
IRRIGATION REVENUE REPORT
OF THE
BOMBAY PRESIDENCY,
EXCLUDING SIND.
1913-1914.

[Price—6a. or 7d.]

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**IRRIGATION REVENUE REPORT
BOMBAY PRESIDENCY, EXCLUDING SIND,
1913-1914.**

PART I.

**COMPRISING FIRST CLASS IRRIGATION WORKS FOR WHICH
CAPITAL AND REVENUE ACCOUNTS ARE KEPT.**

GENERAL REMARKS.

The following list includes all the works in operation
(42 in number) :—

Collectorate.	Number.	Names of Works.	Area of four months' crops which could be irrigated in normal years with a duty at the head of the Canal of 120 acres for the monsoon season and 120 acres for the rabi season per cusec.	Whether Supply is reliable or dependent on local rain.	Storage Works completed or proposed.	Remarks.
MAJOR WORKS.						
<i>Protective Works.</i>						
Ahmednagar ...	1	Pravara River Works—Pravara Right Bank Canal.	24,656 for complete canal.	Dependent on local rain.	Storage work at Lake Arthur Hill in progress.	Ghát catchment.
Násik ...	2	Girna Left Bank Canal.	Information not available.	Reliable	Chankápur Tank completed.	Do.
Do. ...	3	Godavari Right and Left Bank Canals.	15,310	Do.	Lake Beale completed.	Do.
Ahmednagar ...		Godavari Right Bank Canal.	33,510. These are projected figures subject to alteration.			
Poona ...	4	Nira Canal including Shetphal Tank.	100,000	Do.	Lake Whiting completed.	Do.
Sholápur ...	5	Mhaswad Tank	17,975	Dependent on local rain.	Completed	Deccan catchment.
<i>Productive Works.</i>						
Ahmedabad ...	9	Háthmati Canal and Khári Cut.	21,000	Dependent on local rain.	No storage work; Bokh Reservoir and Chandola Tank completed.	Forest and hilly catchment. Supply depends chiefly on the flow in the Háthmati and Khári Rivers, contents of the Bokh Reservoir and the Chandola Tank.
West Khándesh...	10	Lower Pánjhra River Works.	8,173	Pánjhra River supply not reliable.	Mukti Tank completed.	Ghát catchment for one part and Deccan catchment for the rest.
Násik ...	11	Kadwa River Works. { Pálkhed Canal. Ojhar Tánbat Canal. Wajáli Canal.	7,228	Reliable	Wághad Tank completed.	Ghát catchment.
			550			
			970				.....	No storage proposed.
Ahmednagar ...	12	Pravara River Works—Lákh Canal.	582	Reliable for monsoon and rabi.	Storage work at Lake Arthur Hill in progress.	Ghát catchment.
Poona ...	13	Mutha Canals including Mátoba Tank.	49,000	Reliable	Lake Fife completed.	Ghát catchment.
Sholápur ...	14	Ekrak Tank	13,070	Dependent on local rain.	Completed	Deccan catchment.
Sátára ...	15	Krishna Canal	6,412	Reliable	Proposed	Ghát catchment.

Collectorate.	Number.	Name of Works.	Area of four months' crops which could be irrigated in normal years with a duty at the head of the Canal of 120 acres for the monsoon season and 130 acres for the rabi season per cusec.	Whether Supply is reliable or dependent on local rain.	Storage Works completed or proposed.	Remarks.
		MINOR WORKS AND NAVIGATION.	Acres.			
Kaira	16	Wangroli Tank	3,000	Dependent on local rain.	Completed	Ordinary catchment on plain ground.
	17	Tránza-Negráma Tank	800	Do.	Do.	Tránza Tank has no independent catchment. Negráma Tank has a catchment of 1-50 sq. miles. Both are fed by the Matar Drainage channel which is not at all reliable.
	18	Savli Tank	2,000	Do.	Do.	Ordinary catchment on sloping ground
	19	Saiat do.	2,000	Do.	Do.	Ordinary catchment on flat ground.
East Khándesh.	20	Hartála do.	978	Do.	Do.	Deccan catchment.
	21	Mhasva do.	3,256	Do.	Do.	Do.
	22	Jámda Canals	42,000	Girna River supply not reliable.	Storage Tanks on the Girna, the Manad and the Pánjan Rivers under contemplation. Water is issued from the Chankápur Tank when available.	Ghát catchment for a small part and for the rest Deccan catchment.
Násik	23	Parsul Tank	3,400	Dependent on local rain.	Completed	Deccan catchment.
Ahmednagar	24	Pravara River Works—Pravara Left Bank Canal.	6,852	Do.	Storage work at Lake Arthur Hill in progress.	Ghát catchment.
	25	Bhátodi Tank	1,461	Do.	Completed	Deccan catchment.
Poona	26	Kásurdi do.	150	Do.	Do.	Do.
	27	Shirsuphal do.	1,350	Do.	Do.	Do.
Sholápur	28	Bhádálvádi do.	1,800	Do.	Do.	Do.
	29	Koregaon do.	416	Do.	Do.	Hilly catchment.
	30	Ashti do.	3,882	Do.	Do.	Deccan catchment.
	31	Pathri do.	3,094	Do.	Do.	Do.
Sátára	32	Rewári Canal	439	Do.	Nil	Do.
	33	Upper Mán River Works.	373	Do.	Pingli Tank completed.	Do.
	34	Yerla River Irrigation Works.	1,182	Do.	Nehr do.	Do.
	35	Chikhli Canal	355	Do.	Nil	Do.
Bijápur	36	Maini Tank	455	Do.	Completed	Do. Supply from catchment is good.
	37	Muchkundi Tank	750	Do.	Do.	Deccan catchment.
Belgaum	38	Gadikeri do.	418	Do.	Do.	Supply reliable.
	39	Gokák Canal, 1st Section.	10,387	Reliable	Rabi Storage only	Ghát catchment.
Dhárwár	40	Dámbal Tank	531	Dependent on local rain.	Completed	Deccan catchment.
	41	Medleri do.	231	Do.	Do.	Do.
	42	Asundi do.	303	Do.	Do.	Do.
	43	Madag do.	1,418	Do.	Do.	Ghát and forest catchment—reliable.
	44	Mavinkop do.	617	Do.	Do.	Forest catchment reliable.
	45	Dharma Canal	For monsoon season 6,580 acres. For Rabi nil.	Do.	No storage works, but canal takes off from the River itself.	Ghát catchment.

Nos. 6, 7, 8, 46 and 47—Nira Right Bank Canal, Máládevi, Budhihal, Victoria Tank and the Suki River Project are not included as the works were not in operation in the year under report. No. 48—Gokák Canal, 2nd Section—is in abeyance.

Interest Account.

2. The Interest Account to end of the year stands as follows:—

	Amount.				Amount.		
	Protective Works.	Productive Works.	Total.		Protective Works.	Productive Works.	Total.
	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.
Total Interest charges to end of 1912-13	1,02,39,135	1,63,91,436	2,66,30,571	Net Revenue realized to end of 1912-13	32,66,149	68,81,531	1,01,47,729
Do. during 1913-14	8,44,550	4,22,799	12,67,349	Do. during 1913-14	5,71,005	4,64,014	10,35,019
					38,37,163	73,45,595	1,11,82,758
				Balance net Interest charges to end of 1913-14	72,46,832	94,68,640	1,67,15,472
Total end of 1913-14	1,10,83,935	1,68,14,235	2,78,98,320	Total ...	1,10,83,935	1,68,14,235	2,78,98,320

3. The gross revenue realised from all sources during the year, after deducting refunds of revenue (Rs. 1,365), was Rs. 17,39,483, of which Rs. 17,32,730 were direct and Rs. 6,753 indirect receipts. The net revenue actually realized was Rs. 10,87,593. The gross revenue shows an increase of Rs. 3,25,956, while the net revenue shows an increase of Rs. 1,83,165.

4. The gross area under command was 12,44,276 acres and the area irrigable at present is 4,37,404 acres.

5. The financial results of the year by main heads were as follows:—

	Area irrigated.	Revenue realised.			Working expenses.	Net Revenue.
		Direct Receipts.	Share of Land Revenue.	Total.		
	Acres.	Rs.	Rs.	Rs.	Rs.	Rs.
<i>Class I.—Works for which Capital and Revenue Accounts are kept.</i>						
Major Works. { Protective Works .	1,17,217	8,57,115	...	8,57,115	2,86,110	5,71,005
{ Productive Works .	51,670	6,76,863	4,109	6,80,972	2,16,958	4,64,014
Total ...	1,68,887	15,33,978	4,109	15,33,087	5,03,068	10,85,019
Minor Works ...	45,406	1,99,752	2,644	2,01,396	1,48,822	52,574
Total Class I ...	2,14,293	17,32,730	6,753	17,39,483	6,51,890	10,87,593

The area shown as irrigated includes 10,955 acres on which a consolidated land and water assessment has been and is proposed to be levied. This is derived from old works on which expenditure on improvements only has been incurred.

6. The figures showing areas irrigated, revenue assessed and realised, and working expenses, as compared with former years, are as follows:—

Areas irrigated.

Years.	Area irrigated.	Revenue.		Working expenses.
		Assessment.	Realization.	
	Acres.	Rs.	Rs.	Rs.
1903-04	87,819	7,78,638	8,63,048	3,08,124
1904-05	131,905	8,45,905	6,65,237	3,56,124
1905-06	105,716	8,93,325	8,47,811	3,57,670
1906-07	103,787	9,47,167	8,58,820	3,67,062
1907-08	130,808	10,87,554	11,01,106	3,80,332
1908-09	142,928	10,99,014	10,67,329	3,89,423
1909-10	145,155	11,22,916	12,55,165	4,16,046
1910-11	123,356	10,95,869	12,51,247	4,38,524
1911-12	142,934	13,31,017	13,76,101	4,68,047
1912-13	197,335	15,83,168	14,13,527	5,09,099
Average for ten years	131,677	10,78,407	10,69,939	3,99,045
1913-14	203,338	17,59,548	17,39,483	6,51,890

The increase of 5,973 acres in the total area irrigated as compared with the previous year was distributed over the several classes of works as follows:—

	Acres.
Protective Works	+ 5,661
Productive „	+11,633
Minor „	-11,321
Total	+ 5,973

The variations in the areas irrigated may be remarked upon as follows:—

Deccan Irrigation Division.

The Protective and Productive Works show an increase of 5,661 and 2,693 acres respectively over the areas irrigated in the preceding year. This was due to the large demand for water on the Nira and Mutha Canals and to the additional length of the Godávári Left Bank Canal having been brought into operation.

The Minor works irrigated 6,681 acres less than in the preceding year. The decrease is due to the seasonal and timely rainfall.

Southern Division.

As compared with the previous year, the total area irrigated shows an increase of 6,597 acres. The increase was both in the kharif and rabi seasons, and is the net result of increases and decreases on several works.

The increase in the kharif area in the case of all the works, except the Gokák Canal, was due to a large demand for water on account of irregular rainfall. In the case of the Gokák Canal, which shows a decrease of 215 acres, although the rainfall was very scanty during the season, the irrigators depending upon rainfall did not apply for as much water as was anticipated. They left their lands fallow with a view to grow valuable crops during the rabi season.

During the rabi season, there was a large demand for water owing to scanty rainfall. In the case of the Krishna Canal, however, the late rains during the kharif season helped the rabi crops to a considerable extent, and consequently, there was less demand for water during the rabi season. The decrease in area in the case of the Rewári and the Chikhli Canals is due to insufficient water for irrigation as there was no rainfall during the season and in the case of the Chikhli Canal, there was a scanty supply of water from the Nandni River to the Canal.

Northern Division.

The rainfall of the year was heavy but not quite seasonable. The monsoon broke in the beginning of June and a little rain continued to fall throughout the month, which enabled rice seedlings to be prepared earlier than usual, and the transplantation thereof was commenced by the middle of July. From the 19th July to the 5th of August there was heavy rainfall throughout the Northern parts of Gujarát, and though the agricultural operations were thereby greatly retarded, the rice fields were flooded everywhere and the transplantation could be made as soon as the rains ceased and the weather was clear.

The total area irrigated by both the Háthmati and Khári Cut Canals was 18,330 acres, against 12,217 acres irrigated by them in the previous year.

The total areas irrigated respectively by the Wángroli, Tránja-Nagráma, Sávoli and Saiat Tanks were 453, 173, 146 and 76 acres against 2,210, 664, 2,902 and 1,422 acres irrigated by them in the previous year.

Collections of Revenue.

7. The state of the collections was as follows:—

					Rs.
Balance of demands unrealized at the commencement of the year	...	...	...	...	1,72,498
					Rs.
Demands of the year—					
Rabi, 1912-13	...	...	...	...	3,94,665
Kharif, 1913-14	...	...	...	...	9,84,227
Miscellaneous receipts	...	...	...	...	3,08,337
					<u>16,87,229</u>
					Total ...18,59,727
<i>Deduct—</i>					
Remissions	...	...	...	...	1,951
					<u>Net Total ...18,57,776</u>
Amount unrealized at the close of the year	...	...	...	...	1,23,681
Actual receipts for the year	...	...	...	...	17,34,095
<i>Add—</i>					
Share of Land Revenue	...	...	...	...	6,753
					<u>17,40,848</u>
<i>Deduct—</i>					
Refunds of Revenue	...	...	...	...	1,365
					<u>Revenue realized as per paras. 3, 5 and 6 ...17,39,483</u>

The remissions and refunds together amount to Rs. (3,316). The amount unrealized at the close of the year, *viz.*, Rs. 1,23,681 is considerably less than that at the close of the last year; the total is made up as follows:—

					Rs.
1 Godávari Canal	...	...	...	...	38,524
2 Mutha Canals, including Matoba Tank	...	...	...	...	35,426
3 Háthmati Canal, including Khári Cut	...	...	...	...	13,774
4 Kádva River Works	...	...	...	...	10,333
5 Krishna Canal	...	...	...	...	5,078
6 Dhárma Canal	...	...	...	...	4,583
7 Sávoli Tank	...	...	...	...	4,137
8 Nira Canal, including Shetphal Tank	...	...	...	...	2,375
9 Parsul Tank	...	...	...	...	1,491
10 Ekrak Tank	...	...	...	...	1,480
11 Pravara River Canal	...	...	...	...	1,158
12 Bhatodi Tank	...	...	...	...	1,131
13 Madag Tank	...	...	...	...	835
14 Sahiat Tank	...	...	...	...	831
15 Dambal Tank	...	...	...	...	689
16 Chankapur Tank	...	...	...	...	655
17 Gokák Canal	...	...	...	...	631
18 Other Works	...	...	...	...	450
					<u>Total ...1,23,681</u>

The remarks made by the Superintending Engineers regarding the amounts outstanding are given below:

Superintending Engineer, Deccan Irrigation Division.

The unrealised balance of revenue at the close of the year was Rs. 65,680 as detailed below, as compared with Rs. 81,738 in the previous year:—

		Rs.
Unrealised balance.		
Mutha Canals, including Matoba Tank	... ..	11,033
Godávari Canals	... ..	38,524
Pravara Right and Left Bank Canals	... ..	1,677
Nira Canal, including Shetphal Tank	... ..	2,661
Kadwa River Works	... ..	10,415
Other Works	... ..	1,370
		65,680

Of this the sum of Rs. 15,287 has been recovered since the close of the year and steps are being taken in the Civil Department to recover the balance.

Superintending Engineer, Southern Division.

The amount unrealised at the close of the year, Rs. 7,041, is greater than that at the close of the previous year by Rs. 1,007 and is made up as follows:—

		Rs.
Krishna Canal	... ..	4,689
Upper Man River Works	... ..	123
Yerla River Irrigation Works	... ..	-27
Gokák Canal	... ..	626
Dambal Tank	... ..	689
Asundi Tank	... ..	56
Madag Tank	... ..	885
		Total ... 7,041

The balance in the case of the Krishna Canal, the Gokák Canal, the Dambal Tank and the Madag Canal are large and the Collectors concerned are being requested to effect recoveries as early as possible.

Superintending Engineer, Northern Division.

The recoveries have been made with great strictness in both the Collectories of Ahmedabad and Kaira, and the outstanding balances could not be recovered owing to the heavier demands of the past years from some of the poorer tenants, but they are likely to be cleared during 1914-1915.

8. The total working expenses for the year amounted to Rs. 6,51,890 against Rs. 5,09,099 in the previous year, showing an increase of Rs. 1,42,791 distributed as follows:—

		1912-13.	1913-14.	Difference.
		Rs.	Rs.	Rs.
Major Works—				
Protective Works	... ..	1,96,928	2,86,110	+89,182
Productive Works	... ..	2,15,192	2,16,958	+1,766
	Total	4,12,120	5,03,068	+90,948
Minor Works and Navigation	... ..	96,979	1,48,822	+51,843
	Grand Total	5,09,099	6,51,890	+1,42,791

The increases and decreases are explained by the Superintending Engineers as follows:—

Superintending Engineer, Deccan Irrigation Division.

The total working expenses amounted to Rs. 4,39,310 against Rs. 3,48,364 in the previous year, showing an increase of Rs. 90,946 distributed as under:—

				1912-13.	1913-14.	Difference.
				Rs.	Rs.	Rs.
Major Works—						
Protective Works	...	...		1,96,928	2,86,110	89,182
Productive Works	...	...		1,37,276	1,38,537	1,261
		Total	...	3,34,204	4,24,647	90,443
Minor Works and Navigation	...	...		14,160	14,663	503
		Grand Total	...	3,48,364	4,39,310	90,946

The increase under Works is chiefly made up of increases on the Nira Left Bank Canal (Rs. 922) and on the Girna Left Bank Canal (Rs. 1,329). The work on the former consisted of several improvements sanctioned by Government for improving the land affected by salt. The increase on the Girna Left Bank Canal was due to additional works carried out during 1913-14.

Towards the increases under repairs and establishment,

	Repairs.	Establishment.
	Rs.	Rs.
the Godáviri Canals contributed	... 46,584	17,037
Pravara Right Bank Canal	... 1,029	1,793
Nira Canal	... 1,955	.....
Nira Right Bank Canal	... 6,270	1,348
Chankápur Tank	... 1,125	441

The increase under the Godáviri Canals was due to the additional lengths of canals being brought under operation.

Superintending Engineer, Southern Division.

The total working expenses for the year amounted to Rs. 52,517 against Rs. 43,573 of the previous year and Rs. 50,343, the average of the past three years. The increases in the case of the Rewari and the Chikhli Canals and the Maini, the Gaddikeri and Dambal Tanks were slight. In the case of the Krishna Canal, the increase was due to special repairs to Shere bridge carried out at a cost Rs. 1,310 and to the removal of silt and improvements to the canal. In the case of the Yerla River Irrigation works, special repairs to the Nehr Tank dam, portion of which had slipped during the rains of July 1913, were carried out at a cost of Rs. 3,800. The increased expenditure on Medleri Tank was due to special repairs costing Rs. 317 carried out during the year. On Madag Tank the following extra works were carried out:—

- (1) Urgent repairs to the Right Bank Canal,
- (2) Special repairs to the aqueduct in Mile No. 3 of the Right Bank Canal. Expenditure was also incurred on preparing Registers of lands taken up for the canal.

9. The following table contrasts the charges under the principal heads with those of the two previous years :—

				1911-12.	1912-13.	1913-14.
				Rs.	Rs.	Rs.
Works	...	...	...	28,381	40,009	42,384
Repairs	...	...	...	1,85,186	2,22,273	3,16,634
Establishment	...	...	...	1,61,604	1,55,775	1,77,993
Tools and Plant	...	...	...	11,611	11,294	15,896
Total in the Public Works Department				3,86,782	4,29,351	5,52,907
Collection Charges	...	...	...	58,230	57,432	74,062
Indirect Charges	...	...	...	23,035	22,316	24,921
Total				4,68,047	5,09,039	6,51,890

The establishment charges, divided between "Direction and Accounts" and "Executive," compare as follows with those for the previous year :—

				1912-13.	1913-14.	Difference.
				Rs.	Rs.	Rs.
Direction and accounts	...	...	...	11,294	15,657	+ 4,363
Executive	...	...	...	1,44,481	1,62,336	+ 17,855
Total				1,55,775	1,77,993	+ 22,218

Details of working expenses.

10. The following table gives the details of the working expenses of some of the principal works :—

Name of Works.	Average incidence of water-rate per acre.	Cost of measurement.		Working expenses total in the Public Works Department excluding Indirect charges.	
		Total cost.	Per acre.	Per mile of main canal.	Per acre irrigated.
<i>Canals.</i>		Rs.	Rs. a. p.	Rs.	Rs.
Nira Canal, including Shetphal Tank ...	8-07	1,679	0 0 4	872-98	1-14
Háthmati and Khári Cut Canals ...	...	Figures not available.			
Girna Left Bank Canal ...	5-36	1,486	0 1 7	1,032-95	4-83
Kadwa River Works ...	...	439	0 2 0	372-72	2-56
Lakh Canal ...	1-63	115	0 1 3	117-43	1-53
Mutha Canals, including Mátoba Tank ...	13-86	824	0 0 9	1,233-73	6-51
Pravara Left Bank Canal ...	2-51	41	0 1 5	348-14	14-02
Pravara Right Bank Canal ...	3-01	275	0 1 2	348-73	3-05
Krishna Canal ...	11-21	401	0 1 3	204-05	11-21
Yerla River Irrigation Works ...	3-75	701	0 1 9	344-97	3-75
Rewári Canal ...	4-28	280	0 4 4	208-29	4-28
Upper Mán River Works ...	3-70	217	0 3 0	104-05	3-70
Chikhli Canal ...	3-69	48	0 1 10	121-38	3-69
Gokák Canal ...	4-30	1,089	0 1 8	243-66	4-30
<i>Tanks.</i>					
Mhaswad Tank ...	5-01	476	0 0 9	216-05	1-41
Maini Tank ...	3-98	301	0 2 3	301-18	3-98

11. The gross assessed revenue, direct and indirect, as shown in Statement IV-C accompanying the Irrigation Administration Report for 1913-1914 was Rs. 17,59,548. If Rs. 50,568 being the difference between the value at normal rates of water-issued from the Mutha Canals and the value of water supplied at special reduced rates or gratuitously for water-supply to various institutions in the Poona City, be added to the above amount, the total assessed revenue, both direct and indirect, of the year will be Rs. 18,10,116.

The details of the gross assessment were as follows :—

	Direct Revenue.			Indirect Revenue.	Total.
	Water-rates.	Other receipts.	Total.		
	Rs.	Rs.	Rs.	Rs.	Rs.
Major Works—					
Protective Works ...	8,59,522	28,083	8,87,605	...	8,87,605
Productive Works ...	4,38,524	2,33,792	6,72,316	4,109	6,76,425
Total ...	12,98,046	2,61,875	15,59,921	4,109	15,64,030
Minor Works ...	1,46,412	46,462	1,92,874	2,644	1,95,518
Grand Total ...	14,44,458	3,08,337	17,52,795	6,753	17,59,548

12. The net assessed revenue of the year, after deducting working expenses, including indirect and all other charges, and neglecting the items amounting to Rs. 50,568 referred to in the preceding paragraph, was Rs. 11,07,658 as compared with Rs. 10,74,069 in 1912-13.

13. The water-rates in force during the year are shown in Statement I-F accompanying the Irrigation Administration Report for 1913-14, in the remarks column of which the orders sanctioning them are quoted.

14. The average water-rates per acre of land actually irrigated were :—

	1912-13.	1913-14.
	Rs.	Rs.
Protective Works ...	7.04	7.33
Productive Works ...	8.04	8.48
Minor Works ...	3.52	3.22

15. The water-rate assessments and other receipts compare with those of the previous year as under :—

	1912-13.	1913-14.
	Rs.	Rs.
Water-rates ...	12,79,525	14,44,458
Other Receipts—		
Plantations ...	8,951	10,526
Water-power ...	14,313	13,937
Water-supply to towns ...	1,72,662	1,52,402
Miscellaneous ...	95,899	1,31,472
Total ...	2,91,825	3,08,337
Share of land-revenue ...	11,818	6,753
Total ...	3,03,643	3,15,090
Grand Total ...	15,83,168	17,59,548

The above comparison shows increases under water-rates, miscellaneous receipts and plantations and decreases under water-power and water-supply to towns and share of land-revenue.

The increase under water-rates was due to the increased area irrigated while the decrease under "water-supply to towns" was due to less amounts paid by the Poona City Municipality. The decrease under plantation was on the Pravara Left Bank Canal and calls for no special remarks.

16. The principal crop acreages irrigated during 1912-13 and 1913-14 were as follows :—

Crop acreages.				1912-13.	1913-14.	Increase or Decrease.
				Acres.	Acres.	Acres.
Gardens and Orchards	...	...	...	2,706	2,689½	-16½
Sugarcane	...	...	...	15,210	18,206	+2,996
Wheat	...	...	...	33,991	14,556	-19,435
Rice	...	...	...	16,172	18,642	+2,470
Maize	...	...	...	5,738	3,263	-2,475
Jowári	...	...	...	45,921	61,931½	+16,010½
Báji	...	...	...	22,238	14,852	-7,386
Gram, etc.	...	...	...	13,630	9,121	-4,509
Groundnut	...	...	...	16,105	15,297	-808
Condiments	...	...	...	3,697	3,981	+284
Cotton	...	...	...	1,392	1,765½	+373½
Fodder	...	...	...	4,172	2,811	-1,361

The total estimated value of crops is shown as Rs. 1,49,05,579 against Rs. 1,23,54,219 in the previous year and Rs. 1,13,95,618 for the year 1911-12. But these estimated crop values must be regarded as only roughly approximate, there being no uniform method of estimating them.

17. In Statement I-E accompanying the Irrigation Administration Report for 1913-14, the duty of water on each work, as well as the bases on which the duties were calculated, etc., are shown. The results vary with the nature of the crops irrigated, perennial crops requiring much more water than cereals. To obtain a correct comparative result it is necessary to consider the area of each class of crop grown under the canals concerned. Statement G affords means for such a comparison.

DETAILED REPORTS BY LOCAL OFFICERS.

GUJARAT IRRIGATION DISTRICT.

MAJOR WORKS.

Works without storage and dependent on local rain.

18. The area irrigated, net assessment, average water-rate and working expenses under the Háthmati and Khári Cut Canals compare with the average of those of the three preceding years as under :—

Year.	Kharif.		Rábi.		Total.		Average water-rate assessed per acre.	Working expenses.
	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.		
Average of 3 years ...	8,949	41,477	2,843	5,228	11,792	46,705	3.09	41,025
1913-14 ...	14,427	86,404	3,903	7,432	18,330	93,836	5.12	40,971

19. There was a small flood in the Háthmati River on the 28th July 1913 when the water level rose to 4.40 feet above the weir crest.

20. The maximum discharge in the canal was 453 cusecs on the 28th July and the average monsoon flow was 300 cusecs. The flow gradually diminished but the canal continued to flow to the end of December. The Bokh Reservoir was filled by means of the Bokh feeder to its F. S. L., the contents being 280 million cubic feet available for irrigation.

21. The miscellaneous revenue realised was Rs. 3,408 against Rs. 2,593 in the previous year. The increase is attributable to the sale of larger number of trees and more vegetable, fruits and grass and to the better prices obtained.

22. The gross assessed revenue, which amounted to Rs. 97,294, exceeded the working expenses by Rs. 56,323 which shows a return of 4.35 per cent. on the direct and indirect capital outlay (Rs. 12,95,793) on the Háthmati and Khári Cut Canals combined. The realizations amounted to Rs. 1,27,989 against Rs. 2,917, the average of 3 years preceding 1904-05 in which year the Gujarát Irrigation District was established, and it shows the enormous growth of irrigation revenue that has occurred since that period.

23. The rainfall gauged at Ahmednagar at the head of the Háthmati Canal was 26.9 and 0 inches in the kharif and rábi seasons, while at Ráipur at the head of the Khári Cut Canal it was 37.14 and 0 inches respectively.

MINOR WORKS AND NAVIGATION.

Works with storage tanks dependent on local rain.

24. The area irrigated, net assessment and working expenses under the Wángroli, Tránza-Nagráma, Sávoli and Saiat Tanks compare with the average of those of the previous 3 years as under :—

Tank.	Year.	Kharif.		Rabi.		Total.		Working expenses.
		Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Rs.
Wángroli Tank.	Average of 3 years...	672	2,336	348	923	1,020	3,259	6,529
	1913-14	69	301	384	893	453	1,194	5,972
Tránza-Nangráma Tanks.	Average of 3 years...	146	428	75	146	221	574	2,242
	1913-14	13	38	160	601	173	639	3,598
Sávli Tank ...	Average of 3 years...	852	3,386	600	1,031	1,452	4,417	3,807
	1913-14	146	579	...	...	146	579	34,654
Saiat Tank ...	Average of 3 years...	390	1,486	223	613	613	2,109	3,847
	1913-14	46	182	30	61	76	243	21,417

(16) WA'NGROLI TANK.

25. This tank was full. The great decrease in irrigated area and gross assessment is due to the small area of kharif irrigation owing to the seasonable rainfall and to little rabi irrigation on account of the prevalence of plague of rats.

26. The miscellaneous revenue amounted to Rs. 562 against Rs. 233 in the previous year due to irrigation of a larger area in the tank bed.

27. No remissions were granted during the year.

28. The rainfall gauged in the tank catchment was 46.68 and 0 inches respectively in the kharif and rabi seasons.

(17) TRÁNZA-NAGRÁMA TANKS.

29. These tanks filled almost up to their F. S. Ls.

30. The miscellaneous revenue amounted to Rs. 504 against Rs. 496 in the previous year. The increase was due to the sale of babul pods and trees situated on the banks of the tanks and the grass grown in the Nagraama Tank bed.

31. No remissions were granted.

32. The rainfall gauged in the Nagraama Tank catchment was 37.29 and 0 inches respectively in the kharif and rabi seasons.

(18) SAVLI TANK.

33. This tank was full to over-flowing and it breached owing to the heavy rainfall that occurred in its catchment on the 28th July.

34. The miscellaneous revenue amounted to Rs. 222 against Rs. 548 in the previous year. The decrease is attributable to lesser area in the tank bed let out for cultivation.

35. No remissions were granted.

36. The rainfall gauged in the tank catchment was 32.79 and 0 inches in the kharif and rabi seasons respectively.

(19) SAJAT TANK.

37. This tank was full to over-flowing and breached owing to the heavy rainfall of 13 inches in 12 hours, that fell in its catchment on the 19th and 20th July. The breach was closed before the middle of August but little or no replenishment was received afterwards, but what little water could be got, was fully utilized for irrigation.

38. The miscellaneous revenue amounted to Rs. 479 against Rs. 154 in the previous year. The increase was due to the irrigation of a larger area in the tank bed, and to the sale-proceeds of grass grown on the canal banks, etc.

39. No remissions were granted.

40. The rainfall gauged in the tank catchment was 49.11 and 0 inches respectively in the kharif and rabi seasons.

POONA IRRIGATION DISTRICT.

Works with Ghdt storage.

(4) NIRA CANAL AND SHETPHAL TANK.

41. The rainfall at the three representative stations along the canal and at Shetphal Tank, was below the average :—

Station.	Rainfall during 1913-14.	Rainfall during 1912-13.	Average rainfall during the past three years.
Pimpra	13.37	16.25	16.18
Baramati	14.78	13.58	16.60
Nimbgaon	10.43	14.77	16.44
Shetphal	16.46	14.55	17.13

42. The level of water in Lake Whiting on 31st March 1914 was 56.00 against 65.50 on the same date of 1913. From 26th May to 4th June 1913, early rains fell, providing sufficient water for the canal, so on June 4th, when the level in the tank was 56 feet holding 1,373 million cubic feet, two under-sluices were opened in order to get rid of the silt brought down by the first floods and to inspect the under-sluices; and this reduced the level of water in the tank to 4.50 on the 20th of June. From 20th June to 4th July all the under-sluices were used to let off the floods and they were finally closed on the 4th July when the depth of water was 57.10 feet. The lake filled very rapidly and the first flood discharged over the waste weir on 18th July when the water level was 78 feet.

43. The flow over the waste weirs was 19,712 million cubic feet, and through the under-sluices 11,147 million cubic feet, the total river discharge being 30,859 million cubic feet in addition to the 5,300 million cubic feet required to fill the tank, against 33,217 million cubic feet in the year 1912-13.

44. The full supply was maintained from the 27th September 1913 till the 26th October when water had to be drawn off for irrigation.

45. The average discharge in cusecs at the head of the Nira Canal for each month during 1913-14 was as below :—

Month.	Discharge in cusecs.	Remarks.
April 1913	133	
May "	166	
June "	282	
July "	284	
August "	395	
September "	333	
October "	402	
November "	411	
December "	316	
January 1914	210	
February "	141	
March "	138	
Total ...	3,271	
Monthly average ...	273	

46. Water in Shetphal Tank reached its lowest depth, namely 19 feet, on 9th June 1913. It was then replenished from the Nira Canal and the highest reading was 37 feet on 14th July 1913.

47. The areas of irrigated crops, the water-rate assessment, gross assessed revenue, working expenses, etc., during the year as compared with the average of the past three years, are as shown below :—

NIRA CANAL INCLUDING SHETPHAL TANK.

Area irrigated.		Assessment.		Gross assessed Revenue.		Working expenses.		Average rainfall of 5 stations.		Re- marks.
1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.	
Acres.	Acres.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Inches.		
76,683	43,196	6,18,973	4,03,367	6,23,240	4,07,806	1,19,270	1,06,170	19.08	21.19	

48. The sugarcane and perennial areas on the Nira Canal and Shetphal Tank are compared below with the figures for the previous three years :—

Year.	Area in acres.
1910-11 ...	7,541
1911-12 ...	9,439
1912-13 ...	7,949
1913-14 ...	9,182

49. The total culturable area under command of the Nira Canal and Shetphal Tank was 2,27,670 acres of which 17.70 per cent. was irrigated in the kharif season and 15.98 per cent. in the rabi season, the corresponding percentages for the year 1912-13 being 10.8 and 12.2.

50. The refunds given during the year amounted to Rs. 152 only and there were no remissions.

51. The cost incurred on measuring the irrigated area amounted to Rs. 1,679, viz., a little over 4 pies per acre compared with 5 pies of the previous year.

(13) MUTHA CANALS INCLUDING MATOBA TANK.

52. The rainfall figures for six representative stations on this system are shown in the subjoined table:—

Stations.				Rainfall, 1913-14.	Rainfall, 1912-13.	Average for the past three years.
Tank area	...	Musa	...	129.52	127.08	110.27
		Mutha	...	59.14	85.89	71.11
		Khadakwasla	...	40.24	39.53	32.42
Canal area	...	Poona (Sassoon Hospital)	...	26.35	26.69	25.51
		Kedgaon	...	9.23	13.13	12.68
		Matoba Tank	...	16.11	12.44	13.36

53. The lowest water level at Lake Fife was 12.45 feet on the 5th of June 1913. There are no under-slucices in this dam and the Lake filled up in 7 days and overflowed on the 12th June. The highest level reached was 33.31 feet. The weir discharge ceased on 22nd October 1913, when the water level was 33.24, and on 1st April 1914, the level was only 17.12 against 22.40 on 1st April 1913. Consequently, considerable difficulty was experienced in supplying a sufficiency of water for the large area of perennial irrigation.

54. The Matoba Tank was dry up to the end of May 1913.

55. The regular monsoon replenishment commenced on 5th June and the highest level was reached on the 8th July 1913; when the tank overflowed the depth was 29 feet above the sill level, against 25.25 in 1912-13. The tank was dry again on 5th March 1914.

56. The following table shows the area irrigated during the year, water-rates levied thereon, gross assessed revenue, working expenses, etc., as compared with the average of the previous three years:—

Area irrigated.		Assessment.		Gross assessed revenue.		Working expenses.		Average rainfall of 6 stations.	
1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.
Acres.	Acres.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Inches.	Inches.
16,665	12,748	2,30,897	2,07,296	3,86,993	3,65,517	1,25,895*	1,19,910*	46.85	44.23
						65,052†	57,383†		

* Including charges on account of Poona Water-supply.

† Excluding charges on account of Poona Water-supply.

57. The sugarcane and perennial areas on the Mutha Canals and Matoba Tank are compared below with the figures for the previous three years:—

Year.	Area in acres.
1910-11 ...	5,649
1911-12 ...	6,075
1912-13 ...	5,186
1913-14 ...	5,676

58. The total refund of the revenue made during the year amounted to Rs. 230 against Rs. 315 in 1912-13 and no remissions had to be given.

59. The actual cost of measuring the crops amounted to Rs. 824, viz., 9.5 pies per acre against 10 pies during 1912-13.

Poona Water-supply.

60. The assessed revenue from the water-supply to the Poona City and the Cantonment amounted to Rs. 1,52,182 against Rs. 1,60,172 in 1912-13. The average daily supply of filtered water delivered into the mains for distribution from the Poona Water Works amounted to 1,279,065 gallons against 1,228,201 gallons in 1912-13.

61. The loss of revenue on account of water supplied either gratis or at reduced rates to certain charitable and public institutions in the Poona Cantonment and Suburbs, in accordance with Government orders, amounted to Rs. 9,240 against R. 6,273 in 1912-13.

Storage works dependent on local rains.

(26) KASURDI TANK.

62. The tank was dry upto 4th June 1913, and then received its first small replenishment. But the draw-off between 11th and 15th August 1913, laid the tank dry again. It received another replenishment on the 13th October and over-flowed on the next day. The rabi draw-off commenced on 26th October and the supply was exhausted by the 30th November. The full supply capacity above sill of outlet is 9.14 million cubic feet; this quantity was therefore used up in a month.

63. The subjoined table gives a comparison of rainfall, irrigated areas and the financial results of the year with the averages of the previous 3 years :—

Area irrigated in acres.		Assessment.		Gross assessed Revenue.		Working expenses.		Rainfall in inches.	
1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.
Acres.	Acres.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Inches.	Inches.
78	106	371	198	814	560	983	615	14.56	15.29

(27) SHIRSUPHAL TANK.

64. The tank was dry and received no replenishment till 26th May. The highest level was reached on 7th June representing 60 million cubic feet storage. The regular draw-off commenced on 27th July and the tank was dry by 18th October. There was no rabi irrigation. When full, the capacity of the tank above sill of outlet is 356.64 million cubic feet.

65. The following table compares the area irrigated, the water-rate assessment, gross assessed revenue, working expenses, etc., of the year with the average figures for the previous 3 years :—

Area irrigated in acres.		Assessment.		Gross assessed revenue.		Working expenses.		Rainfall in inches.	
1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.
Acres.	Acres.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Inches.	Inches.
678	662	1,444	1,986	5,983	3,558	2,105	2,237	8.18	11.89

(28) BHADALWADI TANK.

66. The tank received its replenishment from the 27th May and the highest level was reached on 8th June impounding 88.3 million cubic feet. The draw-off extended from 27th July to 22nd December. The capacity at full supply is 190.76 million cubic feet.

67. The area irrigated during the year, compared with the average of the preceding three years, and corresponding, assessment, gross assessed revenue working expenses, etc., are given in the following statement:—

Area irrigated in acres.		Assessment.		Gross assessed revenue.		Working expenses.		Rainfall in inches.	
1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.
Acres.	Acres.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Inches.	Inches.
1,480	1,334	6,082	3,440	7,095	4,008	2,518	2,804	10.77	13.44

MALSIRAS DISTRICT.

Storage Works with Deccan Catchment.

(5) MHASWAD TANK.

68. The supply of the tank is dependent on local rain on the large catchment of 480 square miles. On 1st April 1913, the water in the tank was below the sill of the canal sluice. Replenishments were received between the 25th May 1913 and the 15th October 1913. The total replenishment during the year was 2,143 million cubic feet, but the greatest depth of water above the sluice during the year was 18.80 feet, representing only 1,770 million cubic feet, above the outlet sluice. The supply was utilised for irrigating kharif and rabi crops. On 14th February 1914, the water reached its lowest level, standing 0.70 feet above sill level.

69. The average rainfall recorded at the 5 rain-gauge stations in the catchment of the tank, from 1st June to 31st October 1913, was 12.18 inches, compared with 16.68 inches of the last 3 years. The proportion of run-off to rainfall works out to 15.62 per cent. The average rainfall for the whole year was 13.59 inches.

70. The area irrigated during the year, water-rates assessed, gross revenue, working expenses, etc., are given below in comparison with the average of the preceding 3 years:—

Area irrigated in acres.		Assessment.		Gross assessed revenue.		Working expenses.		Rainfall in inches.	
1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.
Acres.	Acres.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Inches.	Inches.
10,154	8,572	50,855	42,947	60,674	48,672	17,376	19,174	12.18	16.68

71. This year also as in the last year, the rainfall was considerably below the average and the quantity of water lost by evaporation and absorption was very great. Out of the total replenishment of 2,143 million cubic feet, 907 million cubic feet or 42.33 per cent. is calculated to be the loss.

72. The rabi lease system was introduced on this tank in 1911. The total area leased out was nearly 6,700 acres out of which about 600 acres were subsequently cancelled.

PRAVARA CANALS DISTRICT.

73. There are altogether 5 canals in operation in this district, falling under the several heads detailed below:—

(a) *Canals Supplied by Ghat River with Storage works.*

(3) GODA'VARI RIGHT BANK CANAL.

74. This canal forms part of the Godavari Irrigation Project and is fed from the Lake Beale storage reservoir on the Darna River in addition to the river

supply. A length of 62 miles of the canal was brought into operation during the year under report. The construction of the last $8\frac{1}{2}$ miles is in progress. The whole length of the canal should be in operation from the monsoon of 1915.

75. The sub-joined table shows the area irrigated, water-rates assessed and the gross assessed revenue, etc., on this canal during the year as compared with the average of the past 3 years :—

Area irrigated in acres.		Assessment.		Gross assessed revenue.		Working expenses.		Rainfall in inches.	
1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.
Acres.	Acres.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Inches.	Inches.
23,033	17,779	1,53,507	89,060	1,59,657	89,196	1,13,658	17,675	17-87	12-23

76. The total refunds given during the year amounted to Rs. 3,570 and there were no remissions.

77. The cost incurred on the measuring establishment amounted to Rs. 2,066 with an irrigated area of 22,033 acres and works out to nearly 13 pies per acre. This is the same as the cost per acre last year.

(3) GODA'VARI LEFT BANK CANAL.

78. The first 32 miles of the canal were brought into operation during the year under report. There was an ample supply of water in the canal, but the demand was limited owing to good and timely rainfall in the Násik Táluka as well as in the Kopargaoon Táluka of the Ahmednagar District. 1,472 acres of rábi were, however, given out on six year leases. Water will be let down the whole length of the canal, *viz.*, 48 miles, after completion of the distributaries which will be ready by the end of March 1915.

79. The following table exhibits the areas irrigated, water-rates assessed, and the revenue from other sources realised, etc., on this canal, the irrigation on which began in 1912-13 :—

Area irrigated in acres.		Assessment.		Gross assessed revenue.		Working expenses.		Rainfall in inches.	
1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.
Acres.	Acres.	Rs.	Rs.	Rs.	Rs.			Inches.	Inches.
1,774	...	9,803	...	9,960	...	Included in the figures for the Right Bank Canal.		17-81	...

80. The cost incurred on the measuring establishment amounted to Rs. 139 with an irrigated area of 1,774 acres and works out to nearly 15 pies per acre, the same rate as last year.

(b) Canals supplied by Ghat Rivers without Storage works.

81. Both the existing Ojhar Left Bank Canal and the new Pravara (Ojhar) Right Bank Canal come under this heading at present as the canals draw their supply from the Pravara River and flow only as long as the river supply is sufficient.

82. A storage reservoir in the ghats at Bhandardara (Lake Arthur Hill) on the Pravara River is under construction. It will give a perennial supply to both these canals.

(24) PRAVARA LEFT BANK CANAL.

83. This is a widening and extension of the old Ojhar Left Bank Canal. The earthwork of the main canal is, practically complete; and the masonry works

are making good progress. It is expected that they will be completed by the kharif season of 1916. The progress of this work is steady and satisfactory. In order to facilitate construction of new masonry works and widening of the existing works, which are on the old alignment, the canal has been closed for irrigation from 15th October 1913. In the meantime, the available water-supply is being utilised by the Pravara Right Bank Canal.

84. The following table shows the area irrigated, assessment levied, etc., on the Left Bank Canal during the last kharif season, as compared with the whole average irrigation of the past three years :—

Area irrigated.		Assessment.		Gross assessed revenue.		Working expenses.		Rainfall.	
1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.
Acres.	Acres.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Inches.	Inches.
469	5,673	1,179	15,525	3,317	17,580	7,508	7,352	18.97	16.66

(1) PRAVARA RIGHT BANK CANAL.

85. All the works on the main canal are completed, including distributaries upto mile 30 and works on the Rahuri and Tail distributaries are making satisfactory progress. The efforts to establish good gardens and nurseries in the Inspection Bungalow compounds have been very successful and it is hoped that the gardens will eventually prove financially profitable.

86. The table below shows the area irrigated, water-rates assessed, and revenue realised from other sources during the year 1913-14 as compared with the average of the past three years :—

Area irrigated.		Assessment.		Gross assessed revenue.		Working expenses.		Rainfall.	
1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.
Acres.	Acres.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Inches.	Inches.
3,774	4,778	11,370	11,465	11,098	12,002	13,366	3,337	18.97	16.66

87. The cost incurred on the measuring establishment amounted to Rs. 275 with an irrigated area of 3,774 acres and works out to nearly 14 pies per acre, the same as last year.

(12) LAKH CANAL.

88. This canal draws its supply from the Pravara River near Lakh village near the Dhond-Manmad Railway. Being situated below the Ojhar weir, it only receives such water as is not required by the Pravara Canal, and the supply runs short after October. In the year under report, however, the supply was sufficient for the rabi crops owing to the good late rainfall. The canal has a poor supply and bad alignment. It will cease to exist as a main canal after the widening and extension of the existing Ojhar Left Bank Canal.

89. The areas irrigated, the water-rate assessment, and gross assessed revenue during the year under report as compared with the averages of the past three years are as shown below :—

Area irrigat-d.		Assessment.		Gross assessed revenue.		Working expenses.		Rainfall.	
1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.
Acres.	Acres.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Inches.	Inches.
1,477	1,611	2,407	2,878	3,201	3,522	3,126	2,892	13.41	22.08

90. The cost incurred on the measuring establishment amounted to Rs. 115 with an irrigated area of 1,477 acres and works out to about 15 pies per acre. The figure for the last year was pies 9.

NASIK AND AHMEDNAGAR IRRIGATION DISTRICT.

Works with Ghat storage.

(11) KADWA RIVER WORKS.

91. In the beginning of the year there was 35.70 feet of water in the tank, which is equivalent to a storage of 282 million cubic feet, and by June 1913, the contents were only 149 million cubic feet. The tank then filled and flowed over on 26th June 1913. The maximum depth over the waste weir was 6 feet on 24th August 1913 and the overflow continued for 49 days. The waste weir gates were closed on 14th August 1913, water being stored to 0.40 feet below full supply, giving a storage of 590 million cubic feet or 102 million cubic feet more than during the previous year. Though there was no rainfall in October and November 1913, the supply was more than sufficient for the area under irrigation during the rabi and hot weather seasons of 1913-14. The regular draw-off commenced from 7th December 1913. On 31st March 1914, the water in the tank was 38.38 feet above sill-level, representing a volume of 347 million cubic feet.

92. The mean rainfall gauged at the two stations in the catchment of 29 square miles from 30th June to 31st December 1913, was 63.83 inches or 6.82 inches less than in the previous year.

93. The sub-joined table compares the area irrigated, water-rate assessment, gross assessed revenue, working expenses, etc., of the year with the average figures for the previous 3 years :—

Name of Canal.	Area irrigated.		Assessment.		Gross assessed revenue.		Working expenses.		Rainfall.	
	1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.
	Acres.	Acres.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Inches.	Inches.
Waghad Tank ...	1	...	1	...	883	336	2,883	6,743	63.83	48.10
Palkhed Canal ...	2,493	2,443	16,207	15,673	17,043	14,170	5,083	9,163		
Ojhar Tambat Canal ..	831	741	4,623	4,496	4,806	4,721	972	1,435		
Wadali Canal ...	190	422	955	1,830	1,317	1,339	937	1,358		
Enhanced Land— Revenue as per G. R. No. 423 of 6th August 1875 ...	...	...	...	...	594	...	...	...	...	...
Total ...	3,515	3,615	21,786	22,049	24,653	21,166	9,875	10,029	...	...

94. The total refunds granted during the year amounted to Rs. 139 only and there were no remissions.

95. The cost incurred on the measuring establishment, employed on the Kadwa Canals system amounted to Rs. 439 with an irrigated area of 3,515 acres and works out to annas 2 per acre, the same as last year.

(2) CHANKAPUR TANK.

Girna Left Bank Canal.

96. The tank has been used since 1909-10. Water was stored to R. L. 164, the same as in the previous year. The tank was drawn on from 19th November 1913, for irrigation on the Girna Left Bank Canal and for increasing the supply to existing Bandharas on the river and it also served to augment the supply to the Jamda Canals in East Khândesh District, though these canals cannot claim water from the tank.

97. The following table compares the area irrigated, water-rates assessed, gross assessed revenue, working expenses, etc., of the year with the average of the previous three years:—

Area irrigated.		Assessment.		Gross assessed revenue.		Working expenses.		Rainfall.	
1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.
Acres.	Acres.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Inches.	Inches.
2,799	2,381	15,012	8,929	15,334	9,147	14,697	8,521	38.90	18.33

98. The total refunds given during the year amounted to Rs. 6 only and there was no remission.

99. The cost incurred on the measuring establishment amounted to Rs. 1,486 with an irrigated area of 2,799 acres and works out to one anna and seven pies per acre which is double last year's figure.

100. The area irrigated by the Dabhadi and Patna Bandharas in the kharif and rabi seasons was in excess of the kayam bagayat area by 43 acres.

Storage works with Deccan Catchment.

(23) PARSUL TANK.

101. The tank received its first replenishment on 8th June 1913. Water flowed over the waste weir continuously from 22nd July 1913 to 13th August 1913. The tank ran dry on 23rd February 1914. The water-supply was sufficient for irrigation during the kharif and rabi seasons.

102. The following table compares the irrigated areas, assessment, gross assessed revenue, working expenses, etc., of the year under report with the average figures for the past 3 years:—

Area irrigated.		Assessment.		Gross assessed revenue.		Working expenses.		Rainfall.	
1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.	1913-14.	Average of past 3 years.
Acres.	Acres.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Inches.	Inches.
1,474	1,016	4,915	3,445	5,116	3,600	1,607	1,494	8.61	15.48

103. The total refund of revenue made during the year amounted to Rs. 8 and no remissions were granted.

104. The cost incurred on the measuring establishment amounted to Rs. 133 with an irrigated area of 1,474 acres and works out to 1 anna and 6 pies per acre against 1 anna 9 pies of last year.

SHOLAPUR DISTRICT.

Storage Works with Deccan Catchment.

(14) EKRUK TANK.

105. The year began with the gauge at 16.83 feet representing a storage of 582 million cubic feet; the level fell to 15.30 by the 1st June, and a replenishment of nearly 14 feet was received in June and July, of which 7.90 feet came in a single night. The maximum level attained was 28.40 feet on 26th July, *i.e.*, some 10 feet below crest of waste weir (Storage being 1,620 million cubic feet). On 31st March 1914 the gauge read 17.48 (620 million cubic feet).

Rainfall and Storage.

106. The mean rainfall gauged at the five stations in the catchment of 159 square miles from 1st June to 31st October 1913 was 10.93 inches. The total replenishment received was 1,238 million cubic feet, the proportion of run off to rainfall being 32 per cent.

107. The total area irrigated during the year was 4,649 acres, against 3,840 acres, the preceding 3 years' average. The increase is due to more extensive irrigation during the rabi season.

108. The gross assessed revenue amounted to Rs. 83,966 against Rs. 73,412, the previous average. The increase is due partly to the recent enhancement of rates and partly to the increase in rabi irrigation and consumption by mills and town.

109. The working expenses amounted to Rs. 14,366 against an average of Rs. 16,928.

(29) KOREGAON TANK.

110. The tank was dry at the beginning of the year and subsequent replenishments gave only 8 feet on the gauge, representing a storage of 47 million cubic feet on 26th July 1913. This storage was completely exhausted by 14th January 1914, being wholly utilized for the rabi leased area, no water being allowed for kharif irrigation. The rainfall gauged at Koregaon from June to 31st October 1913 was 15.87 inches.

Rainfall and Storage.

111. The area irrigated was 245 acres against 549 acres, the average of the preceding triennium, the decrease being due to want of water, and the gross assessed revenue dropped accordingly from Rs. 2,333, the average, to Rs. 1,538.

112. The working expenses amounted to Rs. 1,567 against an average of Rs. 2,524.

(30) ASTHI TANK.

113. There was hardly any water in the tank at the beginning of the year. The monsoon inflow raised the gauge to a maximum of 9.27 feet *i.e.*, some 13 feet below crest of weir, representing a volume of 332 million cubic feet on the 22nd September 1913. This storage lasted till the 23rd February 1914 and was utilized for the rabi leased area only. The mean rainfall gauged at the two stations in the catchment which has an area of 92 square miles was 8.48 inches giving a replenishment of 360 million cubic feet, the proportion of run-off to the total rainfall on the catchment being 19 per cent.

Rainfall and Storage.

114. The area irrigated was 2,848 acres against 3,021 acres, the average of the previous three years.

115. The gross assessed revenue amounted to Rs. 17,534 against the average of Rs. 18,654.

116. The working expenses amounted to Rs. 6,142 against Rs. 8,062. The decrease is due to extra expenditure having been incurred during the past triennium.

(31) PATHRI TANK.

117. There was a balance of 31.3 million cubic feet of water in the tank, represented by 8.44 feet on the gauge at the beginning of the year. The gauge went down to 6.94 feet by 25th May 1913 and rose again to the maximum height of 27.00 feet (equivalent storage being 269 million cubic feet) on 19th July 1913. The level was 14.06 feet on 31st March 1914 (storage 66.5 million cubic feet). Water did not flow over the waste weir. The mean rainfall gauged at the two stations in the catchment of 27.5 square miles was 17.93 inches, which gave a total replenishment of 240 million cubic feet, the proportion of run-off to rainfall being 21 per cent.

118. The area irrigated was 1,962 acres against 1,319 acres the previous three years' average. The increase is due to the greater demand for water owing to the absence of late rains.

119. The total gross assessed revenue amounted to Rs. 9,708 against Rs. 5,916 the average, and the working expenses to Rs. 2,330 against Rs. 2,853.

AHMEDNAGAR DISTRICT.

Storage works with Deccan catchment.

(25) BHATODI TANK.

120. The tank is on the Mehekari river. It is a small tank with a capacity at F. S. L. of 92.7 million cubic feet and depends solely on local rains for its supply, which generally suffices for the monsoon and a part of the rabi season.

The tank was empty until 31st May 1913, when it received its first replenishment, the water rising to R. L. 80.00. The highest level of water in the tank during the year was 93.00, viz., 23 feet above the outlet sill (R.L. 70.00) or 7 feet below the top of dam (R.L. 100.00) on 5th July 1913. Water was flowing over the waste weir (R. L. 92.10) for about 15 days. The tank dried up on 17th January 1914.

121. The area irrigated, gross assessment from all sources and working expenses are given below in comparison with the average of the three preceding years.

Name of Tank.	Area irrigated.						Total gross assessment from all sources.		Working expenses.		Rainfall.	
	Kharif.		Rabi.		Total.		Average of the past three years.	1913-14.	Average of the past three years.	1913-14.	Average of the past three years.	1913-14.
	Average of the past three years.	1913-14.	Average of the past three years.	1913-14.	Average of the past three years.	1913-14.						
Bhatodi	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Rs.	Rs.	Rs.	Rs.	Inches.	Inches.
	816	833	545	407	861	740	7,080	5,530	2,812	2,892	19.34	22.30

122. The year 1913-1914 was a fair one. The total rainfall of the year was only 22.30 inches against an average of 23.49.

EAST KHANDESH DISTRICT.

Works without storage but on a river with ghat catchment.

(22) JAMDA CANALS.

123. The discharge of the river Girna which feeds the Jamda Canals was 93.50 cusecs at the Jamda Bhandara at the beginning of the year. During the hot weather it was sufficient

Supply of water.

owing to the replenishment from the Chankapur Tank in the Násik District from time to time and there was no complaint for want of water. The rainfall though not considerable was well distributed throughout the season, so the demand for water during both the kharif and rabi seasons was very limited.

124. The sub-joined statement shows the area irrigated during the year compared with the average of the preceding three years and the corresponding assessments and working expenses.

Areas irrigated.						Assesment.						Gross assessed Revenue.		Working expenses direct and indirect.	
Kharif.		Rabi.		Total.		Kharif.		Rabi.		Total.					
1913-14.	Average of the three preceding years.	1913-14.	Average of the three preceding years.	1913-14.	Average of the three preceding years.	1913-14.	Average of the three preceding years.	1913-14.	Average of the three preceding years.	1913-14.	Average of the three preceding years.	1913-14.	Average of the three preceding years.	1913-14.	Average of the three preceding years.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
767	1,544	631	1,553	1,393	3,007	4,296	4,462	1,399	3,454	6,694	7,916	7,611	10,202	12,224	8,943

125. During the cold season of 1912-13 the sugarcane crops along Jamda Canals had suffered much from red rot. The cultivators to a certain extent gave up sugarcane cultivation and as the price of cotton was high they went in for cotton on a large scale. This crop does not require much water, so there was a decrease in the area of irrigation and assessment under the canal.

Storage works with Deccan catchment.

(20) HARTALA TANK.

126. The tank was dry up to 18th July 1913, the total rainfall in its catchment basin was 11.34 inches and the maximum storage reached was 69.4 million cubic feet on 12th September 1913 against the full supply storage of 135 million cubic feet. Thus the tank was only half filled. The balance of storage in the tank at the end of the year was reduced to 30.4 million cubic feet.

(21) MHASWA TANK.

127. On 1st of April 1913 the contents of the Mhaswa Tank were 10.4 million cubic feet which decreased to 4.14 million cubic feet by 5th June 1913. After replenishment the tank began to overflow on 24th June 1913 and continued doing so for more than two months. The storage by the end of the year decreased to 37.73 million cubic feet.

128. The following table shows the rainfall and tank storage:—

Tank.	Rainfall, June to October.	Full supply storage.	Maximum storage reached during the year.	Storage on 1st October 1913.
	Inches.	M. cft.	M. cft.	M. cft.
Hartala	29.93	134.9	69.44	58.41
Mhaswa	28.91	153.05	Over-flowed.	132.35

129. The area irrigated during the year compared with the average of the preceding three years and corresponding assessment and working expenses

are given in the following statement :—

Tank.	Area irrigated.						Assessment.						Gross assessed Revenue.		Working expenses.	
	Kharif.		Rabi.		Total.		Kharif.		Rabi.		Total.		1913-14.	Average of the three preceding years.	1913-14.	Average of the three preceding years.
	1913-14.	Average of the three preceding years.	1913-14.	Average of the three preceding years.	1913-14.	Average of the three preceding years.	1913-14.	Average of the three preceding years.	1913-14.	Average of the three preceding years.	1913-14.	Average of the three preceding years.				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Hartala ...	3	67	26	21	29	88	10	71	64	43	74	114	440	910	278	431
Mhaswa ...	51	291	415	335	466	626	101	843	878	685	979	1,027	2,329	1,916	4,179	1,740

130. The areas irrigated and revenue from water rates under both the tanks were much below the average, owing to ample and well-distributed rainfall in that part of the country, causing less demand for canal water in both the Kharif and Rabi seasons. The total revenue was much below the average in the case of Hartala tank due to non-receipt of sale-proceeds from plantation and tank-bed cultivation, but on the Mhaswa tank a handsome revenue was realized from the sale of right to cultivate the unsubmerged land in the tank.

131. The increase under working expenses is due to special repairs.

132. The value of crops irrigated during the year under the three works, viz., the Jamda Canals and the Hartala and Mhaswa tanks, is estimated at Rs. 85,958 against Rs. 1,95,256 in the previous years.

WEST KHANDESH DISTRICT.

Work depending on river supply from Ghat catchment supplemented by a tank with a Deccan catchment.

(10) LOWER PANJHARA RIVER WORKS.

133. These works are mainly fed by the Pánjhra River supply which is supplemented by the Mukti Tank storage when the the river supply decreases.

134. The tank was dry up to 8th June 1913 when it received the first replenishment. On 3rd August 1913 the tank held 102 million cubic feet less than $\frac{1}{3}$ full supply. The storage though a little better than 1912-1913 was poor as compared with the two previous years. With strict economy and rotation the available supply was made to last till the end of the year.

135. The year's rainfall was about 13·4 inches which was a little better than 1912 but much less than 1910. But the notable feature of it was that it was confined to only kharif season unlike the preceding three years.

136. The following table shows the area irrigated during the year, the assessment and the working expenses compared with the average of the previous three years :—

	Area irrigated.						Assessment.						Revenue from other sources.		Working expenses.	
	Kharif.		Rabi.		Total.		Kharif.		Rabi.		Total.		Previous average.	1913-14.	Previous average.	1913-14.
	Average of the previous 3 years.	1913-14.	Previous average.	1913-14.	Previous average.	1913-14.	Average of the previous 3 years.	1913-14.	Previous average.	1913-14.	Previous average.	1913-14.				
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
LOWER PANJHARA RIVER WORKS.																
Mukti Tank																
Patasthal Lands ...	1,325	1,743	424	71	1,809	1,814	6,050	6,736	2,302	1,616	8,352	8,352	.....	.....	8,771	10,927
Jirkyat Lands ...	634	168	421	37	1,055	205	1,594	955	1,759	303	3,353	1,258	.....	.....
Total ...	1,959	1,911	805	108	2,864	2,019	7,644	7,691	4,061	1,919	11,705	9,610	918	1,202	8,771	10,927

137. The area under Patasthal is almost the same but the area under dry crop land is much less than any of the preceding three years. It is mainly due to the nature of the rainfall which was also confined to Kharif, season and little or no demand was made on the supply. Owing to the absence of rain in the Rabi season, Rabi crops were not sown and applications for water in Rabi season were refused.

138. Revenue from Patasthal land is fixed under the survey settlement. The decrease in revenue under dry crop land is due to less area irrigated. The small increase under revenue from other sources is due to good realisations from grass in the tank limits.

SATARA DISTRICT.

(15) KRISHNA CANAL.

(Supply: River with Ghat Catchment.)

139. The improvements to the Khodsi weir continued, and an expenditure of Rs. 15,016 was incurred during the year under report, the total expenditure being Rs. 49,333. The existing Khodsi weir is a masonry dam built across the Krishna river. The capacity of the storage formed by the weir has been found insufficient to irrigate the crops on the Krishna Canal in the hot weather. It is proposed to fix falling shutters on the crest to head up an extra 4 feet of water. In order that the stability of the dam should not be impaired by this extra head of water, a continuous buttress or toe has been added. Part of the project estimated at Rs. 33,477 was sanctioned by Government in February 1912. The remodelling of the crest was commenced and completed before June of the same year. The work of adding a continuous buttress to the existing weir was started early in January 1914, and was completed by the end of April 1914. The work of fixing falling shutters over the crest will be continued and completed during the year 1914-15.

140. The rainfall gauged at Retre-Budruk during the year under report was greater than the average of the past ten years but less than that of the previous year:—

Year.	Kharif.	Rabi.	Total.
	Inches.	Inches.	Inches.
1912-13	27.13	9.65	38.78
1913-14	26.55	2.80	29.35
Average of previous 10 years ...	...	...	22.27

141. The supply in the river as gauged in April 1913 was 3,050 cusecs. It decreased to 173 cusecs in May. The discharge suddenly rose in June to 6,466 cusecs, the maximum figure during the year. The supply decreased steadily during the following months until it was 23 cusecs in March 1914. The average monthly discharge was 1,842 cusecs.

142. The area irrigated during the year was 5,015 acres and assessment Rs. 56,237, against 4,076 acres and Rs. 42,317, the average figures of the previous three years. The increase in the area irrigated and assessment is due to large demand for water on account of scarcity of rainfall. The increase in the assessment was also partially due to the plantation of high-rated crops under the Canal.

143. The working expenses, including direct and indirect charges, amounted to Rs. 13,033 or, to Rs. 2.59 per acre against 2.75, the previous average.

144. Deducting working expenses, the net profit of the year was Rs. 47,187 compared with the average of Rs. 31,833.

(32) REWARI CANAL.

(Deccan Catchment.)

145. The rainfall gauged during the year was less than that of the previous year and slightly greater than the average of the past ten years :—

Year.	Kharif.	Rabi.	Total.
	Inches.	Inches.	Inches.
1912-13	19.70	9.80	29.00
1913-14	20.60	1.50	22.10
Average of previous 10 years ...	...	...	21.62

146. The area irrigated was 1,024 acres and the assessment Rs. 4,333, against 1,013 acres and Rs. 3,971, the corresponding averages of the previous three years.

147. The working expenses, direct and indirect, amounted to Rs. 2,135 against Rs. 1,956, the average of the previous three years. The rate per acre irrigated was Rs. 2.08 compared with Rs. 1.93 the average.

148. The operations of this year show a net profit of Rs. 4,855 as compared with Rs. 2,661, the average.

(33) UPPER MAN RIVER WORKS.

(Deccan Catchment.)

149. The rainfall gauged at Gondwla was slightly greater than that of the previous year but less than the average :—

Year.	Kharif.	Rabi.	Total.
	Inches.	Inches.	Inches.
1912-13	7.40	5.73	13.10
1913-14	10.79	2.74	13.53
Average of previous 10 years ...	...	...	15.41

150. The Pingli tank having run dry on 29th December 1912, the year opened with no supply. A small replenishment was, however, received on 12th April 1913 when the R. L. of water stood 2354=3 million cubic feet. There was no hot weather irrigation. From 5th June 1913, the supply began to improve and with subsequent increase and decrease in levels, the R. L. of water rose to 2366.59=132 million cubic feet on 9th July 1913 which was the highest level reached during the year. The available supply was utilised for irrigating 236 and 921 acres of Kharif and Rabi seasons respectively. The tank was dry again on 8th January 1914.

151. The area irrigated was 1,151 acres and the assessment Rs. 4,255 as compared with 1,063 acres and Rs. 4,388, the average of the previous three years. The increase in the area and assessment was mainly due to the good supply of water in the tank.

152. The working expenses, including direct and indirect charges, amounted to Rs. 1,821, against Rs. 3,334, the average. The rate per acre irrigated was Rs. 1.98 compared with Rs. 3.16, the previous average.

153. The operations of the year showed a net profit of Rs. 3,673 as compared with Rs. 1,556, the previous average.

(34) YERLA RIVER IRRIGATION WORKS.

(Deccan Catchment.)

154. The rainfall gauged at Khatgun was considerably less than that of the previous year and the average:—

Year.			Kharif.	Rabi.	Total.
			Inches.	Inches.	Inches.
1912-13	...	...	18.40	7.67	26.07
1913-14	...	...	12.72	2.05	14.77
Average of previous 10 years			...	...	22.13

155. On 1st April 1913, the level of water in the Nehr tank was at R. L. 2659.20, equivalent to a storage of 311 million cubic feet. It continued to fall till 23rd of May 1913, after which date, the tank received replenishments ultimately overflowing on 6th June 1913, and continued so till 21st July 1913. On 26th July 1913, a slip occurred between Chainages 2850 and 3080, and the capacity of the tank was reduced to 410 million cubic feet by lowering the waste weir by 3 feet and keeping the sluice fully open in order to prevent further damage to the dam. Some replenishment was received in September and October 1913, but water was kept down below this level, *i. e.*, 410 million cubic feet, by keeping the sluice open. After 19th October, the R. L. of the water began to fall owing to draw-off of water for irrigation purposes. On 31st March 1914, the R. L. was 2643.98=60 million cubic feet against R. L. 2659.30=313 million cubic feet of last year.

156. The area irrigated and the assessment were, respectively, 6,367 acres and Rs. 23,866 against 4,248 acres and Rs. 17,512, the average figures of the previous three years. The increase in the area and assessment in both the seasons was due partly to failure of timely rainfall during the latter part of the year and partly in distributing water freely to all the needy cultivators near the tail of the canal during the rabi season. Increase in the Kharif area was due to most of the Rabi crops such as Jowari, gram, etc., having received preliminary waterings in that season for want of rain.

157. The working expenses, including direct and indirect charges, amounted to Rs. 11,498 against Rs. 6,761, the average. The rate per acre irrigated was Rs. 1.80 as compared with Rs. 1.59, the average.

158. The result of the year's operations was a net profit of Rs. 14,181 as compared with Rs. 12,295 the average.

(35) CHIKHLI CANAL.

(Deccan Catchment.)

159. The rainfall gauged at Chikhli was considerably less than that of last year and less than the average:—

Year.			Kharif.	Rabi.	Total.
			Inches.	Inches.	Inches.
1912-1913	...	...	14.66	8.76	23.42
1913-1914	...	..	12.95	1.73	14.68
Average of previous 10 years			...	...	18.03

160. The area irrigated and the assessment were 411 acres and Rs. 1,520 respectively, against 215 acres and Rs. 1,207, the average figures of the previous three years.

161. The increase in the area and assessment of the Kharif season over that of last year and the average of the previous three years was due to large demand for water on account of untimely rainfall, while the decrease in the Rabi season was due to the scanty supply of water from Nadni River to the canal.

162. The working expenses, including direct and indirect charges, amounted to Rs. 789 against Rs. 773, the average of the previous three years. The rate per acre irrigated was Rs. 1.91 as compared with Rs. 3.59, the average of the past three years.

163. The operations of the year showed a net profit of Rs. 1,615 against Rs. 1,746, the average of the previous three years.

(36) MAINI TANK.

(Deccan Catchment.)

164. The rainfall gauged at Maini was considerably less than that of the previous year, but slightly greater than the average:—

Year.	Kharif.	Rabi.	Total.
1912-1913	Inches. 24.54	Inches. 5.62	Inches. 30.16
1913-1914	15.96	4.45	20.41
Average of previous 10 years	...	...	19.87

165. The level of water in the Maini tank was lowest on 9th April 1913 when the tank was practically dry. The water commenced to rise till it reached R.L.2305.02 when it was overflowing on the waste weir from 5th to 9th June 1913. In the hot weather, there was at the beginning water standing at the R.L.2294.72, and this level went down to R.L.2291.76 on 1st May 1914.

166. The area irrigated was 2,127 acres and the assessment Rs. 8,486, against 1,543 acres and Rs. 6,647, the average figures of the previous three years. The increase in the area and assessment for the Kharif and Rabi seasons during the year was due to a sufficient supply of water in the tank to meet larger demands for water, owing to failure of seasonable rainfall, and also to the economical management of the distribution of water to the irrigators.

167. The working expenses direct and indirect, amounted to Rs. 2,786 against 2,901, the average of the previous three years. The rate per acre irrigated was Rs. 1.30 as compared with Rs. 1.88, the average.

168. The result of the year's operations was a net profit of Rs. 7,075 against Rs. 3,786, the average.

BIJAPUR DISTRICT.

(37) MUCHKUNDI TANK.

(Deccan Catchment.)

169. The rainfall of the year was considerably less than that of last year and the average:—

Year.	Kharif.	Rabi.	Total.
1912-1913	Inches. 13.44	Inches. 3.99	Inches. 17.43
1913-1914	6.36	2.90	9.26
Average of previous 10 years	...	...	14.66

170. The tank was practically dry till 2nd June 1913, and what little replenishment flowed into the tank from 3rd June to 9th July 1913 remained below sluice level. The level of water rose to 1786.94, *i. e.*, 1 foot above the outlet sill on 10th July 1913. It began to rise till 18th July 1913, when it reached the maximum height during the year, *viz.*, 1787.80. The level of water began to fall since 21st July 1913 and went below sluice level on 30th August 1913. The tank became dry on 1st December 1913.

171. There was no irrigation during the year; no revenue on account of water rates was realised.

172. The working expenses of the year amounted to Rs. 235 against Rs. 334, the average of the previous three years.

173. The result of the year's operations was a net profit of Rs. 709 (which was chiefly due to receipts from other Canal produce) as compared with Rs. 1,109, the average of the previous three years.

DHARWAR IRRIGATION DISTRICT.

(40) DAMBAL TANK.

(Deccan Catchment.)

174. The rainfall was considerably less than that of previous year and a little less than the average :—

Year.	Kharif.	Rabi.	Total.
1912-1913	Inches. 12.96	Inches. 7.78	Inches. 20.74
1913-1914	9.69	4.88	14.57
Average of previous 10 years	...	...	15.04

175. The water level in the tank was 5.66 feet on the (silted bed of the tank on 1st April 1913. The tank received replenishment in July and subsequent months. On the 31st March 1914 the water level was 0.75 feet on the silted bed of the tank.

176. The area irrigated and water rate assessment were respectively 274 acres and Rs. 729 against 95 acres and Rs. 435, the average figures of the previous three years. The increase both in the irrigated area and revenue was due to large demand for canal water for want of timely rainfall.

177. The area of irrigated lands at consolidated rates was 144 acres and the irrigation share of revenue was Rs. 916 giving an average rate of Rs. 6.36 per acre.

178. The working expenses including direct and indirect charges amounted to Rs. 985 against Rs. 1,233, the average.

179. The operations of the year resulted in a net profit of Rs. 1,149 as compared with Rs. 295, the average.

(41) MEDLERI TANK.

(Deccan Catchment.)

180. The rainfall was nearly half of that of last year and about 30 per cent. less than the average :—

Year.	Kharif.	Rabi.	Total.
	Inches.	Inches.	Inches.
1912-13	15·73	3 30	19·03
1913-14	8·04	1·87	9·91
Average of previous 10 years ...	...	...	12·90

181. There was no water in the tank in April 1913. The replenishments received in June and subsequent months were all used up by the end of September, and fresh replenishments came in September and October, and the maximum level reached was 8·50 feet above the sill of outlet on 15th October 1913. The level of water fell below the outlet sill again in January 1914.

182. The area irrigated and the assessments were respectively 92 acres and Rs. 698 against 52 acres and Rs. 437, the average figures for the previous three years. The increase in the area irrigated and revenue was due to all the available water having been utilised for irrigation by flow and lift on account of irregular rainfall.

183. The working expenses amounted to Rs. 1,446 against Rs. 1,053, the average of previous three years. The increase was due to an unusual expenditure of Rs. 357 on special repairs and the consequent other book debits on account of establishment charges.

184. The operations of the year showed a net deficit of Rs. 697 as compared with the average deficit of Rs. 610.

(42) ASUNDI TANK.

(Deccan Catchment.)

185. The rainfall gauged was much less than that of the previous year and a little less than the average:—

Year.	Kharif.	Rabi.	Total.
	Inches.	Inches.	Inches.
1912-13	20·95	3·52	24·47
1913-14	14·53	4·35	18·88
Average of previous 10 years ...	...	...	19·66

186. On 1st April 1913, the tank had 3·46 feet of water above the actual bed. The tank received good replenishments in the monsoon, and the waste weir overflowed from 29th September to 4th October, and again from 13th to 18th October. The maximum depth of water that passed over the waste weir crest was 6 inches. On 31st March 1914, the water level was 2·80 feet on the actual bed of the tank. The tank had a good supply of water throughout the year.

187. The area irrigated and the assessment were respectively 147 acres and Rs. 601, against 53 acres and Rs. 273, the average figures of previous three years. The increase in the area irrigated and revenue was due to good supply of water in the tank and to large demand of canal water for want of seasonable rainfall.

188. The area irrigated under consolidated assessment was 190 acres and the irrigation share of revenue was Rs. 687 or Rs. 3·62 per acre.

189. The working expenses amounted to Rs. 1,326 against Rs. 1,619, the average of previous three years.

190. The result of the year's operations was a net deficit of Rs. 11 as compared with Rs. 2,357, the previous average deficit.

(43) MADAG TANK.

(Ghat Catchment.)

191. The rainfall gauged was much less than that of last year but slightly greater than the average:—

Year.				Kharif.	Rabi.	Total.
				Inches.	Inches.	Inches.
1912-1913	...	...	...	25.05	7.55	32.60
1913-1914	...	...	...	17.07	9.32	26.39
Average of previous ten years				.....	.....	25.17

192. In the beginning of the year, the water in the tank was not flowing through the outlet tunnel. The tank received replenishments in June and subsequent months and the maximum depth of water that passed over the waste weir was 11.20 feet on 13th October 1913. The water flowed over the waste weir from 14th June to 24th January 1914.

193. The area irrigated was 715 acres as compared with 623 acres, the average of the previous three years, the assessment being Rs. 2,522 against Rs. 2,373, the average. The increase in area irrigated and revenue was due to larger demand for canal water on account of irregular rainfall.

194. The working expenses amounted to Rs. 2,860 against Rs. 1,878, the average of the previous three years. The increase was due to the expenditure incurred during the year on (1) urgent repairs to Right Bank Canal, (2) special repairs to an aqueduct in mile No. 3 of Right Bank Canal, and (3) preparing register of land taken up for canals.

195. The operations of the year resulted in a net profit of Rs. 3 as compared with a net profit of Rs. 756, the average net profit of the previous three years.

(44) MAVINKOP TANK.

(Forest Catchment.)

196. The water level of the tank in the beginning of the year was about 6 feet. The tank received replenishments in June and subsequent months. The tank had a good supply of water for the rice crops under it and no remissions had to be granted. The water level sank below the outlet sill in February 1914.

197. The whole of the irrigated area which was 570 acres is assessed at consolidated rates, the irrigation share of which was Rs. 2,259.

198. The working expenses amounted to Rs. 686 against Rs. 1,137, the average.

199. The operations of the year showed a net profit of Rs. 1,573 as compared with Rs. 381, the average.

(45) DHARMA CANAL.

200. The work of improvements to the Dharma Canal, which was in progress during the past two years, has been practically completed during the year.

201. The area irrigated and the assessment were respectively 719 acres and Rs. 3,780 and the working expenses amounted to Rs. 276.

202. The area irrigated under consolidated assessment amounted to 7,861 acres.

BELGAUM DISTRICT.

(38) GADDIKERI TANK.

(Ghat Catchment.)

203. The management of this tank is in the hands of the Revenue Department.

204. The area irrigated during the year was 377 acres and the irrigation share of the consolidated assessment amounted to Rs. 2,061.

205. The working expenses were Rs. 361 against Rs. 420, the average of the previous three years.

206. The result of the year's operations was a net profit of Rs. 1,700 as compared with Rs. 1,644, the average of the previous three years.

(39) GOKAK CANAL, FIRST SECTION AND STORAGE WORKS.

207. The rainfall gauged at Dhupdal was less than half of that of the previous year and slightly greater than half of the average :—

Year.				Kharif.	Rabi.	Total.
				Inches.	Inches.	Inches.
1912-1913	...	...	...	10.80	6.17	26.97
1913-1914	...	...	...	9.00	2.52	11.52
Average of previous ten years	...	...	...	.....	.....	20.64

208. The Dhupdal reservoir reached its lowest level, *i. e.*, 0.40 on the evening of 15th May 1913. The tank began to fill from the 23rd May and overflowed on the 13th June. The maximum flood of the year occurred on the evening of 18th July when the water level rose to 2.74 feet above the permanent weir crest (R. L. 2008.06). This flood is estimated at 53,938 cft. per second which is equal to a run-off of .077 inches per hour from the whole catchment area (1,080 square miles).

209. The weir crest was temporarily raised to a height of 2 feet, as usual, at a cost of Rs. 1,547, but it served no useful purpose as the water never reached even the bottom of the temporary wall for want of sufficient discharge in the rivers.

210. As the supply of water in the tank ran short, the mills could not be given their usual discharge from 10th to 23rd May 1913; consequently, a rebate of Rs. 376 was given to the Company.

211. The area irrigated during the year and the assessment thereon were 10,522 acres and Rs. 45,262 respectively, against 8,478 acres and Rs. 38,588, the averages of the previous three years. The increase is due to the large demands of water for the rabi crops on account of scarcity of rainfall.

212. The area irrigated directly by the canal was 9,255 acres which is equal to 52.50 per cent. of the culturable area, 17,627 acres, under command.

213. An additional area of 1,267 acres was watered from the tank and river direct.

214. The total assessed revenue of this year was distributed as follows:—

			Rs.
1. Water rates	...	...	45,263
2. Sales of water	...	...	318
3. Plantations	...	...	459
4. Other canal produce	...	...	1,702
5. Water power	...	...	13,937
6. Miscellaneous	...	...	1,898
7. Rent of Buildings	...	...	13
		Total Rs.	63,590

215. The working expenses, including direct and indirect charges, amounted to Rs. 12,556 against Rs. 14,066, the average of the previous three years. The rate per acre irrigated was Rs. 1.19 compared with Rs. 1.66, the average.

216. The result of the year's operations was a net profit of Rs. 51,034 as compared with Rs. 41,319, the average.

PART II.

COMPRISING SECOND CLASS IRRIGATION WORKS FOR WHICH ONLY REVENUE ACCOUNTS ARE KEPT—AND AGRICULTURAL WORKS FOR WHICH NEITHER CAPITAL NOR REVENUE ACCOUNTS ARE KEPT.

 GENERAL REMARKS.

217. The financial results of Second Class Irrigation Works for which only Revenue Accounts are kept, for the year 1913-14, are as shown below :—

				Acres.
Area irrigated	...	...	...	46,945
				Rs.
Revenue Receipts	...	...	...	1,99,095
Expenditure	...	...	...	3,63,392

218. The details of expenditure on this class of works are as follows :—

				Rs.
Extensions and Improvements	...	...	...	80,522
Maintenance and Repairs	...	...	...	1,69,975
Establishment	...	...	...	85,661
Tools and Plant	...	...	...	7,920
			Total	3,44,078
			Share of collection charges	19,314
			Total	3,63,392

The comparison usually made with previous year's figures has been omitted this year because, all the information given above is confined to works on which expenditure has been incurred during the year. There are numerous other Second Class Irrigation Works on which no expenditure has been incurred during the year and the area of irrigation and receipts for those works are not included. In previous years this distinction was not carefully maintained, and the area and revenue were given for a larger number of works than those on which expenditure was incurred, though not the whole of the Second Class Irrigation Works in the Presidency, and the figures therefore were not comparable. In previous years the revenue has generally been shown to be greater than the expenditure. It has now been decided to give the area and revenue for only those works on which some expenditure is incurred during the year and the expenditure will therefore usually be in excess of the revenue.

219. The following table shows the areas irrigated in the different districts in the Deccan and Gujarát and the consolidated revenue assessed during the

year 1913-14 in respect of irrigation works on which expenditure has been incurred during the year:—

Collectorates.	Number of Works.	Area irrigated.	Revenue.			Remarks.	
			Irrigation share.	Land share.	Total.		
1	2	3	4	5	6	7	
		Acres.	Rs.	Rs.	Rs.		
(a) Ahmedabad	65	7,645	16,122	14,429	30,551	(a) Works in charge of Gujarát Irrigation District.	
(a) Kaira	69	12,129	29,124	29,350	58,474		
(a) Panch Maháls	21	308	949	223	1,172		
Surat	33	1,370	8,436	15,118	18,554		
Broach	4	54	100	301	401		
West Khándesh	67	8,368	52,060	11,831	63,891		
East Khándesh	1	70	558	153	711		
(b) Násik	39	5,678	40,921	7,510	47,831		(b) Works in charge of Násik and Ahmednagar Irrigation District.
Ahmednagar ... ..	...	...	...	...	...
Poona	2	453	2,403	917	3,320		
Sátára ... ..	...	...	...	...	...
Belgaum	26	2,248	9,105	2,276	11,381		
(c) Dhárwár	69	5,264	16,570	4,143	20,712	(c) Works in charge of the Irrigation District, Dhárwár.	
Kanára	23	2,481	6,223	1,556	7,779		
Bijápúr	1	561	2,827	707	3,534		
Batnágiri	2	316	1,208	42	1,250		
Total	427	46,945	1,81,006	88,555	2,69,561		

220. The actual expenditure and receipts for the year 1913-14 on the works referred to in paragraph 219 were as follows :—

Collectorate.	EXPENDITURE.								ACTUAL RECEIPTS.						
	Direct Charges.								Direct Receipts.			Indirect Receipts.	Grand Total Direct and Indirect Receipts.	Less Refund of Revenue.	Gross Receipts Less Refunds.
	Extensions and Improvements.	Maintenance and Repairs.	Establishment.		Tools and Plant.	Total.	Share of Collection Charges.	Grand Total.	Water Rates from Irrigation.	Miscellaneous.	Total Direct Receipts.	Share of Consolidated Revenue.			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Ahmedabad ...	10,417	33,384	4,548	25,543	1,893	1,55,624	1,632	1,61,085	199	4	203	16,122	16,325	...	16,325
Kaira ...	50,619	13,311					3,784		6,487	4,252	10,739	29,124	39,863	...	39,863
Panch Mahals ...	15,502	407					95		...	120	120	949	1,069	...	1,069
Surat ...	.....	9,738	485	1,942	300	13,549	344	13,903	...	...	.....	3,436	3,436	...	3,436
Broach ...	.....	1,084					10		...	.....	100	100	...	100	
West Khándesh ...	.....	14,771	650	2,479	189	18,039	5,314	23,403	2,128	25	2,153	52,060	54,213	...	54,213
East Khándesh ...	.....	673	30	162	10	875	56	931	...	...	.....	558	558	...	558
Násik ...	1,401	30,249	1,407	2,475	2,967	38,499	4,034	42,533	...	1,744	1,744	40,321	42,065	...	42,065
Ahmednagar ...	.....	.....	...	...	...	.....	...	.....	...	...	.....	.....	.....	...	.....
Poona ...	.....	402	18	102	6	528	305	833	644	...	644	2,403	3,047	...	3,047
Sátára ...	.....	.....	...	...	...	.....	...	.....	...	...	.....	.....	.....	...	.....
Belgaum ...	2,056	12,528	585	1,813	399	17,381	932	18,313	...	217	217	9,105	9,322	...	9,322
Dhárwár ...	527	53,296	2,471	40,918	2,154	99,366	1,811	1,01,177	761	1,138	1,899	16,570	18,469	...	18,469
Kánara ...	.....	.....	...	...	...	.....	622	622	...	...	.....	6,223	6,223	...	6,223
Bijápur ...	.....	8	...	6	...	14	304	318	...	370	370	2,827	3,197	...	3,197
Batnágiri ...	.....	124	6	21	2	153	121	274	...	...	.....	1,208	1,208	...	1,208
Total ...	80,522	1,69,975	10,200	75,461	7,920	3,44,078	19,314	3,63,392	10,219	7,870	(a) 18,089	1,81,006	1,99,095	...	1,99,095

(a) As per Finance Accounts for the year 1913-14.

221. The whole area of irrigation and revenue due from Second Class Irrigation Works in the Deccan and Gujarát as recorded in the register of these works is 201,045 acres and 818,305 rupees with the exception of districts for which lists are not prepared. The figures will be modified when new or revised lists are issued.

DETAILED REPORTS BY DISTRICT OFFICERS.

WORKS FOR WHICH ONLY REVENUE ACCOUNTS ARE KEPT.

GUJARAT IRRIGATION AND SURAT AND BROACH DISTRICTS.

222. There was a pretty high flood in the Khári river on the 20th July 1913, the water spread over a large area and flooded the lands in the Kalambandi villages under the Khári Sluices, which was very beneficial to them. The rainfall in those parts was also heavy and little or no water was required for irrigation until the end of August, and it was given in abundance when wanted later on.

223. The Goblaj Tank and the Bherai Reservoir were full to overflowing and water was issued for irrigation when demanded. The Goblaj Tank, however, remained nearly three-fourths full on account of the late rains, there having been little or no demand for water afterwards for rabi crops, and it was consequently run to waste and the bed laid bare for cultivation. The sluices were maintained at a cost of Rs. 2,498. Rs. 8,166 were spent on improvements to the sluices, making certain feed channels, construction of a needle shed in the compound of the store-shed at Naika, additions and alterations to the masonry waste weir of Goblaj Tank, maintenance and repairs to the Goblaj Tank and Bherai Reservoir, clearance of the Gha-bajería weeds from the bed of the Khár River, etc.

224. The remissions granted by the Collector owing partly to the failure of the crop due to late transplantation or other causes amounted to Rs. 3,915.

225. The following table compares the areas irrigated and the assessment levied with the average of the previous three and ten years :—

	Average of 10 years ending 1912-1913.		Average of 3 years ending 1912-1913.		1913-1914.	
	Area.	* Revenue after deducting remissions.	Area.	* Revenue after deducting remissions.	Area.	* Revenue after deducting remissions.
	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.
I.—Irrigation above the Kalambandi villages ...	793	3,186	786	2,880	787	4,361
II.—Irrigation from tanks fed by the River Khári ...	198	596	198	606	198	622
III.—Irrigation below the Kalambandi villages ...	677	2,653	427	1,965	...	.....
IV.—Irrigation from the Khári sluices proper, (i.e., 10 Kalambandi villages) ...	6,864	27,215	6,849	27,386	6,822	40,916
Total ...	8,532	33,650	8,260	32,837	7,807	45,899

* NOTE.—The revenue is consolidated and exclusive of Inamdárs' shares.

226. The revenue of the year from the Khári sluices proper exceeded that of the previous year by Rs. 15,911, owing to the good rainfall and the abundant supply of water given for irrigation.

227. The assessment rates under the Khári sluices proper, i.e., of the "Kalambandi" villages being consolidated, the average rates per acre for land and water respectively were as under :—

	Land share.	Irrigation share.	Total consolidated.
	Rs. a. p.	Rs. a. p.	Rs. a. p.
Government land ...	3 14 11	5 5 8	9 4 7
Alienated land ...	0 13 3	1 5 6	2 2 9

228. During the year, 197 old tanks, *viz.*, 65 in Ahmedabad (inclusive of 14 Tálukdári), 69 in Kaira, 21 in Panch Maháls and 42 in the Surat and Broach Districts were either repaired or improved at a total cost of Rs. 1,26,830, while Rs. 7,579 were spent on surveys and preparation of plans and estimates for a number of similar tanks in the Ahmedabad and Kaira and Panch Maháls Districts. Out of the above works, 52 were completed, while repairs to the remainder were in progress. All the tanks repaired or improved in the Gujarat Irrigation District will be brought on to the list of tanks to be maintained by the Irrigation Department, as soon as their examination, which is going on in all the tálukas with that object in view, is completed.

229. The area irrigated and the revenue derived from the old irrigation tanks and bunds are as under:—

District.		Area Irrigated.	Irrigation share.	Land share.	Net consolidated Assessment.
		Acres.	Rs.	Rs.	Rs.
Ahmedabad	...	7,888	22,314	22,533	44,847
Kaira	...	2,148	2,822	4,902	7,724
Panch Maháls	...	174	949	223	1,172
Surat	...	13,861	31,649	1,35,821	1,67,470
Broach	...	791	1,393	5,120	6,513
Total		24,862	59,127	1,68,599	2,27,726

POONA IRRIGATION DISTRICT.

230. The following table gives the area irrigated, the consolidated assessed revenue and the irrigation share thereof, for the six irrigation works in the Poona Collectorate for which only Revenue Accounts are kept, for the year 1913-14:—

Name of work.	Area Irrigated.	Revenue.		
		Irrigation share.	Land share.	Total.
	A. g.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Dam at Kasur ...	25 28	127 6 0	.....	127 6 0
Dam at Vadaj ...	150 33	517 10 0	.....	517 10 0
Dam at Agar ...	53 18	432 0 0	89 0 0	521 0 0
Dam at Narayangaon ...	427 17	2,403 2 0	917 1 0	3,320 3 0
Tank at Patas ...	...	.....	.....	.....
• Vadhana Tank and Channel ...	30 15	17 12 0	7 8 0	25 4 0
Total	687 31	3,497 14 0	1,013 9 0	4,511 7 0

231. During the year under report a sum of Rs. 402 (exclusive of establishment and tools and plant) was expended on repairs to two of these works, namely, the Dams at Narayangaon and Kasur.

232. The following statement shows the average area irrigated during the past three years and the revenue assessed on the works as compared with the figures of the year under report:—

Period.	Area irrigated.	Irrigation share of Revenue.
	Acres.	Rs.
Average of the past 3 years ...	718	3,506
For 1913-14 ...	688	3,498

NA'SIK AND AHMEDNAGAR IRRIGATION DISTRICT.

233. The area irrigated and the revenue derived on lands irrigated by bandharás in the Násik Collectorate, for which only revenue accounts are kept, were as below :—

Area irrigated.	Net consolidated Revenue.		
	Irrigation share.	Land share.	Total.
Acres. 28,662	Rs. 1,53,124	Rs. 38,840	Rs. 1,91,964

234. Remissions amounting to Rs. 28,340 were granted by the Revenue Department on account of deficient supply of water in certain cases.

235. The expenditure during the year on these works amounted to Rs. 28,567 exclusive of establishment and tools and plant. The following table shows the average area irrigated during the past three years and the revenue assessed on works as compared with the figures of the year under report :—

Period.	Area irrigated.	Irrigation share of revenue.
	Acres.	Rs.
Average of the past 3 years.	30,031	1,59,562
For 1913-14	28,662	1,53,124

AHMEDNAGAR DISTRICT.

236. There are two second class works in the Akola táluka, viz., the Savargaon and Gardani bhandhárás. No expenditure was incurred on them during the year.

237. The following statement shows the area irrigated and the gross assessed revenue as compared with the average for the past three years :—

Name of Bandhara.	During 1913-14.		Average of the past three years.	
	Area irrigated.	Gross revenue.	Area irrigated.	Gross revenue.
	Acres.	Rs.	Acres.	Rs.
Savargaon and Gardani	145	486	145	395

EAST KHA'NDESH DISTRICT.

238. The area irrigated and the revenue derived from each of the old second class irrigation works are shown below :—

No.	Name of work.	Area irrigated.	Irrigation share.	Land share.	Total.
		Acres.	Rs.	Rs.	Rs.
1	Patonda Channel	132	798	316	1,112
2	Toli Channel	70	558	153	711
3	Amalner Channel	375	1,974	912	2,886
	Total	577	3,328	1,381	4,709

239. The revenue was the same as in the previous year.

240. The outlay on these works was Rs. 845 and debited as below, against Rs. 204 in the previous year.

				Rs.
Extensions and Improvements	...	...	...	Nil
Maintenance and Repairs	...	...	...	673
Establishment	...	...	...	162
Tools and Plant	...	...	...	10

WEST KHANDESH DISTRICT.

241. The area irrigated and the revenue derived from each of the old irrigation works are shown below :—

Years.	Area irrigated.	Revenue.		
		Irrigation share.	Land share.	Total.
	Acres.	Rs.	Rs.	Rs.
Average of the previous 3 years ...	9,572	58,103	14,443	72,546
1913-14 ...	8,988	54,641	13,654	68,295

242. These figures are exclusive of old Irrigation on the Lower Panjhara River Works. Remissions amounting to Rs. 5,985 were granted. The outlay incurred on this class of works during 1913-14 compares with the outlay of previous three years as detailed below :—

Description.	Expenditure.	
	Average of the previous 3 years.	1913-14.
	Rs.	Rs.
Extensions and Improvements.	342	.....
Maintenance and Repairs ..	5,986	14,771
Establishment ..	1,134	2,479
Tools and Plant ..	54	189
Total ...	7,466	17,439

243. Out of the total expenditure on maintenance and repairs a sum of Rs. 11,225 was expended on repairs to Gondur Tank alone, a new waste weir 600 feet long, 6 feet broad and 5 feet high above ground level at its maximum height was constructed, and the northern and southern flank works were completed.

244. The Shahada Channel is the only work which has a reliable supply. 136 acres under dry crop land were irrigated in addition to 871 acres of Kayam Bagait land during the year.

245. The average area of dry crop land irrigated under this channel during the last three years was 531 acres.

SATARA DISTRICT.

246. There is only one second class work in this District, viz., the Boregaon Dam which served 105 acres with a consolidated assessment of Rs. 1,012 of which the irrigation share represented Rs. 660.

BIJAPUR DISTRICT.

247. There are altogether 16 second class works maintained by the Public Works Department. The lands irrigated by those works are assessed at consolidated rates. The total area irrigated was 1,193 acres assessed at Rs. 6,447 of which Rs. 5,657 was the irrigation share.

DHARWAR IRRIGATION DISTRICT.

248. The expenditure during the year incurred on repairs to the second class tanks in the Dhárwár and Kanára Collectorates was Rs. 53,453 including Rayats' contribution of Rs. 157, and Rs. 713 on repairs to irrigation Rest-Houses.

249. The area under command of the large second class tanks in the Dhárwár Collectorate irrigating more than 50 acres each and assessed at consolidated rates is 64,028 acres. During the year under report 60,460 acres were irrigated against 61,091 acres of the previous year and the consolidated assessment was Rs. 2,16,756, out of which remissions were granted by the Collector of Dhárwár to the extent of Rs. 8,343 on account of failure of crops in the irrigated lands under the tanks. The net consolidated assessment was thus Rs. 2,08,413 and the irrigation share was Rs. 1,66,731.

250. In addition to the above the following sums represent revenue realised from miscellaneous sources :—

	Rs.
By Revenue Department—	
{ 1 Water rates ...	761
{ 2 Other Canal produce, sale of grass, fruits, etc.	775
By Public Works Department—	
{ Sale-proceeds of trees, etc. .	364
Total Rs. ...	1,900

BELGAUM DISTRICT.

251. The total number of second class tanks irrigating over 50 acres in this District is 67 with the irrigated area of 9,916 acres paying a consolidated assessment of Rs. 41,319 of which the irrigation share is Rs. 33,053.

252. A sum of Rs. 12,528 was spent during the year on repairs to second class tanks. The details are given below :—

	Rs.
(a) Repairs to 12 tanks irrigating 50 acres and above ...	3,418
(b) Repairs to 14 tanks, each irrigating below 50 acres ...	4,821
(c) Surveying 22 tanks	3,000
(d) Compensation for the land taken for the tanks ...	1,289
Total ...	12,528

253. A sum of Rs. 2,056 was spent during the year in constructing a bandhára across the Badchi Nalla. The work is in progress.

RATNAGIRI DISTRICT.

254. There are four irrigation works in the Ratnágiri Collectorate, which irrigated 1,221 acres during the year. The consolidated assessment and the irrigation share were Rs. 5,900 and Rs. 3,795 respectively.

AGRICULTURAL WORKS.

WORKS FOR WHICH NEITHER CAPITAL NOR REVENUE ACCOUNTS ARE KEPT.

GUJARAT IRRIGATION AND SURAT AND BROACH DISTRICTS.

255. There was no change during the year in the financial results of the several drainage channels in these Districts, which worked satisfactorily and were maintained at a cost of Rs. 11,259.

POONA IRRIGATION DISTRICT.

KHAMGAON TANK.

256. This partially completed tank was dry upto the 16th of June 1913, when it received its first replenishment. The maximum depth attained was 10 feet above the sill of outlet against the full supply depth of 16·75 feet. No water available for irrigation in the kharif season. In the Rabi season, 94 acres were irrigated yielding a revenue of Rs. 393. The corresponding figures for the year 1912-13 were 54 acres and Rs. 218. The tank dried up on the 1st February 1914.

SHOLÁPUR DISTRICT.

WADSHIVNE TANK.

257. The beginning of the year found the tank completely dry, and the replenishment of 10 feet was received in July 1913, giving a storage 66 million cubic feet, which, with subsequent increases, lasted till 21st January 1914 after supplying the full demands of Kharif and Rabi Irrigation. The mean rainfall gauged at the two stations in the catchment of 14·5 square miles was 14·12 inches which gave a total replenishment of 95·41 million cubic feet, the proportion of run-off to rainfall being 20 per cent.

258. The area irrigated was 642 acres against 215, the average of the preceding three years, the increase being due to greater demands owing to poor rainfall.

259. The gross assessed revenue amounted to Rs. 3,212 against Rs. 1,020. The increase is partly due to the recent enhancement of rates.

260. The working expenses amounted to Rs. 1,193 against the average of Rs. 1,772.

WEST KHANDESH DISTRICT.

TALWADA TANK.

261. The year opened with a storage of 28 million cubic feet. Replenishments in June and July 1913 raised the storage to 76 million cubic feet. After meeting the demands of irrigators, the year closed with a balance of 28·31 million cubic feet. The replenishment during the year was the highest on record.

262. The storage in the tank could not be utilised as the channel is under construction; only 73 acres were irrigated against 58, the average of the previous three years, the gross assessed revenue being Rs. 326 against Rs. 299, the average of the past three years. 2·75 miles of earthwork of the canal were completed and the outlay incurred was Rs. 6,798.

Revenue Report of Irrigation Works in
the Bombay Presidency, excluding
Sind for 1913-14—Review of

No. W. I.—4417.

PUBLIC WORKS DEPARTMENT.

Bombay Castle, 12th April 1915.

Letter from the Superintending Engineer, Southern Division, No. 3345, dated 24th September 1914.

Submits the Irrigation Revenue Report, Parts I and II, for his Division for 1913-14.

Letter from the Superintending Engineer, Deccan Irrigation Division, No. 6123, dated 26th September 1914.

Submits Parts I and II of the Irrigation Revenue Report for his Division for the year 1913-14 and states that the statements of working expenses, assessments and remissions for Part I will follow.

Letter from the Superintending Engineer, Central Division, No. 6219, dated 30th September 1914.

Submits Parts I and II of the Irrigation Revenue Report for his Division for the year 1913-14.

Read:—

Memorandum from the Superintending Engineer, Southern Division, No. 3528, dated 5th October 1914.

Letter from the Superintending Engineer, Northern Division, No. 7394, dated 9th October 1914.

Submits the Irrigation Revenue Report for his Division for 1913-14 in 2 parts together with the Descriptive Account required as per Government Circular Memorandum No. W. I.—2931, dated 16th November 1906 and other statements.

Letter from the Accountant General, Bombay, No. B. K.-23—1—2175, dated 31st October 1914.

Forwards certain statistical statements in connection with the Irrigation Revenue Report, Deccan and Gujarat for the year 1913-14.

Letter from the Superintending Engineer, Deccan Irrigation Division, No. 7627, dated 5th December 1914.

With reference to paragraph 2 of his office No. 6123, dated 26th September 1914, forwards statements of working expenses, assessments and remissions for Part I of the Revenue Report.

Letter from the Superintending Engineer, Southern Division, No. D.—712, dated 25th March 1915.

With reference to Government Memorandum No. 2679-I., dated 3rd March 1915, forwards a statement containing certain information called for by Government in connection with the Dharma Canal.

RESOLUTION.—The Irrigation Works, dealt with in this report, are divided into three classes namely:—

- (1) First Class Works (in Part I), being those for which Capital and Revenue Accounts are kept.
- (2) Second Class Works (in Part II), being those for which only Revenue Accounts are kept. They are small but very numerous tanks, bandharas and channels, and
- (3) Agricultural Works (also in Part II), being those for which neither Capital nor Revenue Accounts are kept. These are generally very small works.

2. The total capital outlay on the first class irrigation works upto the end of the year 1913-14 was Rs. 5,03,04,075 and the net revenue (assessed) was Rs. 11,07,658. The Capital expenditure both direct and indirect, in the

last year alone was Rs. 44,40,348 and of this figure, nearly 27¼ lakhs were spent on the Nira Right Bank Canal and nearly 15¾ lakhs on the Godavari and Pravara River Projects. Good progress continued to be made with the Godavari and Pravara Canals and irrigation operations extended on the former system, over a length of 62 miles of the Right Bank Canal and of 32 miles of the Left Bank Canal. Good progress was also made with the work in connection with the Nira Right Bank Canal Project, where a large quantity of excavation including deep rock cutting was done during the year under report.

3. The area irrigated was 203,338 acres against 197,365 acres of the previous year, showing an increase of 5,973 acres. This increase was due to the growth of irrigation under the Protective Works, while an increase of over 11,000 acres on Productive Works was almost exactly counter-balanced by a similar decrease under Minor Works. Explanation regarding these variations has been given in paragraph 6 of the General Remarks in Part I of the Report.

4. With the increase of irrigation, there was a rise in the gross assessed revenue which amounted to Rs. 17,59,548 or 8.6 Rs. per acre against Rs. 15,83,168 of the previous year and Rs. 10,78,407, the average of the previous 10 years. This growth of revenue is satisfactory.

5. The unrealized balance stood at Rs. 1,70,709 at the end of 1912-13 and fell to Rs. 1,23,681 during the year under review, and of this Rs. 15,287 are reported to have since been recovered in the Deccan Irrigation Division. In the Northern Division, however, the outstandings could not be recovered owing to the heavier demands of the past years from some of the poorer tenants, but they are likely to be cleared during 1914-15.

6. There will continue to be an increase in working expenses as long as new lengths of canal come into operation annually. Thus an increase of Rs. 1,42,791 has been recorded this year, of which the Godavari Canals alone were responsible for Rs. 63,621. The total charge for the year was Rs. 6,51,890.

7. The resulting net revenue for the year was :—

	Rs.
(I) On the basis of assessment	11,07,658
(II) On the basis of realizations	10,87,593

as compared with Rs. 10,74,069 and 9,04,428 respectively during the previous year.

8. The policy of Government in the last eleven years has been to make liberal annual grants for expenditure on the improvement and maintenance of the second class irrigation works. The annual expenditure during this period has been on the average 4.4 lakhs rupees, and a large number of works have been put into good working order.

In previous years, it was usual to give in the General Remarks prefacing Part II of this Report, figures of area and revenue for an indefinite and variable number of second class works. From this year forward, however, it has been decided to give the area and revenue for only those works on which some expenditure is incurred during the year. Lists of works are being prepared for each district, and are approaching completion. The present figures show that the area under irrigation and revenue due from second class irrigation works in the Deccan and Gujarat are 201,045 acres and 818,305 rupees. From paragraphs 217-220 it will be seen that an expenditure of Rs. 3,63,392 was incurred on 427 works during the year under review, while the revenue realized from these works amounted to Rs. 1,99,095. The figures of area and revenue given in the Divisional Reports of the Superintending Engineers, in Part II do not agree with those given in the statements included in paragraphs 219 and 220, as they include works other than those on which expenditure was incurred during the current year.

9. The Irrigation Officers and all officers concerned with the distribution of water are thanked for the management of the works.

10. Copies of the report and of this review should be forwarded to the Government of India. Copies should also be sent to the Secretary of State for India.

W. N. CARTLAND,
Under Secretary to Government,
Irrigation and Railways.

To

The Revenue Department, Secretariat.
The Financial Department, Secretariat.
The Commissioner in Sind.
The Commissioner, N. D.
The Commissioner, C. D.
The Commissioner, S. D.
The Director of Agriculture.
The Settlement Commissioner and Director of Land Records.
The Chief Engineer in Sind.
All Superintending Engineers of Divisions.
The Accountant General, Bombay.
All Executive Engineers in charge of Irrigation works.
The Government of India
The Under Secretary of State for India } By letter.

Class A.

Exd. C. S. P.

No. _____ of 1915.

Copy forwarded for information and guidance to