

(1) Number of pages\_\_\_\_\_

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

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

# MADRAS RECORD OFFICE

## Government of Madras

*Public Works* DEPARTMENT

|          |         |       |                 |
|----------|---------|-------|-----------------|
| G.O. No. | 2990-71 | Press | <i>Original</i> |
| B.P. No. |         | Mis.  |                 |
| Dated    | 7-11    | 1876  |                 |
|          |         | 195   |                 |

Not to be folded or roughly handled

Read the following papers:—

|        |                                                          |     |              |              |
|--------|----------------------------------------------------------|-----|--------------|--------------|
| 123.   | From the District Engineer, Ganjam, dated 6th July 1876. |     |              |              |
| 124.   | Do.                                                      | do. | Godavery,    | do. 20th „ „ |
| 125.   | Do.                                                      | do. | do.          | do. 24th „ „ |
| 126.   | Do.                                                      | do. | Kistna,      | do. 22nd „ „ |
| 127.   | Do.                                                      | do. | do.          | do. 8th „ „  |
| 128.   | Do.                                                      | do. | Nellore,     | do. 17th „ „ |
| 129.   | Do.                                                      | do. | South Arcot, | do. 22nd „ „ |
| 129-A. | Do.                                                      | do. | Tinnevelly,  | do. 24th „ „ |
| 129-B. | Do.                                                      | do. | do.          | do. 6th „ „  |

Proceedings of the Madras Government, Public Works Department,  
7th November 1876. No. 2,991.

| Name of Work.                  | Amount of Estimate. | Current year's Grant. | EXPENDITURE.        |                          | Total Expenditure. | Succinct Account showing the state to which the works have been advanced up to date. |
|--------------------------------|---------------------|-----------------------|---------------------|--------------------------|--------------------|--------------------------------------------------------------------------------------|
|                                |                     |                       | During the Quarter. | During the Current year. |                    |                                                                                      |
| GODAVERY DELTA SYSTEM.         |                     |                       |                     |                          |                    |                                                                                      |
| EASTERN SECTION.               |                     |                       |                     |                          |                    |                                                                                      |
| (1).—HEAD WORKS.               |                     |                       |                     |                          |                    |                                                                                      |
| K. Buildings ...               | 2,500               | 2,500                 | 151                 | 151                      | 151                |                                                                                      |
| (2).—MAIN CANALS AND BRANCHES. |                     |                       |                     |                          |                    |                                                                                      |
| <i>Main Canal.</i>             |                     |                       |                     |                          |                    |                                                                                      |
| D. Regulators ...              | 17,800              | 2,000                 | 398                 | 398                      | 9,305              | 52 Screw gearings to 5 centre vents completed.                                       |
| L. Earthworks ...              | 28,060              | ...                   | 4,731               | 4,731                    | 29,623             | 106 Completed. Excess over estimate will be adjusted in next month.                  |
| <i>Cocanada Canal.</i>         |                     |                       |                     |                          |                    |                                                                                      |
| B. Land ...                    | 6,545               | 200                   | ...                 | ...                      | 233                |                                                                                      |
| L. Earthworks ...              | 38,120              | 3,000                 | 1,993               | 1,993                    | 36,435             | 96 Do. between the 23rd and 30th miles.                                              |
| C. Works ...                   | 1,19,680            | ...                   | 267                 | 267                      | 1,19,700           | 10 Coping to tail bay bridge to Chintapelly lock remains to be done.                 |
| <i>Coringa Canal.</i>          |                     |                       |                     |                          |                    |                                                                                      |
| B. Land ...                    | 6,545               | 1,000                 | 187                 | 187                      | 187                |                                                                                      |
| I. Navigation Works.           | 7,966               | 600                   | 218                 | 218                      | 8,277              | 104                                                                                  |
| L. Earthworks ...              | 41,180              | 5,000                 | 3,647               | 3,647                    | 27,682             | 67 Some earthwork executed near the head of channels.                                |
| <i>Mandapetta Canal.</i>       |                     |                       |                     |                          |                    |                                                                                      |
| I. Navigation Works.           | 18,370              | ...                   | 24                  | 24                       | 21,008             | 42                                                                                   |
| L. Earthworks ...              | 2,850               | ...                   | ...                 | ...                      | 12,700             |                                                                                      |

Proceedings of the Madras Government, Public Works Department,  
7th November 1876. No. 2,991.

|                                                             |          |        |        |        |        |     |                                                                                                 |
|-------------------------------------------------------------|----------|--------|--------|--------|--------|-----|-------------------------------------------------------------------------------------------------|
| B. Land ...                                                 | 3,273    | 1,000  | ...    | 128    | ...    | 34  |                                                                                                 |
| L. Earthworks ...                                           | 12,850   | 3,000  | ...    | 215    | ...    | 73  |                                                                                                 |
| C. Works ...                                                | 4,200    | ...    | ...    | ...    | ...    | ... |                                                                                                 |
| <b>I. Navigation Works.</b>                                 |          |        |        |        |        |     |                                                                                                 |
| <b>Lock at Koulaisweram.</b>                                |          |        |        |        |        |     |                                                                                                 |
| Do. weir at do.                                             | 20,100   | 4,000  | ...    | ...    | ...    | ... |                                                                                                 |
| Do. at Kulla ...                                            | 4,400    | 2,100  | ...    | ...    | ...    | ... |                                                                                                 |
| Do. weir at do.                                             | 22,930   | 15,000 | 633    | 633    | 52,540 | ... | Recovery. 49. Koulaisweram lock and weir in progress.                                           |
| Other works ...                                             | 4,670    | 3,000  | ...    | ...    | ...    | ... |                                                                                                 |
| Improvements ...                                            | 54,900   | ...    | ...    | ...    | ...    | ... |                                                                                                 |
| Other works ...                                             | 1,00,600 | 20,000 | 11,280 | 11,280 | 91,630 | 86  | A large amount of earthwork done below Choppella lock.                                          |
| <b>Samukota Canal.</b>                                      |          |        |        |        |        |     |                                                                                                 |
| Compensation ...                                            | ...      | 1,000  | 24     | 24     | 536    | ... |                                                                                                 |
| <b>(3).—DISTRIBUTARIES.</b>                                 |          |        |        |        |        |     |                                                                                                 |
| <b>Cocanada Canal.</b>                                      |          |        |        |        |        |     |                                                                                                 |
| Head sluices and dams ...                                   | 15,075   | 2,500  | 315    | 315    | 20,769 | 72  | Regulating dam to Kykarole. Irrigation channel completed with the exception of revetting banks. |
| Minor channels ...                                          | 12,130   | 1,000  | ...    | ...    | ...    | ... | Regulating dam to Vindra and Yendalur. Channels completed.                                      |
| Amount for which detailed estimates are not yet sanctioned. | 1,735    | ...    | ...    | ...    | ...    | ... |                                                                                                 |
| <b>Coringa Canal.</b>                                       |          |        |        |        |        |     |                                                                                                 |
| Head sluices and dams ...                                   | 10,586   | 2,500  | 710    | 710    | 7,994  | 31  | Itapudi and Casalur sluices in progress.                                                        |
| Minor channels ...                                          | 3,800    | 5,000  | ...    | ...    | ...    | ... |                                                                                                 |
| Amount for which detailed estimates are not yet sanctioned. | 11,614   | ...    | ...    | ...    | ...    | ... |                                                                                                 |
| <b>Mundapetta Canal.</b>                                    |          |        |        |        |        |     |                                                                                                 |
| Head sluices and dams ...                                   | 4,467    | 1,000  | 127    | 127    | 3,894  | 31  | Shodavaram head sluice in progress.                                                             |
| Minor channels ...                                          | 7,244    | ...    | ...    | ...    | ...    | ... |                                                                                                 |
| Compensation ...                                            | 3,273    | 1,000  | ...    | ...    | ...    | 5   |                                                                                                 |
| <b>Injeram Canal.</b>                                       |          |        |        |        |        |     |                                                                                                 |
| Head sluices and dams ...                                   | 2,010    | 1,500  | 633    | 633    | 1,624  | 15  | Sluice at 22nd mile in progress, side channel from 22nd to 24th mile completed.                 |
| Minor channels ...                                          | 4,670    | 2,500  | ...    | ...    | ...    | ... |                                                                                                 |
| Amount for which detailed estimates are not yet sanctioned. | 4,320    | ...    | ...    | ...    | ...    | ... |                                                                                                 |

Statement showing the Progress of Agricultural Works under execution from the Extraordinary Grant for the Quarter, &amp;c.—(Continued).

| Proceedings of the Madras Government, Public Works Department,<br>7th November 1876. No. 2,991. |                                                             |                       |                     |                          |        |                                                                                   |                                                                                      |  |  |
|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------|-----------------------|---------------------|--------------------------|--------|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--|--|
| Name of Work.                                                                                   | Amount of Estimate.                                         | Current year's Grant. | EXPENDITURE.        |                          |        | Total Expenditure.                                                                | Succinct Account showing the state to which the works have been advanced up to date. |  |  |
|                                                                                                 |                                                             |                       | During the Quarter. | During the Current year. |        |                                                                                   |                                                                                      |  |  |
| GODAVERY DELTA SYSTEM—(Continued).                                                              |                                                             |                       |                     |                          |        |                                                                                   |                                                                                      |  |  |
| Samulkota Canal.                                                                                |                                                             |                       |                     |                          |        |                                                                                   |                                                                                      |  |  |
| C. Works ...                                                                                    | Head sluices and dams ...                                   | 4,600                 | RS.                 | RS.                      | RS.    | 21 Sluices at 7½, 12½ and 19th miles in progress, side channels nearly completed. |                                                                                      |  |  |
| L. Earthworks ...                                                                               | Minor channels ...                                          | 8,610                 | ...                 | 1,809                    | 4,359  |                                                                                   |                                                                                      |  |  |
|                                                                                                 | Amount for which detailed estimates are not yet sanctioned. | 7,945                 | ...                 | ...                      | ...    |                                                                                   |                                                                                      |  |  |
| (4).—DRAINAGE AND PROTECTIVE WORKS.                                                             |                                                             |                       |                     |                          |        |                                                                                   |                                                                                      |  |  |
| (2).—MAIN CANALS AND BRANCHES.                                                                  |                                                             |                       |                     |                          |        |                                                                                   |                                                                                      |  |  |
| Main Canal.                                                                                     |                                                             |                       |                     |                          |        |                                                                                   |                                                                                      |  |  |
| Thooliabaga Drain.                                                                              |                                                             |                       |                     |                          |        |                                                                                   |                                                                                      |  |  |
| B. Land ...                                                                                     | Main drain ...                                              | 12,866                | 3,000               | ...                      | ...    | No work done.                                                                     |                                                                                      |  |  |
| L. Earthworks ...                                                                               | Improvements ...                                            | 1,31,710              | 5,000               | 235                      | 89,475 |                                                                                   |                                                                                      |  |  |
| C. Works ...                                                                                    | .....                                                       | 6,390                 | ...                 | 2                        | 5,615  |                                                                                   |                                                                                      |  |  |
| Bikkavol Drain.                                                                                 |                                                             |                       |                     |                          |        |                                                                                   |                                                                                      |  |  |
| B. Land ...                                                                                     | Compensation ...                                            | 6,300                 | 2,000               | ...                      | ...    | No work done.                                                                     |                                                                                      |  |  |
| L. Earthworks ...                                                                               | Improving main drain ...                                    | 60,720                | 10,000              | ...                      | 41,602 |                                                                                   |                                                                                      |  |  |
| Taka Drain.                                                                                     |                                                             |                       |                     |                          |        |                                                                                   |                                                                                      |  |  |
| B. Land ...                                                                                     | Land for drain ...                                          | 18,000                | 3,000               | ...                      | ...    |                                                                                   |                                                                                      |  |  |
| L. Earthworks ...                                                                               | Improving main drain ...                                    | 2,62,600              | 10,000              | 309                      | 85,296 |                                                                                   |                                                                                      |  |  |
| Mandapetta Canal.                                                                               |                                                             |                       |                     |                          |        |                                                                                   |                                                                                      |  |  |
| L. Earthwork ...                                                                                | Channel to lands.                                           |                       |                     |                          |        |                                                                                   |                                                                                      |  |  |
|                                                                                                 |                                                             | 3,272                 | 1,000               |                          |        |                                                                                   |                                                                                      |  |  |

Proceedings of the Madras Government, Public Works Department, 7th November 1876. No. 2,991.

|                                                  |                                 |           |          |        |        |          |                                                                                                                             |
|--------------------------------------------------|---------------------------------|-----------|----------|--------|--------|----------|-----------------------------------------------------------------------------------------------------------------------------|
| Other works ...                                  | ...                             | 1,52,745  | ...      | ...    | ...    | 1,42,384 |                                                                                                                             |
| Total works, Eastern Delta Division ...          | ...                             | 12,90,766 | ...      | ...    | ...    | ...      |                                                                                                                             |
| Sanctions in anticipation of savings ...         | ...                             | 4,546     | 1,16,700 | 26,770 | 26,770 | 8,07,746 |                                                                                                                             |
| Net amount sanctioned by Government of India ... | ...                             | 12,86,220 | ...      | ...    | ...    | ...      |                                                                                                                             |
| <b>(WESTERN SECTION.)</b>                        |                                 |           |          |        |        |          |                                                                                                                             |
| <b>(1.)—Head Works.</b>                          |                                 |           |          |        |        |          |                                                                                                                             |
| K. Buildings ...                                 | Rest-house at Bhimavaram ...    | 2,900     | 900      | 354    | 354    | 2,320    | In progress. Roofing in hand. In progress. Nearly finished. Materials will be collected.                                    |
|                                                  | Do. at Attali ...               | 2,900     | 400      | 104    | 104    | 2,491    |                                                                                                                             |
|                                                  | Do. at Akid ...                 | 2,900     | 2,100    | ...    | ...    | 697      |                                                                                                                             |
|                                                  | Bungalow at Pratipad ...        | ...       | ...      | ...    | ...    | 579      |                                                                                                                             |
|                                                  | Inspection-house do. ...        | ...       | ...      | ...    | ...    | 96       |                                                                                                                             |
|                                                  | Compensation ...                | ...       | ...      | ...    | ...    | 800      |                                                                                                                             |
| <b>2.—MAIN CANALS AND BRANCHES.</b>              |                                 |           |          |        |        |          |                                                                                                                             |
| <i>Main Canal.</i>                               |                                 |           |          |        |        |          |                                                                                                                             |
| D. Regulators ...                                | Improvements to head sluice ... | 19,500    | 6,000    | 785    | 785    | 7,905    | 0.4 Masonry work of 5 vents altered to suit new gearing shutters, and gearing for 10 vents made.                            |
| L. Earthworks ...                                | Improvements ...                | 49,000    | 5,000    | 7,916  | 7,916  | 26,024   | 0.53 From 2½ to 8 miles all work finished                                                                                   |
| L. Earthworks ...                                | Improvements ...                | 31,580    | 10,000   | 1,638  | 1,638  | 17,739   | 0.56 From 15th to 20th mile work finished, and from 40 to 42 miles nearly so, from 20th mile 32 miles work nearly finished. |
| B. Land ...                                      | Compensation ...                | 2,000     | 500      | ...    | ...    | ...      | From 1½ miles to end, all works finished off.                                                                               |
| L. Earthworks ...                                | Improvements ...                | 31,000    | 10,000   | ...    | ...    | 15,972   |                                                                                                                             |

Statement showing the Progress of Agricultural Works under execution from the Extraordinary Grant for the Quarter, &amp;c.—(Continued).

| Proceedings of the Madras Government, Public Works Department,<br>7th November 1876. No. 2,991. |                                |                       |                     |                          |                    |                                                                                                                                                                                |          |
|-------------------------------------------------------------------------------------------------|--------------------------------|-----------------------|---------------------|--------------------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| Name of Work.                                                                                   | Amount of Estimate.            | Current year's Grant. | EXPENDITURE         |                          | Total Expenditure. | Succinct Account showing the state to which the works have been advanced up to date.                                                                                           |          |
|                                                                                                 |                                |                       | During the Quarter. | During the Current year. |                    |                                                                                                                                                                                |          |
| GODAVERY DELTA SYSTEM—(Continued).                                                              |                                |                       |                     |                          |                    |                                                                                                                                                                                |          |
| Nursapur Canal.                                                                                 |                                |                       |                     |                          |                    |                                                                                                                                                                                |          |
| B. Land ...                                                                                     | Compensation ...               | 100                   | ...                 | ...                      | 1,274              | Paravellay lock and weir.<br>Itempudy do. do. } Finished.<br>Mogaltur do. do. }<br>Koretum lock.<br>Palcole lock walls raised 8 feet above flood.<br>Do. weir finished.        |          |
| I. Navigation Works.                                                                            | Lock at Palcol ...             | 10,000                | ...                 | ...                      | ...                |                                                                                                                                                                                |          |
|                                                                                                 | Do. weir at do. ...            | 500                   | ...                 | ...                      | ...                |                                                                                                                                                                                |          |
|                                                                                                 | Do. at Marter ...              | 12,000                | 3,263               | 3,263                    | 0-8                |                                                                                                                                                                                |          |
|                                                                                                 | Other works ...                | ...                   | ...                 | ...                      | ...                |                                                                                                                                                                                |          |
|                                                                                                 |                                |                       | 1,760               | 22,570                   | 4,370              | 21,400                                                                                                                                                                         | 1,12,990 |
| Bank Canal.                                                                                     |                                |                       |                     |                          |                    |                                                                                                                                                                                |          |
| B. Land ...                                                                                     | Compensation ...               | 2,500                 | ...                 | ...                      | ...                | Sidhantham and Codair locks built.<br>Koder lock weir at 2nd mile finished. Sidhantham lock weir nearly so.<br>Finished from head to Dodipatla, a distance of about 22½ miles. |          |
| I. Navigation Works.                                                                            | Lock (double) at Dodipatla ... | 32,370                | ...                 | ...                      | ...                |                                                                                                                                                                                |          |
|                                                                                                 | Do. weir at do. ...            | 3,500                 | ...                 | ...                      | ...                |                                                                                                                                                                                |          |
|                                                                                                 | Do. at Sidhantham ...          | 3,500                 | 814                 | 814                      | 0-53               |                                                                                                                                                                                |          |
|                                                                                                 | Other works ...                | 35,505                | ...                 | ...                      | ...                |                                                                                                                                                                                |          |
| L. Earthworks ...                                                                               | Improvements ...               | 22,500                | 830                 | 830                      | 24,028             | 1-07.                                                                                                                                                                          |          |
| Undi Canal.                                                                                     |                                |                       |                     |                          |                    |                                                                                                                                                                                |          |
| B. Land ...                                                                                     | Compensation ...               | 4,990                 | ...                 | ...                      | 145                | Finished except tail races to weir.                                                                                                                                            |          |
| H. Escapes ...                                                                                  | Escape at 7½ miles ...         | 4,910                 | ...                 | ...                      | 624                |                                                                                                                                                                                |          |
|                                                                                                 | Do. at 15½ " ...               | 3,550                 | ...                 | ...                      | 415                |                                                                                                                                                                                |          |
| I. Navigation Works.                                                                            | Lock weir at 11½ miles ...     | 5,110                 | ...                 | ...                      | 457                |                                                                                                                                                                                |          |
| L. Earthworks ...                                                                               | Improvements ...               | 43,590                | ...                 | ...                      | 14,962             |                                                                                                                                                                                |          |
|                                                                                                 |                                | 26,500                | ...                 | ...                      | 20,709             | 0-77.                                                                                                                                                                          |          |

Proceedings of the Madras Government, Public Works Department,  
7th November 1876. No. 2,991.

|                                    |                                                 |        |       |       |        |       |                                                                                                                                                                                                              |
|------------------------------------|-------------------------------------------------|--------|-------|-------|--------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| B. Land ...                        | Compensation ...                                | 4,500  | 1,000 | ...   | 75     | 0-94. | 11 Irrigation sluices, 4 dividing dams, and 2 under tunnels built; 2 sluices and 1 drain in hand. Improvements to all channels, except one, have been done. Reling channel improvements half done. Finished. |
| L. Earthworks ...                  | ...                                             | 23,610 | ...   | 56    | 17,504 | 0-74. | Godicherla and Gummupad locks and weirs finished. Mundapaka surplus weir nearly finished.                                                                                                                    |
| C. Works ...                       | ...                                             | 40,050 | ...   | 253   | 37,233 | 0-87. |                                                                                                                                                                                                              |
| <i>Gostanadi and Velpur Canal.</i> |                                                 |        |       |       |        |       |                                                                                                                                                                                                              |
| B. Land ...                        | Compensation ...                                | 5,750  | 2,000 | ...   | ...    | ...   | Head lock and weir finished, weir at 10th mile. Varavasnam channel head sluice and Mamadur weir built; Mamadur lock chamber wall raised 4 feet high. From Gostanadi head for 27½ miles all work finished.    |
| I. Navigation Works.               | Lock at Mamadur ...                             | 15,000 | 5,000 | ...   | 37,688 | -55.  |                                                                                                                                                                                                              |
|                                    | Do. weir at do. ...                             | 3,700  | 300   | 1,064 | ...    | ...   |                                                                                                                                                                                                              |
|                                    | Other works ...                                 | 49,380 | ...   | ...   | ...    | ...   |                                                                                                                                                                                                              |
| L. Earthworks ...                  | Improvements ...                                | 64,000 | 5,000 | 3,355 | 49,159 | 0-76. |                                                                                                                                                                                                              |
|                                    | Weyeru.                                         | 100    | ...   | 23    | 23     | ...   |                                                                                                                                                                                                              |
|                                    | Compensation ...                                | ...    | ...   | ...   | ...    | ...   |                                                                                                                                                                                                              |
| <b>(3.)—DISTRIBUTARIES.</b>        |                                                 |        |       |       |        |       |                                                                                                                                                                                                              |
| <i>Ellore Canal.</i>               |                                                 |        |       |       |        |       |                                                                                                                                                                                                              |
| B. Land ...                        | Land for mid-level channel ...                  | 8,440  | 1,000 | ...   | 953    | ...   | 14 Irrigation sluices and 3 escapes finished and 1 dam nearly so; several irrigation channels finished.                                                                                                      |
|                                    | Do. for low do. ...                             | 2,760  | 500   | ...   | ...    | ...   |                                                                                                                                                                                                              |
| C. Works ...                       | 26 Sluices ...                                  | 12,590 | 3,000 | 539   | 23,170 | -99.  |                                                                                                                                                                                                              |
|                                    | Other masonry works and earth-works.            | 10,830 | ...   | ...   | ...    | ...   |                                                                                                                                                                                                              |
|                                    | Village sluices mid-level channel Drops do. ... | 5,040  | 500   | 129   | 28,750 | -92.  |                                                                                                                                                                                                              |
|                                    | Other works ...                                 | 4,380  | ...   | ...   | ...    | ...   |                                                                                                                                                                                                              |
|                                    |                                                 | 21,560 | ...   | ...   | ...    | ...   |                                                                                                                                                                                                              |



Statement showing the Progress of Agricultural Works under Execution from the Extraordinary Grant for the Quarter, &amp;c.—(Continued).

| Name of Work.                                           | Amount of Estimate. | Current Year's Grant. | EXPENDITURE.        |                          | Total Expenditure. | Succinct Account showing the state to which the works have been advanced up to date. |
|---------------------------------------------------------|---------------------|-----------------------|---------------------|--------------------------|--------------------|--------------------------------------------------------------------------------------|
|                                                         |                     |                       | During the Quarter. | During the Current year. |                    |                                                                                      |
| <b>GODAVERY DELTA SYSTEM—(Concluded).</b>               |                     |                       |                     |                          |                    |                                                                                      |
| <i>Drainage Diversion from Badamputti under tunnel.</i> |                     |                       |                     |                          |                    |                                                                                      |
| Chinnairakollu channel sluice.                          | 1,220               | 500                   |                     |                          | 2,410              | 0-76. Finished except Chinairindracole sluice.                                       |
| Other works                                             | 1,930               |                       |                     |                          | 2,521              |                                                                                      |
| Materials at site                                       |                     |                       | 695                 | 695                      | 1,73,832           |                                                                                      |
| Other works                                             |                     |                       |                     |                          |                    |                                                                                      |
| Total works, Western Delta Division                     | 13,04,640           | 1,41,700              | 22,049              | 22,049                   | 8,48,423           |                                                                                      |
| Total Works                                             | 25,90,860           | 2,58,400              | 48,819              | 48,819                   | 16,56,169          |                                                                                      |
| Tools and Plant                                         | 1,91,560            | 41,300                |                     |                          | 75,573             |                                                                                      |
| Establishment                                           |                     | 70,953                | 12,977              | 12,977                   | 4,80,525           |                                                                                      |
| <i>Add for increase of Suspense Balance.</i>            |                     |                       |                     |                          |                    |                                                                                      |
| Stock purchases and sales                               |                     |                       | 132                 | 132                      | 69                 |                                                                                      |
| Stock                                                   |                     |                       | 3,146               | 3,146                    | 16,517             |                                                                                      |
| Miscellaneous advances                                  |                     |                       | 47                  | 47                       | 614                |                                                                                      |
| London invoices                                         |                     |                       |                     |                          |                    |                                                                                      |
| London stores                                           |                     |                       |                     |                          |                    |                                                                                      |
| Total, GODAVERY DELTA SYSTEM                            | 27,82,420           | 3,70,653              | 64,857              | 64,857                   | 22,29,329          |                                                                                      |
| <b>KISTNA DELTA SYSTEM.</b>                             |                     |                       |                     |                          |                    |                                                                                      |
| <b>EASTERN SECTION.</b>                                 |                     |                       |                     |                          |                    |                                                                                      |
| (2).—MAIN CANALS AND BRANCHES.                          |                     |                       |                     |                          |                    |                                                                                      |
| <i>Main Canal.</i>                                      |                     |                       |                     |                          |                    |                                                                                      |
| Compensation                                            | 4,500               |                       |                     |                          |                    | Road... .. 92-                                                                       |

Proceedings of the Madras Government, Public Works Department,  
7th November 1876. No. 2,991.

|                      |                                                             |                   |        |            |            |                 |                                    |                   |                   |                   |                |
|----------------------|-------------------------------------------------------------|-------------------|--------|------------|------------|-----------------|------------------------------------|-------------------|-------------------|-------------------|----------------|
| <b>L. Earthworks</b> | Improvements to canal including<br>revelments.<br>Quay wall | 78,204<br>30,826  | 2,960  | 1,839      | 1,839      | 1,04,762        | Earthwork<br>Masonry<br>Revetment  | ...<br>...<br>... | ...<br>...<br>... | ...<br>...<br>... | 99<br>54<br>44 |
|                      | Total                                                       | 1,13,530          | 2,960  | 1,839      | 1,839      | 1,04,762        |                                    |                   |                   |                   |                |
| <b>L. Earthwork</b>  | <i>Masulipatam Canal.</i>                                   |                   |        |            |            |                 |                                    |                   |                   |                   |                |
|                      | Sectioning banks in first 4 miles.                          | 10,100            | 428    | 403        | 403        | 8,401           | Earthwork                          | ...               | ...               | ...               | 83             |
|                      | Enlarging Masulipatam canal<br>4 to 12½ miles.              | 65,000            |        | 10         | 10         | 64,795          | Do.                                | ...               | ...               | ...               | 99             |
|                      | Total                                                       | 75,100            | 428    | 413        | 413        | 73,196          |                                    |                   |                   |                   |                |
|                      | (3).—DISTRIBUTARIES.                                        |                   |        |            |            |                 |                                    |                   |                   |                   |                |
|                      | <i>Pulleru Canal.</i>                                       |                   |        |            |            |                 |                                    |                   |                   |                   |                |
|                      | Head sluice at the head of Kap-<br>leshwaram channel.       | 330               |        | 138        | 138        | 384             | Completed, accounts to be settled. |                   |                   |                   |                |
|                      | Do. do. at the head of Pol-<br>rakodu.                      | 2,000             |        | 10         | 10         | 153             | In progress.                       |                   |                   |                   |                |
| <b>L. Earthworks</b> | Kapleshwaram channel...                                     | 2,860             |        | 96         | 96         | 96              | Earthwork                          | ...               | ...               | ...               | 29             |
|                      | Other works                                                 |                   |        |            |            | 55              |                                    |                   |                   |                   |                |
|                      | Sanctions in anticipation of<br>savings.                    | 5,190             |        |            |            |                 |                                    |                   |                   |                   |                |
|                      | Other works                                                 | 5,000<br>1,07,890 |        | 211<br>... | 211<br>... | 688<br>1,03,292 |                                    |                   |                   |                   |                |
|                      | Total                                                       | 1,87,990          | 428    | 657        | 657        | 1,77,176        |                                    |                   |                   |                   |                |
| <b>G. Bridges</b>    | (2).—MAIN CANALS AND BRANCHES.                              |                   |        |            |            |                 |                                    |                   |                   |                   |                |
|                      | <i>Ryres' Canal.</i>                                        |                   |        |            |            |                 |                                    |                   |                   |                   |                |
|                      | Bridge over Elur road                                       | 12,440            |        | 1,980      | 1,980      | 6,532           | Masonry                            | ...               | ...               | ...               | 5              |
|                      | Two accommodation bridges on<br>Ryres' canal.               | 5,660             | 4,262  |            |            | 1,398           |                                    |                   |                   |                   |                |
|                      | Accommodation bridge across<br>Pulleru near Marivada.       | 3,710             | 405    |            |            | 2,567           |                                    |                   |                   |                   |                |
| <b>L. Earthworks</b> | New head                                                    | 2,76,880          | 36,575 | 908        | 908        | 2,33,674        | Earthwork                          | ...               | ...               | ...               | 83             |
|                      | Widening existing channel to<br>Pulleru near Marivada.      | 58,180            | 5,000  | 1,187      | 1,187      | 46,173          | Do.                                | ...               | ...               | ...               | 77             |
|                      | Total                                                       | 3,56,870          | 46,242 | 4,075      | 4,075      | 2,90,344        |                                    |                   |                   |                   |                |

Statement showing the Progress of Agricultural Works under execution from the Extraordinary Grant for the Quarter, &amp;c.—(Continued.)

| Name of Work.                                 | Amount of Estimate.                             | Current year's Grant. | EXPENDITURE.        |                          | Total Expenditure. | Succinct Account showing the state to which the works have been advanced up to date. |
|-----------------------------------------------|-------------------------------------------------|-----------------------|---------------------|--------------------------|--------------------|--------------------------------------------------------------------------------------|
|                                               |                                                 |                       | During the Quarter. | During the Current year. |                    |                                                                                      |
| KISTNA DELTA SYSTEM—<br>(Continued.)          |                                                 |                       |                     |                          |                    |                                                                                      |
| D. Regulators ...                             | <i>Gudirada Channel.</i>                        |                       |                     |                          |                    |                                                                                      |
|                                               | Komatigunta calingulah, head sluice alteration. | 2,970                 | ...                 | 64                       | 64                 | Materials partly collected.                                                          |
|                                               | Total ...                                       | 2,970                 | ...                 | 64                       | 64                 |                                                                                      |
| G. Bridges ...                                | <i>Ryres Branch Canal.</i>                      |                       |                     |                          |                    |                                                                                      |
|                                               | Three accommodation bridges ...                 | 3,780                 | 230                 | ...                      | ...                | Masonry ... .. 66                                                                    |
|                                               | Other works ... ..                              | 50,573                | ...                 | ...                      | ...                |                                                                                      |
|                                               | Total ...                                       | 54,353                | 230                 | ...                      | 32,138             |                                                                                      |
|                                               | Total ...                                       | 4,14,193              | 46,472              | 4,139                    | 3,22,546           |                                                                                      |
|                                               | Total, Eastern Section ...                      | 7,15,713              | 49,860              | 6,635                    | 6,04,484           |                                                                                      |
| WESTERN SECTION.                              |                                                 |                       |                     |                          |                    |                                                                                      |
| (2).—MAIN CANALS AND BRANCHES.                |                                                 |                       |                     |                          |                    |                                                                                      |
|                                               | <i>Nizampatam Canal.</i>                        |                       |                     |                          |                    |                                                                                      |
|                                               | Commamur Canal Project ...                      | 1,95,770              | ...                 | 110                      | 110                | 1,73,766                                                                             |
|                                               | Total, WESTERN SECTION ...                      | 1,95,770              | ...                 | 110                      | 110                | 1,73,766                                                                             |
|                                               | Total, Works ...                                | 9,11,483              | 49,860              | 6,525                    | 6,525              | 7,78,250                                                                             |
|                                               | Tools and Plant ... ..                          | ...                   | 7,850               | ...                      | ...                | 26,282                                                                               |
|                                               | Establishment ... ..                            | ...                   | 13,691              | 3,305                    | 3,305              | 3,13,060                                                                             |
| <i>Add for increase of Suspense Balances.</i> |                                                 |                       |                     |                          |                    |                                                                                      |
|                                               | Stock purchases and sales ...                   | ...                   | ...                 | ...                      | ...                | ...                                                                                  |
|                                               | Stock ... ..                                    | ...                   | ...                 | ...                      | ...                | ...                                                                                  |

Proceedings of the Madras Government, Public Works Department,  
7th November 1876. No. 2,991.

|                                                                |          |        |        |        |           |     |
|----------------------------------------------------------------|----------|--------|--------|--------|-----------|-----|
| Miscellaneous advances ...                                     | ...      | ...    | ...    | ...    | ...       | ... |
| London invoices ...                                            | ...      | ...    | ...    | ...    | ...       | ... |
| Do. stores ...                                                 | ...      | ...    | ...    | ...    | ...       | ... |
| Total, KISTNA DELTA SYSTEM ...                                 | 9,11,483 | 71,401 | 9,830  | 9,830  | 11,17,592 | ... |
| <b>PENNAIRANICUT SYSTEM.</b>                                   |          |        |        |        |           |     |
| <i>(2).—MAIN CANALS AND BRANCHES.</i>                          |          |        |        |        |           |     |
| <i>Main Canal.</i>                                             |          |        |        |        |           |     |
| L. Earthworks ...                                              | 6,536    | 1,669  | ...    | ...    | ...       | ... |
| <i>Kisimipattam Channel.</i>                                   |          |        |        |        |           |     |
| L. Earthworks ...                                              | ...      | 780    | ...    | ...    | ...       | ... |
| <i>Survapalli Channel.</i>                                     |          |        |        |        |           |     |
| B. Land ...                                                    | 15,456   | 6,201  | ...    | ...    | ...       | ... |
| L. Earthworks ...                                              | 66,500   | 3,020  | ...    | ...    | ...       | ... |
| <i>N. Tanks and Reservoirs.</i>                                |          |        |        |        |           |     |
| Improving Survapalli tank ...                                  | 96,574   | 2,000  | ...    | ...    | ...       | ... |
| Irrigation sluice to Penubartank ...                           | ...      | 515    | ...    | ...    | ...       | ... |
| <i>Idagali Channel.</i>                                        |          |        |        |        |           |     |
| B. Land ...                                                    | 2,575    | 575    | 10,004 | 10,004 | 4,26,172  | ... |
| <i>(3).—DISTRIBUTARIES.</i>                                    |          |        |        |        |           |     |
| <i>Survapalli Channel.</i>                                     |          |        |        |        |           |     |
| Three tunnels ...                                              | ...      | 540    | ...    | ...    | ...       | ... |
| L. Earthworks ...                                              | 2,600    | 500    | ...    | ...    | ...       | ... |
| <i>(4).—Drainage and Protective Works.</i>                     |          |        |        |        |           |     |
| L. Earthworks ...                                              | 4,500    | 3,000  | ...    | ...    | ...       | ... |
| <i>Pottampadu drainage channel ...</i>                         |          |        |        |        |           |     |
| Improving drainage channel near aqueduct at Kanuparthipadu ... | 2,25,223 | 500    | ...    | ...    | ...       | ... |
| Other works ...                                                | ...      | ...    | ...    | ...    | ...       | ... |
| Total, Works ...                                               | 4,20,060 | 21,000 | 10,004 | 10,004 | 4,76,172  | ... |

Statement showing the Progress of Agricultural Works under execution from the Extraordinary Grant for the Quarter, &amp;c.—(Continued.)

| Name of Work.                                | Amount of Estimate. | Current year's Grant. | EXPENDITURE         |                          | Total Expenditure. | Succinct Account showing the state to which the works have been advanced up to date. |
|----------------------------------------------|---------------------|-----------------------|---------------------|--------------------------|--------------------|--------------------------------------------------------------------------------------|
|                                              |                     |                       | During the Quarter. | During the Current year. |                    |                                                                                      |
| <b>PENNIAR ANICUT SYSTEM—(Continued).</b>    | RS.                 | RS.                   | RS.                 | RS.                      | RS.                |                                                                                      |
| Tools and Plant...                           | ...                 | 250                   | ...                 | ...                      | 2,499              |                                                                                      |
| Establishment ...                            | ...                 | 5,766                 | 4,012               | 4,012                    | 1,19,757           |                                                                                      |
| <i>Add for increase of Suspense Balance.</i> |                     |                       |                     |                          |                    |                                                                                      |
| Stock purchases and sales                    | ...                 | ...                   | ...                 | ...                      | ...                |                                                                                      |
| Stock ...                                    | ...                 | ...                   | 3                   | 3                        | 2,075              |                                                                                      |
| Miscellaneous advances ...                   | ...                 | ...                   | 92                  | 92                       | 117                |                                                                                      |
| London invoices ...                          | ...                 | ...                   | ...                 | ...                      | ...                |                                                                                      |
| Do. stores ...                               | ...                 | ...                   | ...                 | ...                      | ...                |                                                                                      |
| Total, PENNIAR ANICUT SYSTEM.                | 4,20,060            | 27,016                | 14,105              | 14,105                   | 6,00,620           |                                                                                      |
| <b>STRIVIGUNTUM ANICUT SYSTEM.</b>           |                     |                       |                     |                          |                    |                                                                                      |
| (2).—MAIN CANALS AND BRANCHES.               |                     |                       |                     |                          |                    |                                                                                      |
| <i>North Canal and Branches.</i>             |                     |                       |                     |                          |                    |                                                                                      |
| B. Land ...                                  | ...                 | ...                   | ...                 | ...                      | ...                |                                                                                      |
| II. Escapes.                                 | ...                 | 37,000                | ...                 | ...                      | ...                |                                                                                      |
| F. (1). Cross Drain-                         | ...                 | 39,310                | ...                 | ...                      | ...                |                                                                                      |
| age Works.                                   | ...                 | 3,500                 | ...                 | ...                      | ...                |                                                                                      |
| N. Tanks and Reser-                          | ...                 | 11,920                | 9,184               | 9,184                    | 9,32,498           | 1-0. Earthwork.                                                                      |
| voirs.                                       | ...                 | 70,880                | ...                 | ...                      | ...                | -99. Masonry.                                                                        |
| Other works ...                              | 8,37,390            | ...                   | ...                 | ...                      | ...                | -65. Miscellaneous.                                                                  |
| Total, Works ...                             | 10,00,000           | 36,820                | 9,184               | 9,184                    | 9,32,498           |                                                                                      |

Proceedings of the Madras Government, Public Works Department,  
7th November 1876. No. 2,991.

|                                               |           |        |        |        |           |
|-----------------------------------------------|-----------|--------|--------|--------|-----------|
| Tools and Plant...                            | ...       | 10,110 | 2,720  | 2,720  | 1,317     |
| Establishment ...                             | ...       | ...    | ...    | ...    | 1,85,802  |
| <i>Add for increase of Suspense Balances.</i> |           |        |        |        |           |
| Stock purchases and sales                     | ...       | ...    | ...    | ...    | ...       |
| Stock ...                                     | ...       | ...    | ...    | ...    | ...       |
| Miscellaneous advances ...                    | ...       | ...    | ...    | ...    | ...       |
| London invoices ...                           | ...       | ...    | ...    | ...    | ...       |
| Do. stores ...                                | ...       | ...    | ...    | ...    | ...       |
| Total, STRIVIGUNTUM ANICUT SYSTEM...          | 10,00,000 | 46,930 | 11,904 | 11,904 | 11,19,617 |

*Proceedings of the Madras Government, Public Works Department,  
7th November 1876. No. 2,991.*

**CAPITAL—EXTRAORDINARY.**

*Abstract of the Total Grants and Expenditure for the Works in each District up to 30th June 1876.*

| System of Irrigation.                     | Amount of Grant for the year. | Expenditure to 30th June 1876. |
|-------------------------------------------|-------------------------------|--------------------------------|
|                                           | RS.                           | RS.                            |
| Godavery Delta ... ..                     | 2,58,400                      | 48,819                         |
| Tools and Plant ... ..                    | 41,300                        | ...                            |
| Establishment ... ..                      | 70,953                        | 12,977                         |
| Add for increase of Suspense Balance ...  | ...                           | 3,061                          |
| Total, Godavery Delta System...           | 3,70,653                      | 64,857                         |
| Kistna Delta ... ..                       | 49,860                        | 6,525                          |
| Tools and Plant ... ..                    | 7,850                         | ...                            |
| Establishment ... ..                      | 13,691                        | 3,305                          |
| Add for increase of Suspense Balances ... | ...                           | ...                            |
| Total, Kistna Delta System ..             | 71,401                        | 9,830                          |
| Pennair Anicut ... ..                     | 21,000                        | 10,004                         |
| Tools and Plant ... ..                    | 250                           | ...                            |
| Establishment ... ..                      | 5,766                         | 4,012                          |
| Add for increase of Suspense Balances ... | ...                           | 89                             |
| Total, Pennair Anicut System...           | 27,016                        | 14,105                         |
| Striviguntum Anicut ... ..                | 36,820                        | 9,184                          |
| Tools and Plant ... ..                    | ...                           | ...                            |
| Establishment ... ..                      | 10,110                        | 2,720                          |
| Add for increase of Suspense Balance ...  | ...                           | ...                            |
| Total, Striviguntum Anicut System...      | 46,930                        | 11,904                         |
| Grand Total...                            | 4,16,000                      | 1,00,696                       |

*Proceedings of the Madras Government, Public Works Department,  
7th November 1876. No. 2,991.*

*Statement showing the Nature and Progress of all Preliminary Surveys and Inquiries under prosecution in connection with the new Irrigation Projects intended to be carried out from Loan Funds for quarter ending 30th June 1876.*

| Districts.      | Names of Projects or Systems.                                             | Particulars of Progress of Investigation.                                                                                                 |
|-----------------|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| Ganjam ... ..   | Vamasadara river or Chicacole Project.                                    | Papers with Chief Engineer for Irrigation.                                                                                                |
| Godavery ... .. | Godavery Delta—<br>Central Delta Project ...<br>Unnamalunka do. ... ..    |                                                                                                                                           |
| Kistna ... ..   | Kistna Delta System—<br>Surveying and levelling<br>Eastern Delta Project. |                                                                                                                                           |
| Do. ... ..      | Western Delta Project ...                                                 | All plans and estimates for irrigation and drainage with the Chief Engineer for Irrigation.                                               |
| Madura ... ..   | Perryaur Project ... ..                                                   | Do. do. except Commamore Canal and Ramparu Swamp, the preparation of plans and estimates of which are in rapid progress. With Government. |

OOTACAMUND,  
4th November 1876.

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

No. 130. ORDER THEREON, 7th November 1876, No. 2,990.

|                    |
|--------------------|
| IRRIGATION, No. 6. |
| Account.           |

ORDERED that the foregoing statements be forwarded to the Government of India.

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

No. 131. (DOCKET No. 2,991, dated 7th November 1876.)  
COPY of the above forwarded to the Government of India.  
(True Extract.)

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

Exd. E. C. Shunker.  
Spare Copies

No. 2990

*Irrigation  
seal*

Public Works Department.

PROCEEDINGS of the MADRAS GOVERNMENT.

Under date the 7 Nov/76

Read the following:—

From the Chief Engineer (H.E. No 240 W 34 Nov/76)

Ordered that the foregoing statements be forwarded to the Government of India.

*4/11*

Order No. 2991 of 7 Nov/76

Copy of the above forwarded to the Government of India

The St Engrs Concerned  
Chief Engineer, Madras

Decd. - 16-11-76

8025

Govt. of 1876 Madras.

PUBLIC WORKS.

To

The District Engineers  
Concerned

11/11/8

Dated

Issued

Recd

Encl

G. O., 7<sup>th</sup> Nov<sup>r</sup> 1876, No.

2990

2991

Nos. 123/2

Sub in the  
17-11-8

Forwarding Statement  
showing the Progress of  
Agricultural Works <sup>under execution</sup> from  
the Extraordinary grant  
for the 2<sup>nd</sup> ending 30<sup>th</sup>  
June 1876.

Progress of Agricultural  
Works. Statement showing  
the — under execution from  
the Extraordinary Grant  
for the 2<sup>nd</sup> ending 30<sup>th</sup> June  
1876, ordered to be for-  
warded to the Govt of  
India.