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(2) Date of repair \_\_\_\_\_

(3) Initials of the Referencer \_\_\_\_\_

# MADRAS RECORD OFFICE

## Government of Madras

*Public Works*

DEPARTMENT

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

2257

Press  
Mis.*Original*

Dated

25-8-1876  
195

Not to be folded or roughly handled

19

*Proceedings of the Madras Government, Public Works Department,  
25th August 1876. No. 2,257.*

Read the following:—

No. 149-W.

No. 588. *Note by the Chief Engineer for Irrigation.*

THE following estimates from the Chittoor and Poloor Ranges are forwarded by the Officiating District Engineer, North Arcot, with his letter marginally noted:—  
No. 507, dated 11th May 1876.

| Talug.    | Village.          | Work.   | Amount. |
|-----------|-------------------|---------|---------|
|           |                   |         | RS.     |
| Chittoor  | Mahimundalum      | V. Tank | 2,700   |
| Do.       | Gengatharanelloor | V. Tank | 2,680   |
| Wandiwash | Agaracooracotah   | V. Tank | 780     |
| Do.       | Cadagamboondy     | V. Tank | 550     |

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

*I.—Financial Details.*

| Name of Work.         | Ayaat Area. | Assessment | Average Revenue for 5 Years. | Highest Revenue for 5 Years. | OUTLAY.                      |           |          |                                                  |
|-----------------------|-------------|------------|------------------------------|------------------------------|------------------------------|-----------|----------|--------------------------------------------------|
|                       |             |            |                              |                              | During the previous 4 years. | PROPOSED. |          |                                                  |
|                       |             |            |                              |                              |                              | Capital.  | Revenue. | Average Annual Proportion of Charges to Revenue. |
|                       | ACRES.      | RS.        | RS.                          | RS.                          | RS.                          | RS.       | RS.      | RS.                                              |
| Mahimundalum Tank     | 151         | 1,265      | 1,275                        | Not stated.                  | ...                          | 910       | 1,790    | 42.3                                             |
| Gengatharanelloor do. | 122         | 1,081      | 1,081                        | ...                          | ...                          | 1,110     | 1,570    | 49.5                                             |
| Agaracooracotah do.   | 25          | 199        | 193                          | ...                          | ...                          | 130       | 600      | 76.0                                             |
| Cadagamboondy do.     | 25          | 212        | 199                          | ...                          | ...                          | 120       | 430      | 65.2                                             |
| Total                 | 323         | 2,757      | 2,747                        | ...                          | ...                          | 2,270     | 4,390    | 48.4                                             |

*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 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.          |
| Mahimundalum Tank      | 2.5                   | 1,036                 | ...                  | W 109               | 55         | Not Stated.             | ...          | 491.5                                    | 6            |
| Gengatharanelloor Tank | 8                     | 1,170                 | ...                  | C 82                | 72         | 2.61                    | 0.51         | 1,035.8                                  | 3            |
| Agaracooracotah do.    | 5                     | 854                   | ...                  | W 122               | 122        | 4.50                    | 2.50         | 432.1                                    | Nil.         |
| Cadagamboondy do.      | 375                   | 293                   | ...                  | E 25                | 25         | 2.23                    | 0.23         | 158.3                                    | ...          |
|                        |                       |                       |                      | E 45                | 45         | 4.50                    | 2.50         | 360                                      |              |
|                        |                       |                       |                      | E 25                | 25         | 0.93                    | 0.00         | 158.3                                    |              |
|                        |                       |                       |                      | E 38                | 38         | 4.50                    | 2.50         | 288                                      |              |

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 flush 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:—

*Mahimundalum Tank.*—Repacking the revetment of the bund with old and new stones, repairing the northern sluice, south end calingulah, and converting the latter into a weir, constructing an irrigation sluice, reconstructing and extending the northern calingulah and converting it into a weir, and reconstructing a dam across the surplus channel.

*Gengatharanelloor Tank.*—Raising and repairing the bund, rebuilding the revetment with old and partly new stones, rebuilding the west end calingulah and converting it into a weir, rebuilding and extending the east end calingulah and converting it into a weir, and reconstructing two high level sluices.

*Agaracoracotah Tank.*—Raising and repairing the bund and constructing a dry stone escape. There is apparently nothing in the circumstances of this petty tank to render such a large estimate necessary. About half the earthwork can very well be done for 1 Anna a cubic yard and the rest for 1½ Annas. The stepping amounts in quantity to more than half the earthwork which is quite unnecessary, and a little grass planting where necessary should be substituted for general turfing. The estimate has been reduced to Rupees 730 as shown.

*Cadagamboondy Tank.*—Raising and repairing the bund, closing the breach and constructing a dry stone escape. The same remarks apply to this estimate which has been reduced to Rupees 550 as shown.

4. The tunnel of the new irrigation sluice for the Mahimundalum tank is unnecessarily long. The face wall may be built at the point where the line of F.T.L. intersects the slope of the bund. The top wall at the outlet end of the tunnel can be lowered, if the rear slope of the earth is properly sectioned.

The condom or weir across the surplus channel might, it is considered, with advantage be superseded by an under tunnel which would be less costly in the first instance, and less expensive to maintain. If circular wells carried up above flood level at either end be provided, under tunnels are an inexpensive means of passing irrigation water across surplus channels.

The remark in reference to the Mahimundalum tank sluice applies to those designed for the Gengatharanelloor tank. The bund should be cut down to a reasonable section and, if necessary, a channel of approach to the sluice vent should be made.

The remaining estimates require no special remark.

It should be observed that where works have been here estimated for as for reconstruction there is no specific deduction for the value of old materials. It should be ascertained that credit has been given in such cases either by reduced rates or in some shape or other.

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.                      |
| Mahimundalum Tank      | Repairing revetment sluice and calingulah | ...                         | 1,210    | 2,700                    |
|                        | Irrigation sluice                         | 400                         | ...      |                          |
|                        | Weir                                      | 510                         | ...      |                          |
|                        | Condam or weir                            | ...                         | 580      |                          |
| Gengatharanelloor Tank | Repairing bund and revetment              | ...                         | 890      | 2,680                    |
|                        | Rebuilding the west weir                  | 540                         | ...      |                          |
|                        | East weir                                 | 570                         | ...      |                          |
|                        | Repairing sluices                         | ...                         | 680      |                          |
| Agaracoracotah do.     | Do. the bund                              | ...                         | 600      | 730                      |
|                        | Escape                                    | 130                         | ...      |                          |
| Cadagamboondy do.      | Repairing the bund                        | ...                         | 430      | 550                      |
|                        | Dry stone escape                          | 120                         | ...      |                          |

OOTACAMUND,  
19th August 1876.

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

To the Secretary to Government, Public Works Department.

No. 589. ORDER THEREON, 25th August 1876, No. 2,257.

|                     |
|---------------------|
| IRRIGATION, No. 62. |
| Account.            |

No. 149-W., dated 19th August 1876.

THE following estimates for Irrigation works in the Chittoor and Poloor Ranges, 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.     |                         |
| Mahimundalum Tank      | Repairing revetment sluice and calingulah | Repairs                     | 1,210   | 1                       |
|                        | Irrigation sluice                         | Original Works              | 400     | 2                       |
|                        | Weir                                      | Do.                         | 510     | 3                       |
|                        | Condam or weir                            | Repairs                     | 580     | 4                       |
| Gengatharanelloor Tank | Repairing bund and revetment              | Do.                         | 890     | 1                       |
|                        | Rebuilding the west weir                  | Original Works              | 540     | 2                       |
|                        | East weir                                 | Do.                         | 570     | 3                       |
|                        | Repairing sluices                         | Repairs                     | 680     | 4                       |
| Agaracoracotah do.     | Repairing the bund                        | Do.                         | 600     | 1                       |
|                        | Escape                                    | Original Works              | 130     | 2                       |
| Cadagamboondy do.      | Repairing the bund                        | Repairs                     | 430     | 1                       |
|                        | Dry stone escape                          | Original Works              | 120     | 2                       |

Proceedings of the Madras Government, Public Works Department,  
25th August 1876. No. 2,257.

2. These sanctions are registered as shown above.

(True Extract.)

(Signed) G. W. WALKER, Major-General, R.E.,  
Secretary to Government.

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

E. C. Form No. 1.

OFFICE OF CHIEF ENGINEER FOR IRRIGATION,

N<sup>o</sup> 149-W. Ootacamund 19<sup>th</sup> August 1876.

Note by the Chief Engineer for Irrigation.

No. 567

Date 11<sup>th</sup> May 1876.

Encls 25.

The following Estimates from the Chittoor & Polavaram Ranges are forwarded by the Officiating District Engineer North Arcot with his letter marginally noted:—

| Talug.    | Village.          | Work.   | Amount.<br>Rs. |
|-----------|-------------------|---------|----------------|
| Chittoor  | Mahimundalur      | V. Tank | 2700           |
| do.       | Gingatharanelloor | V. Tank | 2680           |
| Wandurach | Agaracoraustah    | V. Tank | 750            |
| do.       | Ladagamboondy     | V. Tank | 550            |

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.<br>Acres | Assessment.<br>Rs. | Average Revenue<br>for 5 years.<br>Rs. | Highest Revenue<br>for 5 years.<br>Rs. | During the<br>previous 4<br>years.<br>Rs. | OUTLAY.         |                      |                                                                     |
|-------------------|-----------------------|--------------------|----------------------------------------|----------------------------------------|-------------------------------------------|-----------------|----------------------|---------------------------------------------------------------------|
|                   |                       |                    |                                        |                                        |                                           | Proposed.       |                      |                                                                     |
|                   |                       |                    |                                        |                                        |                                           | Capital.<br>Rs. | Reve-<br>nue.<br>Rs. | Average<br>annual<br>proportion<br>of Charges<br>to Revenue.<br>Rs. |
| Mahimundalur      | 157                   | 1265               | 1275                                   | Not stated                             | Not stated                                | 910             | 1790                 | 42.3                                                                |
| Gingatharanelloor | 122                   | 1081               | 1081                                   |                                        |                                           | 1110            | 1570                 | 49.5                                                                |
| Agaracoraustah    | 25                    | 199                | 192                                    |                                        |                                           | 450             | 600                  | 76.0                                                                |
| Ladagamboondy     | 25                    | 212                | 199                                    |                                        |                                           | 120             | 430                  | 55.2                                                                |
| Total             | 329                   | 2757               | 2747                                   |                                        |                                           | 2270            | 4390                 | 48.4                                                                |

## 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.                                  | No.          |
| Mahimundalam Tank 85 | 1136                  | .                     | K 72                 | 55                | 15.5       | 15.5                    | 49.5           |                                         | 5            |
| Gengatharanelloor 11 | 1170                  | .                     | K 92                 | 72                | 2.51       | 0.51                    | 45.1           |                                         | 3            |
| Agarasarakal 11      | 57                    | 554                   | .                    | E 25              | 25         | 2.23                    | 0.23           | 1583                                    | Nil          |
| Badagamboor 11       | 375                   | 193                   | .                    | E 25              | 25         | 0.95                    | 0.10           | 1583                                    | .            |

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.—Kalingulak with dam stones. W.—Weir with flush 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—:

Mahimundalam Tank. Repacking the revetment of the bund with old and new stones repairing the northern sluice, south end Kalingulak and converting the latter into a weir, constructing an irrigation sluice, reconstructing & extending the northern Kalingulak and converting it into a weir and reconstructing a dam across the surplus channel.

Gengatharanelloor Tank. Raising & repairing the bund rebuilding the revetment with old and partly new stones & extending the west

95 2  
west end Kalingulak and converting it into a weir, rebuilding and extending the west end Kalingulak and converting it into a weir and reconstructing two high level sluices. Agarasarakal Tank. Raising & repairing the bund and constructing a dry stone escape. There is apparently nothing in the circumstances of this petty tank to render such a large estimate necessary. About half the earthwork can very well be done for 1 anna a cubit yard and the rest for 1 1/2 annas. The stepping amount is gradually to more than half the earthwork which is quite unnecessary and a little groves planting where necessary should be substituted for general turfing. The estimate has been reduced to Rupees 70 as shown. Badagamboor Tank. Raising & repairing the bund closing the breach & constructing a dry stone escape. The same remarks apply to this estimate which has been reduced to Rupees 55 as shown. The tunnel of the new irrigation sluice for the Mahimundalam tank is unnecessary. The face wall may be built fairly long. The line of F.T.L. intersects at the point where the line of F.T.L. intersects the slope of the bund. The stop wall at the outlet end of the tunnel can be lowered if the

10.10.1911

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.                                         |                   | Total for each Tank, &c. |
|-------------------------|----------------------------------------|-----------------------------------------------|-------------------|--------------------------|
|                         |                                        | Capital-Ordinary.                             | Ordinary Revenue. |                          |
|                         |                                        | Extension and Improvements Original Estimate. | Repairs.          |                          |
| Mahamundalam Tank.      | Repairing revetment sluice & Mahagulab |                                               | 1210              | 2700                     |
|                         | Irrigation sluice                      | 400                                           |                   |                          |
|                         | Weir                                   | 510                                           |                   |                          |
|                         | Contam or weir                         |                                               | 580               |                          |
| Kengathuramulloor Tank. | Repairing band and revetment           |                                               | 890               | 2680                     |
|                         | Rebuilding the west weir               | 540                                           |                   |                          |
|                         | East weir                              | 570                                           |                   |                          |
|                         | Repairing sluice                       |                                               | 680               |                          |
| Agaracottah Tank.       | Repairing the band                     |                                               | 600               | 730                      |
|                         | Escape                                 | 130                                           |                   |                          |
|                         | Repairing the band                     |                                               | 430               |                          |
| Calagambondy Tank.      | Repairing the band                     |                                               |                   | 550                      |
|                         | Dry stone escape                       | 120                                           |                   |                          |

*Asst. Secy.*

Major R.E.

Deputy Chief Engineer for Town  
for Chief Eng<sup>r</sup> for Irrigation

To The Secretary to Government  
Public Works Department

*M.B.*

The rear slope of the earth is properly sectioned.

The Contam or weir across the surplus channel might it is considered with advantage be superseded by an under tunnel which would be less costly in the first instance and less expensive to maintain. If circular wells carried up above flood level at either end be provided, undertunnels are an inexpensive means of passing irrigation water across surplus channels.

The remarks in reference to the Mahamundalam tank sluice applies to those designed for the Kengathuramulloor Tank. The band should be cut down to a reasonable section and if necessary a channel of approach to the sluice vent should be made.

The remaining estimates require no special remark.

It should be observed that where works have been estimated for as for reconstruction there is no specific deduction for the value of old materials. It should be ascertained that credit has been given in such cases either by reduced rates or in some shape or other.

*E.H.*

F...  
 1876/1877 -  
 12 13  
 From  
 The Chief Engineer for Irrig.  
 To  
 The Secretary to Govt.  
 P. W. D.

Dated 19 August 1876

Encls 25  
 No. 149 - W.

Tank Repairs - North West  
 District - Note forwarding for  
 sanction. Estimates for certain

No. 588 -

E. I. Form No. 3.

No 2257 725 Aug 76 113

THE following Estimates for Irrigation  
 Works in the Chittoor & Polos Ranges  
 North West District, forwarded by  
 the Chief Engineer for Irrigation with his  
 Memorandum marginally noted are sanctioned.

No. 149 - W. dated 19<sup>th</sup> Aug 1876.

Irrigation.

| Name of Tank.            | Provision of Estimate.                  | Fund.<br>Ordinary<br>Agricultural | Amount | Irrigation<br>Register<br>No. |
|--------------------------|-----------------------------------------|-----------------------------------|--------|-------------------------------|
| Mahimundalam<br>Tank.    | Repairing revetment<br>sluice Mahugalah | Repairs                           | 1210   | 1312 } 1                      |
|                          | Irrigation sluice                       | Original works                    | 400    |                               |
|                          | Weir - - - - -                          | - - - - -                         | 510    |                               |
|                          | Condam or weir                          | Repairs - -                       | 580    |                               |
| Bengatharanallam<br>Tank | Repairing bund<br>& revetment -         | - - - - -                         | 890    | 1312 } 1                      |
|                          | Rebuilding the<br>west weir - -         | Original works                    | 540    |                               |
|                          | East weir - - -                         | - - - - -                         | 570    |                               |
|                          | Repairing sluices                       | Repairs                           | 680    |                               |
| Agaravacottah<br>Tank    | Repairing the bund                      | - - - - -                         | 600    | 1312 } 1                      |
|                          | Escape - - - - -                        | Original Works                    | 130    |                               |
| Cadagamboundy<br>Tank    | Repairing the bund                      | Repairs                           | 430    | 1312 } 1                      |
|                          | Long stone escape                       | Original works                    | 120    |                               |

These sanctions are registered  
 as shown above.

Aided

*6213*  
Govt. of 1876 Madras.  
PUBLIC WORKS.

To

*the Commissioner*

Date

Issued

Recd

Encl

G. O. 25 Sept 76, No.

*1257*

Nos. 588-589

Janks. Intt. West

D:- Estimates for  
the repair of certain

— canal

*S. E. R. S. S.*

*Collector*

*C. E. for South 25 Encl*

*in S. S. S.*

*Recd Sept*

*15/9/76*