

Public Works (1899) Department.

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18 August 1899.

[Despatch Abstract.]

Review of the Revenue Report of Irrigⁿ works in
Burma 1897-98 - ^{order of the} ~~In Lett~~ ^{Pro:} Govt of India
forwarding a copy of the — command to
the Chief Engr for Irrigation for information

PUBLIC WORKS DEPARTMENT.

CIVIL WORKS.
Irrigation.

Simla, the 27th July 1899.

Review of the Revenue Report of Irrigation Works in Burma for
1897-98.

READ—

Letter from the Government of Burma, Public Works Department, No. 5924—3 L, dated 1st June 1899, submitting the Revenue Report of Irrigation Works in that Province for 1897-98.

MAJOR WORKS, IRRIGATION.

Major Irrigation works are of two kinds: Productive works, the cost of which is chargeable to loan funds, and Protective works, the cost of which is chargeable to revenue, and met from the Famine Relief and Insurance grant. There are no works of the latter kind in Burma.

The only Productive Irrigation work at present sanctioned is the Mandalay Canal, which was sanctioned by the Secretary of State in 1896, for Rs. 32,32,804, and is now in progress. The expenditure incurred to the end of 1897-98 amounted to Rs. 6,65,525. The earthwork on the first 31 miles is reported to be about one-third done, great difficulties having been experienced owing to the hardness of the soil. Buildings have been erected at the headworks and the stone for the erection of the latter is being collected, while some progress has been made with their foundations.

Surveys have also been made for four other canals, the Shwebo, Môn, Ye-u and Yenatna. If these projects are likely to fulfil the conditions of Productive Public works they will in due course be sanctioned as such, and the cost will be met from loan funds, but in the meanwhile the preliminary expenditure incurred in connection with them has been charged to revenue under Minor

works. The sum thus expended to end of 1897-98 amounted to Rs. 41,269. The project for the Shwebo Canal has been submitted to the Government of India and is now under review.

MINOR WORKS, IRRIGATION AND NAVIGATION.

2. Minor works, which are all chargeable to Provincial revenues, are divided for accounts purposes into three classes:—

I.—Works for which capital and revenue account are kept.

II.—Works for which revenue accounts only are kept.

III.—Works for which neither capital nor revenue accounts are kept.

Minor works of the first of these classes consist in Burma entirely of river embankments, the first cost of which has been charged to a capital account. Expenditure on these works commenced in 1862-63, and the total capital outlay to end of the year under review amounted to Rs. 33,82,990, the actual outlay during 1897-98 being Rs. 4,006 only, which was incurred on the Thongwa Island embankment. The revenue account is debited with the cost of maintenance and credited with the whole of the land revenue assessed on the cultivated area reclaimed or protected by these works. The working expenses to end of 1897-98 have amounted to Rs. 35,85,963, the gross revenue credited to the works for the same period being Rs. 1,31,19,852, so that the net revenue has amounted to Rs. 95,33,889. The areas benefited by these works prior to 1883-84 have not been recorded, but in that year amounted to 366,255 acres. During the year under review the area benefited is reported to have been 469,663 acres, and is the largest on record. The gross revenue, which is also the highest on record, amounted to Rs. 8,99,959 and the net revenue to Rs. 6,69,109, or 74.4 per cent. on the gross revenue and 19.78 per cent. on total capital outlay. If the whole of the revenue credited to these works may be attributed entirely to the construction of the embankments they must be regarded as highly remunerative.

3. The Minor works for which only revenue accounts are kept consist entirely of irrigation works in Upper Burma. Some of these are tanks or storage reservoirs and others are canals which draw off their supplies from rivers in which weirs of a more or less substantial character have been constructed. Many of these works have existed from time immemorial and almost all were constructed before annexation. It is therefore impossible to open capital accounts unless the area due to old irrigation is known, or unless the revenue which might have been realized if no expenditure had been incurred on the extension and improvement of the works can be fairly determined. All expenditure is therefore charged to a revenue account although for some time to come a very large share of the working expenses will be due to works of improvement and extension in addition to the ordinary cost of maintenance. The works are distributed over nine districts and separate accounts, which comprise all the works of this class in the district, are kept for each district, but not for each individual work. The credits to the revenue account are chiefly composed of three-fourths of the combined water and land tax on State land, the whole of the non-State land water rates, a share of the *thathameda* or house tax, which is about half of the amount assessed, and the revenue from fisheries.

4. The following tables exhibit the general financial results attained on all these works during the last five years:—

Year.	Area irrigated.	Gross revenue.	Net revenue.	Percentage of net on gross revenue.	Average gross revenue per acre irrigated.
	Acres.	Rs.	Rs.	Per cent.	Rs.
1893-94	258,892	9,02,677	3,17,780	35.2	3.49
1894-95	254,233	9,66,083	2,80,014	29.0	3.80
1895-96	278,860	8,20,974	2,04,310	24.9	2.94
1896-97	268,476	10,13,475	1,17,090	11.6	3.77
1897-98	319,541	11,34,491	2,68,599	23.7	3.55
Total	1,380,002	48,37,700	11,87,793	24.6	3.51

The distribution of the working expenses during the same period was as follows:—

Year.	Extensions and improvements.	Maintenance and repairs.	Establishment	Tools and plant.	Book charges.	TOTAL.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1893-94	2,30,348	1,54,999	1,96,499	7,997	15,054	5,84,897
1894-95	1,25,853	2,24,855	3,04,681	3,535	27,145	6,86,069
1895-96	1,36,892	2,09,296	2,45,659	2,667	22,150	6,16,664
1896-97	3,69,244	1,97,625	2,95,211	7,764	26,541	8,96,385
1897-98	3,83,196	2,25,207	2,32,949	7,795	16,745	8,65,892
Total	12,45,533	9,91,982	12,74,999	29,758	1,07,635	36,49,907

5. From these tables it appears that nearly 75 per cent. of the gross revenue attributed to these works has been devoted to their improvement and maintenance. This is a high proportion, but over 34 per cent. of the total expenditure has been incurred on works of extension and improvement, which should result eventually in an increase of the irrigated area and perhaps a reduction in the cost of maintenance and repairs. There has been a notable increase in the area irrigated during the year under review, though the rainfall is said not to have been very favourable for districts dependent on the local fall, and the increase may probably be attributed to the liberal expenditure recently incurred

on these works. As the more important improvements are completed the expenditure should decrease, while the gross revenue will expand as the irrigated area increases, and a larger proportion of the gross revenue will then be available for general purposes of administration.

The charges for establishment during the five years have averaged 57 per cent. of the works expenditure (improvements and maintenance), but there is a satisfactory tendency to decrease, the rate for the year under review being 46 per cent. If the charges do not include establishment employed in connection with the revenue assessments and collections this rate appears excessive, and should be susceptible of further reduction, though as the works are numerous and scattered a high rate is probably unavoidable.

6. The Minor works for which neither capital nor revenue accounts are kept include the Ma-ubin and Sittang embankments, and the Pegu-Sittang and Sittang-Kyaikto Navigation Canals. It is not understood why the first three of these works have been included in this class, as accounts have been actually maintained for many years of both the revenue receipts and charges, and there should be no difficulty in including them in the class of Minor works for which revenue accounts are kept. No direct revenue is realised on the Sittang-Kyaikto Canal, so that a revenue account is unnecessary.

7. This is the first revenue report that has been submitted for the irrigation works in Burma. The Government of India desire to acknowledge the care with which it has been prepared so as to exhibit in the most convenient form and for the first time the present position and recent financial history of these works, and agree with His Honor the Lieutenant-Governor that the collection of the requisite information regarding revenue and expenditure in past years, and its classification have been a laborious task for which much credit is due to Mr. Benton, the Superintending Engineer, and Mr. Conduitt, Examiner, Public Works Accounts.

ORDER.—Ordered, that copies of this review and of the report referred to be forwarded to the Revenue and Agricultural Department for information.

Ordered, also, that copies of the review be forwarded to the Government of Burma, Public Works Department, for information and guidance, and to the Local Governments and Administrations in the Public Works Department, noted on the margin, for information.

The Governments of Madras, Bombay, Bengal, the North-Western Provinces and Oudh, and the Panjab.
The Chief Commissioner of the Central Provinces.

The Agents to the Governor General in Rajputana and Baluchistan.

Ordered, further, that the review be published in the *Gazette of India*, and that copies of the review be forwarded to Her Majesty's Secretary of State for India.

J. Keidum

Joint Secretary to the Government of India.

G. C. Press, Simla.—No. 799 P. W. D.—28-7-99—180.

To. The Joint Secy: to the Govt: of Madras,
Mr. Deptt: Irrigation Branch

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