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# MADRAS RECORD OFFICE

## GOVERNMENT OF MADRAS

Revenue DEPARTMENT

| | | |
|---|---|---|
| G.O. No. / B.P. No. | 2478 | Press Mis. |
| Dated 25.10.1876 | | 196 |

***Not to be folded or roughly handled***

24

Read the following papers :—

No. 17. From Captain G. T. SKIFWITH, R.E., Assistant Secretary to the Government of India, Public Works Department, (Civil Works—Irrigation), to Lieutenant-Colonel J. MULLINS, R.E., Joint Secretary to the Government of Madras in the Public Works Department, Irrigation Branch, dated Fort William, 9th March 1876, No. 102-I.

I AM directed to acknowledge the receipt of *your endorsement*, No. 22, dated the 5th January last, forwarding in an approximate form a part only of the information called for in Public Works Department, No. 854-I., of the 9th December 1875, relating to the Madras Water Works Project, and to say that the Government of India are disappointed at not having received the complete information asked for. More than two years have elapsed since the call was made, and I am to request that efforts may be made to supply it at an early date.

2. It is observed that the present estimate of Revenue is set down at Rupees 50,012, thus :—

| | | | | RS. |
|---|---|---|---|---|
| (1.) Waste lands, | 3,670 acres, | at 4 Rs. | ... ... | 14,680 |
| (2.) Dry converted to wet, | 6,021 „ | at 4 „ | ... ... | 24,084 |
| (3.) Second-crop assessment, | 5,624 „ | at 2 „ | ... ... | 11,248 |
| | | | | 50,012 |

But to this should apparently be added the following items included in the original estimate of receipts :—

| | |
|---|---|
| (4.) Payment by Municipality ... ... ... ... ... | 22,000 |
| (5.) Cessation of remission ... ... ... ... ... ... | 7,568 |
| Gross Revenue ... | 89,580 |

and from it should apparently be deducted—

| | | |
|---|---|---|
| (6.) Assessment on land taken up for works ... ... | 4,895 | |
| (7.) Maintenance ... ... ... ... ... ... | 11,500 | |
| | | 16,395 |
| Net Revenue ... | | 73,185 |

I am to inquire whether the above additions and deductions are, or are not correct.

3. I am to add that the payments by the Municipality should apparently be credited to Provincial Services, since that fund is to bear the cost of the Municipal share of the project.

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No. 198-W.

No. 17-A. *Note by the Chief Engineer for Irrigation.*

It has hitherto been impracticable to furnish the Government of India with information in any degree conclusive on the points adverted to in their letter above noted. In the first place as regards the items of revenue, receipts, and charges which it is suggested should be taken into account, this Government are aware that the experience gained since the estimate which has been reviewed by the Government of India was framed has altered the data on which the returns from increase of irrigation

were based. The quantity of water required to be reserved for the use of the Town of Madras is now estimated to be about 61¼ millions of cubic yards, of which only 12 millions of cubic yards are expected to be the quantity which will be paid for by the Municipality. The calculations given in the papers reviewed in Proceedings of the Madras Government of the 5th January 1876, No. 21, will therefore require modification as follows :—

Proc. of the Madras Government, 1st May 1876, No. 1,090.
Do. do. 21st July 1876, No. 1,358.

Municipal or Provincial Fund share ... ... ... ... $\frac{61\cdot5}{139\cdot3} = 44$

Irrigation share ... ... ... ... ... ... ... $\frac{77\cdot8}{139\cdot3} = \frac{56}{100}$

or the Provincial share of the project will be 56 per cent.

In the next place the issues of water from the reservoirs have been found to be much less than the total consumption* of water, and the data are not yet sufficiently extensive to admit of conclusions being arrived at. It will apparently, however, be safe to assume that the water-supply (71·80 millions of cubic yards) now supposed to be available for irrigation will suffice for nearer proportionate to that irrigated by the tanks when unimproved, and the total area of irrigation will in that case be 9,852 acres, from which deducting the former average 3,284 acres, the increase will be 6,568 acres, and the revenue thereon Rupees 19,272, instead of Rupees 50,012 as before estimated. These figures can be taken only as an indication of probable results, but, if they be approximately correct, the gross additional revenue will amount as follows :—

| | Rs. |
|---|---|
| From irrigation ... ... ... ... ... ... ... ... | 26,272 |
| „ towards supply or payment by Municipality ... ... ... | 12,000 |

The maintenance charges for six years ending 1875-76 averaged about Rupees 19,250 annually, but they included large expenditure in 1873-74 due to damage sustained, which will be obviated by the works to be carried out to prevent its recurrence. The former cost of maintenance is as yet unknown, but taking it to be 10 per cent. on the former revenue, it would amount to Rupees 1,250, and it is believed that Rupees 11,500, already estimated as the increased cost of maintenance, will suffice.

2. The enquiries made by the Government of India will now be noticed. It is stated that the estimate of the revenue from the Madras Water Works Project forwarded with endorsement from the Madras Government, No. 22, dated 5th January 1876, contains an entry for second-crop assessment of 5,622 acres at Rupees 2 amounting to Rupees 11,243. The entry in the estimate has been misunderstood. It is not intended to represent the return for second-crop cultivation, but for land now irrigated under small tanks whose supply is precarious, but which land if brought under the influence of the Red Hills Tank, would bear an increase to the actual assessment of Rupees 2 per acre. It is further to be observed that the estimate of revenue was based on the assumption that the whole available supply of water would be utilized for last-crop cultivation as being the most profitable.

* Including evaporation, absorption, &c.

*Proceedings of the Madras Government, Public Works Department,*
*2nd October* 1876. *No.* 2,650.

3. The Government of India further ask whether the following items should not be added to the estimate of receipts :—

| | Rs. |
|---|---|
| 1. Payment by Municipality ... ... ... ... ... ... | 32,000 |
| 2. Cessation of remission ... ... ... ... ... ... | 7,568 |

The Government of Madras, after a careful consideration of all the circumstances of the case and of the correspondence which has passed in reference to the privileges and liabilities of the Municipality in connection with the Madras Water Works, arrived at the conclusion that they could only be chargeable for the quantity of water they actually drew off from the Red Hills Tank, and at the rate of 1 Rupee per 1,000 cubic yards.

G.O., No. 2,981, dated 21st October 1875.

4. In the letter of the President of the Municipality, dated 21st July 1875, No. 271-G., recorded in the Proceedings of the Madras Government in this Department of the 21st October 1875, it was stated that the actual consumption was per day at the rate of 9 gallons per head for 230,000 consumers, and that, although the Commissioners hoped by extension of pipe-laying to reach a consumption of 20 gallons per head per day for a population of 312,000, or a total of 18¼ million cubic yards per annum, they neither desired nor expected to exceed that consumption to any considerable extent. This estimate of the ultimate town consumption has apparently been nearly attained, for by the latest report of the President printed with G.O., No. 620, of the 4th April 1876 in the Financial Department, the consumption is stated to amount to 34,083 cubic yards per diem, equivalent to 20 gallons per hour per diem for a population of 280,000, or 12½ million cubic yards yearly.

5. In the Order of Government on the President's above-quoted letter, the opinion is expressed that the development of Mr. Clarke's drainage scheme will increase the demand for water for Municipal purposes, and that it will eventually in all probability approximate to 25 million cubic yards per annum. On the whole it does not seem probable that the returns from the Municipality are likely to exceed the maximum indicated, and no doubt, for some time to come, they will be limited to those represented by payments for a consumption of 12 million cubic yards, or to Rupees 12,000 per annum—*vide* the orders as per margin.

Public Works Department G.O., No. 2,981, dated 21st October 1875.

G.O., No. 1,090, 1st May 1876.
„ „ 1,358, 21st July „

6. In their letter to the Government of India, No. 2,172, dated 23rd August 1871, the Government of Madras entered, as a probable receipt to the credit of the revenue account of the project, a sum of Rupees 7,568 for cessation of remissions. This entry was based on the statement of the Committee appointed on the 20th May 1871 to report on the anticipated returns from the outlay on the works, who, however, while adding it to the account of estimated revenue furnished by them, pointed out that it could not be deemed an undoubted and perfectly secure asset, and, as a matter of fact, remissions were given in 1871-72 for crops destroyed by excess of water escaping from the weir. If however this item is included in the estimate of revenue,

G.O., No. 939, R.D.

See paragraph 1.

the total receipts from irrigation in return for outlay will amount to Rupees 26,272 + 7,568 = 33,840.

7. The Government of India suggest the deduction from the estimated revenue of the following :—

| | Rs. |
|---|---|
| Assessment on land taken up for works ... ... ... ... ... | 4,805 |
| Maintenance ... ... ... ... ... ... ... ... | 11,500 |

With regard to the first, it seems to have been lost sight of by the Government of India, that in the statement of the Capital Account of the Madras Water Works to the end of 1874-75, printed with G.O., No. 341, dated 8th February 1876, and forwarded to them with endorsement, No. 342, dated 8th February, there is an entry of Rupees 1,95,647 for *capitalization of abatement of Land Revenue, and that consequently* the same item cannot be included as a Revenue charge.

8. As respects the charge for maintenance, an abstract of the outlay on this account, since the date on which the works were assumed to have come into operation, is now furnished below, and an average annual charge is deduced therefrom, but it is evident that so long as the works which recent experience has demonstrated to be necessary for the security of the reservoirs and their supplying channels are incomplete the calculations from current outlay are based on conditions which are in process of being changed, and they cannot for this reason be relied on. At any rate it cannot reasonably be assumed that the charge so made out is likely to continue at the amount shown :—

| Year. | Outlay on Repairs. | Share of Establishment at 35 per cent. | Conservancy Establishment | Total. |
|---|---|---|---|---|
| | Rs. | Rs. | Rs. | Rs. |
| 1870-71 ... ... ... ... ... | 7,054 | 1,988 | ... | 9,042 |
| 1871-72 ... ... ... ... ... | 21,155 | 5,286 | 477 | 26,918 |
| 1872-73 ... ... ... ... ... | 3,365 | 1,616 | 736 | 5,717 |
| 1873-74 ... ... ... ... ... | 39,542 | 9,886 | 853 | 50,283 |
| 1874-75 ... ... ... ... ... | 8,557 | 2,194 | 1,192 | 11,863 |
| 1875-76 ... ... ... ... ... | 5,381 | 1,845 | 1,062 | 7,788 |
| Total ... | 89,080 | 22,257 | 4,220 | 1,15,507 |
| Average ... | ... | ... | ... | 19,250 |

The average annual outlay during the past six years has amounted to Rs. 19,250, which is Rupees 7,750 in excess of the estimate under this head already sent to the Government of India and which was framed originally in 1871. From the present average, however, must be deducted the cost of maintenance of the tanks before alteration, which in the absence of recorded information may be taken at 10 per cent. on the original average revenue of Rupees 12,500, or say Rupees 1,250. If the actuals of the past six years are taken as a guide therefore, the cost of maintenance of the works must be set down at Rupees 18,000 per annum. For the reasons already given, it would, in the opinion of the undersigned, be better to adhere to the original estimate of Rupees 11,500, which, as pointed out by the Government of India, should be deducted from any revenue expected to be realized.

Proceedings of the Madras Government, dated 28th August 1871, No. 2,171.



9. The record of water receipts and charges now maintained should, by the end of the current year, afford more reliable data for a determination of the extent of land which can be irrigated, but it will necessitate continuation of those observations for a series of seven or eight years to obtain really reliable results.

10. In their Order, No. 1,504, dated 17th June 1876, the Government have placed the Madras Water Works in the category of those for which Capital and Revenue Accounts are not kept, but it will probably be useful to show what was the state of the Capital Account, previously kept, on the 1st April of the current year. It is reported by the Superintending Engineer, *Chinglepat District*, that the estimates for the completion of the project were expected from the Executive Engineer in charge on the 31st ultimo. They have not yet been received, but a rough abstract has, in the meantime, been furnished by that officer, and the amounts are shown in connection with the Capital Account below. The statement therefore gives with sufficient accuracy the whole outlay, past and in prospect, which will suffice to complete the works :—

| Classes. | Capital Outlay. | | |
|---|---|---|---|
| | To 31st March 1876. | To complete Works. | Total. |
| | Rs. | Rs. | Rs. |
| Works ... ... ... ... ... ... | 11,78,355 | 1,36,933 | |
| Establishment ... ... ... ... ... | 1,80,524 | 34,253 | |
| Tools and Plant ... ... ... ... ... | 4,923 | 100 | |
| Suspense account ... ... ... ... ... | 468 | | |
| Total ... | 13,69,070 | | |
| Less receipts on Capital Account ... ... ... | 1,167 | | |
| Net outlay ... ... ... ... ... | 13,67,903 | | |
| Capitalized abatement of Land Revenue ... | 1,95,647 | | ... |
| Interest ... ... ... ... ... | 71,904 | | |
| Total ... | 16,35,454 | 1,71,266 | 18,06,720 |

If then the shares noted in paragraph 1 above be approximately correct, the debit to—

Provincial will be ... ... ... ... Rupees 8·28 lakhs.
Irrigation do. ... ... ... ... ,, 9·72 ,,

and the additional cost of up-keep, Rupees 12,000, will be distributed to—

Provincial ... ... ... ... ... ... Rupees 5,290
Irrigation ... ... ... ... ... ... ,, 6,710

The net return on the irrigation share of the outlay will be in round numbers Rupees 28,000, or about 2·8 per cent. on the share, and, as stated in Proceedings of Madras Government of the 5th January 1876, No. 21, the receipts from the Municipality will be carried to the credit of Provincial, and will, deducting* the share of up-keep, yield a net return of

| | Rs. |
|---|---|
| | 12,000 |
| | 5,290 |
| | 6,710 |

Rupees 6,710, or a little over four-fifths per cent.

Ordered, &c.

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

28th August 1876.

To the Secretary to Government, Public Works Department.

*Proceedings of the Madras G* *ment, Public Works Department,*
*2nd Octobe* 6. *No.* 2,650.

No. 18. ORDER THEREON.

IRRIGATION, No. 1.

Project is estimated at Rupees 18,06,72( ctober 1876, No. 2,650.
lakhs, and that of Provincial, Rupees It is observed from the Note of the Chief Engineer for Irrigation that the total outlay for the Madras Water Supply account is calculated at Rupees 28,000; share debitable to Irrigation Rupees 9.72 lakhs. The return on outlay in the first and the second Rupees 6,710. It is evident however that there is considerable uncertainty in the data on which these calculations are based.

2. Colonel Moberly will be req d to explain the cause of the continued delay in the submission of the revised e ate.

3. Ordered that the following lette be sent:—

(Here enter No. 2,661, dated 2nd October 1876.)

(True Extract.)

Colonel,
*Offg. Under Secy. to Govt., P. W. D.*

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

Lieut. A. Graham.
" Robert Gordon.

Gal. pl. 1870; 3 Oct. 1870

PUBLIC WORKS.

To

The District Engineer,
Gilmorevill,
&c., &c., &c.

Dated October 2nd

Issued

Sent Oct 3rd 1870

(P.O. 2nd October 1870, No. 2450).

OFFICE.

Mon. 27-12.

Notice Water Courts Diversion Licence
under Ex Parte Order of the Commissioners
dated 28th Ult. for Canada Gulch Ditch
Co. Ltd. No. 8 Creek
2nd December 1870. In connection with
the

Secretary Water Courts

Recorded at Victoria

Entered