and Reservoirs. Kottavakkam tank. | Repairing bund and three sluices, also forming escape. | Maintenance and Repairs .. | 662 | 1 | 136 I. |
| | | Sluice .. .. | Extensions and Improvements. | 202 | 2 | |
| | Pallambakkam tank .. | Repairing bund and forming escape. | Maintenance and Repairs .. | 340 | | 137 I. |
| | Velattur Madura tangal. | Repairing bund and forming escape. | Do. .. | 157 | 1 | 138 I. |
| | | Sluice .. .. | Extensions and Improvements. | 143 | 2 | |
| | Ekanapuram large tank. | Repairing bund and forming escape. | Maintenance and Repairs .. | 892 | 1 | 139 I. |
| | | Repairing two sluices .. | Do. .. | 47 | 2 | |
| | | Repairing the weir .. | Do. .. | 96 | 3 | |
| | Ettikuttumedu tank | Repairing bund and forming escape. | Maintenance and Repairs .. | 285 | 1 | 140 I. |
| | | Reconstructing two sluices | Do. .. | 290 | 2 | |

2. These sanctions are registered as shown above.

(True Extract.)

Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

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

Exd. A. Grubert.

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No 3967

5405

IRRIGATION.
ACCOUNT.

# Govt. of {1877} Madras.

PUBLIC WORKS.

To

The SUPERINTENDING ENGINEER,
CHINGLEPUT,
&c., &c., &c.

Dated September 4th.

Issued.

Rec.d 11 September Encl.

G. O., 4th September 1877, No. 293 I.

SEPTEMBER.

Nos. 27-28.

Tanks, Chingleput District.—Sanctions estimates for repairs to certain—

Rs 5405

Comm.r for the Board of Revenue

7 Sept.

(G. O. 4th September 13-9-77)