

(1) Number of pages 12

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

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

## MADRAS RECORD OFFICE.

Government of Madras.

*Public Works* DEPARTMENT.

|                                          |               |
|------------------------------------------|---------------|
| G.O. No. <u>171</u> (1)                  | Press<br>Mis. |
| Dated <u>19</u> / <u>1</u> / <u>1877</u> |               |

Not to be folded or roughly handled

151

*Proceedings of the Madras Government, Public Works Department,  
19th January 1877. No. 171.*

Read the following:—

No. 41 W.

No. 333. *Note by the Chief Engineer for Irrigation.*

The following estimates from the Pareacolum Sub-division are forwarded by the District Engineer, Madura, with his letter marginally noted:—

*Tanks affecting Line of Railway.*

| Talug.                | Village.        | Work.                     | Amount. |
|-----------------------|-----------------|---------------------------|---------|
| Anapapukolum Series.. | Tirumungalum .. | Coothirasnikolum..        | Rs.     |
| Do.                   | Do.             | Orappanocr ..             | 355     |
| Do.                   | Do.             | Papaukolum Tank ..        | 565     |
| Thoyanasary Series .. | Do.             | Punnakolum Tank ..        | 1,060   |
|                       |                 | Vaingadasamoodrum Tank .. | 2,146   |
|                       |                 | Total ..                  | 4,125   |

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 5 years. | Highest Revenue for 5 years. | OUTLAY.                      |                                             |          |                                               |
|---------------------------|--------------|-------------|------------------------------|------------------------------|------------------------------|---------------------------------------------|----------|-----------------------------------------------|
|                           |              |             |                              |                              | During the previous 4 years. | PROPOSED ORDINARY AGRICULTURAL, IRRIGATION. |          |                                               |
|                           |              |             |                              |                              |                              | Original Works.                             | Repairs. | Average annual portion of charges to Revenue. |
|                           | ACRES.       | RS.         | RS.                          | RS.                          | RS.                          | RS.                                         | RS.      | RS.                                           |
| Coothirasnikolum Tank ..  | 63           | 133         | 56                           | 104                          | ..                           | 205                                         | 150      | Per cent.                                     |
| Papaukolum Tank ..        | 33           | 140         | 92                           | 132                          | ..                           | 235                                         | 230      | 126.7                                         |
| Punnakolum Tank ..        | 140          | 634         | 498                          | 621                          | ..                           | 340                                         | 720      | 122.8                                         |
| Vaingadasamoodrum Tank .. | 321          | 1,939       | 1,794                        | 1,975                        | ..                           | 385                                         | 1,760    | 42.5                                          |
| Total ..                  | 557          | 2,846       | 2,440                        | 2,332                        | ..                           | 1,215                                       | 2,910    | 23.9                                          |
|                           |              |             |                              |                              |                              |                                             |          | 33.8                                          |

*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. |                                         |              |
| Coothirasaniakolum Tank .. | SQ. M.<br>3           | C. FT.<br>936         | C. FT.<br>..         | FT.<br>Nil.       | FT.<br>Nil. | FT.<br>1.59             | FT.<br>0.09  | C. FT.<br>0.0                           | No.<br>2     |
| Papaukolum Tank .. ..      | 2.5                   | 828                   | ..                   | E 102<br>W 50     | } 152       | 3.0                     | 1.5          | 827.8                                   |              |
| Punnakolum Tank .. ..      | 2                     | 711                   | ..                   | Nil.<br>W 134     |             | 1.61                    | 0.11         | 0.0                                     | 1            |
| Vaingadasamoodrum Tank ..  | 4                     | 1,417                 | ..                   | E 42<br>W 75      | 42          | 2.62                    | 0.52         | 827.0                                   |              |
|                            |                       |                       |                      | C { 39<br>30 }    | 53          | 4.5                     | 2.5          | 329.1                                   |              |
|                            |                       |                       |                      | C 53<br>W 54      | } 107       | 3.61                    | 1.11         | 666.8                                   |              |
|                            |                       |                       |                      |                   |             | 4.5                     | 2.0          | 1384.0                                  |              |

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.

Proceedings of the Madras Government, Public Works Department,  
19th January 1877. No. 171.

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

*Coothirasaniakolum Tank.*—This tank has no escape, but the surplus is discharged through cuts made in the bund at the north and west ends, the bund also is low and weak. The estimate provides for raising and strengthening the bund and for constructing a dry stone escape and a weir.

*Papaukolum Tank.*—The bund of this tank is low, irregular and weak, and it has no escape, the surplus being discharged through cuts made in the bund at the east end. The estimate provides for raising and strengthening the bund and for constructing a masonry weir.

*Punnakolum Tank.*—The bund of this tank requires raising in many places; the surplus at present is discharged through a natural escape. The estimate provides for raising and repairing the bund, closing the natural escape, and constructing a masonry weir.

*Vaingadasamoodrum Tank.*—The bund of this tank also is low and weak, and the surplus works being insufficient, it is proposed to construct an additional surplus weir. The estimate provides for constructing a masonry weir, raising and strengthening the bund, repairing two calingulabs and three Irrigation sluices.

4. The drainage of the afore-mentioned tanks traverses the line of the South Indian Railway.

The slopes allowed for the new earthwork of these tanks first mentioned above are 1 to 1, and no provision is made for revetment, turfing or gravelling as a protection. Under such circumstances slopes of 1½ to 1 inside and 2 to 1 outside the tanks are the steepest which should be allowed. Even these are too soon degraded by rain. The working sections will therefore require revision.

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, IRRIGATION. |          | Total for each Tank, &c. |
|----------------------------|---------------------------------------------------------------------------|------------------------------------------|----------|--------------------------|
|                            |                                                                           | Original Works.                          | Repairs. |                          |
| Coothirasaniakolum Tank .. | Raising and repairing the bund .. .. .                                    | Rs. 110                                  | Rs. 150  | Rs. 355                  |
|                            | Constructing a dry stone .. .. .                                          | 95                                       | ..       |                          |
|                            | Constructing a dry stone weir .. .. .                                     | 285                                      | ..       |                          |
| Papaukolum Tank ..         | Raising and repairing the bund .. .. .                                    | 285                                      | ..       | 565                      |
| Punnakolum Tank ..         | Constructing a masonry weir .. .. .                                       | ..                                       | 280      | 1,060                    |
|                            | Raising and repairing the bund and closing the natural escape .. .. .     | ..                                       | 720      |                          |
|                            | Constructing a masonry weir .. .. .                                       | 340                                      | ..       |                          |
| Vaingadasamoodrum Tank.    | Raising and repairing the bund, repairing calingulabs and sluices .. .. . | ..                                       | 1,760    | 2,145                    |
|                            | Constructing a masonry weir .. .. .                                       | 385                                      | ..       |                          |
|                            | .. .. .                                                                   | ..                                       | ..       |                          |

FORT ST. GEORGE,  
13th January 1877.

(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.

Proceedings of the Madras Government, Public Works Department,  
19th January 1877. No. 171.

No. 334.

ORDER THEREON, 19th January 1877, No. 171.

IRRIGATION, No. 42-D.

Account.

No. 41 W, dated 13th January 1877.

THE following estimates for Irrigation works in the Pareacolum Sub-division, Madura District, forwarded by the Chief Engineer for Irrigation with his memorandum marginally noted are sanctioned :—

| Name of Work.              | Item of Estimate.                                 | FUND.                              | Amount. | Irrigation Registry No. |
|----------------------------|---------------------------------------------------|------------------------------------|---------|-------------------------|
|                            |                                                   | Ordinary Agricultural, Irrigation. |         |                         |
| Coothirasaniakolum Tank .. | Repairing bund .. .. .                            | Repairs .. .. .                    | Rs. 150 | 1 } 277 I.              |
|                            | Escape .. .. .                                    | Original Works .. .. .             | 110     |                         |
|                            | Weir .. .. .                                      | Do. .. .. .                        | 95      |                         |
| Papaukolum Tank ..         | Repairing bund .. .. .                            | Repairs .. .. .                    | 280     | 1 } 278 I.              |
|                            | Weir .. .. .                                      | Original Works .. .. .             | 285     |                         |
|                            | .. .. .                                           | .. .. .                            | ..      |                         |
| Punnakolum Tank ..         | Repairing bund and closing natural escape .. .. . | Repairs .. .. .                    | 720     | 1 } 279 I.              |
|                            | Weir .. .. .                                      | Original Works .. .. .             | 340     |                         |
|                            | .. .. .                                           | .. .. .                            | ..      |                         |
| Vaingadasamoodrum Tank.    | Repairing bund, calingulabs, and sluices .. .. .  | Repairs .. .. .                    | 1,760   | 1 } 280 I.              |
|                            | Weir .. .. .                                      | Original Works .. .. .             | 385     |                         |
|                            | .. .. .                                           | .. .. .                            | ..      |                         |

2. These sanctions are registered as shown above.

(True Extract.)

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

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

Exd. E. C. Shunker.

Spare Copies

Fort. St. George. 13<sup>th</sup> January 1877.

No. 41. Th.

Note by the Chief Engineer for Irrigation.

No. 3156

Dated 23<sup>rd</sup> Nov 1876.

Enclos 23.

The following Estimates from the *Pariaacolum* <sup>Subdiv.</sup> Range are forwarded

by the *District* Engineer *Madura* with his letter

marginally noted:

*Tanks affecting lines of Railway*

| Taluq. | Village. | Work. | Amount. |
|--------|----------|-------|---------|
|        |          |       | Rs.     |

*Anapapancolum Series*

*Tirumangalam - Lotherasankulam - V. Tank* 355

— do — *Orappanoot - Papankolum Tank* 565

— do — *Orappanoot - Pumaecolum Tank* 1060.

*Thozanacary Series*

— do — *Tirumangalam - Vainigadasamoodrum Tank* 2145.

*Total Rupees. 4125*

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 5 years. | Highest Revenue for 5 years. | During the previous 5 years. | OUTLAY.                           |          |                                               |
|--------------------------------|--------------|-------------|------------------------------|------------------------------|------------------------------|-----------------------------------|----------|-----------------------------------------------|
|                                |              |             |                              |                              |                              | Ordinary agricultural irrigation. | Repairs. | Average annual outlay for charges of Revenue. |
|                                | Acres.       | Rs.         | Rs.                          | Rs.                          | Rs.                          | Rs.                               | Rs.      | Rs.                                           |
| <i>Lotherasankulam Tank</i>    | 63           | 135         | 56                           | 104                          | Nil                          | 305                               | 150      | 126.7                                         |
| <i>Papankolum Tank</i>         | 33           | 140         | 92                           | 132                          | "                            | 285                               | 280      | 122.8                                         |
| <i>Pumaecolum Tank</i>         | 160          | 634         | 498                          | 628                          | "                            | 340                               | 20       | 42.5                                          |
| <i>Vainigadasamoodrum Tank</i> | 326          | 1939        | 1794                         | 1975                         | "                            | 385                               | 1760     | 23.9                                          |
| <i>Total</i>                   | 557          | 2866        | 2440                         | 2832                         | "                            | 1215                              | 2910     | 33.8                                          |

## 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.          |
| Footthirasaniholum Tank 3 | 936                   | "                     | Nil                  | Nil               | 159        | 0.09                    | 1.0            | 2.                                      |              |
| Papankolum Tank 2.5       | 828                   | "                     | Nil                  | Nil               | 161        | 0.11                    | 1.0            | 1                                       |              |
| Punnacolum Tank 2         | 711                   | "                     | 5.42                 | 42                | 252        | 0.52                    | 129.1          | 1                                       |              |
| Vaingadasamoodrum Tank 2  | 147                   | "                     | 1.33                 | 53                | 161        | 1.11                    | 166.5          | —                                       |              |

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.—Kalingulah 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—:

Footthirasaniholum Tank—This tank has no escape, but the surplus is discharged through cuts made in the bund at the North and West ends, the bund also is low and weak. The estimate provides for raising and strengthening the bund and for constructing a dry stone escape and a weir.

Papankolum Tank—The bund of this tank is low, irregular and weak and it has no escape, the surplus being discharged

Note for Bunds—Red entries in this note are to be printed in Clarence type. & note in para 2 altered to Bund—

through cuts made in the bund at the East end. The estimate provides for raising and strengthening the bund and for constructing a masonry weir.

Punnacolum Tank—The bund of this Tank requires raising in many places, the surplus, at present, is discharged through a natural escape. The estimate provides for raising and repairing the bund, closing the natural escape and constructing a masonry weir.

Vaingadasamoodrum Tank—The bund of this tank also is low and weak and the surplus, works being insufficient, it is proposed to construct an additional surplus weir. The estimate provides for constructing a masonry weir, raising and strengthening the bund, repairing two Kalingulahs and three irrigation sluices.

4. The drainage of the aforementioned tanks traverses the line of the South

of

# of India Railway.

The slopes allowed for the next earthwork of these tanks first mentioned above, are one to one and no provision is made for pavement, turfy or gravelly as a protection. Under such circumstances slopes of  $1\frac{1}{2}$  to 1 inside & 2 to 1 outside the tanks are the steepest which should be allowed. Even these are too soon deepened by rain. The working sections will therefore require revision.

The following statement shows the proposed distribution of the outlay recommended for sanction to the debit of the several heads of accounts involved.

| Name of Tank              | Items of Estimate               | Fund ordinary agricultural irrigation |         | Total for each tank |
|---------------------------|---------------------------------|---------------------------------------|---------|---------------------|
|                           |                                 | Original Works                        | Repairs |                     |
| Goolchirasani Kolum Tank. | Raising and repairing the bund  |                                       | 150     |                     |
|                           | Constructing a dry stone escape | 110                                   |         |                     |
|                           | Constructing a dry stone weir   | 95                                    |         | 355                 |
| Papankolam Tank.          | Raising & repairing the bund    |                                       | 280     |                     |
|                           | Constructing a masonry weir     | 285                                   |         | 565                 |
| Pannacolum Tank           |                                 |                                       |         |                     |

| Name of Tank           | Items of Estimate                                               | Fund ordinary agricultural irrigation |         | Total for each tank |
|------------------------|-----------------------------------------------------------------|---------------------------------------|---------|---------------------|
|                        |                                                                 | Original Works                        | Repairs |                     |
| Pannacolum Tank        | Raising & repairing the bund and closing the natural escape     |                                       | 720     |                     |
|                        | Constructing a masonry weir                                     | 340                                   |         | 1060                |
| Vaingadalamudram Tank. | Raising and repairing the bund, repairing Rahigulaks & sluices. | 140                                   | 1760    |                     |
|                        | Constructing a masonry weir                                     | 385                                   |         | 2145                |

Amel Scott  
Major R.E.

Dy Chief Engineer for Irrigation  
 Dy Chief Engineer for Irrigation

Secretary to Government,  
Public Works Dept.

C. J. S.

Amel

G.O. No. 3400 - 20-11-56  
 No. 171 719 Jan 77

1877.

from  
 The Chief Engineer for Imp.  
 P.W.D.  
 16 JAN 77  
 No. 391

Dated 13<sup>th</sup> January 1877  
 Resp. 16<sup>th</sup> Jan 77  
 Encls. 23

No. 41-W.

Tank Repairs - Madura  
 District - have recommended  
 to sanction estimates for  
 certain -

Recd 16-1-77 219-1-77

E. I. Form No. 3.

No. 171 719 Jan 77

1184

The following Estimates for Irrigation  
 works in the Pareacolum Sub Range,  
Madura District, forwarded by the  
 Chief Engineer for Irrigation with his Memo.  
 marginally noted are sanctioned :-

No. 41-W.  
 dated 13<sup>th</sup> January 1877.

| Name of Work.            | Item of Estimate.             | FUND                   |        | Irrigation<br>Registry<br>No. |
|--------------------------|-------------------------------|------------------------|--------|-------------------------------|
|                          |                               | Ordinary<br>Irrigation | Amount |                               |
| Jothirasan<br>Kolum Tank | Repairing bund                | Repairs                | 150    | 1 } 277 1/2                   |
|                          | Escape                        | Original work          | 110    |                               |
|                          | Weir                          | Do                     | 95     |                               |
| Papaikolum<br>Tank -     | Repairing bund                | Repairs                | 280    | 1 } 278 1/2                   |
|                          | Weir                          | Original work          | 285    |                               |
| Pinnacolum<br>Tank -     | Repairing bund<br>and closing | Repairs                | 720    | 1 } 277 1/2                   |
|                          | natural escape                |                        |        |                               |
|                          | weir                          | original work          | 340    |                               |
| Vainadagam<br>Tank -     | Repairing bund                | Repairs                | 1760   | 1 } 280 1/2                   |
|                          | Kalingulabes<br>sluices       |                        |        |                               |
|                          | Weir                          | original work          | 385    |                               |

2. These sanctions are registered  
 as shown above -

H. Madura  
 Collector of do  
 Ch. for. Secy with 16 Encls  
 Dtd. 11.1.77  
 Recd - 1-2-77

391

Gobt. of 1877 Madras.

PUBLIC WORKS.

To *The P. W. Secy Madras*

Dated

Issued

Recd.

Encl.

G. O., 19<sup>th</sup> Jan., 1877, No. 171

Nos. 333 + 334-

Sankt Madara Sri  
Minister for the Affairs  
of certain — Sankt

*But no Ref.*

See 16-1-77 519-1-2