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# MADRAS RECORD OFFICE

## Government of Madras

*Public Works*

DEPARTMENT

|          |        |              |
|----------|--------|--------------|
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10

*Proceedings of the Madras Government, Public Works Department,  
18th February 1875.*

Read the following papers:—

No. 454. Proceedings of the Government of India, Public Works Department, (Account—Irrigation,) dated Fort William, 21st December 1874, Nos. 370—79A—I.

*Distribution of the Grant for Agricultural Works for 1875-76.*

RESOLUTION.—The Government of India, having had under consideration the question of the grant to be allowed for Irrigation Works for 1875-76, have been pleased to decide that the following sums shall be provisionally assigned as compared with the demands made by Local Governments and Administrations and the grant for 1874-75:—

|               | Demand,<br>1875-76. | Grant,<br>1875-76. | Grant,<br>1874-75. |
|---------------|---------------------|--------------------|--------------------|
|               | RS.                 | RS.                | RS.                |
| Extraordinary | 2,25,93,620         | 1,30,00,000        | 1,47,50,000        |
| Ordinary      | 1,11,27,025         | 90,00,000          | 90,62,000          |
|               | 3,37,20,645         | 2,20,00,000        | 2,38,12,000        |

2. Proceeding to details, the demands of the various Governments and Administrations, compared with the grants allowed, will be brought under review in the order of the heads mentioned:

EXTRAORDINARY.

*Madras.*

3. The estimate submitted by the Government of Madras involves an outlay from Extraordinary Funds of

|                             |                             |
|-----------------------------|-----------------------------|
| from which the provision of | RS.<br>7,50,000<br>1,00,000 |
|-----------------------------|-----------------------------|

(including proportionate share of charges for Establishment and Tools and Plant) for improvements to the works of the Western Delta of the Kistna is disallowed for want of sanctioned estimate, thus leaving the net grant for Extraordinary Works for 1875-76 at

|                 |          |
|-----------------|----------|
|                 | 6,50,000 |
| Of this amount, | 1,50,000 |

as noted in the margin, will be met from the refund from the Ordinary grant

|                                                                 |                                       |                                                                                                                                       |
|-----------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Madras Water-supply ... ..<br>Chembrumbaukum Tank Project... .. | Rs.<br>1,00,000<br>50,000<br>1,50,000 | of the outlay incurred from Loan Funds on the Madras Water-supply and the Chembrumbaukum Tank Project, so that the sum to be provided |
|                                                                 |                                       | 5,00,000                                                                                                                              |

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from Extraordinary sources will be thus distributed:—

|                                                                     |     |     |     | Proposed Grant<br>for 1875-76.<br>RS. |
|---------------------------------------------------------------------|-----|-----|-----|---------------------------------------|
| Additions, extensions, and improvements to the Godavery Delta Works | ... | ... | ... | 3,84,000                              |
| Ditto ditto ditto Kistna                                            | ... | ... | ... | 1,06,000                              |
| Ditto ditto ditto Pennair                                           | ... | ... | ... | 26,000                                |
| Anicut across Vellaur River                                         | ... | ... | ... | 26,000                                |
| Streeviguntum Anicut Project                                        | ... | ... | ... | 1,08,000                              |
| Less met from Ordinary grant                                        | ... | ... | ... | 6,50,000                              |
| Net grant under Extraordinary                                       | ... | ... | ... | 1,50,000                              |
|                                                                     |     |     |     | 5,00,000                              |

SUMMARY OF EXTRAORDINARY GRANTS.

15. The following is an abstract of the grants allowed under Extraordinary compared with the demands brought forward and the grants for 1874-75:—

|        |     |     |     | Demand,<br>1875-76.<br>RS. | Grant,<br>1875-76.<br>RS. | Grant,<br>1874-75.<br>RS. |
|--------|-----|-----|-----|----------------------------|---------------------------|---------------------------|
| Madras | ... | ... | ... | 7,50,000                   | 5,00,000                  | 7,00,000                  |

ORDINARY.

16. The Ordinary Irrigation grant for 1874-75 amounts to Rs. 90,62,000, thus made up—

|                                                   | RS.       |
|---------------------------------------------------|-----------|
| Grant corresponding to that of 1873-74...         | 76,96,000 |
| Special additional grant allowed for 1874-75      | 7,66,000  |
| Special grant for Gunduck Embankment              | 3,00,000  |
| For small Irrigation projects in Houghly District | 3,00,000  |
|                                                   | 90,62,000 |

17. The demand for 1875-76, compared with this grant and the outlay of 1873-74, is as follows:—

Madras.

|        |     |     |     | Demand,<br>1875-76.<br>RS. | Grant,<br>1874-75.<br>RS. | Outlay,<br>1873-74.<br>RS. |
|--------|-----|-----|-----|----------------------------|---------------------------|----------------------------|
| Madras | ... | ... | ... | 30,16,000                  | 22,50,000                 | 23,30,340                  |

18. Reviewing the demands by Provinces, and first—

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Madras.

19. The demand is as follows as compared with the grant for 1874-75 and the outlay of the two preceding years:—

|                   |     |     |     | 1875-76.<br>RS. | 1874-75.<br>RS. | 1873-74.<br>RS. |
|-------------------|-----|-----|-----|-----------------|-----------------|-----------------|
| Original Works    | ... | ... | ... | 7,51,000        | 3,27,950        | 3,20,040        |
| Repairs           | ... | ... | ... | 15,00,000       | 13,67,050       | 14,00,190       |
| Establishment     | ... | ... | ... | 6,90,000        | 5,00,000        | 5,31,190        |
| Plant ..          | ... | ... | ... | 75,000          | 55,000          | (a) 37,540      |
| Increase to Stock | ... | ... | ... | ...             | ...             | 41,380          |
|                   |     |     |     | 30,16,000       | 22,50,000       | 23,30,340       |

(a) Tools and Plant from Upper Godavery.

20. Of the demand under Works, the provision for the following seems questionable as a charge against the Ordinary grant for Irrigation Works:—

Navigation Canal, Nagaram ... .. 10,000

21. It is said that half the cost of the work will be defrayed from Local Funds, but inquiry seems necessary whether this is an isolated work of navigation having no connection with irrigation; for, if so, the liability of Provincial Funds to bear the charge would have to be considered, since the grant for "Other Services" included grants for such navigation works as the Chilka Lake Canal, and those, grants were transferred to Other Services.

22. Works of Embankment as follows:—

|                                           |     |     |     | RS.    |
|-------------------------------------------|-----|-----|-----|--------|
| Embankment road, west bank of Godavery—   |     |     |     |        |
| Do. east ..                               | ... | ... | ... | 10,000 |
| Do. east bank, Rajahmundry to Rahitapuram | ... | ... | ... | 9,000  |
| Do. Rahitapuram to Parushotapuram         | ... | ... | ... | 9,000  |
| Embankments, Polarum Island               | ... | ... | ... | 20,000 |

23. The estimated cost of these four works is Rupees 2,01,000. Explanation should be called for whether these works form portion of the Godavery Irrigation Works; for, if so, the estimates will require the sanction of the Government of India, the estimated cost being over two lakhs. If the works do not form portion of the Godavery Scheme, then it should be explained why Imperial Funds should bear the charge, as, if used for road purposes, then Provincial Funds would seem liable. If Provincial Funds are not liable, then it should be stated what object is served by the works to justify an Ordinary Imperial grant.

24. For works without estimates the demand is as follows:—

|                                                      |     |     |     | Probable Cost.<br>RS. | Sum required.<br>RS. |
|------------------------------------------------------|-----|-----|-----|-----------------------|----------------------|
| Godavery Delta Village drainage                      | ... | ... | ... | ...                   | 30,000               |
| Filling quarry channel through Dowlaishweram Village | ... | ... | ... | ...                   | 7,000                |
| Restoring Kodunthory Tank                            | ... | ... | ... | 15,000                | 10,000               |
| Surplus sluices, Coleroon                            | ... | ... | ... | 6,000                 | 6,000                |
| Streepurendem Tank surplus weir                      | ... | ... | ... | 6,000                 | 6,000                |
| Areapooram Channel                                   | ... | ... | ... | 10,000                | 10,000               |
| Pullapalliem ..                                      | ... | ... | ... | 3,000                 | 3,000                |
|                                                      |     |     |     |                       | 72,000               |

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25. About the Godavery Delta Village drainage channels, Rupees 30,000, information should be furnished as to whether it is intended to debit the outlay to the Capital Account of the Godavery Scheme; as, if so, a comprehensive estimate of the additional Capital outlay on the work would be required, since additions and extensions to the scheme are now being undertaken from Loan Funds, and it is desirable to watch the Capital outlay from Ordinary Funds.

26. For the Madras Water-supply Project, the provision is Rupees 1,30,000, of which, one lakh is for refund to the Loan grant, and Rupees 90,000 for the Chembrumbaukum Tank Project, of which, Rupees 50,000 is for refund to the same grant. It is understood that these sums are so set down to note the reduction which has really to be made in restricting grants elsewhere. It has to be noted that the revised estimate for the Madras Water-supply Project has still to be submitted to the Government of India.

27. For Minor New Works, the provision is ... .. RS.  
The grant for 1873-74 is only ... .. 2,89,000  
For next year, financial reasons render it necessary to limit the grant to Rupees 1,51,000.

28. For Repairs the demand is Rupees 15,00,000; the grant for 1874-75, Rupees 13,67,050 (to be increased to Rupees 15 lakhs); and the outlay of 1873-74, Rupees 14,33,120. The amount required is passed.

Under Tools and Plant, the provision has gone up to Rupees 75,000 from Rupees 55,000 in 1874-75, and Rupees 36,200 in 1873-74. It will suffice to pass Rupees 56,000 for next year.

On the whole, the grant passed for next year will be as follows:—

|                                                                                                        |           |
|--------------------------------------------------------------------------------------------------------|-----------|
| Repairs ... ..                                                                                         | RS.       |
| Minor Works ... ..                                                                                     | 15,00,000 |
| Refund to Loan grant for outlay incurred on Madras Water-supply and Chembrumbaukum Tank Project ... .. | 1,51,000  |
|                                                                                                        | 1,50,000  |
| Establishment, including Conservancy Establishment ... ..                                              | 18,01,000 |
| Tools and Plant ... ..                                                                                 | 5,00,000  |
| New Major Works ... ..                                                                                 | 56,000    |
|                                                                                                        | 1,27,000  |
|                                                                                                        | 24,84,000 |

**SUMMARY OF ORDINARY GRANTS.**

63. According to the foregoing orders, the grants for next year under Ordinary will be as follows:—

|               | Grant,<br>1874-75. | Demand,<br>1875-76. | Grant,<br>1875-76. |
|---------------|--------------------|---------------------|--------------------|
|               | RS.                | RS.                 | RS.                |
| Madras ... .. | 22,50,000          | 30,16,000           | 24,84,000          |
|               | *                  | *                   | *                  |

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64. Of the total grant for next year, the sum for Repairs is as follows, as compared with grant of 1874-75 and outlay of previous years:—

|                                | Demand,<br>1875-76. | Grant,<br>1874-75. | Outlay,<br>1873-74. | Outlay,<br>1872-73. | Outlay,<br>1871-72. | Outlay,<br>1870-71. |
|--------------------------------|---------------------|--------------------|---------------------|---------------------|---------------------|---------------------|
|                                | RS.                 | RS.                | RS.                 | RS.                 | RS.                 | RS.                 |
| Madras ... ..                  | 15,00,000           | 13,67,050          | 14,00,190           | 12,61,300           | 11,22,500           | 11,44,826           |
| Bombay ... ..                  | 7,00,000            | 6,58,950           | 6,58,800            | 5,70,270            | 6,34,418            | 5,17,450            |
| Bengal ... ..                  | 6,87,000            | 5,15,000           | 5,02,580            | 5,75,128            | 5,02,926            | 4,04,707            |
| North-Western Provinces ... .. | 5,30,300            | 5,30,000           | 4,68,320            | 4,94,240            | 4,55,853            | 4,16,165            |
| Punjab ... ..                  | 5,22,000            | 4,48,130           | 4,20,570            | 4,16,050            | 3,88,043            | 3,58,909            |
| British Burmah ... ..          | 30,300              | 40,000             | 3,650               | 20,880              | 34,468              | 19,282              |
| Rajpootana ... ..              | 31,000              | 20,000             | 36,750              | 24,900              | 30,542              | 20,574              |
| Coorg ... ..                   | 500                 | 500                | 510                 | 240                 | 2,000               | 2,000               |
|                                | 40,01,100           | 35,79,630          | 35,20,370           | 33,63,008           | 31,70,780           | 28,83,913           |

Thus, as compared with 1874-75, the demand for next year is in excess by Rupees 4½ lakhs. Of this excess, Rupees 1½ lakhs is due to the admitted necessity of increasing the grant for the maintenance of Irrigation Works in Madras; Rupees ½ lakh for increase to the grant for Repairs in Bombay, chiefly for the Sindh Canals; and Rupees 80,000 for the Sone Irrigation Works, which are to be brought into operation next year. These items aggregate Rupees 2½ lakhs, leaving 1½ lakhs as normal increase, of which, Rupees 10,000 is due to the Agra Canal, while the remainder is divided about equally between Increase in Bengal, exclusive of Rupees 80,000 for Sone ... .. 92,000  
Ditto in Punjab ... .. 74,000  
Bengal and the Punjab. The cause of the increases in these two Provinces requires explanation.

65. Under Establishment, the provision is as follows, as compared with the grant for 1874-75 and the charge of the two preceding years:—

|                                | 1875-76.  |                            | Grant,<br>1874-75. | Charge,<br>1873-74. | Charge,<br>1872-73. |
|--------------------------------|-----------|----------------------------|--------------------|---------------------|---------------------|
|                                | Demand.   | Proposed to<br>be fixed at | RS.                | RS.                 | RS.                 |
| Madras ... ..                  | 6,90,000  | 5,00,000                   | 5,00,000           | 5,31,190            | 4,56,160            |
| Bombay ... ..                  | 3,00,000  | 4,00,000                   | 4,03,050           | 4,08,680            | 4,25,480            |
| Bengal ... ..                  | 3,25,000  | 3,25,000                   | 3,05,825           | 2,58,310            | 2,83,240            |
| North-Western Provinces ... .. | 6,81,525  | 6,81,525                   | 8,03,500           | 8,30,030            | 8,24,580            |
| Punjab ... ..                  | 7,18,600  | 7,18,600                   | 7,26,150           | 7,39,510            | 6,22,370            |
| Central Provinces ... ..       | 15,000    | 10,000                     | 10,000             | 4,840               | 17,250              |
| British Burmah ... ..          | 49,200    | 49,200                     | 50,600             | 52,680              | 49,020              |
| Rajpootana ... ..              | 58,800    | 43,000                     | 38,000             | 59,620              | 71,090              |
|                                | 28,38,125 | 27,27,325                  | 28,37,124          | 28,84,860           | *27,48,440          |

\* Exclusive of refunds to Loan grant.

Thus, according to these orders, the demand for Establishment for next year will be about a lakh less than that of the current year, the decrease being due to the change in the North-Western Provinces of charging Loan Funds with 25, instead of 10 per cent. for Establishment for Extraordinary Works.

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66. For Tools and Plant the demand, as compared with the grant for 1874-75, is—

|                         | 1875-76.   | 1874-75.   |
|-------------------------|------------|------------|
| Madras                  | RS. 57,000 | RS. 55,000 |
| Bombay                  | 26,500     | 23,000     |
| Bengal                  | 63,000     | 60,000     |
| North-Western Provinces | 39,400     | 40,500     |
| Punjab                  | 47,000     | 38,300     |
| British Burmah          | 2,000      | 2,400      |
| Rajpootana              | 10,200     | 5,000      |
|                         | 2,45,100   | 2,24,200   |

67. To summarize, a grant of 90 lakhs gives for—

|                          | RS.       | as compared with 35,79,630 for 1874-75. |
|--------------------------|-----------|-----------------------------------------|
| Repairs                  | 40,01,100 | 28,37,120                               |
| Establishment            | 27,27,325 | 2,24,200                                |
| Plant                    | 2,45,100  | "                                       |
| Total...                 | 69,73,525 | 66,40,950                               |
| Leaving for New Works... | 20,26,475 | 24,21,050                               |
| Grand Total...           | 90,00,000 | 90,62,000                               |

68. Of the amount of Rupees 22,26,475 set down for New Works, Rupees 1½ lakhs is for refund to the loan grant on account of the Madras Water-supply and the Chembrumbaukum Tank Project, so that really the actual grant for outlay on New Irrigation Works will be

|                                                        |               |
|--------------------------------------------------------|---------------|
| In 1862-63 the outlay on Ordinary Irrigation Works was | RS. 18,76,475 |
| In 1866-67                                             | 21,43,711     |
| In 1867-68                                             | 20,31,396     |
|                                                        | 20,72,977     |

**GENERAL SUMMARY.**

69. The total grants allowed to each Province for next year, as compared with the grant for the current year, are shown in the following abstract:—

|                                                                | EXTRAORDINARY. |             | ORDINARY. |           | TOTAL.      |             |
|----------------------------------------------------------------|----------------|-------------|-----------|-----------|-------------|-------------|
|                                                                | 1874-75.       | 1875-76.    | 1874-75.  | 1875-76.  | 1874-75.    | 1875-76.    |
|                                                                | RS.            | RS.         | RS.       | RS.       | RS.         | RS.         |
| Madras                                                         | 7,00,000       | 5,00,000    | 22,50,000 | 24,84,000 | 29,50,000   | 29,84,000   |
| Bombay                                                         | 11,68,000      | 7,50,000    | 17,00,000 | 18,00,000 | 28,68,000   | 25,50,000   |
| Bengal                                                         | 53,57,000      | 45,00,000   | 16,50,000 | 12,50,000 | 70,07,000   | 57,50,000   |
| North-Western Provinces                                        | 48,00,000      | 45,00,000   | 16,75,000 | 16,75,000 | 64,75,000   | 61,75,000   |
| Punjab                                                         | 35,00,000      | 35,50,000   | 13,00,000 | 13,00,000 | 48,00,000   | 48,50,000   |
| Central Provinces                                              | .....          | .....       | 10,000    | 15,000    | 10,000      | 15,000      |
| British Burmah                                                 | .....          | .....       | 3,00,000  | 3,00,000  | 3,00,000    | 3,00,000    |
| Rajpootana...                                                  | 25,000         | .....       | 1,75,000  | 1,75,000  | 2,01,000    | 1,75,000    |
| Coorg...                                                       | .....          | .....       | 1,000     | 1,000     | 1,000       | 1,000       |
| Less met from contributions by Native States for Sirhind Canal | 1,55,50,000    | 1,38,00,000 | 90,62,000 | 90,00,000 | 2,46,12,000 | 2,28,00,000 |
| Net grant from Imperial Funds                                  | 8,00,000       | 8,00,000    | .....     | .....     | 8,00,000    | 8,00,000    |
|                                                                | 1,47,50,000    | 1,30,00,000 | 90,62,000 | 90,00,000 | 2,38,12,000 | 2,20,00,000 |

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70. The grants allowed under the heads Extraordinary and Ordinary include provision for charges for Establishment and Tools and Plant. Under Ordinary, the grant is intended to provide for all Agricultural Works as well for the repairs and maintenance of Irrigation Works generally. And in all cases the grant is intended to provide for expenditure in England on the works concerned. The Budget Estimate should be prepared accordingly.

71. In the preparation of the Budget Estimate of Irrigation Revenue, particular care should be taken to see that the amount shown is the amount that will be included in the regular Public Works Account as Irrigation Revenue. The amount included in the Civil Accounts as Land Revenue, and which may be considered as due to the several works, should be shown as a memorandum at the foot of the estimate, as directed in Public Works Department Circular No.

ORDER.—Ordered, that this Resolution be communicated to the Governments of Madras, Bombay, Bengal, North-Western Provinces, and Punjab. Chief Commissioners, Central Provinces, British Burmah, and Coorg. Governor-General's Agent, Rajpootana.

(Signed) C. H. DICKENS, Colonel, R.A.,  
Secy. to the Govt. of India.

No. 129.

No. 445. *Note by the Chief Engineer for Irrigation.*

It has not been found practicable to prepare the Budget Estimates of the Irrigation Department in exact conformity to the orders of the Government of India, communicated with their Resolution No. 370-A. I. of the 21st ultimo. The following explanations are, therefore, submitted for the information and orders of Government.

**EXTRAORDINARY.**

2. Certain entries in the rough estimate were disallowed by the Government of India for want of sanctioned estimates. Since that estimate was prepared certain estimates for the Western Delta, Kistna, have been reviewed, passed by Government, and submitted for the sanction of the Government of India. The total sum asked for in the Budget as prepared for Loan Fund Works of the Kistna Delta is Rupees 1,35,900, and unless the postponement of the improvement of the canals be considered of little moment, it will be desirable to go on steadily with such portions of the scheme as have been worked out completely. The Deltas have been divided into convenient and natural sub-sections, and there is, it is thought, no valid reason why these should not be taken in hand when the works required have been decided on. The general scheme for each main section of the Delta has been more than roughly determined, and the requirements of the areas involved have been far more fully enquired into than has been the case with any former project of the same kind. So far as the interests of Government and of the population are concerned, moreover, it will be advantageous that a commencement should be made with other sub-sections, especially that of Kykalore, in the Eastern Delta, so soon as the estimates have been passed. The estimates for this sub-section are

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ready, but they cannot be reviewed and disposed of for the next three months or so. Ryves' canal, which will supply this sub-section, among others, will be able to carry water probably in the season of 1876, and if nothing be done to provide for the utilization of this water one year will be thrown away. Nothing has been entered in the Budget for this part of the Delta, but the matter is here mentioned in order that the circumstances may be the better understood.

3. The total under Extraordinary allotted by the Government of India is Rupees 6,50,000, of which 1½ lakhs are to be met from the ordinary grant by refunds. The total of the Budget is Rupees 8,66,900, viz. :—

|                        |          |
|------------------------|----------|
| Works ... ..           | RS.      |
| Establishment ... ..   | 5,90,700 |
| Tools and Plant ... .. | 2,06,200 |
|                        | 70,000   |

4. There are some differences, in the amount shown for the Godavery Delta Works, above the entry in the rough estimate; they are no more than was to be expected when the details of the works to be undertaken came to be settled.

5. In the Kistna the entries for works not yet sanctioned by the Government of India are—

*Western Delta.*

|                         |        |
|-------------------------|--------|
| Main Canal ... ..       | RS.    |
| Nizampatam Canal ... .. | 5,000  |
| Bank Canal ... ..       | 10,000 |
|                         | 37,000 |

6. In Nellore the extension of the Pennair anicut has to be provided for, a work the necessity for which had not arisen when the rough estimate was prepared. The Government of India have been asked to sanction the provision of Loan Funds for this work. Rupees 50,000 are entered as the probable expenditure in 1875-76. Should it be classed as ordinary a similar sum will be needed under that head.

7. In Tinnevely, for the Striviguntum Anicut, a smaller sum than that considered necessary when the rough estimate was prepared has been entered. This is due to the settlement of the contractor's claims in the present year, and to anticipated reduction of expenditure on some of the north tanks.

*ORDINARY.*

8. The provision made by the Government of India is altogether inadequate. Rupees 1,27,000 are put down for New Major Works. The statements, as prepared, show under :—

|                      |          |
|----------------------|----------|
| Capital ... ..       | RS.      |
| Miscellaneous ... .. | 2,94,700 |
|                      | 1,13,900 |
| Total ... ..         | 4,08,600 |

9. The restoration of the damaged anicuts\* of North Arcot and the extension of the Ponniar Anicut in South Arcot will absorb Rupees 1,35,000, or more than the total grant. These works are now being pushed forward, and they, at least, cannot be stopped unless at an immediate sacrifice of much more

\* Palar and Poiny.

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revenue than the total sum of probably 2½ lakhs of Rupees to be expended upon them.

9-A. In Vizagapatam Rupees 10,000 have been entered for the improvement of the Kristamraz channel. The importance of the proposed work has been fully recognized by Government; the approximate estimate was approved in the Proceedings as per margin; the regular estimates were received some time since and will be disposed of as soon as possible. G. O. 20th May 1874, No. 1,339, and 24th July 1874, No. 1,998.

Moreover, a considerable, if not the greater, part of the cost of the improvements will be met by contributions from proprietors of lands under the channel, and it would appear to be necessary that provision should be made for the payment of the Government share so soon as the amounts of the shares shall have been determined. It will be, moreover, observed that it is the only major work proposed for execution in the two Government taluqs of the district.

10. Then come the Madras Water Works, Rupees 30,000  
Chembrumbaukam Tank, „ 28,000

Most of the money originally allotted for 1874-75 had to be diverted in order to carry out the instructions of the Government of India with regard to incomplete works of 1873-74, and unless their completion is to be indefinitely postponed it would seem to be necessary to make some little progress next year.

11. In Nellore there is an entry of Rupees 5,000 for an additional surplus weir to the Nellore tank. The estimate has not yet been sanctioned, but the necessity for discharging a large part of the surplus direct into the river instead of into the Town and Delta has been so forcibly demonstrated by the flood of October last that the undersigned would not be justified in postponing the work without special and positive orders.

12. In Trichinopoly provision has been made for constructing a surplus sluice in the north or left embankment of the Coleroon. The matter has been under discussion for a long time, and the revised estimate ought long since to have been submitted. The embankment closed the natural drainage outfall and the not unnatural result has been the destruction of crops and the breaching of the flood bank. Materials have been prepared pending the sanction of the plan and estimate, and the work is one which cannot rightly be postponed.

13. In Coimbatore provision for five works has been made. The first is for a head sluice to the Pullapolliem channel, a work intended to exclude floods, and required in supersession of an inefficient sluice which has not answered its purpose, and which in the last flood was submerged and useless. The other four items are for head sluices to river channels affecting the safety of the railway. The estimates have not yet been received, but Government ordered a provision of 20,000 Rupees, subject to reduction to be made when the Budget came to be prepared, and a reduced sum of Rupees 12,000 for the four has been entered. It is, of course quite true that such works ought to be foreseen, and that arrangements connected with them should be made in good time, but the omissions and errors of the past would not justify the postponement of the application of a remedy, especially after the recent injuries to the Madras Railway in all directions.

*Proceedings of the Madras Government, Public Works Department,  
18th February 1875.*

14. In Tinnevely all six entries are for head sluices to the Tambrapurny River channels. Two are under construction, for two more estimates have been sanctioned, and the entry of the other two was recently specially directed\* to prevent, if possible, another repetition of the damage caused by the floods of 1869 and 1874. The injuries sustained in either year by Government works alone have far exceeded the total estimated cost of the head sluices.

\* G. O., No. 256, of 29th January 1875.

15. The provision of Rupees 15,000 for ferry boats in the Godavery, and Rupees 3,000 in the Kistna, has been made in consequence of the inconvenience suffered by the villagers having been prominently brought to notice. That there has been inconvenience need not be doubted, and that the perfection of intercommunication is still a long way off may be admitted, but looking to the fact that there were no roads when the Delta works were commenced, that the country was then as impassable as it well could be, that the canals alone have given the Delta remarkably good communications, that the formation of numerous roads is a direct result of the wealth created by the Delta works, it would seem to be necessary to hesitate before saying that these works are to pay for bridges to put on the roads. Where would the Local Funds have been had the district been left as it was 30 or 35 years ago? There would have been little or no money to spend, and the people would have plunged about in the swamps after the manner of their fathers in well nigh entire ignorance of not only roads and bridges, but of canal boats too. Something should be done in the way of giving ferry boats, though in this respect, if the people were not allowed to become quite so helpless, it might be of considerable benefit to themselves; they know what canoes and sungadies are, and it would practically not be a hardship were they to be left to provide these simple means of crossing the canals. The other entries under Capital Ordinary are small items for works which are under execution. Their postponement is not likely to be contemplated.

MISCELLANEOUS.

16. This is the designation substituted for works for which no Capital or Revenue accounts are kept. The entries for Major Works are seven in number, and their total is Rupees 1,13,900. The first is an item of Rupees 1,000 for concrete experiments which are to be continued a little longer; the outlay has been insignificant\* and much good has resulted from it. The next four items are referred to in paragraphs 22 and 23 of the Resolution of the Government of India, and as revised they now stand as follows:—

|                                    | RS.    |
|------------------------------------|--------|
| Godavery West Bank ... ..          | 10,000 |
| Do. East Bank both sections ... .. | 17,000 |
| Embankments, Polaram Island... ..  | 30,000 |

None of these works form a portion of the Godavery Delta Irrigation. The first two items are for embankments above the Anicut and beyond the Delta proper. There have been some inefficient embankments here from time immemorial, and these estimates provide for rendering them efficient. At the same time the Local Fund Board desired to carry roads along them, and it was arranged accordingly

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18th February 1875.*

Proceedings, Madras Government, No. 1,286,  
dated 14th May 1872.  
No. 173, dated 22nd February 1872.  
No. 898, ,, 5th April 1872.  
No. 1,251, ,, 14th May ,,

that the cost of widening the banks to this end, and of gravelling, etc., should be borne by them. Imperial Funds are to pay for the protection of Agricultural interests, and Local Funds for the facilities in the way of communication afforded. There is nothing in the circumstances which would make reasonable the appropriation of Provincial Funds. The Polaram Island is not irrigated by the Delta Canals. Its impoverished condition and the necessity for alleviating the distress and damage caused by frequent inundations led the Government to decide that the work of embanking it should be undertaken forthwith, and a commencement was at once made. Taking into account also that zemindary interests were to a considerable extent involved, it was determined that one-third of the cost of all necessary works should be borne by the proprietors and the rest by Government. The embankments are agricultural works, but they are unconnected with, and entirely isolated from, the Godavery scheme, though possibly some day a canal will be taken across to irrigate this island or group of islands.

17. The navigation canal, Nagarum Island, has been omitted from the Budget, as it will be entirely for navigation purposes, in connection with the observations of the Government of India in paragraphs 20 and 21.

18. The other entries under Miscellaneous are—

|                                                     | RS.    |
|-----------------------------------------------------|--------|
| Godavery Delta village drainage ... ..              | 30,000 |
| Raising embankments on right bank of Pennair ... .. | 25,000 |

The former is referred to in paragraphs 24 and 25 of the Resolution of the Government of India. It is not intended to debit the outlay on account of these drainage works to the Godavery scheme, except in particular cases in which the Delta works may have obstructed drainage; in that case the cost will be provided for under Revenue, Extensions and Improvements. The Delta villages are from the very nature of their position usually ill-drained: much mortality has prevailed, and Government, believing that a good deal of this is preventable, and that their duty to see what could be done to diminish the loss of life, among a population which contributes very largely to the revenue, is analogous to that which devolves upon them when loss of life from famine is imminent or

\* Proceedings of Government, No. 980, dated 15th April, and No. 2,007-B, dated 24th July 1874.

† 12 Villages, Rupees 6,160.

actually occurring, directed\* the subject to be taken up in earnest, and several groups of villages have, as a result, been examined, and the estimates for one group† submitted. It may be noticed that, in this group, the drainage of one village entirely, and of a small part of another village, was found to be interfered with by the canals; the condition of the other villages had not been in any way affected by the Delta works. Nothing was entered for the Pennair embankments in the rough estimate; the need of raising, strengthening, and improving them was shown by the October flood, and there has not yet been time, in the midst of the large amount of emergent work to

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be done, to make a regular estimate for them though an approximate one has been prepared and submitted to Government. The flood bank is to protect all agricultural interests alike, and is not for the benefit of irrigated lands and irrigation works only.

19. The provision for Minor New Works, as fixed by the Government of India, is Rupees 1,51,000, the demand made being 2-09 lakhs. The Government of India were not in possession of the views of the Madras Government on the subject of the absolute necessity for much larger grants, and these now having, after very full consideration, been transmitted, it has appeared to be desirable to add one lakh in the statements, and the entry will then amount to about half of the sum which Government consider should be spent annually on works of this class. The reasons for reduction mentioned in paragraph 27 of the Resolution of the Government of India are financial, but unless they be such as to make it needful to lose two rupees of revenue in order to reduce Public Works expenditure by one rupee, it would seem that the nature and objects of the contemplated outlay have not been fully understood. Whatever India may be able to afford to do, it is clear that she cannot afford to throw away not only most of the benefits of a good monsoon, but also to spend lakhs in closing breaches in tanks, canals, railways etc., which in nine cases out of ten, ought not to occur, but which must recur if the obvious precautions be not taken. But that it will take time to admit of large numbers of petty works being designed and estimated for, it would have been advisable to make the Minor New Works provision five lakhs; probably the Department will be in a position to spend that sum in 1876-77, and it should be given the moment it can be properly spent.

20. The sum allotted by the Government of India for repairs has been distributed to—

|                      | Rs.       |
|----------------------|-----------|
| Revenue ... ..       | 13,99,500 |
| Miscellaneous ... .. | 1,00,500  |

Under the latter head, river conservancy works in the Godavery, and as regards the Coleroon in Tanjore, have been provided for; flood banks and drains also absorb about one-fourth. The classification has not always been very accurate, as for instance, in Ganjam, where the amount, Rupees 10,000, appears to be too large, but this being the first time that an attempt has been made to carry out the instructions contained in G. O., No. 2,003, dated 24th July 1874, to classify works under Capital, Revenue, or Miscellaneous, some inaccuracies were to be expected.

21. The provision for establishments has been thus arrived at—

- 1st.—25 per cent. on Works Allotments for General Executive Establishments.
- 2nd.—Establishment of the Chief Engineer for Irrigation.
- 3rd.—Do. of Deputy Controller for Irrigation.
- 4th.—Survey Establishment.
- 5th.—Conservancy Establishment, and the total has been divided rateably under the several heads, and amounts to 31 per cent. on works exclusive of tools and plant.

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18th February 1875.*

This arrangement is in accordance with the recent decision on the subject of distributing establishment charges.

**TOOLS AND PLANT.**

22. Under Extraordinary the provision is for the most part for steamers for the Godavery and Kistna already sanctioned, which will now probably be built at Calcutta, and for additions to the floating plant the need of which has been clearly demonstrated and noticed by the late Inspector-General of Irrigation among others. Under Ordinary the Government of India allot Rupees 56,000, but the sum required is Rupees 96,000, viz., 30,000 Capital and 66,000 Revenue. The Godavery floating plant will absorb considerably more than half this sum, and in applying to the Government of India for an additional and emergent grant for this purpose in the current year the circumstances have been explained.

23. The natural result of cutting down the ordinary grant in recent years is that instead of every one being required to keep works and plant in good order they have been obliged to let them deteriorate, or to shut their eyes to their inefficiency. This is at any rate not an economical plan, and it is to be hoped that the time for changing it completely is not far off.

FORT ST. GEORGE, (Signed) JOHN MULLINS, Lieut.-Colonel, R.E.,  
30th January 1875. Chief Engineer for Irrigation.

|          |                                                                      |
|----------|----------------------------------------------------------------------|
| No. 456. | From the District Engineer, Ganjam, dated 18th Sept. 1874, No. C/47. |
| No. 457. | Do. do. do. " 24th Sept. " " 8.                                      |
| No. 458. | Do. do. Vizagapatam, " 2nd Aug. " " 836.                             |
| No. 459. | Do. do. do. " 30th Sept. " " 1,278.                                  |
| No. 460. | Do. do. do. " 30th " " " 1,279.                                      |
| No. 461. | Do. do. Godavery, " 24th Aug. " " 1,642.                             |
| No. 462. | Do. do. do. " 2nd Sept. " " 1,780.                                   |
| No. 463. | Do. do. do. " 14th Oct. " " 2,209.                                   |
| No. 464. | Do. do. do. " 19th Nov. " " 2,647.                                   |
| No. 465. | Do. do. Kistna, " 6th Oct. " " 73.                                   |
| No. 466. | Do. do. do. " 27th Nov. " " 119.                                     |
| No. 467. | Do. do. do. " 8th Jan. 1875 " " 134.                                 |
| No. 468. | Do. do. Nellore, " 11th Sept. 1874, " " 46.                          |
| No. 469. | Do. do. do. " 19th " " " 66.                                         |
| No. 470. | Do. do. do. " 23rd " " " 50.                                         |
| No. 471. | Do. do. Cuddapah, " 9th Oct. " "                                     |
| No. 472. | Do. do. Bellary, " 8th " " "                                         |
| No. 473. | Do. do. Kurnool, " 9th " " "                                         |
| No. 474. | Do. do. Chingleput, " 14th " " "                                     |
| No. 475. | Do. do. do. " 4th Dec. " "                                           |
| No. 476. | Do. do. North Arcot, " 22nd Sept. " " 1,781.                         |
| No. 477. | Do. do. South Arcot, " 18th " " " 130 C.                             |
| No. 478. | Do. do. Salem, " 19th " " "                                          |

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18th February 1875.*

|          |                                                                       |  |
|----------|-----------------------------------------------------------------------|--|
| No. 479. | From the District Engineer, Tanjore, dated 15th Oct. 1874, No. 1,477. |  |
| No. 480. | Do. do. Trichinopoly, „ 13th Nov. „ „ 354.                            |  |
| No. 481. | Do. do. Coimbatore, „ 18th do. „ „                                    |  |
| No. 482. | Do. do. Madura, „ 29th Sept. „ „ 2,759.                               |  |
| No. 483. | Do. do. Tinnevely, „ 23rd July „ „                                    |  |
| No. 484. | Do. do. do. „ 17th Oct. „ „                                           |  |
| No. 485. | Controller, Public Works Accounts, „ 9th Dec. „ „ 8,051.              |  |
| No. 486. | Do. do. do. „ 16th Dec. „ „ 8,269.                                    |  |
| No. 487. | Do. do. do. „ 18th do. „ „ 8,346.                                     |  |

No. 488. ORDER THEREON, 18th February 1875, No. 482.

IRRIGATION, No. 34.

Account.

HIS EXCELLENCY the Governor in Council is of opinion that it is clearly impracticable to attempt to prepare the Budget of the Irrigation Department for 1875-76 within the grants allotted by the Government of India in their Resolution distributing funds for that year. This Government have recently fully gone into the subject of the amount of money required under Ordinary, Agricultural, in this Presidency, and it has been shown, His Excellency considers, that the demand thus deduced is reasonable in itself, and absolutely necessary if the administration of the Department is to be efficiently conducted, while, as a matter of finance, it is evident that nothing can well be more wasteful than the omission to provide for the safe and effective condition of existing works.

2. The Note by the Chief Engineer for Irrigation details the character and circumstances of all the principal Major Works included in the Budget Statement, and it has been explained that the restoration and extension of three anicuts, which suffered in the floods of 1874, will alone absorb more than the whole amount of the grant made by the Government of India. Many of the other Major Works are for the purpose of excluding flood-waters from irrigation channels, and the great evils which have resulted from the absence of head sluices having been very forcibly demonstrated, and the loss and damage by the floods of a single year being much in excess of the whole cost of providing an effective remedy, there can be no question of the necessity for immediate action. Neither would it be proper, it is considered, to exclude provision for works of this kind for which estimates have not been sanctioned. The Government have to deal with existing works in these cases, which were imperfectly constructed originally, and for the most part come into British possession with the country. During the many years which have since elapsed, there have been floods at intervals which did much damage, and this was made good without the application of those radical remedies which would have prevented its recurrence. It is not necessary here to discuss why the only proper course was not long ago followed; it is sufficient to say that what is necessary is better understood, the Government cannot any longer allow Irrigation Works to remain unsafe, and a cause of wide-spread damage to public and private interests and property without making every effort to get rid of all preventable causes of

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18th February 1875.*

such loss. The task is a heavy one, and will take many years for its full accomplishment. To do it at all requires a liberal yearly allotment of funds for both Major and Minor Works, most of which will be the same in character and different only in cost.

3. The Budget Statements of this year\* provide for no new projects under Ordinary. These statements, as prepared by the Chief Engineer for Irriga-

tion, in conformity with the orders which have from time to time been passed on a review of the circumstances of the works which have been entered for the first time, will be submitted to the Government of India.

(True Extract.)

(Signed) G. W. WALKER, Colonel, R.E.,

Secretary to Government.

No. 489. (DOCKET No. 483, dated 18th February 1875.)

COPY of the above forwarded to the Government of India.

(True Extract.)

(Signed) G. W. WALKER, Colonel, R.E.,

Secretary to Government.

Exd. A. Grubert.  
Spare Copies

MEMORANDUM.

REQUESTED for reference the under-mentioned papers :—

*Letter to Govt of India of 26 July 1875 No 2130 A.  
S C No 3278-19 November 1874-  
(D No 665-3 Sept 74 submitted with the Survey Extract  
of Nellore District for 1875/76.*

OFFICE OF THE CHIEF ENGINEER  
FOR IRRIGATION,

19-11-1875 }

*Mr. Hawkins*

Head Clerk.

To

The Registrar of the

*Pr. Sec.*

MEMORANDUM

REQUESTED for reference the under-mentioned papers :—

All Irrigation Budgets (originals) of the ~~Madras~~ <sup>State</sup> of 1875-76. ~~Report of~~ <sup>Report of</sup> No 482-18-275

*Sub. to No 482-18-275*

OFFICE OF THE CHIEF ENGINEER  
FOR IRRIGATION,

22-4-76 1876.

*J. W. Harrison*

Head Clerk:

To

The Registrar of the

*P. W. Secretariat*

MEMORANDUM.

REQUESTED for reference the under-mentioned papers :-

*Ch. No. 876 - 28 October/74 sent with Budget Estimate  
of Hisdn District for 1875/76.*

*Approved to the Hon. Secy. to Govt.*

OFFICE OF THE CHIEF ENGINEER  
FOR IRRIGATION,

15-10-1875.

*Dr. H. H. H. H.*

Head Clerk.

To

The Registrar of the *Proved.*

17r. Rept.

17C

Pro: of the Madras Government.

Read the following papers:-

482

- The Govt of India (C. L. no 370-79 A. S. J. 21 Dec/74)
- Chief Secy for Irrigation (C. L. no 129 of 30 Jan/75)
- to King's Gangann (C. L. no C. 47 of 18 Sep/74)
- do (C. L. no 8 of 24 Sep/74)
- do Vengapattam (C. L. no 836 of 2 Aug/74)
- do (C. L. no 1278 of 30 Sep/74)
- do (C. L. no 1279 of do)
- do - Godavery (C. L. no 1642 of 24 Aug/74)
- do (C. L. no 1780 of 2 Sep/74)
- do (C. L. no 2209 of 14 Oct/74)
- do (C. L. no 2647 of 19 Nov/74)
- do - Kichna (C. L. no 73 of 6 Oct/74)
- do (C. L. no 119 of 27 Nov/74)
- do (C. L. no 134 of 8 Jan/75)
- do - Bellare (C. L. no 468 of 11 Sep/74)
- do (C. L. no 668 of 19 do)
- do (C. L. no 50 of 23 do)
- do - Cuddapah (C. L. no 79 of 9 Oct/74)
- do - Bellary (C. L. no 78 of do)
- do - Kurnool (C. L. no 79 of do)
- do - Chingleput (C. L. no 74 of do)
- do (C. L. no 74 of Dec/74)
- do - North Arcot (C. L. no 781 of 22 Sep/74)
- do - South Arcot (C. L. no 130C of 18 do)

From the St. Supr. - Salem - (H.L. No. 8719 Sep/74  
 do - - - - - Tanjore - 1477 of 15 Oct/74  
 do - - - - - Trichinopoly - 354 of 13 Nov/74  
 do - - - - - Coimbatore - 10718 Sep/74  
 do - - - - - Madras - No. 2759 of 29 Sep/74  
 do - - - - - Tirunelveli - 8723 July/74  
 do - - - - - do - 717 Oct/74  
 Hon. Secy of Mr. Asst. - No 8051 of 9 Dec/74  
 do - - - - - do - No 8269 of 16 do -  
 do - - - - - do - No 8346 of 18 do -

P. W. D. 19

Proceedings of the Madras Government,  
 Under date the 187 .

in the Govt. of India. (H. E. Secy 340-49 of 21 Dec/74)  
 in the Chief Engineer } (H. E. Secy 129 of 30 Jan/75)  
 for Irrigation } 482

His Excellency the  
 Governor in Council is of  
 opinion that it is clearly  
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 to prepare the Budget of  
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 for 1875-76 within the  
 grants allotted by the  
 Government of India  
 in their Resolution dis-  
 tributing funds for  
 that year. His Govern-  
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 5/12

subject of the amount of money required under Ordinary, Agricultural, in this Presidency, and it has been shown, His Excellency considers, that the demand thus deduced is reasonable in itself, and absolutely necessary if the administration of the Department is to be efficiently conducted, while as a matter of finance it is evident that nothing can well be more wasteful than the omission to provide for the safe and effective condition of existing works.

2. The note by the Chief Engineer for Irrigation details the

P.M. G. L. 475 dated 17 Feb/75  
~~to the Secretary~~

210<sup>22</sup>  
the character and circumstances of all the principal major works included in the Budget statement, and it has been explained that the restoration and extension of 3 canals, which suffered in the floods of 1874, will alone absorb more than the whole amount of the grant made by the Govt of India. Many of the other major works are for the purpose of excluding flood waters from irrigation channels, and the great evils which have resulted from the absence of head sluices having been

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23  
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It is not necessary here  
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long ago followed; it is  
sufficient to say that  
now that what is neces-  
sary has been, or is being  
understood, the Govt  
cannot any longer allow  
irrigation works to remain

3- The Budget statements  
of this year provide for no

new

x 1843-46

- x Bump & Co
- x Lath & Plaster
- x Kelly Bros.
- x Spectator

do  
The Methodist Engineers  
" Chief Eng<sup>r</sup> Geo. Lupton  
" Springfield Dep<sup>t</sup>  
" Florence "✓  
" Board of Revenue  
" Assamut General  
" Controller of P. W. A. ✓

Dec 20-2-75

256<sup>264</sup>  
new projects under ordi-  
-nary, [and the Govern-  
-ment consider that the  
amount asked for is  
much below what should  
be the normal annual  
outlay.] These statements  
(therefore) as prepared by  
the Chief Engineer for Ir-  
-rigation in conformity  
with the orders, which  
have from time to time  
been passed on a review  
of the circumstances  
of the works which have  
been entered for the first  
time, will be submitted

To the Government of India.

Docket 20-4-23 of 18<sup>th</sup> February 18<sup>th</sup>

Copy of the above  
forwarded to the  
Govt of India

*Conf.* 17<sup>th</sup> Feb. 1876 with 80 lbs.  
\$30 Cigar of Rindge

P.O. 482-83

18-2-75

Op. 18<sup>th</sup> February 1875 N<sup>o</sup> 482  
483