
TRIENNIAL IRRIGATION REVENUE REPORT

OF THE

BOMBAY PRESIDENCY

(EXCLUDING SIND)

FOR THE

TRIENNIUM ENDING 1907-1908.

CONTENTS.

	PAGES.
General Remarks	i to iv
Consolidated Statement for Major Works, Protective	1 to 3
Do. do. Productive	5 to 7
Do. for Minor Works and Navigation—Works for which Capital and Revenue Accounts are kept	9 to 11
Do. for Works for which only Revenue Accounts are kept ..	13 to 15
Do. for all classes of Irrigation Works	17
Detailed Statements of :—	
(1) Nira Canal including Shetphal Tank	20 & 21
(2) Mhasvad Tank	22 & 23
(3) Pravara River Works—Ojhár Right Bank Canal	24 & 25
(4) Chankapur Tank	26 & 27
(5) Máládevi Tank	28 & 29
(6) Godáveri Canal	30 & 31
(7) Budhihal Tank	32 & 33
(7A) Surveys and Investigations of Protective Irrigation Works	36 & 37
(8) Háthmati Canal	40 & 41
(9) Lower Pánjhra River Works	42 & 43
(10) Kadva River Works	44 & 45
(11) Pravara River Works—Lákh Canal	43 & 47
(12) Mutha Canals	48 & 49
(13) Ekruk Tank	50 & 51
(14) Krishna Canal	52 & 53
(15) Khári Cut	56 & 57
(16) Wangroli Tank	58 & 59
(17) Tranza Nagráma Tanks	60 & 61
(18) Hartála Tank	62 & 63
(19) Mhasva Tank	64 & 65
(20) Jámda Canals	66 & 67
(21) Parsul Tank	68 & 69
(22) Pravara River Works—Ojhár Canal	70 & 71
(23) Bhátodi Tank	72 & 73
(24) Mátoba do.	74 & 75
(25) Kasurdi do.	76 & 77
(26) Shirsuphal do.	78 & 79
(27) Bhádalvádi do.	80 & 81
(28) Koregaon do.	82 & 83
(29) Ashti do.	84 & 85
(30) Páthri do.	86 & 87
(31) Revári Canal	88 & 89
(32) Upper Mán River Works	90 & 91
(33) Yerla River Irrigation Works	92 & 93
(34) Chikhli Canal	94 & 95
(35) Máini Tank	96 & 97
(36) Muchkundi Tank	98 & 99
(37) Gadikeri do.	100 & 101
(38) Gokák Canal, 1st Section, and Storage Works	102 & 103
(39) Dambal Tank	104 & 105
(40) Medleri do.	106 & 107
(41) Asundi do.	108 & 109
(42) Mádag do.	110 & 111
(43) Mávinkop do.	112 & 113
(44) Sávli do.	114 & 115
(45) Sahiat do.	116 & 117
(46) Victoria do.	118 & 119
(47) Gokák Canal, 2nd Section	120 & 121
Detailed Statements of Works for which only Revenue Accounts are kept in the—	
(1) Ahmedabad District	124 & 125
(2) Kaira do.	126 & 127
(3) Surat do.	128 & 129
(4) Khándesh do.	130 & 131
(5) Násik do.	132 & 133
(6) Belgaum do.	134 & 135
(7) Dhárwár do.	136 & 137
(8) Panch Maháls, Broach, Ahmednagar, Poona, Sátára, Bijápúr, Ratnágiri and Kánara Districts	138 & 139
Statements of Minor Works and Navigation—Works for which neither Capital nor Revenue Accounts are kept	142 & 143
Maps of the Northern, Central and Southern Divisions	1 & 2
Government Resolution	1 & 2
Supplement to the Triennial Revenue Report, Deccan and Gujarát (Note by the Chief Engineer for Irrigation.)	(1) & (2)

TRIENNIAL IRRIGATION REVENUE REPORT, BOMBAY
PRESIDENCY (EXCLUDING SIND), 1905-06 TO 1907-08.

General Remarks.

This is the third Triennial Revenue Report of Irrigation Works prepared in accordance with the orders of the Government of India conveyed in their Resolution No. 670-C. W. I., dated the 6th June 1901, contained in Government Resolution No. W. I.—1396, dated 5th July 1901.

2. The report contains the statistical information of which it is important to maintain a permanent and continuous record. The statements show the working details and the results attained by each work in four successive triennial periods and brief general remarks are given at the bottom of the statements.

For details regarding the administrative work and progress of the Department, reference should be had to the Annual Administration Reports which are published separately.

3. The works in the Deccan and Gujarát, for which both Capital and Revenue Accounts are kept, are divided into two classes—Major Irrigation Works and Minor Works and Navigation—and are used for irrigation purposes only.

The “Major Irrigation Works” are—

Protective Works.

1. Nira Canal including Shetphal Tank.
2. Mhaswad Tank.
3. Pravara River Works—Ojhar Right Bank Canal.
4. Chankápur Tank.
5. Maladevi Tank.
6. Godaveri Canal.
7. Bhudhihal Tank.

Productive Works.

8. Hathmati Canal.
9. Lower Panjhra River Works.
10. Kadva River Works.
11. Pravara River Works—Lakh Canal.
12. Mutha Canals.
13. Ekruk Tank.
14. Krishna Canal.

and those classed under the head “Minor Works and Navigation” are :—

15. Khari Cut Canal.
16. Wangroli Tank.
17. Tranza-Nagamma Tank.
18. Hartala Tank.
19. Mhasva Tank.
20. Jamda Canals.
21. Parsul Tank.
22. Pravara River Works—Ojhar Canal.
23. Bhatodi Tank.
24. Matoba Tank.
25. Kasurdi Tank.
26. Shirsuphal Tank.
27. Bhadalvadi Tank.
28. Koregaon Tank.
29. Ashti Tank.
30. Pathri Tank.
31. Revari Canal.
32. Upper Man River Works.
33. Yerla River Irrigation Works.
34. Chikbli Canal.
35. Maini Tank.

36. Muchkundi Tank.
37. Gadikeri Tank.
38. Gokák Canal, 1st Section and Storage Works.
39. Dambal Tank.
40. Medleri Tank.
41. Asundi Tank.
42. Madag Tank.
43. Mavinkop Tank.
44. Savli Tank.
45. Sahiat Tank.
46. Victoria Tank.
47. Gokák Canal, 2nd Section.

4. At the end of the last triennium there were 43 works which included Nira Canal and Shetphal Tank as two *separate* works; during the triennium under report, while these two works were amalgamated into one, five new works have been added, raising the total number of works to 47. The additional works are:—

Pravara River Works, Godaveri Canal and Bhudhihal, Sahiat and Victoria Tanks.

5. Of these 47 works, 38 are in operation; 5, *viz.*, Pravara River Works, Godaveri Canal and Chankapur, Savli and Sahiat Tanks are under construction; and 2, *viz.*, Budhihal and Victoria Tanks were commenced as famine works and are now stopped; the Gokák Canal, 2nd Section, is in abeyance and the Maladevi Tank has been abandoned.

6. The following table gives the average of the rainfall at all stations connected with works in operation at which rainfall is gauged:—

Average of 12 years 1896-97 to 1907-08.	During			Average for			
	1905-06.	1906-07.	1907-08.	1905-06 to 1907-08.	1902-03 to 1904-05.	1899-00 to 1901-02.	1896-97 to 1898-99.
Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
19.05	14.63	22.61	21.05	19.43	19.19	16.25	21.34

The rainfall during the triennium under report is slightly above the average of the twelve years ending 1907-1908.

7. The Capital outlay and financial results of the works classed as Major Works—Protective—are shown in the following table:—

	Average for			
	1905-1906 to 1907-1908.	1902-1903 to 1904-1905.	1899-1900 to 1901-1902.	1896-1897 to 1898-1899.
	Acres.	Acres.	Acres.	Acres.
Area irrigated	47,186	45,332	52,098	48,000
	Rs.	Rs.	Rs.	Rs.
Capital outlay to end of triennial period	1,14,30,083	91,75,054	86,81,773	80,79,379
Revenue	3,05,373	2,28,469	1,93,628	1,35,585
Working Expenses	1,03,570	82,467	69,161	83,407
Net Revenue	2,01,803	1,44,002	1,24,467	52,178

8. Both the area irrigated and the revenue realized show an increase, that in the case of revenue, Nira Canal, being specially noticeable. The working expenses also show an increase and this is mainly due to increase in Establishment charges, and in collection charges consequent on the increase in actual realizations.

The net revenue of the triennium under review shows a return of 1.76 per cent. on the Capital spent—more than 114 lakhs excluding interest charges—which is slightly better than that of the last triennium which was 1.57 per cent.

The general remarks at foot of the detailed statements describe the progress of each individual work.

9. Under the head Major Works—Protective Works—Works for which neither Capital nor Revenue Accounts are kept—an expenditure of Rs. 8,53,591 was incurred during the triennium under report on Surveys and Investigations of Protective Irrigation Works, that incurred during the preceding triennium being Rs. 6,05,012. A separate statement showing details of the above outlay has been included in the present report, as was done in the case of the last triennial report.

10. The following statement gives Capital outlay and financial results in respect of the works classed as Major Works—Productive:—

	Average for			
	1905-1906 to 1907-1908.	1902-1903 to 1904-1905.	1899-1900 to 1901-1902.	1896-1897 to 1898-1899.
Area irrigated	Acres. 31,056	Acres. 25,139	Acres. 26,904	Acres. 30,096
	Rs.	Rs.	Rs.	Rs.
Capital outlay to end of triennial period	1,17,46,836	1,15,40,351	1,10,53,704	1,09,50,247
Revenue	4,76,718	4,05,441	3,65,465	3,58,057
Working Expenses	1,69,037	1,69,876	1,62,162	1,83,170
Net Revenue	3,07,681	2,35,565	2,03,303	1,74,887

11. The increase in the area irrigated is accompanied by an increase in the revenue. The increase is due partly to deficiency of timely rainfall and partly to increase in the sanctioned rates for monsoon and rabi crops.

The working expenses in the triennium under report are very nearly the same as in the previous triennium. The Capital outlay under this head, excluding interest charges, amounts to Rs. 1,17,46,836 upon which a return of 2.62 per cent. is obtained which is slightly better than the percentage shown in the last triennium, which was 2.04.

12. The Capital expenditure on the five works—Lower Panjhra River Works, Kádva River Works, Lákhal Canal, Mutha Canals and Krishna Canal—originally classed as Productive Works and still maintained on the list of works of that class, has from 1885-86 been met from funds provided under “Minor Works and Navigation” as they were found not to fulfil the conditions prescribed in the case of Productive Works.

13. The Capital outlay and financial results in respect of “Minor Works and Navigation—Works for which Capital and Revenue Accounts are kept” are as follows:—

	Average for			
	1905-1906 to 1907-1908.	1902-1903 to 1904-1905.	1899-1900 to 1901-1902.	1896-97 to 1898-99.
Area irrigated	Acres. 38,119	Acres. 37,093	Acres. 40,863	Acres. 39,146
	Rs.	Rs.	Rs.	Rs.
Capital outlay to end of triennial period	96,78,003	92,39,850	81,08,867	76,65,147
Revenue	1,53,821	1,26,289	1,03,373	1,86,683
Working expenses	95,747	82,352	1,59,793	1,00,304
Net Revenue	58,074	43,937	—53,420	86,379

14. There is a slight increase in the area irrigated. The revenue, however, shows a large increase due to higher rates being charged on some of the works. It is clear the addition has been no deterrent and has been easily paid. The increase in working expenses is mainly due to increase in collection charges, consequent on the increase in actual realizations and in establishment and repair charges. Details of these works are given in the individual statements.

15. Besides the works detailed in paragraph 3 under Minor Works and Navigation, there are two classes namely (1) Works for which only Revenue Accounts are kept and (2) Works for which neither Capital nor Revenue Accounts are kept.

16. The particulars of "Works for which only Revenue Accounts are kept" are as follows:—

			Average for			
			1905-1906 to 1907-1908.	1902-1903 to 1904-1906.	1899-1900 to 1901-1902.	1896-97 to 1898-99.
Area irrigated	...	...	Acres. 145,946	Acres. 143,350	Acres. 131,872	Acres. 145,985
Revenue	...	...	Rs. 4,49,366	Rs. 5,08,238	Rs. 5,53,072	Rs. 5,64,214
Working expenses	...	...	Rs. 4,24,009	Rs. 4,56,804	Rs. 2,32,089	Rs. 2,19,698
Net Revenue	...	...	Rs. 25,353	Rs. 51,434	Rs. 3,20,983	Rs. 3,44,546

17. The works included in the above class are small tanks and bandharas which earn considerable revenue. Though the expenditure incurred during the triennium was but slightly less than that incurred during the preceding triennium, the revenue realized shows a large falling off and this is mainly due to very liberal remissions granted during a period of deficient water-supply. The apparently high working expenses of the last two triennia are due to special repairs and improvements effected on a considerable number of tanks.

18. Particulars in respect of "Works for which neither Capital nor Revenue Accounts are kept" are as follows:—

			Average for			
			1905-1906 to 1907-1908.	1902-1903 to 1904-1906.	1899-1900 to 1901-1902.	1896-97 to 1898-99.
Revenue	...	..	Rs. 2,871	Rs. 1,499	Rs. 1,785	Rs. 537
Expenditure	...	...	Rs. 1,09,023	Rs. 1,62,888	Rs. 1,19,049	Rs. 62,686

19. The expenditure under this head is on account of construction of certain tank-works, drainage channels, surveys, rain and river gauges. The measurement of the supplies of water available is very important for the projecting of future works.