Greigation Revenue Report of the Bombay Presidency

1895-96

IRRIGATION REVENUE REPORT

OF THE

BOMBAY PRESIDENCY,

EXCLUDING SIND,

1895-96.

PARTS I & II.

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IRRIGATION REVENUE REPORT, BOMBAY PRESIDENCY (EXCLUDING SIND),

1895-96.

PART I.

COMPRISING WORKS FOR WHICH CAPITAL AND REVENUE ACCOUNTS ARE KEPT.

GENERAL REMARKS.

Works in operation.

The following list includes all the works in operation, 36 in number:—

		olon, co la namoor.	
Collectorate.	Number.	Names of Works.	Storage Works completed or proposed.
		MAJOR WORKS. Protective Works.	,
Poona	1	Nira Canal	Storage lake at Bhatghar practi-
Sholápur	2	Mhasvad Tank	cally completed. Completed, except a part of the
snotapur		1,	waste weir which was demolished
		Productive Works.	in order to enable repairs to the dam to be carried out. This work is still to be completed.
Ahmedabad	5	Háthmati Canal	Storage works under consideration.
Klandesh	6	Lower Pánjhra River Works. Pálkhed Canal	
377.11		Ladva Oihan Tambat	
Násik	7	Canal.	Water consequently is not
Ahmednagar	8	Wadan Canai	stored to full designed height. Máládevi Tank proposed for this
		Canal.	work, but sanction withdrawn
	}		pending enquiry into modified proposals for the dam, and alter-
			native proposals for a tank at
٠.		•	Samrad, revised survey of which is completed and plans, &c., have been prepared.
Poona	9	Mutha Canals	T -1 Tries -4 17 h - 3 -1
Sholápůr	10	Ekrúk Tank	Complete.
Sátára	11	Krishna Canal	Site for a storage reservoir is under consideration.
		Minor Works and Naviga- tion.	
Ahmedabad	12	Khári Cut	The Bokh project under considera-
ſ	13	Hartála Tank	10 11
1	14 15	Mhasva do	
Khándesh		Jámda Canals	and commenced, but work suspened. Question of resumption
Násik	16	Parsul Tank	of work under consideration. Complete.
Ahmednager {	17	Pravara River Work-Ojhar Canal.	
	18	Bhatodi Tank	Canal. Complete.

Collectorat	e.	Number.	Names of Works. Storage Works completed or proposed.
•			MINOR WORKS AND NAVIGA- TION—continued.
Poona	{	19 20 21 22	Mátoba Tank Complete. Kásurdi do Do. Shirsuphal Tank Do. Bhádalvádi do Do.
Sholápur	{	23 24	Koregaon do Do. Ashti do Do.
Sát á ra		25 26 27 28 29	Revári Canal Storage Tank at Sonkeh proposed. Upper Mán River Works Pingli Tank complete. Yerla River Irrigation Works. Nehr Tank complete. Chikhli Canal No Storage works yet proposed but subject being considered. Maini Tank Complete.
Bijápur	{	30 31	Muchkundi Tank Do. Nilgund do Do.
Belgaum	•••	32	Gadikeri do Do.
Dhárwár	{	83 34 35 36 37	Dámbal do. Do. Medleri do. Do. Madag do. Do. Asundi do. Do. Mávinkop do. Do.
Belgaum	,,	39	Provincial. Gokák Canal, 1st Section Storage works at Dhupdal completed. Further raising of the weir lately sanctioned.

Nos. 3 and 4, or Chankapur and Maladevi Tanks, are not included, as the works were not in operation; the former has been suspended and the latter has not yet been approved. No. 38—Gokak Canal, 2nd Section, is in abeyance.

Capital outlay.

2. The total capital outlay during and up to the end of the year was as follows:—

Main Heads.	To end of 1894-95.	During 1895-96.	To end of 1895-96.
	Rs.	Rs.	Rs.
᠖ A.—Direct Charges.	•		
I.—Works II.—Establishment III.—Tools and Plant IV.—Suspense Profit and Loss	1,98,27,081 45,01,191 4,99,443	74,207 14,564 4,983	1,99,01,288 45,15,755 4,94,460
Total A	2,48,27,715	83,783	2,49,11,503
Deduct-Receipts on Capital Account.	35,225	156	35,381
Net Total, A.—Direct Charges	2,47,92,490	83,632	2,48,76,122
BIndirect Charges.			
Capitalization	5,24,208	58,060	5,82,263
Loss by Exchange Leave and Pension Allowances	8,00,815	2,041	8,02,856
Total, B Indirect Charges	13,25,023	60,101	13,85,124
Grand Total A and B	2,61,17,513	1,43,783	2,64,61,246

3. The following abstract shows the details of the above:-

	•	Number	Expe	DITUER, 18	95-96,	Total Expendi- ture, Direct and Indirect,	Amount of sanctioned	
		Works. Direct.		Indirect,	Total.	to end of 1595-96.	Estunates.	
Major Works.			Rs.	Rs.	Ra.	Rs.	Rs.	
	¡ In operation	2	25,600	56,524	82,124	77,23,986	82,32,709	
'rotective Works	In operation In abeyance	2	1,048	4	1,052	1,04,371	17,42,810	
	Total	4	26,648	56,528	83,176	78,28,357	99,75,519	
Productive Works	In operation	7	33,489	1,612	35,131	1,08,71,463	1,04,45,341	
	In operation	26	7,086	1,633	8,719	61,59,559	63,96,470	
dinor Works	In abeyance	1	•••			1,90,284	1,91,995	
	Total	27 ·	7,086	1,633	8,719	63,49,843	65,88,465	
Provincial Minor Wo	rksIn operation	1	16,409	298	16,707	*12,11,583	12,33,013	
	Grand Total	39	83,632	60,101	1,43,733	2,62,61,246	2,86,42,338	

[•] Including expenditure charged to "35-Construction of Protective Irrigation Works."

The number of works in operation is 36, the same as in the previous year. The Chankapur and Maladevi Tanks and the Gokak Canal, 2nd Section, are still n abeyance. Government have ordered further investigations in regard to the Chankapur Tank, and the requisite survey has been made. A report on the result of this survey is awaited.

The revision of the Samrad Tank project, which is an alternative to the Máládevi Tank project and is designed to afford storage for the development of the Lákh and Ojhar canals, is receiving attention.

In view of the unsatisfactory financial result of the Lákh Canal the Government of India have raised the question whether it is advisable to continue its maintenance, and have invited the opinion of this Government. The matter awaits receipt of reports from local officers.

The greater portion of the capital expenditure during the year was on the Nira Canal, a Protective work, and on the Mutha Canals, a Productive work, the outlay on which is being incurred from the ordinary revenues and charged to the head "Minor Works and Navigation."

The work done on the Nira Canal was chiefly in connection with the Bhat-ghar Reservoir. All works in progress at the end of last year were completed. The new works of importance were an additional training wall for the north waste weir channel and two small walls at the south weir channel. All the gates on the south weir, 33 in number, were erected and in working order before the monsoon

On the Mutha Canals the greater portion of the expenditure was on the alterations and improvements to the Poona Water-supply Works. Five new settling tanks have been built with a capacity of 5 days' supply, and arrangements have been made for passing water into the filters and for the efficient cleaning of the tanks when required.

A brief report on the new works carried out for the improvement of the Poona Water-supply has been published.

Interest Account.

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

		AMOUNT	·•		,	AMOUNT	•
	Protec- tive Works.	Produc- tive Works.	Total.		Protective Works.	Produc- tive Works.	Total.
	Ro.	Rs.	Rs.	· ;	Rs.	Rs.	Rs.
Total Interest charges to end of 1893-95 during 1895-96	82,56,879	88,99,995 4,14,478	1,21,86,874 7,10,398	Net Revenue realized to end of 1894-95 Do, during 1895-96	17,315	19,21,002 2,37,194	19,38,31 7 2,73,07 2
	٠.	<u> </u>			, 53,193	21,58,196	22,11,389
	}			Balance net Interest charges to end of 1895-96	92 40 404	71,56,277	1,06,85,893
Total to end of 1805-96 _	35,82,799	13,14,473	1,28,67,272	Total	35,82,799	93,14,473	1,28,97,272

5. The gross revenue realised from all sources during the year, after deducting refund of revenue (Rs. 802), was Rs. 5,98,839, of which Rs. 5,84,384 were direct, and Rs. 14,455 indirect, receipts. The net revenue actually realised was Rs. 3,04,552.

The gross revenue shows an increase of Rs. 35,357, and the net revenue an increase of Rs. 91,996.

Area under command and irrigable area.

6. The gross area under command was 886,086 acres and the irrigable area at present is 316,224 acres.

7. The financial results of the year by main heads were as follows:-

•		RE	venus Realize	•	}		
	Areas Irrigated,	Direct Receipts.	Share of Land Re- venue,	Total	Working Expenses.	Net Revenue.	
Class I.—Works for which Capital and Revenue Accounts are kept.	Acres,	Rs. Rs. Rs.		Rs.	Rs.	Rs.	
Major Works { Protective Works Productive Works	26,934 23,055	1,02,678 3,68, 49 8	7,571	1,02.678 3,76,069	66,800 1,38,875	35,978 2,37,194	
Total	49,989	4,71,176	7,571	4,78,747	2,05,675	2,73,073	
Minor Works	21,676 4,464	90,188 23,020	6,884	97,072 23,020	82,030 6,582	75,04 2 16,438	
Total Class I	76,129	5,84,384	*14,455	5,98,839	2,94,287	3,04,553	

The area shown as irrigated includes 1,206 acres on which a consolidated land and water assessment is levied. This is derived from old works on which expenditure on improvements only has been incurred.

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

	V			Brve		Working.	
	Years,		Area irrigated.	Assessment.	Realization.	Expenses.	
			Acres.	Rs	Rs	Rs.	
1883-84	•••		32,962	2,44,247	2,78,130	1,70,089	
1884-85	***		39,655	2,47,702	2,60,080	1,92,612	
1885-86	•••		59,450	2,83,232	2,79,877	2,10,686	
1886-87	***	•••	42,628	3,03,475	3,34,468	2,39,417	
1887-88	•••	•••	46,187	3,49,512	3,43,445	2,41,385	
1888-89	•••	•••	79,195	4,14,153	3,71,545	2,34,312	
1889-90	•••		85,550	4,49,838	4,22,859	2,47,126	
1890-91	•••	•••	74,852	4,44,281	4,60,813	2,39,615	
1891-92	***	•••	96,025	5,76,586	5,12,072	2,85,893	
1892-93	•••	•••	65,487	4,79,042	5,45,542	3,07,778	
1893-94	•••	•••	79,950	5,91,487	5,73,746	2,87,418	
1894-95	•••	• •••	84,237	5,93,737	5,63,482	3,50,926 2,94,287	
1895-96	***	•••	74,923	6,32,211	5,98,839	- 10 m j m 0 1	

There was a decrease of 9,314 acres in the total area irrigated as compared with the previous year, distributed over the several classes of works as follows:—

•		*		Acres,
Protective Works	***	***	•••	-5,662
Productive ,	. •••	•••	•••	-5,056
Minor	•••	•••		+ 1,303
Do. Provincial	•••		•••	+101
•				
•		Total	•••	9,314
		, ,		

Under Protective Works the Nira Canal shows a decrease of 4,917 acres and the Mhasvad Tank a decrease of 745 acres. Under Productive Works, the Mutha Canals account for a decrease of 1,944 acres, and the Krishna Canal a decrease of 1,467 acres, and the balance is the net result of increases and decreases under the remaining works. Many Minor Works show an increase, the most noticeable being that on the Khari Cut.

Distribution of area.

9. The total area irrigated was distributed as follows:—

Markey Spring of Street Spring		Kharif	Rabi.	Total.
1894-95	,	Acres. 41,314	Acres. 42,923	Acres. 84,237
1895-96	•••	39,365	35,558	74,923

Both the kharif and rabi areas show a decrease. The differences in areas as compared with those of the previous year have been explained in the review of the Annual Statement of Irrigation and Rainfall.

Difference between area applied for and area irrigated.

10. The area irrigated was in excess of the area applied for, the figures being 74,923 and 67,311 acres respectively.

The area irrigated includes 1,762 acres of the permanent garden irrigation under the Lower Pánjhra River Works. Eliminating these figures the area irrigated is reduced to 73,161 acres. The excess in the measured area over that applied for was chiefly on the Nira Canal, the difference was largely due to the cultivators having entered the minimum area they could be charged for, while in most cases they irrigated much more.

Distribution of rainfall.

11. The following table contrasts the distribution of rainfall in each month for the last five years:—

			I,	-Works ba	ving an un	falling Sup	pl y.	II.—Works dependent on Local Rainfall.				
			1891-92.	1892-93.	1893-94.	1894-95.	1895-96.	1891-92.	1892-93.	1893-94.	1894-95.	1895-96.
Kha	rif.		Inches.	Inches.	Inches.	Inches,	Inches.	Inches.	Inches.	Inches.	Inches.	Inches
June July August September	***		2·57 7·11 3·03 2·93	5·83 6·36 6·51 9·13	9.85 2.05 4.58 2.43 18.91	3·27 9·30 1·98 6·30 20·85	5·24 5·36 3·09 8·73 22·42	2.58 3.86 3.15 2.78	8.04 3.91 6.56 7.87 26.38	6.92 3.01 3.36 4.04 17.33	2·45 6·85 3·09 6·65	2·31 4·18 2·30 11·60 20·39
Rá	bi.						,					,
October November December January	•••	•••	3·25 0·26	5·14 0·34 0·02	2·24 1·16 	4·77 0·14	3.65 0.49 	3·81 0·13	8·7 7 0·63 	4 13 0.96 	3:04 0:01	3·80 0·59
	Total		3'51	5.20	3'40	4.91	414	4.04	9.40	5.09	3.02	4.39
Total Khar	if and Ra	bí	19.15	33.33	22.31	25.76	26.56	16.43	35.78	22.42	22.09	24.78

The rainfall in the year under report compared with that of the previous year varied from the normal in the case of almost all works.

The average in the two seasons, taking all the works together, was 24.54 inches as compared with 23.13 inches in 1894-95.

Collections of Revenue. 12. The state of the collections was as follows:—

Balance of demands unreal Demand of the year-	ized at	the comme	nce	ment of the	rear.	Rs. 40,417
Rabi, 1894-95 Kharif, 1895-96 Miscellaneous receipts		•••	Rs.	1,09,492 3,51,557 1,05,280		6,26,329
Remissions		••••		Total	•••	6,66,746 514
Amount unrealized at the	Net Total	•••	6,66,202 81,016			
Actual receipts of the year	•••	•••		•••	•••	5,85,186
Share of Land Revenue	•••	•••		•••	•••	14,455
Deduct-						5,99,641
Refunds of Revenue	•••	•••		•••	•••	80 2
Revenue realized as per par-	agraphs	5, 7 and 8	3	•••	•••	5,98,839

The remissions and refunds together amount to Rs. 1,346.

The total amount, Rs. 81,016, unrealized at the close of the year, shows a large increase; this total is made up of the following:—

				Rs.
Mutha Canals	•••	•••	•••	44,869
Khári Cut	***	***	•••	11,960
Krishna Canal	***	•••	•••	10,390
Nira Canal	•••	•••	•••	2,851
Jámda Canals		***	•••	1,830
Kadva River Wo	rks	•••	•••	1,556
Mhasvad Tank	***	***	***	1,514
Bhátodi Tank	•••	•••	•••	1,205
Other Works	•••	***	•••	4,811
		Total		81,016

The outstanding balance on the Mutha Canals, which is the heaviest, includes Rs. 9,941 on account of bills for water rates for March 1896, prepared at the end of the month. Omitting this item the balance represents the unrealized amount on account of irrigation, the greater portion of which has since been recovered, leaving only Rs. 5,761 unrealized at the end of June 1896. The heavy balance is ascribed to the large sum to be collected during 1895-96.

On the Khári Cut out of the balance of Rs. 11,950, Rs. 7,327 were recovered after the close of the year, and the Revenue Department have issued the necessary orders for the prompt recovery of the remainder. Owing to the peculiar circumstances of cultivation under the Khári Cut the Executive Engineer is unable to submit his demand statements within the date fixed in the Canal rules and this accounts, in a great measure, for the heavy outstandings.

No explanation has been furnished of the outstandings on the Krishna Canal.

In the case of the balance on the Nira Canal, the Revenue authorities explain that the dates of payment of instalments of land revenue and irrigation assessments being almost the same, the people find it hard to pay the amounts due in time. The same reason is assigned for the balances on the Mhasvad Tank and some other works. The balances in some cases have since been recovered and in others the Revenue authorities are taking steps for recovery.

As regards the balance on the Jámda Canals, all has been realized in 1896-97.

The balance on the Bhatodi Tank is attributed to the poverty of the people from whom the amounts are due. Most of the complaints of the rayats, alluded to in the last year's report, have, it is stated, been disposed of in 1895-96.

Of the balance on the Kadva River Works, Rs. 1,355 are on the Palkhed Canal. The amount could not be realized before the end of the year as the crops of the people from whom the amounts were due had not been harvested. Out of the total balance of Rs. 1,355, Rs. 1,132 have since been recovered.

13. The total working expenses for the year amounted to Rs. 2,94,287 against Rs. 3,50,926 in the previous year, showing a decrease of Rs. 56,639 distributed as follows:—

				1894-95.	1895-96.	Difference.
Main Works				Rs.	Rs.	Rs.
Major Works — Protective Works Productive Works	•••	•••		82,018 1,48,643	66,800 1,38,875	-15,248 -9,768
		Total	•••	2,30,691	2,05,675	-25,016
Minor Works and Navigation Provincial Minor Works	•••	•••		1,14,573 5,662	82,030 6,582	- 32,543 + 920
		Grand Total		3,50,926	2,94,287	+56,639

All classes of works show a decrease with the exception of Provincial Minor Works.

The working expenses of the Nira Canal include a sum of Rs. 1,952 for special repairs consisting of strengthening the banks by puddled earth, in places where they were found to be unsafe or leaky owing to the nature of the soil of which they were originally made. The total charges amounted to Rs. 50,978 as compared with Rs. 53,588 in the previous year. With 96 miles of main canal in operation this gives a rate of Rs. 531.02 per mile and it includes the maintenance of 132 miles of distributaries. The cost of maintenance per acre irrigated was Rs. 2.17 against Rs. 1.89 in the previous year, the rather high rate being due to decrease in the irrigated area.

The working expenses of the Mhasvad Tank include a sum of Rs. 2,273 for the reconstruction of 2 feet of the waste weir.

The expenditure on account of working expenses of the Mutha Canals amounted to Rs. 77,589 against Rs. 79,709 in the previous year, including all charges. Out of the total, Rs. 36,103 are debitable to maintenance of water-supply and the balance, Rs. 41,486, to maintenance of irrigation. As compared with the previous year there is an excess on the working charges of the Poona Water-supply due to employment of a mechanic at Rs. 180 per mensem and repairs to fire plugs.

There is an excess in working expenses of the Ekruk Tank principally due to the inclusion of Rs. 3,041, being the cost of a new iron bridge provided to the outlet tower of the perennial canal. The excess on the Kásurdi Tank was due to special repairs to the dam.

The increase under Provincial Minor Works (Gokák Cana!, 1st Section and Storage Works) is due to the debit of a share of Canal and Sub-Divisional Office Establishment to Revenue management and to the heavier collection charges (Rs. 313) on account of the water-power realizations which amounted to Rs. 10,816 as compared with Rs. 4,920 in the previous year.

The percentage of working expenses on gross assessed revenue was 46 against 59 10 in the previous year, and the rate per acre was Rs. 3 93 against Rs. 4 17 in the previous year.

Charges under principal 14. The following table contrasts the charges under the principal heads with those of the two previous years:—

					1693-94.	1894-95.	1895-96.	
		•			Rs.	Rs.	Rs.	
Works Repairs Establishment Tools and Plant	•••	•••	•••	***	12,641 1,21,787 1,04,596 9,482	27,253 1,22,496 1,48,362 9,006	7,775 1,14,727 1,24,108 6,969	
Total	l in t he	Public Works	Department	•••	2,49,506	3,07,117	2,53,579	
Collection charge Indirect charges		***	•••	•••	23,271 14,641	23,039 20,770	23,295 17,413	
•			Total	•••	2,87,418	3,50,926	2,94,287	

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

•					1894-95.	1895-96.	Difference,
Direction and	Accounts	***	•••	•••	Rs. 22,304	Rs.	Rs. —12,229
Executive	•••	•••	***	•••	1,26,058	1,14,033	-12,025
			Total	•••	1,48,362	1,24,108	-24,254

Detail of working.

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

Names of Works.	Average incidence of	Cost of Ma	asurdment.	Working Expresses Total in the Public Works Department.	
THE OF WORLS	Water-rate per Acre.	Total Cost.	Per Acre.	Per mile of Main Canal.	Per Acre Irrigated.
Canals.	Rs.	Rs.	Rs.	Rs.	Rs.
Nira Canal	3.70	1,820	0 1 3	451	1.85
Háthmati Canal	2.65	141	0 0 8	274	1.68
Kádva River Works	3.87	235	0 1 6	350	3.33
Prayara River Works-Lakh			•		1
Canal	3.35	40	.0 1 11	413	28.45
Mutha Canals	01.09	1,432	0 2 10	742	8.02
Krishna Canal	12.00	593	0 2 11	288	3.17
Jámda Canals	5.58	59	0 1 9	231	6.12
Pravara River Works-Ojhan			•	1	
Canal	3.26	150	0 1 7	667	6.68
Gokák Canal, 1st Section	2.47	610	0 2 2	318	1.15
Upper Man River Works	4.08	298	0 2 11	268	2.87
Revari Canal	4.64	238	0 3 1	621	2.54
Chikhli do	4.39	13	0 0 7	125	2.16
Khári Cut	4.75	184	0 1 0	331	1.69
· Tanks.					
Mhasvad Tank	3.61	840	0 3 10	239	4:14
Ekrúk do	4.74	570	0 3 6	294	5.45
Bhatodi do	3.73	10	0 1 9	1,734	5:20

Names of Works.	Average incidence of Water-rate	Cost of M	BASURSMENT,	Working Expenses Total in the Public Works Department.	
• • • • • • • • • • • • • • • • • • • •	per Acre.	Total Cost.	Per Acre.	Per mile of Main Canal.	Per Acre Irrigated.
Tanks-continued.	Rs.	Rs.	Rs.	Rs.	Rs.
Matoba Tank Shirsuphal do Shádalvádi do Maini do Madag do	7·68 2·87 2·74 3·94 2·44	63 15 41 140 	0 0 10 0 0 4 0 0 9 0 1 10	140 200 180 306 160	2·04 3·48 2·10 2·37 1·54

The cost of measurement per acre was in many cases the same as in the previous year. The rate on the Bhatodi Tank, remarked on last year, shows some improvement. The cost of measurement on the Mhasvad and Ekruk tanks was rather high in the year under report owing to decrease in the irrigated area while the measuring establishment remained as usual.

The cost of measurement under the Krishna and Gokák canals and Maini Tank is much less than last year. On the Madag Tank no special measuring establishment was employed owing to the land under command having been subdivided into pôt numbers, suitable for irrigation.

The conditions on the various works differ so much that it is scarcely possible to compare the figures themselves.

15 a. The orders contained in Government Resolution No. 172 A. I.—454 dated 15th September 1879, required that special sanction of Government should be obtained to excesses over prescribed percentages of establishment charges to revenue expenditure. The rules which now govern the debit of establishment charges, however, made these orders unnecessary, and they were accordingly cancelled in Government Resolution No. 213 A. I.—1289, dated 14th August 1895. But it was thought necessary to carefully watch the establishment expenditure on revenue management, and it was directed that the Annual Revenue Reports should furnish information showing for each work—

- (a). The cost of establishment debited to revenue management.
- (b). The percentage this bears to the assessed revenue from the irrigation.
- (c). Incidence of cost per acre irrigated.

The information furnished in compliance with these orders is shown in the following table:—

					Establishment debited to Revenue management.	Percentage of Revenue Establishment on assessed Revenue,	Incidence of cost per Acre irrigated,
				 	Rs.	• .	Rs.
1.	Nira Canal	•••			9,634	11.10	0.41
2.	Mhasvad Tank	***	•••		2,927	23.28	0.84
3,	Háthmati Canal	•••	•••	•••	514	5·6 3	0.15
4.	Lower Pánjhra River Works	474	•••	•••	794	7.38	0.28
• 5.	Kádva River Works	•••	•••	•••	1,077	11.17	0.43
6.	Pravara River Works-Lakh	Canal	***	•••	104	9.29	0.31
7.	Mutha Canals	***	•••	•••	$7,\!252$	4.08	0.89
8.	Ekruk Tank	***	•••	•••	2,508	20.40	0.96
9.	Krishna Canal	•••	•••		1,485	3.86	0.46
10.	Khári Cut		•••	•••	562	3.78	2·18
11.	Hartála Tank		•••	•••	166	107.79	2.37
12.	Mhasva do	•••	′		245	106-52	4.54
13.	Jámda Canals	***	•••	•••	2,231	27.16	1.52
14.	Parsul Tank	•••	•••	•••	289	32.04	1.15
15.	Pravara River Works-Ojha	r Canal	•••	•••	480	7.75	0.25
16.	Bhatodi Tank			•••	172	5.26	0.20
17.	Mátoba do	•••	•••	•••	395	4.40	0.34
18.	Kásurdi do	•••	***		200	2500.00	66.67
19.	Shirsuphal Tank	•••	•••	•••	274	13.28	0.38
20.	Bhádalvádi do	•••	***	•••	278	12.13	0.33
	в 1239—с				•		

			a talka ak Bara taman yandan ka <u>nggapanga kan</u>		1893-94.	1894-95,	1595-96.
					Rs.	Rs.	Rs.
Works Repairs Establishment Tools and Plant	•••	•••	 		12.641 1,21,787 1,04,526 2,482	27.253 1,22.496 1,48,362 9,006	7,775 1,14,727 1,24,108 6,960
Total	in the	Public Works	Department	•••	2,49,506	3,07,117	2,53,579
Collection charge Indirect charges	3	•••	•••	•	23,271 14,641	23,033 20,770	23,295 17,413
			Total	•••	2,87,418	3,50,926	2,94,287

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

•				1894-95.	1895-96.	Difference.
Direction and Accoun	nts •••	•••	•••	Rs. 22,304	Rs. 10,075	Rs. —12,229
Executive	* ***	•••	• • •	1,26,058	1,14,033	-12,025
		Total		1,48,362	1,24,108	-24,254

Detail of working.

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

Names of Works.	Average incidence of	Cost of Ma	aepanent.	Working Expresse Total in the Public Works Devarthers.	
	Water-rate per Acre.	Total Cost.	Fir Acre.	Per mile of Main Canal.	Per Acre Irrigated,
Conals.	Rs.	Ra.	Rs.	Ra.	Rs.
Nira Canal	3.70	1,520	0 1 3	451	1.85
Háthmati Canal	2.65	141	0 0 8	274	1.68
Kádva River Works:	3.57	235	0 1 6	350	3.33
Pravara River Works-Lakh					
Canal	9.95	40	0 1 11	413	28'45
Mutha Canals	01.09	1,432	0 2 10	743	8.02
Krishna Canal	1 30.00	593	0 2 11	258	3.17
Jimda Canals	5.58	52	0 1 9	231	6.12
Prayara River Works-Ojhar	1	• •	•		
Canal	2.00	150	0 1 7	. 667	6.68
Gokák Canal, 1st Section	2.17	610	0 2 2	318	1.15
Upper Man River Works	1 1.00	298	0 2 11	238	2.57
Revári Canul	4.64	208	0 3 1	621	2.54
Chikhli do.	4.20	13	0 0 7	125	2-16
Khári Cut	4.75	154	0 1 0	331	1:69
Kuan edi v.				1	ļ
Tunks.		1			
Mhasvad Tank	3.61	640	0 3 10	233	4:14
F1 11 1	4.74	570	0 3 6	294	5:45
	3.73	10	0 1 9	1,731	5.0
Bhatodi do	, 5,5 (-0 1		•	

Names of Works	Names of Works. Average incidence of Water-rate		ASCREMENT,	WORKING EXPENSES TOTAL IN THE PUBLIC WORKS DEPARTMENT.	
	per Acre.	Total Cost,	l'er Acre.	Per mile of Main Canal.	Per Acre Irrigated.
Tanks-continued.	Rs.	Rs.	Rs.	Rs.	Ra.
Matoba Tank Shirsuphal do Bhádalvádí do Maini do Madag do	7·68 2·87 2·71 3·94 2·44	63 15 41 140	0 0 10 0 0 4 0 0 3 0 1 10	140 200 150 306 160	2·01 3·48 2·10 2·37 1·51

The cost of measurement per acre was in many cases the same as in the previous year. The rate on the Bhatodi Tank, remarked on last year, shows some improvement. The cost of measurement on the Mhasvad and Ekruk tanks was rather high in the year under report owing to decrease in the irrigated area while the measuring establishment remained as usual.

The cost of measurement under the Krishna and Gokák canals and Maini Tank is much less than last year. On the Madag Tank no special measuring establishment was employed owing to the land under command having been subdivided into pot numbers, suitable for irrigation.

The conditions on the various works differ so much that it is scarcely possible to compare the figures themselves.

- 15 a. The orders contained in Government Resolution No. 172 A. I.—454 dated 15th September 1379, required that special sanction of Government should be obtained to excesses over prescribed percentages of establishment charges to revenue expenditure. The rules which now govern the debit of establishment charges, however, made these orders unnecessary, and they were accordingly cancelled in Government Resolution No. 213 A. I.—1289, dated 14th August 1895. But it was thought necessary to carefully watch the establishment expenditure on revenue management, and it was directed that the Annual Revenue Reports should furnish information showing for each work—
 - (a). The cost of establishment debited to revenue management.
 - (b). The percentage this bears to the assessed revenue from the irrigation.
 - (c). Incidence of cost per acre irrigated.

The information furnished in compliance with these orders is shown in the following table:—

					Establish- ment dehited to Revenue manage- ment.	Percentage of Revenue Establishment on assessed Revenue.	Incidence of cost per Acre irrigated,
				}	Rs.		Rs.
1.	Nira Canal			1		11.10	
2.	Mhasval Tank	•••	•••		9,634	11.10	0.41
3.	Háthmati Canal	•••	•••	•••	2,927	23.28	0.84
		•••	•••	•••	514	5.63	0.15
4.	Lower Panjhra River Works	•.•	•••	•••	794	7.39	0.28
· 5.	Kádva River Works	···	•••	•••	1,077	11.17	0.43
6.	Pravara River Works-Lakh	Canal	•••	•••	104	9.23	0.31
7.	Mutha Canals	•••	•••	•••	7,252	4.08	0.83
8.	Ekruk Tank	•••	•••		2,508	20.40	0.56
. 3.	Krishna Canal	•••	•••		1,485	3.86	0.48
ે 3.	Khári Cut		•••	•••	562	3.78	2.18
11.	Hartála Tank		•••		166	167.73	2.37
12.	Mhasva do		′		245	106-52	4.54
13.	Jái da Canals	•••	•••		2,231	27.16	1.52
14.	Parsul Tank	•••	***	•	283	32.04	1.15
15.	Pravara River Works-Ojha	r Canal	•••		480	7.75	0.25
16.	Bhatoli Tank			•••	172	5.26	0.20
17.	Mátola do	***	•••	•••	835	4.40	0.31
18.	Witness A.	•••	•••	•••	200	2500.00	66.67
13.	Shirsuphal Tank	•••	•••	•••	274	13.28	0.38
20.	District in the	•••	•••	••-			0.33
2 7,	B 1239—c	•••	***	•••	278	12.13	0.99

	•		.		Establishment debited to Revenue management.	Percentage of Revenue Establishment on assessed E-venue,	Incidence of cost per Acre irrigated.
			,		Rs.		Rs.
21,	Koregaon Tank				238	28.00	0.63
22.	Ashti do	•••	•••	•••	553	13.90	0.42
23.	Revári Canal	•••	•••	•••	316	5.29	0.26
24.	Upper Mán River Works	•••	•••	***	629	9.44	0.38
25.	Yerla River Irrigation Worl	3 8 3	•••		932	10.27	0.35
26.	Chikhli Canal	•••	***	•••	147	8.88	0.39
27.	Maini Tank	•••	•••	•••	842	17.82	0 ·70
28.	Muchkundi Tank	•••	***	•••	5	6.10	0.25
29.	Nilgund do.	***	•••	•••	•••	•••	***
30.	Gadikeri do.	• • •	•••	•••	***	•••	•••
31.	Dámbal do.	•••	•••	•••	313	26.98	1.62
32.	Medleri do.	•••	***	•••	258	49.12	1.78
33.	Madag do.	•••	***	•••	312	13.73	0.33
31.	Asundi do.	•••	•••	•••	261	24.41	0.79
35.	Mávinkop do.	•••	•••	•••	***	•••	***
36.	Gokák Canal, 1st Section	•••	•••	•••	1,781	16.16	0.40

The percentages of revenue establishment on assessed revenue from irrigation water-rates were very high on the Hartála, Mhasva and the Kásurdi tanks.

The Executive Engineer for Irrigation, Khándesh, reports that the irrigated area and revenue assessed under the first two works have decreased during the year under report, and endeavour was made to reduce the revenue establishment charge. On the Kásurdi Tank there was no direct irrigation because the dam was washed away. On the Jámda Canals there was increase in irrigation and assessment and also a slight increase in the charge of establishment for revenue management.

The cost of establishment debited to revenue management of the Mhasvad Tank was less than in 1894-95, but the percentage of revenue establishment on assessed revenue was a little higher on account of decrease in the area irrigated during 1895-96.

The cause which led to a higher percentage on the Ekruk Tank was a decrease in the irrigated area.

The Koregaon Tank had to be placed in charge of a Sub-Engineer, and the share of his pay and travelling allowance debited to the revenue management of the work being higher than that of the Sub-Overseer who had charge of the tank in the previous year, the percentage was high.

The increase in cost in the case of the Rewari and Chikhli canals and the Maini Tank was due to the reappointment of a third measurer during the year. The experiment made during the previous year of reducing the measuring staff did not prove satisfactory, the preparation of assessment papers being delayed. The increase in the case of the Dambal Tank was due to the subordinate in charge having to visit the work on more occasions than in the previous year for the disposal of the question of perennial irrigation within a quarter mile of the village site.

The high cost on the Gokák Canal was due to the debit of a share of pay gauge kárkún and pátkaris, &c., to revenue management.

Enquiries made in the Southern Division as to the possibility of diminishing the charges in general have shown that reduction is not feasible except in the case of the Gokák Canal, on which, when the sub-division of land is completed, the revenue staff can, to a certain extent, be decreased.

16. The indirect receipts, as shown in Statements I—C, IV—C and II—E, were Rs. 14,455. If Rs. 3,263 plus Rs. 41,328 on account of supply to the Poona City = Rs. 44,591,

being the difference between the value of water issued from the Mutha Canals at normal rates and the value of water supplied at special reduced rates or gratuitously, be taken credit for in the revenue returns of the work as a book credit and be added to the above amount, the earnings of the year will be Rs. 6,76,802. The Poona Municipality have not yet accepted the terms offered to them with the sanction of the Government of India, in the matter of increased supply of water.

17. The net assessed revenue of the year, after deducting working expenses, including indirect and all other charges, and neglecting the items, amounting to Rs. 44,591, referred to in the preceding paragraph, was Rs. 3,37,924 as compared with Rs. 2,42,811 in 1894-95.

The details of the assessment were as follows:—

			ı	IRECT REVENUE			
•			Water Rates.	Other Receipts.	Total,	Indirect Revenue.	Total.
Major Work	ks.	·	Rs.	Rs.	Rs.	Rs.	Rs.
Protective Works Productive Works	•••	•••	99,356 2,59,045	4,142 1,39,529	1,03,498 3,98,574	7,571	1,03,498 4,06, 1 45
	Total	•••	3,58,401	1,43,671	5,02,072	7,571	5,09,643
Minor Works Provincial Minor Wo	rks	•••	83,168 10,907	10,566 11,043	93,734 21,950	6,884	1,00,618 21,950
Grand	Total	•••	4,52,476	1,65,280	6,17,756	14,455	6,32,211

18. The water rates in force during the year are shown in Statement I—F., in the remarks column of which the orders sanctioning revision of rates in certain cases are quoted. For the Gokák Canal it has been ordered that the perennial rate shall be raised from Rs. 14 to Rs. 18 in five years; the rate for the year under report was Rs. 16.

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

•			1894-95.	1895-96.
Protective Works			3.21	3.69
Productive Works	•••	•••	8.17	11.20
Minor Works	•••	•••	4.35	4.07
Provincial Minor Work	cs	•••	2.73	2.47
				
Average of all taken to	gether	• • • •	5.10	6.04
• •	-			

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

Water-rates	1894-95. Rs. 4,29,769	1895-96. Rs. 4,52,476
Other Receipts— Plantations Water-power Water-supply to towns Miscellaneous	4,024 10,920 98,779 36,634	5,916 16,816 1,11,951 30,597
Share of land revenue	1,50,357 13,611	1,65,280 14,455
	1,63,968	1,79,735
•	5,93,737	6,32,211

The above comparison shows an increase under all heads except Miscellaneous revenue.

The increase under water rates is wholly under Productive Public Works and principally on the Mutha Canals, and due chiefly to the higher rates introduced for perennial crops. There was also increased revenue from the Poona Water-supply to the extent of Rs. 12,459, which accounts for the increase under Water-supply to towns. The total revenue from the Mutha Canals was Rs. 2,98,470, or Rs. 50,515 in excess of the total of the previous year. This is the highest annual revenue obtained since the work came into operation.

Out of the increase of Rs. 1,892 under Plantations Rs. 1,602 was on the Jámda Canals due to a large sale of full grown bábul trees.

Under Water-power the increase is solely on the Gokák Canal.

Under Miscellaneous the decrease of Rs. 6,037 is the result of small differences on many works.

Crop acreages.

21. The principal crop acreages irrigated during 1894-95 and 1895-96 were as follows:—

					189 4-9 5.	1895-96.	Increase or Decrease.
•				.	Acres.	Acres.	Acres.
Gardens and or	chards	•••			3,009	2,636	-373
Sugarcane	***	•••	•••		14,624	11,897	-2,727
Wheat	•••	•••	•••	•••	8,833	8,315	518
Rice	· · · · · •	, ,	***		6,187	6,056	—131
Maize		•••	•••	•••	1,924	1,953	+29 °
Jowári	•••	•••	•••	•••	19,955	18,581	-1,374
Bájri	•••	•••	•••		6,722	6,869	+147
Gram, &c.	***	•••	•••	•••	5,990	3,720	2,270
Ground-nuts	•••	•••	•••	•••	9,084	7,874	-1,210
Condiments	•••	•••	•••		3,309	2,722	587
\mathbf{Fodder}	•••	•••	•••	•	. 1,117	1,101	— 16

The figures for all the above crops show a decrease with the exception of bajri and maize, which show a slight increase.

Of the total decrease under sugarcane, jowari and gram, the Nira and the Mutha Canals are responsible for the following:—

·			Sugarcane.	Jowári.	Gram.
•			Acres.	Acres.	Acres.
Nira Canal	•••	•••	1,241	1,063	768
Mutha Canals			911	1.451	421

the works in the Southern Division showing an increase of 1,383 acres under jowari.

The falling off in the cultivation of sugarcane is reported to be due to abnormally low market rate of gûr during the past two years, as explained in paragraph 3 of the Mutha Canals report, and that in jowari and gram to favourable rainfall.

The decrease in ground-nut was due to the fact that excessive rainfall rendered irrigation unnecessary.

The total estimated value of crops irrigated is shown as Rs. 49,63,224 against Rs. 56,57,235 in the previous year, and Rs. 58,59,742 for the year 1893-94.

22. In Statement I—E the duty of water on each work, as well as the bases Duty of water.

On which the duties were calculated, &c., are shown The results vary very much on different works; but, as observed in previous years, this is to be expected, as the conditions also vary considerably, and in most of the canals it is necessary to maintain a much larger discharge than is necessary for the area under irrigation, owing to the bulk of the land irrigated being usually situated at the tail of the canal, at a distance from the head-works.

Details of the duty obtained on each canal are given in the body of the report and are generally estimated from the daily discharge observations and the known area of the miscellaneous crops under irrigation during the period.

Special experiments to determine the duty of water per acre for certain crops were carried out during the year with the following results:—

Cft,

Poona District, Nira Canal—Khapla wheat = 43,461 per acre.

Ground-nut = 75,268 ,,

Násik District—Sugarcane = 185,495 ,,

Do. ... = 422,155 ,,

Do. ... = 187,168 ,,

Khondia (Rice) ... = 63,720 ,,

The details of experiments for the Násik and Sholápur Districts have been reported separately.

PART II.

WORKS FOR WHICH ONLY REVENUE ACCOUNTS ARE KEPT, AND AGRICULTURAL WORKS.

23. The following shows a comparison of the figures for the year under report with those for 1894-95:—

			,	1894-95.	1895-96.	Increase.	Decrease.
				. Acres.	Acres.	Acres.	Acres.
Area irrigated	•••	•		143,907	143,805	*****	102
				Rs.	Rs.	Rs.	Rs.
Revenue receipts Expenditure Net revenue	***		•••	5,47,425 2,78,906 2,68,519	5,48,730 2,36,878 3,11,852	1,305 43,333	42,028

The area irrigated shows a decrease of 102 acres. The revenue receipts show an increase of Rs. 1,305 and the expenditure a decrease of Rs. 42,028, the result being an increase under net revenue of Rs. 43,333.

24, The following gives details of expenditure:-

,	Expens	ITURE,	Сомра	BISON.
	Rs. 65,948 64,871 93,116 3,147	1895-96.	Incresse.	Decrease.
	Rs.	Rs.	Rs.	Rs.
Extensions and improvements Maintenance and Repairs Establishment Tools and Plant	64,871 93,116	52,872 50,696 73,092 5,489	2,3 12	13,076 14,175 20,024
Total	2,27,082	1,82,119		44,933
Share of collection charges	51,824	54,729	2,905	
Total	2,78,906	2,36,878		42,028

The decrease except under Extensions and Improvements and Maintenance and Repairs are satisfactory.

в 1239—а

Statement of Canals in the Bombay Presidency, excluding Sind.

	(1)	(5)	(7) K	ADVA RIVER	Wobks.	(8)	(11)	(12)	(15)	(17)	40.51		(39)
Source of Supply of Water.	(1) Ni'ra Canal.	HA'THMA- TI CANAL.	Pa'lkhed Canal.	OJHAB TA'MBAT CANAL.	Wāda'li Canal.	LA'KH CANAL,	Krishna Canal.	KHA'EI CUT.	JA'MDA CANALS.	(17) OJHAR CANAL	(25) Reva'ri Canal.	(28) Chikhli Canal.	GORA'R CAWAL lar Section AND STORAGE WORKS.
	River Nira and Reservoir at Bhátghar.		Kádva River.	Bánganga River.	Kádva River,	Pravara River:	River Krishna and Rainfall.	Khári Biver.	Girna River.	Pravara River,	River Wárna and Rainfall.	River Nandni and Rainfall.	River Ghat- prabha and Storage Works
Ainimum discharge { C. feet per second	K. 1,318 R. 34 H.W. 5	K. 38 R. 24 H,W. 41	K. 2·12 R. 1·84 H.W. 0·24	K. 1.00 R. 0.64 H.W. 0.16	K. 5·93 R. 11·06 H.W 5·85	K. In floods. R. 24'36 H.W. 7.27	R. 293.48	K. 24 R. 23 H.W. 19	April and May 1895 47.25 K. 190.05 R. 107.08 H.W. 47.06 April and May 1896 21.48	K. In floods R. 27.73 H.W. 24.83	R. 12.37	K. 5·60 R. 16·12 H.W. 5·60	K 700 R., 83 H.W. 0
faximum discharge { , , ,	456	191	3 5 36	7:02	8-10	27:60	88.54	150	Left Right Bank. Bank. K. 51 39 15 33 R. 63 32 14 87 H.W. 61 04 13 85	\$ 45·15	. 14.45	13.18	K. •81 R. •74 H.W. •67
verage annual rainfallInches.	23.45	{ K. 37·77 R. 0·63	29.56	21.24	21.24	24.47	25.76	{ K. 38.00 R. 0.88	26.72	24.63	28:84	24.15	Dhupdal, 27-02
ross area commanded Acres. culturable do , rea irrigable by complete project, ., Do. at present ,,	274,447 227,670 56,640 56,640	44,744 28,840 11,336 8,000	28,832 26,280 23,466 9,837	8,055 7,421 6,824 2,867	3,486 2,729 2,433 2,433	29.913 25,536 22,760 11,280	28,327 26,453 26,453 26,453	17,300 12,000 11,500 3,000	37,122 9,166 33,124 7,061 3,500 1,500 3,500 1,500	23,724 21,155 20,086 14,763	3,624	1,871 1,478 J,478 J,478	Gokák 23:29 18,668 17,627 †7,200 †7,200
anctioned Estimate— Direct charges Rs. Indirect charges , Interest during construction ,	57,31,655 3,69,780 28,44,872	5,89,705 30,000 2,37,687	2,38,087 15,761 2,12,554	14,541 833 2,411	29,771 1,540 32,150	3,75,189 20,277 3,65,298	8,29,067 .43,216 7,83,613	J,66,857 J1,123	10,?7,?38 6!,403	3,25,902 22,309		53,803 3,612	11,72.084 60,929 1,44,865
Total, Estimate Rs.	89,49,307	8,57,392	4,66,402	17,785	63,461	7,60,764	16,60,898	1,78,680	10,88,640	3,48,211	. 59,448	57,415	13,77,578
xpenditure Direct charges Rs, Indirect charges ,	53,27,570 3,23,910	4,90,925 26,913	2,21,154 15,379	6,739 613	27,955 2,330	3,52,446 19,445	8,18,545 46,347	1,69,868 1°,980	9,91,058 49,911	3,09,63a 20,640	56 771 3,040	53,803 3,639	11,71.926 39,657
1895-96 (Interest during construction ,	23,69,962	4,53,387	2,09,700	1,769	31,857	3,83,600	9,13,470			•••	·	*****	2,25,055
Total, Expenditure Rs.	80,21,442	9,71,225	4,46,233	9,121	62,142	7,55,491	17,78,362	1,81,848	10,40,969	3,30,275	59,811	57,442	14,96,638
Vorks as now sanctioned— Main Canals, Irrigation Miles. Branch Canals do , Distributaries , If above—	100·23 132·46	21 25	11 21·50	.	8·62 	23 11	35·25 26·25	16 7 7	39 75	 25	5·66 5·25	6:50	‡4·10 12·0 §27·80
Navigable channels Miles. Vorks completed at end of 1895-96—	*****			*****	•••	****	*****	•••	P	*****	*****	•••••	*****
Main Canals, Irrigation Miles. Branch Canals do " Distributaries "	96 132·46	21 30	11 14.36	4·50	8:62 	23 9·37	35·25 28·62	16 7 7	39 75	19 • 21	5.25	6·50	‡4·10 12·0
of above— Navigable channels Miles.	152.40		14.30	******		9.91	******		,	******	*****	*****	§27·80

Including 58 c. ft. discharge for Mills.

† Area increased from 5,170 acres to 7,200 acres on account of the additional area of 1,000 acres brought under command by the extension of the canal completed during the year,

† The increase in militage from 2.62 to 4.10 is due to the extension carried out during 1895-96.

† Do. from 25% to 27.50 do. do.

Statement of Reservoir Projects in the

	(1)	(3)	(6) Lower	(7)	(9)	(10)	(13)	(14)	(16)	(18)	(19)	(≥0)
	Bhátghar Beservoir, Nira Canal.	Mhas- vad Tank,	Pánjra River Works and Mukti Tank.	Kádva River Works (Wagbad Tank).	Mutha Reservoir, Lake File.	Ekruk Tank.	Hartála Tauk.	Mhasva Tank.	Parsui Tauk	Bhátodi Tank,	Mátoba Tank.	Kásurd Inuk,
Source of supply,	Yelvandi River and Ghát Catch- ment,	Mán River and Rainfall.	Local Streams.	Kolvan River,	Mutha River and Ramfall.	Adhela River and Rain(all,	Local Streams	Local Streams.	Parsul River.	Mehekri River,	Kála, Rain- fall and surplus water from Mutha Right Bank Canal.	Kásurd Nala aud Rain- full,
If supplied Area of catchment, Eq. miles Average annual rainfall Inches	1	*480 25*68	84.2	29	196°00 33°24	159 82·17	6·80 25·95	13·40 29·85	17 83 81*67	1	10·00 18·14	6.00
Contents of tanks between levels of surface of full supply and sill of cubic feet.	1	2,633	342-3	606 {	(1)2,679·65 (2)3,283·30	} 3,210	134-9	158*5	118-70		229	14'5
Area of surface at full supply { Acres and decimals.	3,584	4013-80	600.00	778	(3)8,629·78 (1)8,399·24	} 4,640	473	421	151		477.46	١.
Gross area commanded Acres,	on direct	129,045	13,117	(e) (e)	94,087 49,800	17,152 16,941	584 527	4,647	3,337 3,197	13,657	71*33	697 478
Do, at present , We'lls supplied by tanks No.	No irrigation direct from the Reservoir.	106,214 45,813	12,627 12,627	(e)	16,800 16,800 23	15,320 14,352	415	1,700	1,000	12,124	2,600 2,600	478
Fanctioned Estimate—				464								
Direct Charges Rs. Indirect Charges	(a) (a) (a)	20,24,327 1,03,947 6,56,222	4,44,486 22,774 4,36,451	4,67,663 16,835 2,17,233	62,14,206 2,40,697 34,30,296	12,28,213 1,06,687 8,00,650	48,890 26,150 	1,29,813 10,202	3,15,366 8,246	8,51,767 26,511	1,98,000 17,500	
Total Estimate Re.	(a)	27,54,496	9,93,711	7,01,730	98,85,199	21,35,586	75,040	1,40,015	2,23,612	3,76,276	2,10,500	45,596
Direct Charges Rs. Expenditure to Indirect Charges ,	(a)	19,84,722 87,784	4,41,561 22,908	4,37,995 11,695	63,53,239 2,34,888	12,28,117	47,948 25,434	1,28,781 10,175	2,09,967 6,787	3,52,695 27,022	1,86,148 18,274	4,778
Interest during con-	(a)	10,48,265	4,38,461	2,14,518	53,96,207	12,73,514		***			***	
Total Expenditure Re.	(a)	31,20,771	9,00,920	6,64,208	1,19,84,334	26,13,900	73,8 52	1,89,956	2,16,754	3,79,707	2,01,422	45,590
Yorks as now sanctioned - Dam (earth or masonry) Total Height Feet.	Мавопгу б) 127 (с) 10:	Earth. 79°79	Earth.	Earth.	Maronry. 97-84	Earth.	Earth. 51 50	Earth.	Earth. 62·27	Masonry 50	1	Earth. 33-45
Canals Miles.	File—State- ment 1—A.	(A 60°25		(/)	88	49			 	₽ ₽	•••	
Distributaries	in Tri	34	4.5	ن	70		5.5	7	4-71	5+/4	17	1.73
Dam dieight) completed Feet,	(J)	70-79	6 5	93	97°84	76	61.50	44	62.27	i.	48 41	33 46
Canals Miles,	Fide State	(Å) 90°25	•••	w	£8	48		-		4.20		
	[ment]	, .										

(2) 2497 is the reduced a vel (2) 2497 is the beight to which

A.

Bombay Presidency, excluding Sind.

(21)	(22)	(33)	(24)	(20)	(37)	(20)	(30)	(32)	(33)	(34)	(35)	(38)	(37)	(39)	
)Shiran- phal Tank.	Bh'idal- Vádi Tank.	Koregion Tauk.	Ashti Tunk.	Upper olán River Works (Pingti Tank).	Yerla Hiver Irrign- tion Works Nehr Tunk).	Maini Tank.	Much- kundi Tank.	Gadikeri Tunk.	Damba Tank.	Medleri Tank	Madag Tank,	Asundi Tank.	Mávine kop Tank,	Gokák Canal, 1st Section, and Storage Works.	
Minor Trbu- tary of the Bhma River and Rain- fsll,	Minor Tribu- tary of the Bhima River and Rain- fall	Nála and Rainfali,	Ashti Ngla and Ruinfali,	Mán River and Rain- fall.	Yerla River and Rain- fail	Wanga Nála and Rain- fall-	Much- kundi Ngla and Rain- fail.	Rain- fall,	Rain- fall,	Medleri Nála and Rain- full,	Kumud- wati River and Rainfall.	Rain- fall,	Rainfall,	Ghatprabha River.	Remarks.
23·00 20·60	23°00 22°53	4-4 34-54	92 29° 29	20°00 19·58	59·5 27•90	54'00 22'32	26 22 19	68 28•36	43 19•61	1 1 21•23	540 29•12	23 23•12	6°25 39°01	1,080 55*00	*Exclusive of 29 square miles for Gondoli Tank.
\$ 65	2 32	81	1,419	19 5·24	489*77	188•59	68 0	27.5	113.664	57*60 0	54.630	105*500	45.75	701 ·597	
833•70	835-18	202	2,677	349.4	676 ·9	380*4	1,059	129	442	169	363	418	170.2	2,272 45	•
4,500	3,0 00	}.	17,892	8,443	11,234	4,876	5, 570	697	4,595	1,916	2, 851	1,800	872	(a)	(e) Information supplied in Statement I—A., the tank being only a feeder.
2,500 2,500	2,400 2,400	Not Known.	16,825 14,476	7,623 7,623	10,680 10,680	4,625 4,625	5,417 8,417	Not known. 450	4,52× 4,595	1,053 1,916	2,452 2,188	1,800 1,800	7 55 7 55	(a) (a)	only a rocate
2,500	2,400) 	14,476	7,623 25	10,680 16	4,6 25	3,417 Nil	337 None.	4,525 Un- certain.	1,052 Nil	2,188 Nil.	1,800 Nil	617 Nil.	(a) None.	
2,09,460 12,822 	2,14,383 14,842	40,791 1,318 	7,54,250 80,677	4,16,341 28,190 	8,8 0 ,041 47,200	8,63,000 22,492	1,48,200 20,220	8,998 350	61,162 3,744	78,237 3,468	2,32,263 17,144 	67,731 12,754	27,889 3,928 	(a) (a) (a)	
2,22,282	2,29,724	42,040	8,34,927	4,44,531	7,27,301	3,90,492	1,69,420	9,238	64,906	81,705	2,49,407	80,485	31,817	(a)	•
2, 12,199 12,369	2,13,115 14,307	87,923 1,266	7,52,189 78,914	4,07,511 22,910	6,51,081 43,327	3,67,671 22,763	` `	8,915 364		78,354 3,038		60,741	27,612 3,235	(a)	(a) Figures given in State-
														(a)	
2,24,568	2,27,422	3 9,189	8,31,10	4,30,451	6,94,411	3,90,434	1,58,707	9,279	63,980	81,392	1,67,598	74,995	30,847	(a)	•
Earth. 54:32		2 dams 1 earth 1 masonry 71 and 16	Earth. 57· 75	Earth. 53 [.] 50	Earth.	Earth. 57-33	Masonry	Earth.	Earth. 42°25	Earth.	Earth.	Earth. 83.95	Earth. 30-53	Masonry weir. 25° high, Ma- x i m u m a b o v e f o u n d a- tion 26' earthwork	(c) Above lowest point in
•		3· 76	(i) 27·G	17.50	28*6 0	9 ·2 5	5 •5	Nil	. ,,,,		9	•••	••• •	16·10†	† Canal 4 10 Branch 12 0
													,		(d) The main dam completed to full height, and weir brought up to correct level.
12·5	9*73 55:09	 71 and 10	2		4	7 58		Irriga- tor's Channel	3•27	5*64	***	4* 86	Irrigator's Channei.	(a)	(f) The tank supplies the Falkhed, Ojhar Tambat and Wadali canals as noted in Satement I—A.
		3·75			74	57:33		20	42.25	41	100	33°95	30.53	25	(h) Includes 321 miles of Branch Canals. (i) Includes 6 miles of
12:3			,,			9.25	5 *5	Nil.	***	***	9	`	•••		Branch Canals.
-		est of weir.	2	, 6• 5u	4	7-58	2*2*	Irriga- tor's Channel	3.7	5.64	•••	4*86	(rrigator's Channel	(a)	

of the finished crest of weir. Water is annually impounded at end of monsoon by fixing standards and boards on waste weir crest. B $1239-\sigma$

Capital Account of Irrigation Works in Deccan and

				Capita	d Accous	nt of Ir	rigation	Works	in Dece	an and
					Duning and	R.				i
			Direct Cha	arges.			Ind	lirect Charge	es.	
Name of Work.	Works.	Establish- ment.	Tools and Plant.	Total.	Deduct Receipts on Capital Account,	Total.	Capitali-	Leave and Pension, Allow- ances,	Total.	Grand Total,
1	2	8 .	•	5	6	7	8	9	10	11
IMPERIAL.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
MAJOR WORKS.	,									ļ
PROTECTIVE WORKS.										1
In operation.										
1. Nira Canal 2. Mhasvad Tank	23,121 -274	5,079 — 57	-2,262 -7	25,938 —338	•••	25,938 338	2°,854 26,967	711 -8	19 565 26,939	55,503 26,621
Total	22,847	5,022	-2,269	25,600		25,600	55,821	703	56,524	82,124
In abeyance,										
3. Chankápur Tank 4. Maladevi do	1,267	29	92	1, <u>≏</u> 04	356	1,048		4	4	1,052
• Total	1,267	29	- 92	1,204	156	1,048		4		1,052
										
Total, Protective Works PRODUCTIVE WORKS.	21,114	5,051	-2361	26,804	156	26,618	55,821	707	56,528	83,176
In operation.									÷	
5. Háthmati Canal		***		•			557	\ '	-557	-557
6. Lower Panjhra River Works 7. Kadva River Works	2,040 56	469 26		2,509 82		2,509 82	30 1,358	66	96 1,362	2,605 1,444
9. Mutha Canals	25,917	5,2 9 0	-309	30,898		30,898		741	711	31,639
10. Ekruk Tank	•••	•••	•••	•••		•••	:::		•••	•••
'		***		***		93.400		***	***	07.70
Total, Productive Works	28,013	5,785	-309	33,489		83,489	831	811	J,642	35,131
Total, Major Works	52,127	10,836	-2.670	60,293	156	£0,137	56,652	1,518	53,170	1,18,307
MINOR WORKS AND NAVIGATION.										,
In operation.]					/		Ì
13. Hartila Tank	•••	***		•••		•••			•••	
14. Mhasva do	334	₇₈	100	··· ₆₁₂		512	- "	"11		523
16. Parsul Tank 17. Pravara River Works-Ojhar Canal	267	. 61	-2,722	-2,394 		-2,394	-279	9	-270 26	-2,664
18. Bhátodi Tank		•••	•••	•••					•••	
20. Kásurdi do,	•••	•••		***		***		•••		
21. Shirsuphal do 22. Bhadalvádí do	769 • 8	•••		769 8		769 8	96	•••	96	865 8
23. Koregaon do 24. Ashti do	• • • • • • • • • • • • • • • • • • • •	••• •••		***		:::		***	:::	
25. Revári Canal	100	•••	٠	189 120	.,,	189 120	193 769	•••	193 769	382 859
27. Yerla River Irrigation Works	6,360	1,462	60	7,882		7,882	79	205	264	8,100
28. Chikhli Canal 29. Maini Tank	•••	:::		•••		•••	524		524	624
30. Muchkundi Tank 31. Nilgund do	•••		•••	•••			***			•••
32. Gadikeri do	•••			•••						
33. Dámbal do			•••	•••	***			***		•••
35. Madag do 36. Asundi do	•••	•••		***			•••			
37. Mavinkop do		<u></u>					•••			
Total	8,017	1,601	-2.562	7,086		7,056	1,408	125	1,633	8.719
In abeyance.										
38. Gokák Canal, 2nd Section	8,047	1,601	-0.500	7,086		7,056	1,403	225	1,6::3	8,719
Total, Minor Works and Navigation		3,001	-2.802	7,000		7,000		- 220		
PROVINCIAL.										
MINOR WORKS AND NAVIGATION.	1									
In operation. 39. Gokák Canal, 1st Section, and storage										
Works	14,055	2,127	249	16,409		16,400	•••	298	208	16,707
GRAND TOTAL	74,207	14,564	-4.983	83,783	156	83,632	58,000	2,641	60,101	1.45, 733

[•] Including expenditure clarged to "35 Causers for

B. Gujarát for and to end of 1895-96.

T-	- 17	~**	THAR.

				tR.	TO BED OF TH				
		direct Charges.	In			arges.	Direct Ch		
Grand Total.	Total.	Leave and Pension Allowances,	Capitalization.	· Total.	Deduct Receipts on Capital Account,	Total,	Tools and Plant,	Establishment.	Works,
21	20	19	19	17	16	15	14	13	12
Rs.	Rs.	Ra.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Ra.
*** *** ***	0.00.010	. 40.045	7 an Fan	FO DW 574	2 202	F0 04 570			
56,51,48 20,72,50	3,23,910 87,784	1,60,347 53,000	1,63,563 34,784	53,27,570 19,84,722	8,009 1,473	53,33,579 19,86,195	1,27,776 62,793	10,21,968 3,41,931	41,85,535 15,81,471
77,23, 98	4,11,694	2,13,347	1,93,347	73,12,292	9,482	73,21,774	1,90,569	13,63,899	57,67,306
69,25 36,11	3,188 2,161	3,167 2,161	21	65,067 33,955	337 68	65,404 34,023	7,168 1,456	18,042 11,600	40,194 20,967
1,04,37	5,349	5,328	21	. 99,022	405	99,427	8,624	20,642	61,161
78,28,33	4,17,043	2,18,675	1,93,368	74,11,3]4	9,887	74,21,201	1,99,193	13,93,541	58,28,467
,		. 1	,	•					
5,17,85 4,64,40 7,23,80 3,71,85 65,88,11 13,40,3 8,64,85	26,913 22,908 30,017 19,445 2,34,888 1,12,269 46,347	19,830 14,446 24,343 13,621 1,82,386 42,321 27,831	7,083 8,462 5,674 5,824 52,502 69,948 18,516	4,90,925 4,41,561 6,93,843 3,52,446 63,53,239 12,28,117 8,18,545	11,238 37 140 201 12,226 1,194	4,92,213 4,41,598 6,93,983 3,52,647 63,65,465 12,29,311 8,18,545	9,060 3,228 16,960 19,477 1,16,445 9,713 1,682	90,517 74,182 1,38,987 68,611 9,75,137 2,12,509 1,42,209	3,83,636 3,64,189 5,33,036 2,64,529 52,73,883 10,07,089 6,74,654
1,08,71,4	4,92,787	3,24,778	1,68,009	1,03,78,676	15,086	1,03,93,762	1,76,565	17,11,182	85,06,015
1,86,99,8	9,09,830	5,43,453	3,66,377	1,77,39,990	24,973	1,78,14,963	3,75,758	31,04,723	1,43,34,482
1,91,8 73,3 1,38,9 10,40,9 2,16,7 3,30,2 3,79,7 2,01,4 45,5 2,24,5 2,24,5 2,27,3 8,31,1 59,8 4,30,4 6,94,4 6,94,4 1,58,7 9,0 9,2 63,9 81,3 1,67,59 74,9 9,0 61,59,5	11,980 25,434 10,175 49,911 6,787 20,640 27,022 13,274 4,778 12,369 14,307 1,266 78,914 3,040 22,910 43,327 3,639 22,763 18,490 259 364 3,133 3,038 6,350 14,254 3,235 4,21,659 13,978 4,35,637	5,630 2,382 5,149 37,896 5,988 14,508 13,999 7,000 1,699 7,232 10,240 1,266 26,603 1,781 17,354 20,880 2,722 19,165 4,104 259 351 2,099 2,795 6,350 1,718 1,152 220,622	6,350 23,052 5,026 12,015 799 5,832 13,023 6,274 3,079 5,137 4,067	1,69,868 47,948 1,28,7*1 9,91,058 2,09,967 3,09,635 3,52,685 1,88,148 40,812 2,12,109 2,13,115 37,923 7,52,189 56,771 4,07,541 6,51,084 53,803 3,67,671 1,40,217 8,763 8,915 60,847 78,354 1,61,248 60,741 27,612 57,37,900	181 4 6 21 71 144 690 8 5,392 5,392 540 267 62 6 14 138 10,150	1,70,049 47,952 1,28,787 9,91,079 2,10,038 3,09,779 3,53,375 1,58,156 40,812 2,12,199 2,13,115 56,771 4,07,782 6,53,449 6,53,449 6,53,449 6,53,449 6,741 1,40,484 8,768 8,915 60,909 78,360 1,61,262 60,741 27,750 57,48,050 1,76,306	2,133 2,579 1,129 1,129 1,129 1,129 1,130 1,2937 884 2,937 884 2,621 2,621 2,621 2,621 2,621 2,621 2,625 2,08 3,315 2,293 1,105 2,937 8,025 2,08 3,315 2,293 1,105 2,325 1,055 3,23 3,23 3,23 3,23 3,23 3,23 3,23 3,	32,298 11,936 26,399 1,91,837 42,633 75,184 70,183 35,982 8,495 38,190 53,493 7,661 1,44,175 9,693 93,456 1,11,5,2 13,611 98,353 26,360 1,700 1,755 10,769 15,324 31,841 10,881 6,762 11,60,553 70,024	1,35,618 33,437 1,01,259 7,86,213 1,61,560 2,30,057 2,73,838 1,49,237 31,433 1,71,118 1,57,091 30,044 47,057 3,07,544 47,057 3,07,544 47,057 3,07,544 2,66,543 1,11,830 6,938 7,020 49,262 61,841 1,26,596 44,805 21,665 44,95,106
. •						_		, •	•
*12,11,583	39,657	25,543	14,114	11,71,926	258	11,72,184	21,065	1,71,455	9,79,664
2,62,61,240	13,85,124	8,02,856	5,82,268	2,48,76,122	35,381	2,49,11,503	4,94,160	45,15,755	1,99,01,289

Statement showing the Financial Results of Irrigation Works in

Realizations	under	Main	Reads of
	ĺ		

					Rat	VBRUB (Act	DAL RECEI	PT6).			(IZATIONS II	нает дал	n Heads of
			Tuni	· · · · · · · · · · · · · · · · · · ·	i	1	1	1	1	<u> </u>	1	ļ	
, 18	ame of Work.		Irrigation	1	-						Gross		Revenue
		Water rates directly paid.	Share of Land Revenue	Total.	Naviga- tion,	Plauta- tions.	Waters power.	Miscella- neous.	Total.	Refunds of Revenue.	Revenue less Refunds.	Direction.	Executive.
-	1		8		5	. 6	7	8	9	10		12	
		-					ļ	-					18
	OPERIAL.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
	ective Works.												
L Nira Ca	.no1	85,368		95 900				1,516	86,884		00.004	1 400	15 502
2. Mhasva	d Tank	10100		85,368 13,168	***	1	•••	2,625	15,794	***	86,884 15,794	1,409 487	17,791 2,651
	Total	98,536		98,536		1	,	4,141	1,02,678	***	1,02,678	1,896	20,442
•	uctive Works.												
5. Háthma 6. Lower P	ánihra River Works	10,221	6,788	10,221 17,564	•••	314 301		985 544	11,520 18,409	**.	11,520 18,409	60 208	383 2,094
8. Pravara	River Works River Works	9,087	594	9,681	•••	22	·•• ·	147	9,850	*** .	9,850	295	2,541
9. Mutha C	1 . 1	1,034 1,57,044	147 42	1,181 1,57,086	•••	173	6,000		2,819 2,77,086	641	2,819 2,76,447	218 2,055	6,082 22,685
10. Ekruk T 11. Krishna		13,023 29,313	•••	13,023 29,313	::,	282 	***	13,116 1,290	26,421 30,603	***	26,421 30,603	46 3 151	2,260 1,199
	Total	2,30,498	7,571	2,38,069		1,094	6,000	1,31,547	3,76,710	641	3,76,069	3,445	37,244
Tota	l, Major Works	3,29,034	7,571	3,36,605	···	1,095	6,000	1,35,688	4,79,388	641	4,78,747	5,341	57,686
	WORES AND VIGATION.			•									
12. Khári Cu	nt	13,065	***	11,065		53	•••	268	11,3%6	· •.•	11,386	62	437
13. Hartála 14. Mhasva	do	186 380	***	186 380	***	550	***	423 326	1,159 707	***	1,159 707	8 31	207 423
15. Jámda C 16. Parsul T		7,270 1,125	***	7,270 1,125	::: }	3,920	***	435 25	11,625 1,150	***	11,625 1,150	. 285 27	3,871 440
	Canal	4,894 4,300	76 1,351	4,970 5,651]	26	•••	469 509	5,465 6,160	12 146	5,453 6,014	274 175	8,150 5,075
19. Matoba 20. Kasurdi	do	9,100	•••	9,100		•••	•••	116 46	9,216	•••	9,216 46	79 126	874 1,037
21. Shirsuph 22. Bhádalv	al do	336 1,689	•••	336	•••	•••	•••	173	509 1,696	•••	603 1,696	86 59	815 635
23. Koregao	n do	944 3,753	•••	1,689 914	•••	***	***	40	984 4,317	***	984	25	222
25. Revári C		4,902 6,324	•••	3,753 4,902	***	28	***	536 114	5,016 6,410	•••	4,317 5,016	112 36	496 236
26. Upper N 27. Yerla Work	River Irrigation	11,165	•••	6,324		*** '		1,382	12,547	***	6,410 12,547	67 90	498 767
28. Chikhli C	Canal	2,309 6,311	***	2,309	:::	•••	***	44 85	2,353 6,396	***	2,353 6,396	14 54	123 767
30. Muchku	ndi Tank	4	•••	6,311	:::	77	***	376	527	***	527	•••	
31. Nilgund 32. Gadikeri		•••	1,987	1,987	:::	4**	***	***	1,987	***	1,987	•••	
33. Dámbal 34. Medleri		376 570	981	1,357 570	•••	79	***	323	1,759 570	•••	1,759 570	12 · 12 ·	605 466
35. Madag	do	2,047	•••	2,047	•••	15	•••	85	2,147	•••	2,147	24	711
36. Asundi 37. Mavinko	do op	603	632 1,857	1,235 1,857	•••	•••	***	6	1,23 5 1,863	•••	1,235 1,863		451
	l, Minor Works and Navigation	79,723	6,884	86,607	•••	4,749	***	5,874	97,230	158	97,072	1,669	27,186
PR	OVINCIAL.												
Minor Work	s and Navigation.												
39. Gokák C and St	anal, First Section torage Works	11,980	•••	11,980		72	10,816	155	23,023	3	23,020	88	1,594
•	GRAND TOTAL	4,20,737	14,455	4,35,192		6,916	16,816	1,41,717	5,99,641	802	5,98,839	7,098	86,466

Notes.—(1) The irrigation share of land revenue assessments relates to the Revenue year 1895-96.

(2) The division of Establishment charges between "Revenue Management" and "Maintenance and Repairs" is made in accordance

C.

Deccan and Gujarát for the year ending 31st March 1896.

Revenue and Working Expenses.

	•		_			Working E	TLEMBK2								
anage	ment.				-	2	daintenanc	e and Repai	rs.				1		Net
ehmen	t.	Total Revenue		Establish	ment.		Works.	Repairs.	Sun- dries.	Tools and Plant,	Planta- tions	Total cost of Mainten-	Indirect Charges	Grand Total Working Expenses.	Revenu
faviga- tion.	Civil Others.	Manage- ment.	Direction.	Executive.	Medi- cal.	Total.			unes.			ance.			
14	15	16	17	18	19	20	21	23	23	24	25	26	27	28	29
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	, Rs.	Rs.
	4,269	23,469	341 344	4,324 1,871	267	4,9 3 2 2,215	6 2,273	17,879 6,425	•••	538 88	776 268	24,131 11,269	3,378 749	50,978 15,822	35,99
···	4,935	3,804 27,273	685	6,195	267	7,147	2,279	24,304	•••	626	1,014	35,400	4,127	66,800	35,8
	511 1,530 457 68	954 3,832 3,293 6,363	118 65 114	771 663 976	***	889 728 1,090	115	3,257 2,537 4,072 2,423	111	67 100 149 94 4,325	298 262 287 67 157	4,622 3,742 5,598 3,206 40,567	186 424 550 968 4,448	5,762 7,998 9,441 10,537 77,589	5,7,10,4 10,4 40 -7,7,1,98,8
	7,834 652 1,506	32,574 3,37 2,856	584 384 189	6,448 1,874 1,511	•••	7,032 2,258 1,700	420 3,041 916	28,633 5,085 5,504	152	97 68	908 464	11,389 8,804	697 427	15,461 12,087	10,9 18,5
	12,558	53,247	1,475	12,844		14,319	4,492	51,511	263	4,900	2,443	77,928	7,700		2,37,1
	17,493	80,520	2,160	19,039	267	21,466	6,771	75,815	263	5,526	3,487	1,13,328	11,827	2,05,675	2,73,0
• • • • • • • • • • • • • • • • • • • •	553 30 19 363 56	1,052 245 473 4,519 523	93 1 7 64 5	701 22 94 866 81	***	799 23 101 930 86	22	3,189 70 201 3,721 301	•••	44 50 200 50	33 1 203 	4,065 116 555 4,851 480	182 33 93 71 2 77	5,299 394 1,121 10,082 1,080	6,0 7 -4 1,5
	253 344 455 17 84 47 148 244 315	8,677 5,594 1,409 1,163 918 778 294 756 516 880	26 17 23 50 29 17 9 109 74 95	773 494 249 420 277 186 82 481 478 713		799 511 272 470 306 203 91 590 562 808	 752 136	3,106 1,938 1,088 1,879 1,224 811 365 2,124 1,380 2,945		255 75 25 75 50 18 41 72 79	90 105 236 77 153	4,250 2,554 1,435 2,374 1,605 1,064 474 2,994 2,833 4,121	1,291 807 171 229 169 126 47 168 115	14,218 8,955 3,014 3,766 2,692 1,968 815 3,918 :3,464 5,193	-8.76 -2.99 6,3 -3.75 -2.16 -2.16 3: 1,55 1,3
•••	558 115 316 4	1,415 252 1,127 4	98 13 26 10	840 121 371 42		938 134 397 52	 17	3,391 499 1,399 209 21	355 ••• 546 5**	62 5 37 3	361 39 191 	4,752 677 2,024 281 26	251 38 169 7	6,418 967 3,320 292 27	6,1 1,3 3,0 2
•••	199 133 28 J02 93	199 650 496 837 556	2 2 4 2	66 68 136 65	***	68 70 140 67	77	195 279 426 268	*** *** ***		 135	340 349 701 335	108 75 122 74	199 1,098 920 1,660 964 186	1,7 6 -3 4 2 1,6
 	4,662	33,517	782	7,630	•••	8,412	1,004	31,029		1,144	1,667	43,256	5,257	82,030	15,0
•	1,140	2,822	35	631		666	•••	2,294	•••	299	172	3,431	329	6,582	16,4
•••	23,295	1,16,859	2,977	27,300	267	30,544	7,775	1,09,138	263	6,969	[5,326	1,60,015	17,413	2,94,287	3,01,5

with the orders contained in Government of India No. 98 A.I., dated 19th August 1884.

A. L. WRIGHT,
For Examiner, Public Works Accounts.

II.--C.

Statement showing the Financial Results of the Irrigation Works in Deccan and Gujarát for the year 1895-96 based on actual receipts.

Principal Results of operations for the year ended 51st March 1896.

	rrigation Works	L.		Indirect Capital outlay to	Gross Receipts, Direct and Indirect,	Working Expenses, Direct and	NotRevenue (excluding	on	on direct Capital outlay at outlayer	ON D	OUTLAY,	ON DI CAPITAL	
	,			end of 1895-96.	from all sources.	Indirect.	charges for interest.)	Capital outlay to end of the year.	ment of year and at 2 per cent, on outlay during year.	Amount.	Percent- age on total sum at charge.	Amount,	Percent age on total sum charge.
	1		_	3	3	4	5	6	,	8	9	10	11
	IMPERIAL			Ra,	Rs.	Rs.	Rs.		Ra.	Ra.			
Я	AJOR WORKS	la.			'			1		14.		Ra.	
Pr	OTECTIVE WOR	KS.				•	•	ĺ					1
	In operation.					•		Í		١٠.			
1 Nira Canal 2 Mhasyad Ta	mbr	••		56,51,480	86,884	50,978	85,906	-64	2,12,584	٠.	:	1,76,678	0.0
T TOWNSTANT IN		Total	••	20,72,506 77,23,986	15,794	15,822	-28	.00	79,396			79,424	9-27 2-60
	In abeyance.	1000	••	17,55,860	1,02,678	68,800	35,878	-46	3,91,980	<u></u>		2,56,102	3-36
3 Chankapur 1	•			68,2ő5]	}					
4 Máladevi	do	:-		86,116	:	::::	****	.00	2,582 1,858	::	::	2,582 1,858	2·58 2·71
		Total	••	1,04,371		4		-00	3,940			8,940	2.59
	Total Protec	tive Works	••	78,28,357	1,02,678	66,800	85,878	· 4 6	2,95,920	· · · ·		2,60,042	2.87
Pı	LODUCTIVE WORI	K8.	1										
	In operation.			,	;		ł	1	1				}
6 Hathmati Ca 6 Lower Panjr	a River Works	**	•	5,17,838 4,61,469	11,520 16,409	5,762 7,998	5,758	1.11	19,637			18,679	1:37
7 Kadva River 8 Pravara Rive	er Works—Lákl	Canal	**	7,23,860 3,71,891	9,850 2,819	9,441	10,411	2·24 -06	17,612 27,752	:: '	::	7,201 27,348	96 2.39
9 Mutha Cana 10 Ekruk Tank	ie	••	••	65,88,127 13,40,886	2,76,447 26,421	10,537 77,589	-7,718 1,98,858	3.08 3.02	14,098 2,53,512	:: 1	::	21,516 64,664	2.00
11 Krishna Can				8,64,892	30,603	15,461 12,087	10,960 18,516	2·14	49,126 32,742		::	88, 165 14, 236	1.43
•	Total Product	ive Works	••	1,08,71,463	3,76,000	1,38,875	8,37,194	2.18	4,14,478			1,77,284	.90
	Total Ma	jor Works		1,86,99,820	4,78,747	2,05,675	2,73,072	1.46	7,10,398			4,87,826	1.93
MINOR WO	RES AND NA	VIGATION	.	***************************************									
•.	In operation,		- {	·			'						1
12 Khári Cut 13 Hartala Tani	٠.	••		1,81,848	11,886	5,299	6,087	8.35	6,795			708	
14 Mhasva do.	••	••	•	73,382 1,38,956	1,159 707	394 1,121	765 414	1:04	1,918 5,161	:	::	1,158 5,645	1 11
15 Jámda Cana 16 Parsul Tank		::	::	10,40,969 2,16,754	11,625 1,150	10,082	1,543	'16	39,632	::	::	38,089	2.30
17 Fravara Riv 18 Bhátodi Tan	er Works-Ojhi k	ar Canal	•	8,30,275 8,79,707	5,459	14,218	-8,765 -2,941	2.65	6,447 12,885	••	::	8,877 21,150	2 43
19 Mátoba do, 20 Kásurdi do,		••		2,01,422	6,014 9,216	8,955 3,014	6,202	3-08	14,107 7,526	••		17,048 1,824	2 40
21 Shirsuphal I	ank	::		45,590 3,24,568	46 609	3,766 2,692	-3.720 -2.188	8.16	1,638 8,478	••	••	5 ,858 10 ,656	5.43
22 Bhádaivádí 23 Koregaon	do	••	::	2,27,422 39,189	1,696 984	1,968 815	-272	12	8,524	**	::	8,796	2'45 2'49
24 Ashti 25 Revari Cana	do,	••	••	£,31,103 69,811	4,317	3,918	399 169	.05	30,088	**		1,846 20,689	2'05 2'24
26 Upper Mán	River Works Irrigation Wor			4,30,451	5,016 6,410	8,464 5,193	1,652 1,217	2.69	2,267 16,299	••		716 15,0%2	.68
28 Chikhli Cana			::	6,94,411 57,442	12,647 2,358	6,418 967	6,129 1,856	2.41	25,886 2,162	. ::	::	19,757	2:09
29 Maini Tank 30 Muchkundi		::	::	3,90,434 1,58,707	6,396 527	8,320 2:2	8,076	.79	14.707	::	::	766 11,631	1.65
31 Nilgund 32 Gadıkeri	do	••		9,017 9,279	1	27	235 27	·15	, 5,609 851	::	::	6,874 878	2·31 2·70
33 Lambal	do,	••		63,980	1,987 1,759	199 1,098	1,788	19.27	867 2,434	1,431	•	1,778	i'86
34 Medleri 35 Madag	do	••	::	91,392 1,67,599	570 2,147	920 1,600	-350	48	8,134	::	::	3,464	2.42
36 Asundi 37 Mávinkop	do do	 	*	74,995 30,847	1,235	964 186	271	.58	8,450 2,430		::	6,1413 2,169	1 67 2 08
•		Total		61,59,559	97,072	£2,030	1,677	5:44	1,104	673	1'47'		
	In abeyance.				71,012	C 2,030	15,042	-94	2,29,876			2,14,334	\$.00
38 Gokák Cana		on		1,90,284									
	or Works and l			63,49,843	97,072	82,030	75.049		7,053			7,052	2.25
	ROVINCIAL	-		., ,	-1,014	62,030	15,042	.54	2,86,428			2,21,356	2.00
	Vorke and Nati		-										
MINOR V	In operation.	.~							1				[
	. •	n and Ote-					[1	[1	!		ļ
OR CALCE CO.	a—rirsi becuoi	TOMOS PUPPE I	-x e			i	ı		1	ı			1
39 Gokák Cana Works		••	••	12,11,683	23,020	6,562	16,435	1.86	46,549			30,111	2:04

• The sum at charge being minus, no percentage can be calculated.

A. L. WRIGHT, For Examiner, Public Works Accounts.

xxiii пі.—с. Demends and Realizations during the year 1895-96 in Deccan and Gujarát.

		Balance of demands	D	BMANDS OF	THE YEAR	•	Total including	Deduct		Deduct-	1
Irrigation Works.		unrealized at com- mence- ment of year.	Rabi, 1894-95,	Kharif, 1895-96,	Miscella- neous Receipts.	· Total.	balance at commence- ment of year.	missions not in- cluding Cash Refunds	Net Total.	Amount unrealized at close of year,	Actual realiza- tions of the year.
1		2	3	4	5	6	7	8	9	10	11
IMPERIAL.		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Major Works	•					[[
Protective Works	1.			ì							
A MIL A MIL 1.	••• •••	1 500	36,306 7,567	51,888 6,637	1,516 2,626	89,710 16,830	89,735 17,338	•••	89,735 17,338	2,8 51 1,544	86,884 15,794
r	otal	533	43,873	58,525	4,142	1,06,540	1,07,073	·	1,07,073	4,395	1,02,678
Productive Work	9,										
5. Háthmati Canal 6. Lower Pánjhra Rive 7. Kádva River Works 8. Pravara River Work		1,113 1,454	(b) 4,900 3,491 5,235	5,046 7,342 3,960	1,299 845 163	11,245 11,678 9,358	12,358 (a) 11,678 (a) 10,812	***	12,358 11,678 10,812	838 57 1,556	11,520 11,621 9,256
9. Mutha Canals 10. Ekruk Tank	•••	22,359 853	344 6,092 3,551 7,420	675 1,72,694 9,585 31,402	1,639 1,20,787 13,285 1,511	2,658 2,99,573 26,421 40,333	(a) 2,681 (a)3,21,932 27,274 40,993	17 	2,679 3,21,915 27,274 40,993	7 44,869 853 10,390	2,672 2,77,046 26,421 30,603
1	Total	26,463	31,033	2,30,704	1,39,529	4,01,266	4,27,728	19	4,27,709	58,570	3,69,139
Total Major W	orks	26,995	74,906	2,89,229	1,43,671	5 ,07,8 06	5,34,801	19	5,34,782	62,965	4,71,817
Minoe Works and Nav	GATION										
13. Hartala Tank 14. Mhasva do 15. Jámda Canals	*** *** *** *** *** ***	***	172 142 222 1,331 987	14,802 44 158 6,602 •326	321 973 327 4,355 25	15,295 1,159 707 12,288 1,338	23,346 1,159 707 13,479 1,324	24 179	23,346 1,159 707 13,455 1,145	11,960 1,830 —5	11,386 1,159 707 11,625 1,150
Ojhar Canal 18. Bhatodi Tank 19. Mátoba do. 20. Kásurdi do. 21. Shirsuphal do.	*** ***		2,061 2,895 1,329	2,496 727 7,839	582 361 116 46 173	5,139 3,983 9,284 46 509	(a) 5,712 (a) 6,322 9,284 46 509	308 	5,698 6,014 9,284 46 509	309 1,205 68	5,389 4,809 9,216 46 509
22. Bhádalvádi do. 23. Koregaon do. 24. Ashti do. 25. Revari Canal 26. Upper Mán River W 27. Yerla River Irrigatio	Vorks	546 366	612 677 1,892 3,523 2,411	1,077 267 2,086 1,600 4,072	7 40 568 114 86	1,696 984 4,546 5,237 6,569	1,696 984 5,092 5,237 6,935	***	1,696 984 5,092 5,237 6,935	775 221 525	1,696 984 4,317 5,016 6,410
28. Chikhli Canal 29. Maini Tank 30. Muchkundi do. 31. Nilgund do.	*** ***	```\$4	7,028 915 3,331 6	4,160 1,463 3,496 68	1,382 44 85 453	12,570 2,422 6,912 527	12,605 2,422 6,996 527	***	12,605 2,422 6,996 527	58 69 600	12,547 2,353 6,396 527
33. Dámbal do. 34. Medleri do. 35. Madag do. 36. Asundi do. 37. Mávinkop do.	*** ***	76 175	261 116 965 303	70 454 1,277 335	402 100 	733 570 2,342 638 6	(a) (a) 809 570 2,517 (a) 638 (a) 6	***	809 570 2,517 638	31 370 35	778 570 2,147 603 6
Total, Minor Works	and Na		31,179	53,755	10,566	95,500	1,08,922	525	1,08,397	18,051	90,346
PROVINCIAL											
MINOR WORKS AND NAT 39. Gokák Canal, 1st	Section	,									
and Storage Worl			3,407	8,573	11,043	23,023	23,023		23,023		23,023
ORAND TO	OFAL	40,417	1,09,492	3,51,557	11,65,28 0	6,26,329	6,66,746	544	6,66,202	81,016	5,85,186

A. L. WRIGHT,
For Examiner, Public Works Accounts.

 ⁽⁴⁾ Exclusive of irrigation share of consolidated assessment.
 (b) Inclusive of Rs, 2,274 on account of rabi of 1895-96 shown in Canal Return No. IX.

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IV.-C.

Statement showing the Financial Results of Irrigation Works in Deccan and Gujarát for the year ended 1895-96, based on the Assessment of the year.

Principal Results and Operations for the year ended 31st March 1896.

					Вв	VENUE A	dasses	DUBING THE	S TEAR.					
-	Irrigation Works,	Canal Outlay (direct and indirect)			Direct ass	essed Re	evenue (a).		Indirect Revenue— (Land Reve-	Grand	Working Expenses direct and indirect.	Revenue of the	tal Out-
	,	to end of	Occupier's	Owner's rate.	Planta- tions.	Water power.	Naviga- tion.	Miscel- laneous.	Total.	nue due to Operation of Canal; (b).	Total.		year.	end of
·	• 1	2	8	4	5	6	7	8	9	10	11	12	18	14 •
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Re.	Re.	Rs.	Rs.	Re.
	IMPERIAL, Major Works. Protective Works.													
1 2	Mira Canal	56,51,480 20,72,506	86,786 12,570	:::	1		::	1,516 2,625	88,802 15,196		88,302 15,196	50.978 15,622	37,284 -626	-03
	. Total	77,23,986	99,356	***	1			4,141	1,03,498		1,03,498	66,800	36,698	-48
	Productive Works.							Mariana diministration						
5 6 7 8 9 10	Hathmathi Canal Lower Panjhra River Works Kadva River Works Pavara River Works—Lákh Canal Mutha Canals Ekruk Tank Krishna Canal	7,23,860 8,71,691 65,88,127 13,40,386	9,120 10,763 9,645 1,120 1,77,641 12,291 38,465	,	314 301 22 178 8 289	6,000	 	985 544 141 1,466 1,14,785 18,033 1,511	10,419 11,608 9,808 2,759 2,98,428 25,576 39,976	6,788 594 147 42	10,419 18,396 10,402 2,906 2,98,470 25,576 39,976	5,762 7,998 9,441 10,537 77,569 15,461 12,057	4,657 10,396 961 -7,631 2,30,801 10,115 27,659	2.24 *13 2.05 8.35 *75 3.22
	Total	1,08,71,463	2,59,045		1,094	6,000		1,32,435	3,98,574	7,571	4,06,145	1,38,875	2,67,270	2.46
	Total Major Works	1,85,95.449	3,58,401		1,095	6,000		1,36,576	5,02,072	7,571	5,09,643	2,05,675	8,03,968	1.63
	MINOR WORKS AND NAVIGATION.						•							
12 13 14 16 16 17 18 19 20 21 22 24 25 27 28 28 28 28 33 34 35 36 37	Khári Cut Hartála Tank Mhasva do. Jámda Canals Pareul Tank Pravara River Works—Ojhar Canal Bhatodi Tank Matoba do. Ksaurdi do. Shirsuphal do. Shirsuphal do. Shirsuphal do. Shirsuphal do. Shirsuphal do. Chichic Canal Upper Mán River Works Yerla River Irrigation Works Chikhli Canal Maini Tank Muchkundi Tank Muchkundi Tank Muchkundi Tank Muchkundi Tank Muchkundi do. Gadikeri do. Dambal do. Medleri do. Medleri do. Madag do. Madag do. Madag do. Madag do. Mavinkop do.	78.892 1,38,956 10,40,969 2,16,754 3,30,276 3,79,707 2,01,422 45,690 2,24,568 2,27,422 89,189 68,811 4,30,451 6,94,411 57,442 3,90,434 1,68,707 9,279 63,990 61,392 1,77,598 63,990 61,392 1,77,598	14,854 154 293 8,212 902 6,189 3,271 8,971 8,971 8,007 1,657 4,775 82 150 150 150 150 150 150 150 150 150 150		53 550 1 3,920 26 28 28 77 79			288 423 824 436 255 556 961 114 48 173 7 40 641) 114 86 1,542 44 44 45 85 374 823 85	15,175 1,127 657 12,667 927 6,771 8,632 9,067 64 2,237 2,249 64,545 5,731 6,750 10,449 1,701 6,810 635 652 2,478 437 6	76 1,351	15,175 1,127 1,27 1,27 1,27 6,647 4,948 9,087 6,449 4,948 6,731 6,750 10,449 1,701 4,840 5,35 1,673 1,673 1,673 1,673 1,673 1,673 1,673 1,673 1,673 1,673 1,673	5,29 B Si44 1,121 10,042 1,040 14,218 6,955 5,706 2,092 1,968 8,915 8,918 8,404 5,102 6,418 6,97 8,330 2,7 10,99 1,188 9,20 1,640 9,944 1,58	9.876 739 -504 2.486 -153 -7.371 -9.972 -6.073 -3.712 -4.55 627 2.267 1.567 4.031 734 1.440 243 -27 1.284 4316 -398 7.12 -398 1.677	6 '43 1 '000 '41 '24 '07 2 '23 1 '05 5 '12 8 '14 '19 '10 '10 '10 '10 '10 '10 '10 '10 '10 '10
	Total Minor Works and Naviga-	61,59,559	83,169		4,749			5,817	93,784	6,884	1,00,018	62,430	18,588	-3
39	PEOVINCIAL, MINOR WORKS AND NAVIGATION, Gokúk Canal, First Section, and Storage Works	12,11,553	10,907		72	10,816		155	21,950	••	21,050	6,582	15,305	1.27
	GRAND TOTAL	2,59,68,591	4,52,476		5,916	16,816		1,42,548	6,17,756	14,455	6,32,211	2,94,287	3,37,924	1:30

⁽a) Excluding remissions shown in Caual Return No. V for kharif and rabi seasons of 1805-0G, (b) Irrigation share of land revenue assessment.

A. L. WRIGHT, For Examiner of Public Works Accounts.

STATEMENT I—E.

IStatement of Areas irrigated by Irrigation Works in the Bombay

1 2 3 4 5 6 7 8 9 10 11 11 12 12 12 12 12		1	1		Staten	ment of.	Areas	irriga	ited by	Irrigati	on Wor	ks in the	Bombay
Rath Rath Rath Total Plow Life Area Prevent Column Area A					ÅRRA (AI	M detablik	Acres.			AVER.	AGR DISCHA	RGMS, CUBIC I	Fart
	No.	Name of Canal.						Donble	-cropped.	At I	lead.	Utiliz	⊭d.
Majon Works Protectice Works Nira Canal 11,186 15,748 25,248 3,481 3,467 14 375 1077 29*61 54*04	***************************************		Kharif.	Babi.	Total.	Flow.	Lin.	irriga-	age of Total	Kharif.	Rabi,	Kharif,	Rabi.
Protectice Works. 1,000 13,000 23,485 23,008 45 197 220 220 2240 2240 2240 2	1	2	3	4	5	6	7	8	9	10	11	12	13
Nira Canal			!										
Total 1.233 2.548 3.481 3.407 34 375 1077 2961 54'44		1		ļ								}	
Total		Mhaered Tank										184	249
Productite Works				·[29.61	P4.94	29.61	64.64
Hathmati Canal (a)		•••	11,100	15,748	26,934	26,875	59	375	1.39	•••	•••		
6 Lower Pánjra River Works 1,693 1,269 2,862 2,858 4 45 1:67 16:92 9:63 Weighad Tank 421 1,701 1,622 1,611 11 13 80 16:44 26:55 5 70 70 434 27 70:84 42:91 10:90	5	1	•			,	ļ ,					Ì	
Total Major Works State Major Works Total Major Works State Major Works Ma		nathmath Canal (a)	1,495	J,944	3,439	3,436	3	•••	•••	85.20	72.75	41.12	36.00
Total Major Works	6	Lower Pánjra River Works	1,593	1,269	2,862	2,858	4	45	1.57	16.92	9.63	16-92	9-63
Canal. C	7	Kádwa River Pálkhed Canal.				1,611	11					10.86	14.66
Second Prayers River Works—L4kt 133 202 334 523 11 18 539 21.94 19.99 19.99 Mutha Canals	i	Canal.		412		,	9	3	•56	3.09	5.36	2.47	4.03
Canala C	8	Pravara River Works-Lakk										4·85 20·47	5.09 18.10
10 Ekruk Tank	9	Matha Canala	7,462		8.138	8.078						Not avail	1
Total	1		·	3,13	5,100	,,,,,,		331	101	10002	10103	Allowed to	run into
Total 14,667 8,388 23,055 22,495 560 595 2:58 Total, Major Works 25,853 24,136 49,989 49,370 6191 970 1*94 Khárí Cut 3,109 17 3,126 2,672 454 107 3*42 18*56 4*22 Khárí Cut 15 55 70 70 0.70 0*68 Masva do 18 36 54 51 3 0.70 0*68 Masva do 18 36 54 51 3 0.70 0*68 Masva do 16 144 252 252 60 23*61 0*65 1*20 Canal. 108 144 252 252 60 23*61 0*65 1*20 Canal. 108 144 252 252 60 23*61 0*65 1*20 Canal. 108 144 252 252 60 23*61 0*65 1*20 Canal. 108 131 559 720 718 108 117 1*94 4*60 6*41 Mátoba do 866 791 877 866 11 17 1*94 4*60 6*41 Mátoba do 33 3 3 3 3 3 3 Shrisuphal do 313 559 720 718 2 2*46 7*25 Korgaon do 51 292 343 342 1 1*61 2*55 Ashti do 486 837 1,323 1,320 3 83 6*27 8*96 10*34 Lupler Man River Works 723 912 1,633 1,633 2 194 1*6 3*6 5*24 Chikhii Canal 133 705 493 1,198 1,185 13 6*4 5*34 4*13 6*72 Maini Tank 705 493 1,198 1,185 13 6*4 5*34 4*13 6*72 Maini Tank 705 493 1,198 1,185 13 6*4 5*34 4*13 6*72 Maini Macleri do 7337 737 3 4 1*16 3*46 5*24 Total 9 902 10,608 20,470 1*1915 5*55 5*55 4*19 Total 9 902 10,608 20,470 1*915 5*55 5*55 4*19 Provincial.		Krishna Canal				2,561						the Matcha 27:50	29:56
Total, Major Works 25,853 24,136 49,889 49,370 6191 970 1-94 MINOR WORKS AND NAVI- GATION. 12 Khárí Cut	ĺ	M-4-1								42.81	61.09	41.36	£9·03
MINOR WORKS AND NAYI-								595	2.58		•••	•••	•••
Carlow, Carl			25,853	24,136	49,989	49,370	619[970	1.91		***		
Hartála Tank 15 55 70 70 10 10 10 10 10 10	10	GATION.											
Masva do	13	Hartála Tank							-			18'90	3.32
Parsul Tank	15	Jámila Canala		36	54	51	3	•••	•••	0.70	0.68	0.50 0.70	0.86 0.63
Canal Shátodi Tank S6 791 877 866 11 17 1-91 4-60 6-41		Parsul Tank	108	144	252	252		60	23.81	0.62	1.20	33.63 0.65	35.66 1.20
Mátoba do.	- 1	Canal.		,		1,884		120	6.33	36.71	33.85	29-16	23.45
Rashrich Color C	19	Mátoba do.										4·60 9·67	6·41 8·73
Shadakal Add Shad	21	Shrisuphal do			3	3			•••	***	•••		
Ashti do,	23	Karaman da		523	836	836	•••	1		4.45	11.10	2·46 4·45	7·25
Upper Man River Works 723 912 1,635 1,633 2 194 11-86 3-46 5-24		Ashti do	486	837	1,323	1,320	3	83	6.27	8.96	10.34	1·61 8·96	255
29 Chikhli Canal		Upper Min River Works	723	912	1,635			- 1				6.55 1.88	679 3%1
Muchkundi Tank	28	Chikhli Canal	322									2·84 2·34	4:54 6:19
Nilgund do,	30	Muchkundi Tank			1,198	1,185	13	64	5.34	4.13	6.43	4.57	6.72
33 Dámbal do. 10 1144 39 1144 31 315 315 316 316 317 317 318 3		Nilgund do,	***	•••	***	1				1	***		::: ;
34 Medleri do	93	Démit 1	(10	15	6 49	3	ĺ	ſ	ſ	ι ,	l		.
36 Asundi do 5.6 357 933 931 2 3.46 5.86 357 9485 112 130 12 1.31 0.63 37 Mavinkop do 1.540 1.540 1.550 1.555 858 4.19	(14.1	124	21	145	13	l .			1	1	li	
37 Művinkop do { \frac{1540}{1540} \} { \frac{1185}{1540} \} \} \ \frac{1185}{130} \} \		A		f 46		931	2			3.46	5.86	All uti	skage
Total {	37		_	1 +185		130	12	•••	•••	1.31	0.63	in Can	
PROVINCIAL. 10 51		,		<u> </u>	1 +540				•••			<u> </u>	
00 (3.14) (1-1.14 (3.14)		•				19,915	555	858	4.19	•••			
39 Gokák Canal, 1st Section 3.550 914 4.461 4.370 94 16.92 93.13 1877													
[(+302) -7-2 -7-7 -7-7 -11 -11 -12 -13 -11	39	Gokák Canal, 1st Section	3,550	\$ \$914 \$ \$962	} 4,461	4,370	94		•••	16.92	23.13	Approximal	ately ;
GRAND TOTAL { 39,365 35,558 74,923 73,655 1,268 1,828 2.44		GRAND TOTAL {				73,655	1,268	1,828	2:44	•••			

E. Presidency, excluding Sind, during the year 1895-96.

ABBA IRRIGAT	TED POR CUE	IC FOOT PER S	ECOFD.	- Base to which the Dutie	S OF WATER ARD CÁLCULATED.	•
Discharged	at Head.	Uti	lized.			Remarks.
Kharif.	Rabi.	Kharif.	Rabi,	Kharif.	Kabi,	
14	15	16	17	18	19	20
					÷	
50·27 41·64	51•92 41·21	54·09 41·64	54·22 41·21	16th January to 15th October. 16th January to 15th October.	16th October to 15th January. 16th October to 15th January.	
		•••	•••			
17.49	26.72	36.36	54.00	1st June to 30th September.	1st October to 31st January.	(a) The discharge untilized was larger than that available during the kharif season
94.15	J31·77	91.35	131-77	1st April to 15th October	16th October to J5th January	because the water required was used from the Chandola Tank which was kept full,
25·59 37·54	45·06 76·87	38'77 46 '96	81·92 102·48	lst June to 15th October		while the supply received from head-work was at an
15·40 6·02	73·02 10·31	20·00 6·45	110·61 11·16		February. October to January.	average as per column 10, as water was taken from head- works only at times to fill
45.05	4.92	Not availab	 le.		16th October to 15th January	up the tank. *Besides this, the mamul
54.89	28.64	60-76	31.05	16th January to 15th October.	Do.	irrigation areas for kharif and rabi are taken as 39 and 282 acres respectively
40.00	23.00	42.00	25.00	15th January to 14th October.	15th October to 14th January.	in calculating the duty.
<u></u> -	<u></u>		***			
			***			•
180.55	3·5 3	164·50	5.12	July to October	November to February.	Beside this water was used
30·00 25·71 · 22·09 166·15	63.95 52.94 21.66 120.00	30·00 25·71 22·09 166·15	63°95 52°94 21°66 120°00		16th October to 15th January	for 242 acres of land assess
15.72	38·97 12 3·4 0	19·79 18·70	56·25 123·40	June to September	October to January.	
86.87	37.57	86.87	37:57	16th January to 15th Octo	16th October to 15th January	
53·25 70·34	81·24 47·12	53·25 70·34	81·24 47·12	ber.		
31.67 54.24 21.00	160.90 160.90	31.67 54.21 22.00	114·51 80·94 159·00	16th January to 15th Octo-	16th October to 15th January	•
209·00 95·00	374·00 192·00	355.00 272.00	239·00 379·00		15th October to 14th January	,
102.00	6·00 73·00	138·00 154·00	7·00 73·00	ber.		
Not know r		Not know	n. 	No experiment made.	No experiment made.	
171.00	72·00	h	•••		* ************************************	
159.00	43.00					
166.00	112·00 216·00	Not	known,	1 16th January to 15th Octo-	16th October to 15th January	Area on which consolidated assessment is levied.
		} `	•••			
٠.,						
210	81	210	81	16th January to 15th October	16th October to 15th January	are irrigated. The area of
•••	•••	.,.		•••••	*****	this is included in kharif, but must be added to rabi area to get duty of water.

Statement showing Incidence of Working Expenses and Assessed Water Revenue

		Average Discharge		WA	ER-RATE Asses	SBD.		Gross	
Ñο,	Name of Work.	of the year at Canal Head in Cubic feet per Second.	Occupier's.	Owner's.	Total Direct.	Indirect.	Total Direct and Indirect.	Gross assessed Revenue from all Sources.	Working Expenses, Direct and Indirect.
	Major Works.		Rs.		Rs.	Rs.	Rs.	Rs.	Es.
	Protective Works.								
1 2	Nira Canal Mhasvad Tank	213 35·84	86,786 12,570	***	66,786 12,570	•••	86,786 12,570	88,302 15,196	50,97 15,52
-	Total		99,356	100	99,356	***	99,356	1,03,498	66,80

	Productive Works.	-							
5	Háthmati Canal Lower Pánjra River Works	68 15:3 7	9,120 10,763	•••	9,120 10,763	6,788	9,120 17,551	10,419 18,396	5,76 7,99
	Waghad Tank, Palkhed Canal.	21.55	6,398	•••	6,398	594	6,992	7,108	1,31 5,73
7	Kádva River Ojhar Tambat Work Canal	4.23	2,185	•••	2,185	•••	2,185 1,062	2,194 1,067	1,11
8	Pravara River Works—Lukh	7·00 21·54	1,062 1,120	•••	1,062	···· J47	1,062	2,906	1,27
9	Mutha Canals	J51·47 30·85	J,77,641 12,291	•••	1,77,641	42	1,77,683 12,291	2,98,470 25,576	77,58
ĭ	Erkûk Tank Krishna Canal	44.74	38,465	***	38,465		38,465	39,976	12,08
	Total	•••	2,59,045	***	,2,59,045	7,571	2,66,616	4,06,145	1,38,8%
	Total, Major Works	***	3,58,401	1+4	3,58,401	7,571	3,65,972	5,09,642	2,05,6
	MINOR WORKS AND NAVI-								
	Khári Cut	9.71	14,854	•••	14,854		14,854	15,175	5,29
	Hartala Tank Mhasva Tank	0.68 0.68	154 230	•••	154 230	***	154 230	1,127 557	39
	Jamda Canals Parsul Tank	33·22 0·94	8,212 902	***	8,212 902	***	8,212 902	12,567 927	10,08
7	Pravara River Works-Ojhar Canal	3 1·57	6,189	···	6,189	76	6,265	6,847	14,2
8	Bhatodi Tank	4.86	3,271	***	3,271 8,971	1,351	4,622 8,971	4,988 9,087	8,93 3,01
0	Kasurdi	9.20	8,971 8	•••	. 8	•••	2,064	54	3,70
$\frac{1}{2}$	Shirsuphal do Bhádalvædi do	3.67 6.11	2,064 2,292	•••	2,064 2,292	***	2,292	2,237 2,299	2,69 1,90
3 4	Koregaon do Ashti do	1•85 9·31	850 3,977	•••	850 3,977	•••	850 3,977	890 4,545	3,9
5	Revári Canal	6.08	5,617	***	5,617		5,617	5,731	8,4
6	Upper Man River Works Yerla River Irrigation Works	3·25 7·78	6,664 9,067	*** .	6,664 9,067	•:•	6,664 9,067	6,750 10,449	6,43
8	Chikhli Canal	3.67	1,657	•••	1,657	•••	1,657	1,701	90
ő	Muchkandi do	4.30 Not known	4,725 82	•••	4,725 82	***	4,725 82	4,810 535	3,3:
$\frac{1}{2}$	Nilgund do Gadikeri do	•••	***	•••	***	1,987	1,987	1,987	1
3	Dambalj do	"1·18	150	•••	150	981	1,131	1,533	1,0
1 5 6	Medleri	1°27 4°07 1°14	522 2,273 437	•••	522 2,273 437	632	522 2,273 1,069	522 2,373 1,069	95 1,66 96
7	Mavinkop	1.14	1	***		1,857	1,857	1,863	. 18
	Total	***	83,168	***	83,168	6,884	90,052	1,00,618	82,0
l	Promoner								
	PROVINCIAL.								1
13	Gokák Canal, 1st Section, and Storage Works	20.02	10,907	•••	10,907	•••	10,907	21,950	6, 58
	GRAND TOTAL	40.	4,52,478	***	4,52,476	14,455	4,66,931	6,32,211	2,94,28

on Canals in the Bombay Presidency excluding Sind, during the year 1895-96.

Aron Irrigated during the gear 1895 99.	,	Working Exp	eksbe.	Occur	ier's Rate.	TOTAL V DIRECT A	VATER-RATE, ND INDIRECT.	
	Per cent. on Gross Bevenue.	Por Acre	Per Cubic Foot per Second of Discharge at Canal Head.	Per Acre irrigated.	Per Cublo Foot per Second of Discharge at Canal Head.	Per Acre irrigated.	Per Cubic Foot per Second of Discharge at Canal Head,	Bumares,
Acres.	Rs.	Rs.	Rs.	Re.	Rs.	Rs.	Rs.	il and a service management security
		·						
23,453 3,481	58 104	2·17 4·54	239 441	3·70 3·61	407 350	3.70 3.61	407 350	,
26,934	65	2.48		3.69	1	3.69		
		***************************************		,	•	. ,		
3,439 2,862	55·30 43	1.68 2.79	84·74 520	2·65 3·76	134·12 700	2·65 6·13	134·12 1142	
1,622	3976 81	3 54	266	3.94	297	4.31	324	
528 339	51 119	2•12 5• 75	264 182	4·14 3·13	517 152	4·14 3·13	517 152	h
334 8,138 2,589 3,204	363 26 60 30	31:55 9:53 5:97 3:77	489 512 501 270	3·35 21·83 4·74 12·00	52 1173 438 860	3·79 21·83 4·74 12·00	59 1173 438 860	
23,055	34	6.02		11.3	*****	11.5	*****	•
49,989	40	4.11	*****	7.17	*****	7.32	*****	. •
					* .			
3,126 70 54 1,472 252	34·92 35 201 80 117	1.69 5.63 20.76 6.85 4.29	545.73 571 1648 303 1149	4·75 2·20 4·26 5·58 3·58	1529·76 223 338 247 960	4.75 2.20 4.26 5.58 3.58	1529·76 223 338 247 960	
1,896 877 1,168	208 180 33	7·50 10·21 2·58	450 1842 328	3·26 3·73 7·68	196 673 975	3·30 5·27 7·68	198 951 975	
720 . 836 . 343 1,323	6974 120 85 91 86	1255·33 3•74 2•35 2·37 2·96	734 322 440 421	2.66 2.87 2.74 2.47 3.00	562 375 459 427	2.66 2.87 2.74 2.47 3.00	562 375 459 427	
1,224 1,635 2,607 377	60 77 61 57	2·83 3·18 2·46 2·56	570 1598 825 263	4.64 4.08 3.48 4.39	935 2050 1166 451	4.64 4.08 3.48 4.39	935 2050 1166 451	
1,198 20	69 55	2·77 15	Not known.	3·94 4·10	1099 Not known.	3·94 4·10	Not known.	
*337 49	10 ^{.0} 2 70 ^{.34}	59 22 41	1	***	*****	***	*****	* Area on which consolided assessment is levied.
*144 145	176.25	1 +5.68 6.34	931 724	3.65 3.60	152 411	6·01 3·60	983 411	† On total area of 193 acr
933 142	69·95 90·17	1·78 6·79	408 845	2·44 3·08	558 383	2·44 3·27	558 938	
*185 *540	9-99	2·95 0·34		•••	•••••	3.44		
20,470	81	4.01	*****	4.07	940	4.40	******	
4,464	29-84	1.48	328.92	2:47	551	2•47	551	• •
74,923 *1,206	46	3.93	*****	6.04	******	6'23	*****	,

III-E.

Statement of Quantity and Value of Crops irrigated in the Bombay Presidency, excluding Sind, during the year 1895-96.

	(1)		(2)		(5)		(6) Lower			(7) KÁD	OVA RIVER WORKS.				D	(8)		
	NIRA	CANAL.	MHASYAD TANK.		HATHMTI CANAL.		PÁNJRA RIVER WORKS.		Palkhed Canal.		Ojhar Támbat Canal.		Wadáli Canal.		PRAVARA RIVER WORKS—LÁKII CANAL		Muth	(9) Canals.
	Area irri- gated,	Estimated Value.	Area irri- gated.	Estimated Value.	Area irri- gated.	Estimated Value.	Area irri- gated.	Estimated ed Value.	Ara irri- gated.	Esti- mated Value.	Area irri- gated.	Esti- mated Value,	Area irri- gated.	Esti- mated value.	Area irri- gated.	Esti- mated Value.	Area irri- gated,	Estimated Value,
	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs,	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Re.
Cardons and Vegetebles Orchards Fruit and other trees	70 138	5,995 14,4 20	66 76	1,320 4 ,940	5	₄₀₀	34 486	662 24,647	20 29	700 1,595	34 4	490 220	1	35 55	14 19	291 1,755	167 708	6,386 1,40,123
цgагсан а ч	8,088	7,14,720	308	46,200	84	16,800	216	20,466	255	19,125	65	4,875	12	900	46	7,360	4,366	15,53,655
Coreals Wheat	2,422 20 181 110 10,051 27 4,547	47,865 225 2,876 1,095 2,43,650 435 36,870 220	538 27 111 111 1,490 34 33	16,140 270 2,220 1,110 22,350 940 330	480 87 1,387 95 91	14,400 2,175 69,100 2,850 2,730	789 1 33 87 4 1 52	11,041 20 611 1,056 42 4 518	462 33 2	13,580 990 16	97 1 1	2,910 10 	192	8,960 	31 2 63 59 20	1,085 40 1,260 1,357 840	268 23 875 22 83 24 1,835 28	11,753 861 7497 538 1,493 526 20,460 824
Caran, Udid, Mug Tur Peas Ground-nut Miscellaneous	712 13 1,443 1	12.620 215 85,460 5	196 2 374	1,360 40 18,700	1,006 	20,120	23 842 665	2,894 15,807	116 549 8	2,820 30,195 80	41 196 2	820 10,780 20	15 137	300 7,535	89 2	936	92 2 4 27 143	2,271 17 107 664 1,544
Folder Crops . Eucerne, &c	201 2	6,115 2 50	150	7,590			. 5 . 1	65 3	4		4	60	7	105	4	150	94 230	1,926 34,654
Fibres (Cotton Tág (Homp)	``` 2	·" 50		•••	•••	***	62 2	1,030	4	₆₀	•5	75	₂		8 2	800 60	***	•
Dyes	•	•••	•••	•••		•••	•••	•••		•••	•••		•••	•••		•••	•••	
Drugs and Nar- { Tobacco cotics { Bháng	1	550 	1	50	•••		•••	•••	•••	•••	**1	•••	•••	•••	2	176	2	60
Oil-aceds Mustard, Sesam Linseed, Castor-oil		55 10	1	20		 480	84 6	520 44	•••		•••		•••	•••	•••			256
Condiments Chilly and Onions Garlie, Turmeric and Methi	187	8 ,365 7 5	16 1	640 40	5 155	250 4,630	29 38	649 500	83 107	1,485 4,280	71 27	3,195 1,080	80	1,200	19 1	1,182 50	104	4,2 22 252
Miscellaneous	100	970	•••	•••	22	***	400	•••	***	,,,	<u></u>						21	•••
Land insufficiently irrigated		•••	•••	•••	***	•••	•••	•••						•••	R	•••	•••	
Total	23,153	11,82 940	3,451	1,23,870	3,439	1,34,085	2,862	80,946	1,622	74,766	528	24,545	339	14,140	334	16,442	H,13H	17,95,073
Area on which consolidated assessment is levied						•••											•••	* 2 %

	Eĸĸ	(10) ók Tank.		(11) VA CANAL.	(1 Кна́в	2) 1 Cut.	(1 Hartál	3) a Tank.	(1 Muasy.	4) A TANK.	Jámda ((1 PARSUL	6) Tane.	PRAVARA Works- Can	RIVER OJHAR	. (1 ⁶ Виаторі	S) Tank.	
	Area irri- gated,	Estimated Value,	Area irri- gated.	Estimated Value.	Area irri- gated.	Esti- mated Value.	Area irri- gated.	Esti- mated Value	Area irri- gated.	Esti- mated value.	Area irri- gated.	Esti- mated Value.	Area irri- gated.	Esti- mated Value,	Area irri- gated.	Esti- mated Value.	Area irri- gated,	Esti- mated Value.	
	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Acres,	Rs.	Acres.	Ľs.	Acres.	Rs.	
Gardens and (Vegetables Orchards, { Fruits and other trees	1 30	*** 3 80	40 10	800 200		300	1	 85		 1,2 2 5	46 74	448 3,901	 14	275	23 52	386 3,846	1 6	80 1,200	
Sugarcane	497	1,49,100	1,419	4,26,000	5	1,000	2	100	3	800	301	25,461	12	610	151	24,160	13	3,276	
Cereals Wheat	335 4	6,000 40 10,050 80 11,800 150	128 69 13 113 	3,080 2,760 314 3,692 526	2,607 92	100 78,210 1,380	50 1 1 2 1	752 18 8 35 8	30 	415 	594 53 13 56	5,953 497 120 563 	66 1 4 29	55 375	491 4 2 3°9 238	17, 65 240 40 7,780 4,046	123 431 1 	4,305 12,930 25 	
Pulses { Peas	6	975 120 17,220	27 1,246	530 24,920	***	•••	 1	55 30	6 	45 	59 16 8	564 94 24	43 1	365 38	4]2 9	9,888 450	153	3,672 5,040	XXXI
Fodder Crops { Fodder Luerne, &c	93 	1,960	45	1,128	•••	•••	***			•••	•••	•••	21	655	71	3,080	2	300	
Fibres Cotton Tig (Hemp)	•••	***	1	8	***	•••	7	165	•••		8 120	85 698		•••			•••	•••	
Dyes		.•••	***	•••	***	•••	•••	***	•••	<i></i> .	•••	•••	***				•••	***	
Drugs and Nar- (Tobacco Bháng	•••	•••		- 400	***	•••		•••	•••	***		10	•••	***	4 13	852 1,300	9 27	900 1,377	
Oil-seeds { Mustard, Fesam Linseed, Castor-oil	4	80	•••		•••	•••	***	***	•••		•••	•••	35	508 			8	 22 4	
Condiments Chilly and Onions Garlie, Turmeric and Methi.	87 53	3,045 [1,590	36 30	748 900	•••	***	1	12	2	150	93 - 20	2,271 77	2 13	19 174	26 5	1,000 250	5	808	
Miscellaneous	•••	•••	•••		11	•••	•••		•••	•••	10	•••	11	135			32	8,192	
Land insufficiently irrigated	•••	•••	•••		396	1,584		<u></u>		•••	•••				6			***	
	2,589	2,02,590	3,204	4,66,058	8,126	82,574	70	1,218	54	2,135	1,472	40,766	252	3,799	1,896	73,983	877	41,889	
Area on which consolidated assessment is levied		•••	•••	•••	•••	•••	**	•••	•••	•••	•••	•••	•••	•••	•••	•••	•••	•••	

		(19) Ba Tank.	Kásvar	O TANK.	SHIR	(21) SUPHAL ANK.	Bukt	22) SALVÁDI ANK.	Koi	23) trgaon nk.	Asur	24) I TANK,	Ravia	(26) I UANAL.	Urm	26) en Mán Works,	Year Jam	27) A RIVER GATION ORGE.	Ситкит	2R) I Uahal
	Area irri- gated.	Estimated Values	Area irrigated.	Estimato ed Value,	Area irri- gated.	Estimat- od Valuo.	Aron irri- guted.	Estimated ed Value.	Aren irri- gnted,	Katimated od Value,	Aren Irri- guted.	Katimate od Value,	Area- irri- gated.	Estimated ed Value,	irri-	Estimated od Value.	Area irri- tated.	Estimate ed Value,	Arca irrigated,	Estimat od Value,
	Aores,	Re	Acres.	Ilu,	Acros,	Ra.	Acres.	Rs.	Acres,	Ra.	Acres.	Ila.	Acres.	Rs,	Acres.	R.	Aeren	Rs.	Астен,	Ra,
Gardens and { Vegetables		315 2,934			19	18,090	1 12	185 5,630	1	40 100	2 19	80 1,000	8	60 450	4	100	6 20	60 1,000	•••	
Sugarcano	406	1,53,607			21	4,500	53	11,775	80	9,000	90	27,000	52	8,810	92	2,300	83	1,450	27	H,510
Cereals Cereals Cereals Cereals Chino, Ragl, Raia, Wara Bajri Aliacollaneous	28 60 104 1 308	6,511 1,114 1,212 1,561 12 7,710	· · · · · · · · · · · · · · · · · · ·	48 	268 11 22 163 1 83	8,650 170 1,105 5,120 15 1,235	100 8 131 1 892	3,515 85 6,695 10 9,275 	31 3 166	275 75 8,320	220 106 35 531 1 2	5,500 8,820 700 10,620 10 50 700	2	1,748 425 1,738 24 1,944	226 23 22 188 567 50 57	3,616 290 330 1,032 7,371 250 285 540	154 8 11 44 1,124 17 10 49	2,810 80 105 215 22,280 85 100 735	75 4 4 2	3.048 5.048 64 84 50
Pulses Cram, Udid, Mug	3	704 80 51 824			23	200	15	180	 jji	4,440	78 27 84	1,050 675 3,360	309 	2,616	97 287	2,296	149 930	1,490 9,500	9 JB6	2"0 1,710
Fodder Crops Fodder		23 40	•••	•••	•••	•••	3		•••		***		1	10		•				
Fibres Cotton Tág (Hemp)		***	•••	•••		•••			•••					***					·	
Dye n			,,,										•••		.,,	•••		•••		•••
Drugs and Nar- (Tobacco	i	,		•••				95		***	5	200		72	3		•••	•••	1	
Oil-scoils { Mustard, Fesam	1	***	•••	•••	"1		•••	•••	•••		•••	:::		:::			•••	***	•••	•••
Condiments (Chilly and Onions Garlie, Turmeric and Meth	14	443 128	•••	•••	17	1,585	24	6,960	8 10	320 450	40	1,960	8 12	876 480	28	488 20	22 B	500 60	47	1,600
Miscellaneous	•	•••	•••	•••	1	•••		•••		•••	.			•	4	•••	7	•••		•••
and insufficiently irrigated		•••		•••	,	•••				•						• • • • • • • • • • • • • • • • • • • •				
Total	1,168	1,76,723	3	48	720	41,025	836	45,625	843	18,070	1,828	68,025	1,124	21,917	1,635	20,976	2,607	89,770	377	15,638
Arm on which consolidated assessment is	1 1	***	***		,	***	•••			•		•••				•••				

XXX

	Ratea.	value.		yaiue.	ea.	v aiue.	gatea.	Yalue.	gatea.	v atue.	Raroa.	y aiue.	gated.	v aiue.	gated.	varue.	.			* ********
•	Acres.	Rs.	Acres.	Rs.	Acres,	Ra.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Es.	Acres.	Ra.
Gardons and { Vegetables Orchards. { Fruit and other trees	31 24	110 2,500	7 4	129 450	***	•••	18 7	450 220	18 39	810 4,843	70 1	5,545 93	69 2	5,195 250	•••	•••	57 38	912 2,850	776 1, 860	31,784 2,40,527
Sugarcane	53	8,480		•••	740	•••	3	172	***	•••	43	4,350	1	75	***	***	125	11,250	13,897	32,70,187
Wheat	82 4 10 1 131 5 48 5	3,280 100 285 20 4,192 75 480 125	6 1	60		 	 3	45	63	1,890 70 19	 254 6 8	7,620 125 124	 4 3 1	 112 55 15	•••		7 67 96 1,320 1,276 287 11	105 670 1,440 21,120 14,036 2,870 110	8,315 304 6,056 1,953 18,581 632 6,669	1,99,704 6,040 1,99,939 31,305 3,89,873 9,165 74,351 5,933
Pulses {Gram, Udid, Mug	244 8 499	4,870 50 9,980	1		•••	144 144 144 144		•••	·	•••	••• ••• •••	***	•••	•••	•••	••• ••• •••	146 110	1,898	3,720 56 389 7,874 187	69,616 1,147 3,625 2,52,466 1,973
Fodder Crops, { Fodder	57	1,675		• • • •	***	***	•••	•••	***	•••		•••			•••		***	***	865 236	25,147 35,247
Fibres { Cotton	•••	•••	•••		•••	***	•••	•••	2 14	50 290	2	43	·	***	***	***	97 49	. 703 . 735	122 200	2,384 2,009
Dyes	•••		·		***	•••		144		***		•••		•••	•••	•••	•••	, 		*****
Drugs and Tobacco Bháng	2	150	•••	•••	•••	•••	•••	•••	•••	•••	1 0 0 1 0 0	•••	•••		,	`. ***	***	`	57 40	3,109 2,67 7
Oil-seeds { Mustard, Sesam Liuseed, Castor-oil	• •••	•••	•••	•••	***	***		•••		***	· · ·	•••	148	•••	•••	·	6	60	305 83	1,479 793
Condiments { Chilly and Onions Garlie, Turmeric and Methi.	9 8	200 160	1		•••	***	3 15	225 823	3	120	10 536	300 16,065	19 43	570 1,290	•••		608 6	12,160 66	1,536 1,186	53,878 35,815
Miscellaneous	2	•••	•••	•••		***	141	***		100	***	***		•••	•••		218	2,180	439	11,477
Land insufficiently irrigated						•••		•••	1	•••	2	***	•••		•••		***	•••	413	1,584
Total	1,198	36,732	20	662	···	***	49	*1,440	145	8,092	933	84,280	142	7,562	٠	•••	4,464	74,925	74,923	49,63,324
Area on which consolidated assessment is levied			•••		337	•••	144	•••		•••	***	•••	185	•••	540		***	***	1,206	V1.104

^{*} Crops suffered much: therefore estimated value calculated according to the quality produced.

IV.— Comparative Statement of Irrigation and Rainfall for the years 1894-95

So.	Work supp	ying Irr	igatio n.	:		Civil Station.		Total Area of the Civil District.	Culturable area of the Civil District.	Cultivated area of the Civil District.	Culturable area com- manded be irrigation Works in Column 3
1		2				8		4	6	6	7
	MAJO:	s Wor		: :		1 11					
1 2	Háthmati Canal Khári Cut	***	***			Ahmedabad		2,443,565	1,961,838	1,889,163	11,83
- 4	Trust Out	•••	1	Total	•••			:		1,000,100	22,83
3 4 5 6 7 8	Nira Canal Mutha Canala Matoba Tank Kasurdi do. Shirsuphal do. Bhádalvádi do.	044 041 041 044	***		•••	Poons	•••	3,423,542	2,651,321	2,542,534	227,67 49,80 7,13 47 2,50 2,40
	,		,	Total	•	• •					289,98
9 10 11 12	Lower Pánjhra Rive Hartála Tank Mhasva do Jamda Canals	r Work	***	Total		Khándesh	•••	5,660,936	3, 608,962	3,031,9 00	12,62 52 4,07 40,18 57,41
13 14	Kadwa Biver Pa Works.	ighad Ikbed C bar Tab Idáli Ci	Tank Janal mbat C	•••	##- ##- ##-	Násik	•••	8,723,2 08	2,849,422	J,934,941	26,28 7,45 2,75 3,19
15 16 17	Pravara River Work Do. Bhatodi Tank		th Can ar Cane		***	Ahmednagar	•••	4,215,468	8,233,907	3,199,104	89,65 25,55 21,11 13,65
		:		Total			.	: •			60,34
18 19 20 21	Mhasvad Tank Ekrok do Koregaon do Ashti do	***	***	***	•••	Sholapur	••.	2,905,194	2,474,256	2,462,024	1,06,2 16,9 16,8
22 23 24 25 26 27	Krishna Canal Revári do Uppær Mán River W Yerla River Irrigatio Chikhli Canal Maini Tank	orks n Worl	*** *** *** ***	Total		Sátára	•••	8,087,619	2,235,850	2,278,334	139,98 26,43 3,63 7,61 10,68 1,47 4,61
3	Muchkundi Tenk Nilgund do.	•••	***	Total	•	Bijapur		\$,601,623	8,221,247	3, 170,761	54,48
0	Gadikeri Tank Gokák Canal, 1st Sc	ction	***	Total	***	Belgaum		2,984,206	2,357,356	2,279,296	5,41 Not known 17,63
2	Dámbal Tank	•••	•••	Total	•••	1			·	,	17,6:
345	Medleri do Madag do Asundi do		•••	Total		Dharwar	•••	2,940,668	2,419,736	2,321,330	1,0: 2,4: 1,8:
6	Mávinkop Tank	4+1	***	•••	,	Kánara		2,523,797	359,359	232,597	71
				Total		****		-1-20,121	26,961,814	25,341,954	. 698,29

E.
and 1895-96 in the Bombay Presidency, excluding Sind.

Culturable			Arna irriga	THE IN ACRES			RAIN	PALL.	
nren at present irrigable by works		1804-95.			1895-96,		1994-95.	1895-96.	REMARES.
Specified in Column 2.	Kharif	Rabi.	Total.	Kharif,	Rabi.	Total,			
8	9	10	11	12	13	14	15	16	37
Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Inches.	Inches.	
8,000 2,846	1,797 2,053	2,402 35	4,199 2,088	1,495 3,109	1,944 17	3,439 3,126	50.95 51.3 3	22·76 31·82	
10,846	3,850	2,437	6,287	4,604	1,961	6,565		1	
56,640 16,800 2,600 478	12,349 7,562 828 1	16,021 2,520 592	28,370 10,082 1,420 1	9,953 7,462 840	13,500 676 328 3	23,453 8,138 1,168 3 720	17.75 52.22 15.28 13.14	*23.83 32.14 17.57 22.21	*23°84 in the Comparative Statement of Irrigation and Rainfall issued under G. B. No. 101 W. I.—1230 dated 26th August 1896, is a clerical error. The
2,500 2,400	177	293	299	313	589 523	836	15 24 14 23	16·62 17·75	correct figures are : Kharif 19 63. Rabi 4 20
81,418	20,923	19,426	40,349	18,699	15,619	34,318			13-88
12,627 415 1,700 5,000	1,692 12 21 539	1,098 71 106 609	2,790 83 127 1,148	1,593 15 18 743	1,269 55 36 729	2,862 70 54 1,472	18·47 34·71 28·07 24·37	27.82 18.61 31.01 24.11	
19,742	2,264	1,884	4,148	2,369	2,089	4,458			
9,837 2,367 2,433 1,000	688 222 72 116	1,163 367 255 247	1,851 589 327 363	421 116 58 108	1,201 412 281 144	1,622 528 339 252	25·38 30·28 25·37	29·92 27·77 18·93	
15,637	1,098	2,032	3,130	703	2,038	2,741			
11,280 14,763 12,124	138 593 517	172 951 1,181	310 1,544 1,698	132 577 86	202 1,319 791	334 1,896 877	25·64 24·29 24·35	17:38 24:57 24:65	
39,167	1,248	2,304	3,552	795	2,312	3,107			
45,813 14,352 known. 14,476	1,207 1,830 85 645	3,019 1,462 306 814	4,226 8,292 391 1,459	1,233 1,671 51 486	2,248 918 292 837	3,481 2,589 343 1,323	15·71 20·18 23·10 21·70	27·78 31·09 43·95 29·55	•
74,641	3,767	5,601	9,369	3,441	4,295	7,736			
26,453 3,624 7,623 10,680 1,478 4,625	2,689 842 614 147 147 272	1,982 1,199 680 2,239 258 1,008	4,671 1,541 1,294 2,386 405 1,280	1,719 141 723 773 322 705	1,485 1,083 912 1,834 55 493	3,204 1,224 1,635 2,607 377 1,198	25.45 31.76 20.18 29.40 20.02 14.43	28·41 31·90 23·28 28·60 22·36 29·56	
54,483	4,211	7,366	11,577	4,383	5,862	10,245			
3,417	16		19	15 •••	5	20	17.87	12.58	
3,117	16	. 3	19	15	5	20			
337	†337	***	†337	†337	***	†337	28.53	23 67	† Areson which consolidated assessment is levied.
6,170	3,038	1,325	4,363	8,550	914	4,164	13.90	24.92	
6,507	†337 3,038	1,325	†337 4,363	†337 3,550	914	†337 4, 464		,	
4,525 1,052 2,188 1,800	98 †143 100 589 112	74 87 335 99 1185	172 1143 137 924 271 1185	10 †'41 121 576 }	39 21 357 46 1185	49 †144 145 933 142 †185	12°98 9°29 19°74 3°49	14·58 18·70 21·50 16·87	
9,565	†143 899	†185 545	†329 1,441	†144 806	†185 463	+329 1,269			
617	†192	•••	†492	+5±0		+510	No gange.	No gauge.	•
315,040	41,314 †972	42,923 †185	84,237 †1,157	\$9,365 †7,021	35,559 †.85	74,923 †1,206	23·13	24.51	

STATEMENT F.

Statement showing the Operation of Irrigation Works in the Deccan and Gujarát for the year 1895-96.

			um, 1895-96.	Rewiss	SEXONS.	Тота	.L.,		
No.	Names of Works.	Kharif, 1695-96.	Rabl, 1895-96.	Kharif.	Rabi.	Kharif.	Rabi.	Grand Total.	Вимансе.
1	2			5	8	7	8	•	10
-	Major Works, Protective Works,	Rs.	Rs.	Rs.	Rs,	Rs.	Rs.	Rs.	
1 2	Nira Canal Mhaswad Tank	51,889 6,637	34,897 5,933	***	***	51,889 6,637	84,697 5,933	86,786 12,670	
	Total	58,526	40,830	***	***	58,526	40,830	99,356	
5 6 7 8	Productive Works. Háthmati Canal	5,095 7,342 2,921 749 291 675 1,72,694	4,178 5,421 3,477 1,436 771 445 4,947		104	5,046 7,342 2,921 749 . 291 675 1,72,694	4,074 5,421 3,477 1,436 771 445 4,947	9,120 10,763 6,398 2,185 1,062 1,120 1,77,641	•
10 11	Ekruk Tank	9,585 31,402	2,706 7,063	***	***	9,585 31,402	2,706 7,063	12,291 \$ 8,465	
	Total	2,30,754	28,444	49	104	2,30,705	28,340	2,59,045	
	Total, Major Works	2,89,280	69,274	49	104	2,89,231	69,170	3,58,401	
	MINOR WORKS AND NAVIGATION.								
12 13 14 15 16 17	Khári Cut Hartála Tank Mhasva do. Jámda Canals Pársul Tauk Pravara River Works—Ojhar	19,457 43 158 6,602 326	52 111 72 1,610 576	4,655 	*** *** *** ***	14,803 43 158 6,602 326	52 111 72 1,610 576	14,854 154 230 8,212 902	
18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35	Canal	2,496 727 7,839 336 1,077 207 2,086 1,628 4,072 4,166 1,463 3,496 68 99 454 1,277 335	3,693 2,644 1,132 8 1,728 1,215 583 1,891 4,054 2,592 4,907 194 1,229 14 80 68 996 102	27 6 29 29	38	2,496 727 7,839 336 1,077 267 2,086 1,601 4,072 4,160 1,463 5,496 68 70 454 1,277 335	3,693 2,544 1,132 8 1,728 1,275 583 1,891 4,016 2,592 4,907 194 1,229 14 80 63 996 102	6,189 3,271 8,971 8,971 8,971 8,971 8,971 9,064 9,067 4,725 82 150 622 2,273 437 83,168	
	Total	. bs,472	29,451	4,717		03,755	29,413	69,108	
	PROVINCIAL.		1						
39	Gokák Canal, 1st Section, and Storage Works. GRAND TOTAL	8,690 3,56,442	2,334 1,01,059	4,663	142	8,573 8,51,559	2,334	10,907	

I-F.

Statement showing Water-rates per Acre in force during 1895-96 on Irrigation Works in the Bombay Presidency, excluding Sind.

			•	WATER-	DATES.				
No.	Names of Works,	Class I.	Class II.	Class III.	Class IIIA.	Class IV. Class V.	Rate;	Rate.	REMARKS.
	. ,	Perennial.	Eight months,	Four months.	Superior Rabi crops.	Monsoon dry, Special hot weather,	Occupier's	Owner's F	Water ad
1	3	8	4	5	6	7 / 8	g	10	12
-	Majob Works. Protective Works.	Rs.	Rs. c. p.	Rs. a. p.	Rs. a. p.	Rs. a. p. Rs. a. p.			
1 2	Nira Canal*	A. 15 B. 16 C. 12 Pangardens 16 10	4 8 0	2 4 0	•••••	1 0 0 6 0 0			* Revised rates sanctioned—vide Government Resolution No. 1 A. I.— 1, dated 2nd January 1895.
5 6 7 8	Productive Works. Hathmatl Canal Lower Panjhra River Works Kadva River Palkhed Canal Other Tambat Canal Wadail Canal Prayara River Works—Lakh Canal Within the Poons City and suburban Municipal and Cantonment limits or		†3 0 0 4 0 0 4 0 0 4 0 0 4 0 0	2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		1 0 0 6 0 0 1 0 0 6 0 0 0 8 0 4 0 0			† Rice flooding land is charged at Re. 1.
	Mutha Canals. Pan gardens wherever aituated throughout the canals. All lands commanded by	}A.{ 40 29 30	800	28.0	,,u.,	.1 8 0 6 0 0			t Revised rates sanctioned in Government Resolution No. 229 A.1.—1802, dated 11th October 1894.
10 11	both canals. Do. do. Ekruk Tank Krishna Canal	C. 12 12 25	4 0 0	2 0 0		0 12 0 6 0 0 8 0 0	water-rates.		
12 13 14 15 10 17 18	Misor Works and Navigation. Khári Cut Hartála Tank Hartála Tank Hartála Tank Jámda Canals Parsul Tank Pravara Rivor Canal†† Bhátodi Tank Matoba Tank Kásurdi Tank Kásurdi Tank Maria	14 10 10 16 (a) 8 (b) 10 12 (A. 25 B. 12 C. 10 Pán gar- dens 30 (A. 16 B. 12	7 0 0 4 0 0 4 0 0 4 0 0 4 0 0 4 0 0 4 0 0	5 0 0 2 0 0 2 0 0 4 0 0 2 0 0 (d)3 0 0 2 8 0	3 0 0	1 0 0 6 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0	As detailed undor water-rates	NII.	††Revised rates sanctioned in Government Resolution No. 110 Å, I, 607, dated 30th March 1895. (a) Up to 31st March 1895. (b) From 1st April 1895. (c) Up to 14th October 1895. (d) From 16th October 1895. (d) From 16th October 1895. (e) From 16th October 1895. (d) From 16th October 1895.
91 22 23 24 25 26 27 28 29 80 81 32 83 34 85 86 87	Bhirsuphal Tank**	C. 12 10 10 10 10 10 10 10 10 10 10	\$4 0 0 0 4 0 0 0 4 0 0 0 0 4 0 0 0 0 0 0	2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 12 0 4 0 0 0 2 0 0 0 12 0 4 0 0 0 12 0 12			§§ In force for 5 years from 1st April 1894 to 31st March 1899—nide Government Resolution No, 236 A. I.—1645, dated 18th October 1894. § From 15th June to 15th February. ¶ , 15th October to 15th June. a , 15th June to 15th Cetober. b , 15th October to 15th February. (1) In force for 5 years from 1st April 1893 to 31st March 1898—ride Government Resolution No. 91 A I.—741, dated 13th May 1893. (2) In force for 1 year from 1st April 1895 to 31st March 1896—ride Government Resolution No. 144 A I.—843, dated 31st May 1895. In force for 5 years from 1st April 1893 to 31st March 1896—ride Government Resolution No. 69 A. I.—566, dated 30th March 1898.
39	PROVINCIAL. Gokák Canal, lat Section, and Storage Works;	{ (a) 8	(b) 3 8 0 (c) 3 0 0 (d) 7 0 0	(e) 1 8 (c) (f) 2 8 (}	0 14 0 (3)6 0 0			(a) This is a special rate for sweet potatoes which require water for 10 months. (b) & (c) From 15th June to 15th February. (d) 15th October to 15th June. (e) 15th June to 15th October. (f) 16th October to 15th February. (g) 15th February to 15th June.

Fote.—(1) For lift irrigation half the ordinary rates are charged.
(2) Double the ordinary rates are charged as penal rates for taking water without permission.
(3) Leakage or percolation rates are the same as ordinary rates.

xxxviii .

STATEMENT G.

Statement showing Areas and Water-rate Assessments during 1995-90 according to the system of classification adopted in fixing the Scale of Water-rates.

her.	Same of Works.	Cliss I. Perenni		8 Mo	II.—	4 Mo	ASS NTHE-	SCPE R. Cr.	RIOB BI PS.	Class Mons Du	OON Y	WEAT	TAL REB.	MISC		Grand		Rewarks.
Number.			Lesess Dietal	Arone,	AMERICA	Arone	Assemb	Arene	A sneam,	Arcus	Arrent	Arcan	Approve	A result.	AMERICA	Aires	Amente.	
	Major Works.	Acres.	Rs.	Acres.	R5.	Acres.	Rs.	Acrea.	Rs.	Acres.	hs.	Acres	Ba.	Acres.	Ra.	Acres.	Rs.	-
1	Protective Works.	2.853	87,477	2,324	10,763	12,573	29.127	_		4,965	4,910	741	4.20:	4	21-	** AF9	\$46,746	
2	Minasvad Iank Total	3,241 4	3,5.3	+46	2,651	2,41%	5.79.			***	51	165	7.01c	. — 1	*	3,401	12,570	1
	Average rate		12*8		4-63		3.8:				1.00		5-5 ±	i	4-92	1	570	Ì
	Productive Works.									,					<u> </u>			,
6 6 7 E	Hathmati Canal Lower Fanjara River Works Kidva River Pikhed Canal Girar Timbat Canal Works Wasial Canal Pravara River Works—Lakh Canal Within the Poons City suburban Municipal and	2:7 -9 13 65	852 2.163 2.26 6.2 104 531	1,303 2-6 6:7 3:07 137 27	1.155	601	37			23 4 5 4 24	2 13 4 5 5 12	12	45% 56 64 24 49 15		50	8,439 1,300 1,422 635 244 354	4.5.6 6.39- 2.15 1.00	
е	Cantonnent limits or, within one mile of these limits. On all the remaining land commanded by both Canals. 'Pan' gardens wherever situated throughout the canals	3,196 11 694 1 A 31	9,235 3,793 801) 422	3,341	£15	2,424			1,520	2,259			12	\$97	8,135	1,77,042	
16 11	Ail lands commanded by both canals	B 6'3 1 C 353 1 515 1,480 3	0,377 4,161 6,0-3 9,955	768 1,476 5,411	3.053 7,061 23,177	699 157 5,357	1,497 574 11.697			410 2,013	529 2,659	11.	1,076 855 2,625		65		12,291 58,465	
	Average rate		2613		4*25		2*21				3:42		C os		8000	\ 	11.6	٠,
	MINOR WORKS AND NAVIGATION.																	
13 14 15 16 17	Ehiri Cut Hartala Tank Mhasya de, Jimda Canals Parsul Tank Pravara River Works (Ojhar Canal), Bhabdi Tank	27 (9)3 ; 54)	52 25 149 6,019 145 1,959 647 6,9-2	3,003 2 2 163 3 63 63	14,175 8 9 425 11 275 367	15 55 36 704 186 424 727	7: 1,44*		2,517	246 (5)	137 65 159	21	546 127 131		-	1.472 2.2	6,21: 6,21: 6,14	,4 1 ! !
12	Mitoba do	Pan	39	93	558	312	791			343	514	-	-	-		1,16:	6,97	
201344501-290134-554	Kisurii do. Shirsojasi do. Shirsojasi do. Shirsojasi do. Koregado do. Ashti do. Shoregado do. Shirsojasi do. Shirsojasi do. Spera Man River Works Yeria River Irrigation Works Nilgund do. Nilgund do. Satisseri do. Satisseri do. Metleri do. Metleri do. Asundi do. Mavink p do.	55 95 76 27	126 	17 24 119 164 415 5-2 1,6-9 246 5-68 9	64 96 237 697 2,159 2,277 4,311 97 2,268 34 2,468	51× 1•0 6:22 647	1,75 2,49 1,49 2,72 183 95 1		with the state of	106 225 3 242 2 107 81 8 52 	197 3×4 6 151 3 113 5 6 54	25. 52. 1(v). 55. 5	10 134 340 1,100 615 60		111	2 343 1.725 1.725 1.255 2.667 2.667 1.166	\$ 19 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	"In cludes Fell's in of Rs. 65. If No. 164. 6. Is a Francis we of Rs. 29 on account
	Total Average rate	1,791	14.2	5,741	29,517 4*38	8,489	20,162	547	3-15		1,729		3.424	!	2.7		#3,2 ·	bita anta;
23	PROVINCIAL. Goldk Canal, 1st Section, and Storage Works	1.4	2,611	169	2,745	1,735				1,350	1,20			_	_		\$10 A05	rect was fored fores of Accept or left Accept arrest fores yet accep- act fores
	Grand Total	12,838 2,5	51,240	15,74	60,203	20,951	79,443	6 ≥₹	2,617	10,0:7	10,757	1,51	11,5%	251	1,358		\$.40 TO	ter rate to the control of the contr
	Average rate		21-2		4:31		2-27		3.17		1 0.	-	. c -20	; ;	3.0		6-11	Lenchts Peters

Note —The difference between the fronts of total areas and resessments in this statement and three in Statements I.—E in IV—E is due to difference in treatment of the time of some cases, and in others to the first that the figures in this materials are more or less by judicial and are arrived at on the saturage on that tentain areas are assessed at certain rates.

STATEMENT H.

Statement showing Operations of the year 1895-96.

	Names of Works.	Amount of Estimate,	Capital Out and In	LAY, DIRECT DIRECT.		TH OP LUDED).		UNDER EARD.	Rain-	Dis- charge of canal	AR	BA.	Amount of gross	Realiza-	Working	Net	
	Manks of 110220,	Direct and Indirect.	During 1895-90.	To end of 189f-96.	Canal,	Distribu- taries.	Gross.	Irrigable at present.	Iu:s.	at head Cubic feet per . second.	Applied for.	Irrigated.	Assussment.	tions.	Expenses.	Revenue.	Remare,
	Major Works.	Rs.	Rs,	Rs.	Miles,	Miles.	Acres,	Acres.			Acres,	Acres.	Rs.	Rs.	Rs.	Re.	
	Protective Works. Nira Canal	*89,49,397 *27,81,496	55,503 26,621	56,51,480 20,72,506	- 96 60-25	132*46 84*00	274,447 129,045	56,610 45,813	23·83 27·78	2·13 35·84	17,438 3,178	23,453 3,481	88,302 15,196	86,884 15,794	50,978 15,822	35,906 25	*Includes Interes
	Total	1,17,33,803	82,124	77,23,986	156.25	166-46	403,492	102,458			20,616	26,934	1,03,498	1,02,678	66,800	35,878	
	Productive Works.																
	Hathmati Canal	. *8,57,392 *9,03,711	-557 2,605	5,17,838 4,61,469	21	80 45	44,744 13,117	8,000 12,627	22.76	68	3,592	3,439	10,419	11,520	5,762	5,758	fincludes 1.7
1	(Waghad Tank	7,01,730	86	4,49,690 2,36,533	 11	14.36	28,832	9.837	27.82	15·87 21·55	954 1,521	1.632	18,896 83	18,409 83	7,998 1,812	10,411 -1,279	Bagayat,
	Kadva River Works Paikned Canal Ojhar Tambat Canal Wadali Canal	*17,785 *63,461	420 931	7,852 30,286	4·50 8·62	•••••	8,055 3,486	2,367 2,433	20.02	. 4*23	470	528 839	7,108 2,194	7,118 1,586	5,739 1,118	1,879 468	2/
	Prayara River Works—Lakh Canal Mutha Canals	*7,60,764 *98,85,199	91,639	3,71,891 65,88,137	23	9·37 67	29,913	11,280	17.28	7.00 21.54	309 535	834	1,067 2,006	1,113 2,810	1,272 10,687	-159 -7,718	
1	Ekruk Tark Krishna Canal	*21,85,580 *16,60,896	******	13,40,386 8,61,892	88 48 63187		94,087 17,152 28,327	16,800 14,852 26,463	32.14	151.47 30.85	9,757 2,192	8,138 2,589	2,98,470 25,676	2,76,447 26,421	77,589 15,461	1,98,858 10,960	ĺ
l	Total	1,74,52,920	35,131	1,08,71,463	267.00	165.73	267,713	104,140	28.41	44.74	8,201 21,531	23,055	4,06,145	3,76,060	1,38,875	2,87,194	
	Total, Major Works	2,91,86,723	1,17,255	1,85,95,449	421.24	832*19	671,205	206,602			42,147	49,980	5,09,613	4,78,747	2,05,675	2,73,072	
	MINOR WORKS AND NAVIGATION.	1.78.680		1,81,848	23	7	17 900		01.00			0.100					
1	Hartála Tank	75,010	******	73,382 1,38,956	*****	5.50	17,300 584	3,000 415	31.82 18.01	9·71 0·69	2,068 86	3,126 70	15,175 1,127	11,886 1,159	5,200 394	6,087 765	
,	Jainda Canals	10,88,610	523	10,40,969	39	7 75	4,647 46,288	1,700 5,000	31·01 24·11	0.68 83.22	1,442	54 1,472	557 12,567	707 11.625	1,121	-414 1,543	·
,	Parsul Tank Pravara River Works—Ojhar Canal	3,48,211	2,664 26	2,16,754 3,30,275	19	4.75 21	8,837 23,724	1,000 14,763	18.98 24.57	0°94 31°57	227 2,436	252 1,896	927 6,847	1,160 5,458	1,080 14,218	70	1
,	Bhatodi Tank		*****	3,79,707 2,01,422	4.50	5·50 17	15,126 10,700	12,124	24.65	4'86	979	677	4,988	6,014	8,955	- 8,765 -2,941	
2	Kasurdi do	45,590	*****	45,590	*****	175	597	2,600 478	22·21	9.20	1,550	1,168	9,087 54	9,216 4 6	8,706	6,202 -3,720	
3	Bhrdalvádí do	2 28,721	803 8	2,21,568 2,27,122	*****	12.20 9.75	4,500 3,000	2,500 2,400	16·62 17·75	3·67 6·11	088 936	720 836	2,237 2,299	509 1,696	2,602 1,968	-2,183 -272	
5	Koreguon do,	8,34,927	*****	831,103	3·75 27·50	3	Not known. 17.882	Not known. 14.476	48'95 29'55	1:85 9:81	862 1.333	313 1,323	890 4,545	984 4.817	815 8.918	169 899	
7	Revari Canal		382 889	59,811 4,30,451	10·25 17·50	₩ 6.90	3,813 8,443	. 3,624	31 90 23 28	6.08	1.433	1,224	5,731	5,016	3,464	1,552	,
8	Yerla River Irrigation Works	. 7,27,708	8,160	6,94,411	28.60	4.00	11,234	7,628 10,680	28.60	8·25 7·78	1,567 2,386	1,635 2,607	6,750 10,449	6,410 12,647	5,193 6,418	1,217 6,129	
	Maini Tank	3,90,701	524	57,443 8,90,484	6.25 9.25	7.58	1,871 4,870	1,478 4,625	22·36 20·56	3.67 4.30	1,077	377 1,198	1,701 4,810	2,353 6,896	967 8,320	1,3×6 8,076	1
9	Muchkundl do		*****	1,58,707	5.20	2.25	5,570	8,417	12'59	Not known.	80	20	535	527	203	235	IAcres on whi
2	Nilgund do	9,022 9,238		9,027 9,279	***	Irrigat o r's	687	837	23.67	•••		1337	1,987	1,987	27 199	-27	consolidate
3	Dumhal do	64,906	434313	63,080		Channel. 827	4,595	1	14.58	1.18		1 40		-	l	1,788	loviod.
4 5	Medag do,	81,705	******	81,892 1,67,598	9	5.07	1,916	4,525 1,052	18.70	1.27	48 181	145	1,538 522	1,759 570	1,008	661 —850	
g	Asundl do	00.010		74,995	ש	4,00	2,851	2,188	21.50	4.07	917	938	2,378	2,147	1,660	467	
7	Mávinkop do		*****	30,847	*****	4.86 Irrigat o r's Channel.	. 1,800 872	1,600 617	16.87 No gange	1.14	109	{ 142 1185 1540	1,069 1,868	1,235 1,868	964 186	271 1,677	
	PROVINCIAL,	63,96,470	8,710	61,50,560	203.35	202.85	190,213	102,422	•••	/"	21,164	20,470 \$1,206	1,00,618	97,072	82,020	15,042	
0	Gokák Canal	*13,77,878	16,707	12,11,583	16-10	27.80	18,668	7,200	24.92	20.03	4,000	4,464	21,050	23,020	6,582	10,438	
-	GRAND TOTAL	3,69,61,071	1,42,691	2,50,66,591	643-69	562.84	680,080	816,224	24.54		67,311	74,928	6,82,211	5,08,839	2,04,287	8,01,652	
- }		1					220,000	,	22.03	""	01,011	11,206	U,UE,MII	0,00,000	-,02,00	0,00,000	

XX.

PART I.

MAJOR WORKS.

PROTECTIVE IRRIGATION WORKS.

(1).—NIRA CANAL:

On the 31st March 1895 the culturable area commanded by the distributaries in operation was 183,862 acres, the same as in the previous year, no fresh area having been brought under command.

2. The total area irrigated during the year was 23,453 acres.

Area irrigated.

The following table gives a comparison of the figures of the previous five years with those of the present year:—

	Years.	`	Kharif.	Rabi.	Total.	Water-rate Assessment.
,			Acres.	Acres.	Acres.	Rs.
1890-91	***	•••	8,920	7,993	16,913	36,226
1891-92		•••	9,595	19,268	28,863	66, 3 9 0
1892-93	•••		11,104	7,142	1 8,246	60,036
1893-94	•••		13,556	10,947	24, 503	83,703
1894-95	• ••		12,349	16,021	28,370	90,864
1895-96,	•••	•••	9,953	13,500	2 3,453	86,786

- 3. The total area irrigated was 4,917 acres less than in 1894-95. The kharif season showed a decrease of 2,396 acres again, chiefly due to a reduction in the area of sugarcane. The rabi season showed a decrease of 2,521 acres, due to there being rain at more favourable times than last year. The explanation given in paragraph 3 of the report on the Mutha Canals regarding the reduction in area of sugarcane applies also to the Nira Canal.
- 4. The excess of the measured area over that applied for, as shown in the following table, was 6,015 acres. The difference is due to the fact that the cultivators are in the habit of entering in their applications only the minimum area that can be charged for, and irrigating much more. Measures are being taken to check this:—

	Season and y	ear•		Applied for.	Irrigated.	Difference more.	Percentage of difference on area applied for.
	Kharif.			Acres.	Acres.	Acres.	
1894-9 5 1895-96			•••	11,039 8,639	12,349 9,953	1,310 1,314	•••••
	Rabi.	1.1					
1894-95 1895-96	•••	•••	•••	9,933 8,799	16,021 13,500	6,088 4,701	
	m	1894-95	•••	20,972	28,370	7,398	35.28
•	Total	1895-96	•••	17,438	23,453	6,015	34.49

^{5.} The rainfall during the rabi season was scanty but fell at favourable times. The kharif rain was good. The comparison with the previous two years is as follows:—

	Yea	re.		Kh	swif.	Ra	bi.	To	tal.
				Ins.	cts.	Ins.	cts.	Ins.	cts.
1893-94	•••	•••		10	20	5	63	15	83
1894-95	•••	***	•••	13	62	4	13	17	75
1895-96	***	•••	•••	19	63	4	20	23	83

The following table shows the total rainfall of the kharif and rabi seasons at different stations along the canal:—

Statio	ons.				1895	5- 9 6.	•		Avera	788	Remarks.
			Kh	arif.	Ra	bi.	To	tal.		500,	
			Ins.	cts.	Ins.	cts.	Ins.	cts.	Ins.	cts.	
			15	09	5	73	20	82	23	10	Average of 11 years.
Wadgaon	••	•••	17	03	4	93	21	96	23	94	Do.
Pandhara	••	•••	18	90	4	14	23	04	23	01	Do.
Bárámati	•	•••	_	71	4	00	22	71	22	86	Do.
Sansar	•	•••	16	24	5	04	21	28	23	70	Do.
Haturna		•••	19	78	3	28	23	06	24	59	Average of 9 years.
Nimbgaon	•	•••	19	82	2	28	22	10	22	09	Do.
Bávda	••	•••	31	45	4	2 5	35	70	24	30	Average of 4 years.
	Total	•••	157	02	33	6 5	190	67	187	59	
	Average	•••	19	63	4	20	23	83	23	45	
Virwadi bunga	alow	•••	13	00	4	63	17	63	21	08	Average of 11 years.
Indápur		•••	22	57	5	87	28	44	25	17	Do.

- 6. The first flood in the Nira river did not occur until the 8th August and water was not drawn off from the Bhátghar reservoir until the 19th November 1895. Water was successfully stored to $4\frac{1}{2}$ feet above weir crest, giving a storage of 4,600 millions of cubic feet of water, which proved largely in excess of requirements.
- 7. The monthly average discharge at the head of the canal is given below.

 Discharge.

 The first column shows the average struck on the number of days the canal was actually open, while the second column gives the mean average discharge for the month ascertained by dividing the total quantity of water by the number of days in the month:

1	Conths.	Average actual discharge taken on number of days.	Mean discharge taken on full number of days in month.	
April	•••	•••	154	129
Мау		-840	196	152
June	. •••	100 .	141	117
July	•••	•••	270	270
August	•••		279	279
September	***	•••	197	118
October	***	•••	214	159
November	***		261	174
December	444	•••	278	278
January	•••		239	239
February	•••		181	131
March	•••	•••	157	127
	•	•••		
	Total	•••	2,567	2,173
Mo	athly Average	•••	214	181

8. The working expenses, including direct and indirect charges, amounted to Rs. 50,978.

The following table shows the comparison between the working expenses of 1894-95 and 1895-96:—

,	Main-	Establishment.		Tools	Refunda	Leave and	Share of		
Names of Works.	tenance and Repairs.	Executive.	Direction.	and Plant.	of Revenue.	Pension Allowances.	Collection Charges.	Total.	
1894-95.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs	Rs.	Rs.	
Nira Canal	24,240	17,067	4,633	608	∍37	3,038	• 4,002	53,625	
1895-96.								•	
Nira Canal	18,661	22,382	1,750	538		3,378	4,269	50,978	

The decrease in expenditure is due chiefly to the pay of Inspectors and Pátkaris being charged to "Establishment" instead of to "Works" as formerly. With 96 miles of main canal in operation, this gives a rate of Rs. 531.02 per mile, and it includes the maintenance of 132 miles of distributaries. The cost of maintenance per acre irrigated was more than last year owing to the area under rrigation being less this year, the rate being Rs. 2.17 against Rs. 1.89 in the revious year. The working expenses included a sum of Rs. 1,952 for special repairs, which consisted of strengthening the banks by puddled earth cores in places where they were found to be unsafe or leaky, due to the nature of the soil of which they were originally made.

- 9. The gross revenue from all sources amouted to Rs. 88,302, made up of
 Rs. 86,786 for water-rates assessed on the total irrigated area of 23,453 acres and Rs. 1,516 from other
 sources. The rate of assessment thus works out at Rs. 3.70 per acre against
 Rs. 3.20 of the previous year. Deducting Rs. 50,978 for working expenses and
 Rs. 169 for remissions sanctioned during the year, from the gross revenue,
 Rs. 88,302, the net revenue was Rs. 37,155, or Rs. 1,933 less than that of the
 previous year.
- 10. The expenditure on plantations was Rs. 1,334, including Rs. 558 for plantations at head-works shown in the monthly accounts as expenditure under the head Miscellaneous. An expenditure of Rs. 255 was also incurred against Capital Account on demarcating and on planting babul trees along the canal. The receipts from plantations amounted to Rs. 403. The trees were not counted during the year.
 - 11. The cost of measuring the irrigated area was Rs. 1,820, giving a rate of 1 anna and 3 pies per acre against 1 anna in the previous year.
- 12. The figures in Statement I—E showing the duty of water during the hard put of water.

 Barbarage at the head of canal for the two seasons, but give no guide to the actual quantity of water required for any given acreage of a certain class of crops. The duty of water for the whole discharge of the canal for special periods has not been taken this year owing to misunderstanding on the part of the Baramati and Nimbgaon sub-divisional officers.
- 13. During the year special experiments to ascertain the quantity of water consumed by wheat and ground-nut crops were carefully carried out. The water gauging for these was carried on, under the personal supervision of the sub-divisional officer, by means of a triangular notch at the field in question, the supply being kept regular by means of the head regulator of the distributary from which the water was drawn.

The results of	each	experiment are	tabulated	below:-

Area under command.	Number of waterings.	Total quantity of water given.	Average of watering.	Period of irrigation.	Duty per cubic foot at field.	Outtura.
A. g. 1 3 Khapla wheat 1 23 Ground-nut		Cubic feet. 63,055 92,580	Cubic feet. 9,008 23,145	Days. 83 134	Acres. 122 197	Lbs. 2,652 5,360

14. The duty on the distributaries, water being gauged at the head of the distributary, is shown in the following table. The results however, in the absence of special establishment to record the discharges, must be considered only approximate:—

	Quantity of	ł	The duty-	DETAILS OF CROPS WATHERD.				Total		
Number of Distri- butary,	water passed between 10th December 1895 to 10th January 1896.	Acres,	of water	Perennial.	Eight months.	Rabi 2-4,	Rabi 4-8.	Total.	Number of days open.	REMARES.
No. 8 No. 13 No. 16		224 383 317	Acres. 159 381 236	Acres. 109 103 13	Acres. 3 .21	Acres. 102 260 274	Acres. 10 20 9	Acres. 224 383 317	17 23 21	Almost all perennial crops were ripe and very little water was requir- ed.

- 15. The total area under command was 183,862 acres, and of this 5.41 per cent. was irrigated during the kharif season and 7.34 per cent. during the rabi season.
- 16. The most noticeable feature of the year was the continued decrease in sugarcane plantation, the cause being as explained in para 3. of the report on the Mutha Canals. The eight and four months crops area is a good deal less than in the previous year owing to opportune rainfall. During the year the depth of water admitted into the canal was 6.25 feet, and under this depth the banks stood well, except in those parts of the leaky and high banks of the Kara and the Nimbori, which had not yet been strengthened and made water-tight by puddle hearting. This work was however practically completed during the year.

Several portions of roads available for the transport of produce which had been damaged by canal leakage were put in repair and by degrees others will be taken in hand.

(2).—MHASVAD TANK.

The rainfall for the year under report was 27.78 inches (kharif 22.73 and rabi 5.05 inches) against 15.71 inches of the previous year (kharif 11.29 and rabi 4.42 inches), and was seasonable.

- 2. The lowest water level in the tank was R. L. 1,920.35 prior to replenishment.

 Replenishment.

 1. 1,920.35 prior to replenishment, with a depth of water over the sill of canal sluice of 5.15 feet. The tank commenced to fill from 28th of May 1895. On 15th September 1895 the cut in the waste weir began to overflow, and continued to do so till 15th November 1895.
- 3. The area irrigated during the year was 3,481 acres (kharif 1,233 and rabi 2,248) against 4,226 acres of the previous year (kharif 1,207 and rabi 3,019). The area applied for was 1,195 acres and 1,983 acres of kharif and rabi respectively, the excess of area applied for over area actually irrigated being due to the cultivators being ignorant of the areas of their fields.

4. The assessment on account of water-rates amounted to Rs. 12,570 against Rs. 13,869 of the previous year. The gross revenue from all sources was Rs. 15,196 against Rs. 16,134 of the last year. The decrease is due to less area irrigated under "Rabi" during the year.

Comparison with previous years.

5. The figures of the previous years since the opening of the canals are given in the following statement:—

Years.	Years. Kharif.		Rabi.	Total.	Water-rate Assessment.	Gross Revenue from all sources.	Working Expenses.
Applications of the Board Control of the Control of		Acres.	Acres.	Acres.	Rs.	Rs.	Rs.
1886-87		617	727	1,344	1,030	1,825	11,812
1887-88		1,717	2,144	3,861	5,897	6,883	15,618
1888-89		2,965	3,139	6.104	12,733	12,875	13,269
1889-90		4,074	2,718	6.792	14,969	16,327	12,285
1890-91		4,081	3,025	7,106	13,541	14,241	12,729
1891-92		3,514	4,760	8.304	25,457	26,101	12,633
1892-93		3,561	1,436	4,997	19,997	20,613	15,121
1893-94		3,907	1,376	5,283	21,492	22,490	22,060
1894-95		1,207	3,019	4,226	13,869	16,134	28,460
1895-96	•••	1,233	2,248	3,481	12,570	15,196	15,822

There was an increase of 26 acres in kharif and a decrease of 771 acres in rabi as compared with the previous year. The decrease was due to favourable rainfall during the rabi season. The incidence of water-rate per acre irrigated was Rs. 361 against Rs. 328 of the previous year.

- G. The rainfall over 480 square miles of catchment area of the tank was gauged at five stations. The average rainfall from 1st June to 31st October 1895 was 23.99 inches, which gave 26,752 million cubic feet of water on the catchment area of the tank. The run-off is calculated to have been 0.088 of the rainfall from 1st June to 31st October 1895, and 0.144 of the rainfall from 1st June to 15th September 1895, on which date the cut in the waste weir began to overflow. The supply in the tank at R. L. 1,934.20 (level of cut in the waste weir), or 18.50 feet above the sill of the canal sluice, was sufficient to meet the requirements of irrigation during the year. As there was not sufficient water in the tank at the commencement of the rains, water applications for dry and wet kharif crops were not admitted till the end of July 1895. The waste weir is being rebuilt the remaining 2 feet during the current year (1896-97), and it is hoped that the water-supply thus increased will lead to improvement in revenue.
- 7. The working expenses, including indirect charges, amounted to Rs. 15,822. The expenditure on maintenance and repairs amounted to Rs. 6,693, inclusive of certain special repairs. The charges on account of raising the waste weir 2 feet high were Rs. 2,273, which are also included in the working expenses. The total length of canals, including branch canals and distributaries, is 94 miles, which gives a charge for maintenance and repairs at Rs. 71 per mile against Rs. 62.68 of the previous year. The increase is due to the special repairs referred to above, which cost Rs. 1,100.

Measuring charges.

8. The area irrigated was measured at a cost of Rs. 840, which gives a rate of annas 3 and pies 10 per acre irrigated.

Duty of water.

- 9. No special experiments were made during the year on this tank to ascertain the duty of water.
- 10. No new plantation was made during the year. It is proposed in future to divide the tank contour into 30 blocks, and when they are well grown with babul and other trees,

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to sell one block annually for clearance. The cleared block will be ploughed up and sown with bábul seed broadcast, immediately after clearance; the same system will be adopted for canal plantations, as far as practicable.

The number of trees above and below 5 feet in height on the tank and canals at the end of March 1896 were as under:—

	Names	Above 5 feet.	Below 5 feet.			
		•	`	1	No.	No.
Bábul	•••				11,984	6,171
Nimb	•••	•••		•••	847	922
Mango	•••			•••	458	173
Tamarind					. 9	16
Sandal		•••			4	12
Bori	•••	•••			496	478
Guava	•••	•••			20	1
Shindi	•••	•••			30	5
Miscellane	ous	•••		•••	3,853	463
					17,701	8,241
			Total	,	25	,942

Evaporation and absorption. 11. The following figures show the storage and the loss of water by evaporation and absorption:—

•				Millions of Cubic feet.
Volume of water in the tank on 31st Marc Quantity received into the tank up to date	613.85			
flowed over the cut in waste weir	***	***		1,867.97
				2,481.82
Balance in tank on 31st March 1896	nala and	lackara	993-26	
Quantity of water discharged through ca (measured)	···		1,239.68	2,232.94
Loss due to evaporation and absorption	•••	•••	•••	248.68

PRODUCTIVE PUBLIC WORKS.

(5).—HA'THMATI CANAL.

The rainfall was 21.80 inches in the kharif and 0.96 inches in the rabi season, against 50.74 and 0.21 inches respectively during the previous year, the average of the last five years being as follows:—

				lus.	Cts.	
Kharif	•••	•••	•••	37	77	
Rabi	•••	•••	***	0	63	

2. The areas irrigated are compared with those of 1894-95 in the table below:—

		Kharif.	Rabi.	Total.
		Acres.	Acres.	Acres.
1804-95	•••	1,797	2,402	4,199
1895-96		1,495	1,944	3,439

Assessments.

3. The assessments were as follows:—

		Kharif.	Rabi.	Total.
		Rs.	Rs.	Rs.
1894-95	•••	5,637	4,900	10,537
1895-96	***	5,046	4,074	9,120

4. The decrease in the areas irrigated and in the assessments both for the kharif and rabi crops was due to insufficient supply in the canal consequent on scanty rainfall. It is to be noted that the unfavourable monsoon did not increase the area of kharif irrigation. As pointed out at page 8 of the Revenue Report for the year 1893-94, the area irrigated seems now to depend on the discharge available in the canal, and not on the scantiness of the rainfall during the monsoon. As suggested in the report for the year mentioned, this is a healthy sign showing that the cultivators now look steadily to the canal for the production of kharif crops.

Remissions.

- 5. Of the total of Rs. 153 shown in the accounts as remissions, Rs. 43 were on account of free grants.
- 6. The amount of outstanding balance at the close of the year for the kharif season was Rs. 837-12-0; out of this the following recoveries have been made:—

Area applied for.

7. The areas applied for and irrigated were as under:—

		. •	Kharif.	Rabi.	Total.	
			Acres.	Acres.	`Acres.	
Applied for	* ***	•••	1,308	1,284	2,592	
Irrigated	•••	***	1,495	1,944	3,439	

The difference is due to the inability of cultivators to state exactly what areas they will irrigate, and also to the fact that lands within 200 yards of the canal, which benefit by percolation, are assessed, no applications for water being, from the nature of the case, necessary for them.

8. The miscellaneous revenue realized during the year amounted to Rs. 1,299 against Rs. 1,196 in the previous year.

9. The areas irrigated were measured by the ordinary establishment employed on the canal (charged to Revenue Establishment) at a total cost of Rs. 141 or 8 pies per acre irrigated, against 6 pies per acre during the previous year as shown below:—

Үевгэ.	Cost of Establishment debited to Revenue management.	Percentage the Cost bears to the gross asssessed Revenue.	Incidence of the Cost per Acre irrigated.	Remarks,
1894-95 1895-96	141	1·20 1·35	Rs. a. p. 0 0 6 0 0 8	•

10. The percentage of revenue establishment on assessed revenue and the incidence of cost per acre irrigated are a little higher than those of the previous year, and are due to the decrease in the areas irrigated and revenue assessed.

[•] Includes Rs, 5-4-0, amount received in excess to be refunded as per Treasury Officer's report.

Average water-rate.

11. The average water-rate per acre irrigated during the year was Rs. 2.65 as compared with Rs. 2.50 during the previous year.

Working expenses.

12. The working expenses of the year as compared with those of the previous year were as follows:—

Years.		Extensions and Improvements.		Establishment, including In- lirect Charges.	Tools and Plant.	Total,	
				Rs.	Rs.	Rs.	Rs.
1894-95	•••		•••	4,831	1,750	6	6,087
1895-96	•••	•••	,,,	3,666	2,029	67	5,762

- 13. The rate per acre irrigated was Rs. 168 for the year under report against 145 in the previous year—an increase of 0.23. The average amount spent on silt clearance from the commencement, including the year under report, was Rs. 575, or Rs. 11.27 per mile on the total length of 51 miles of the canal and distributaries.
- 14. No reliable data can be given regarding the duty of water. The canal has been gauged for a series of years and the result shows that about 50 per cent. of the water is lost by absorption and evaporation in the first ten miles, where there is practically no irrigation; thus the average discharge gauged at the head during the kharif season was 85.50 cubic feet per second; out of this only about 43 cubic feet per second reached the first distributary; on this discharge the duty works out to 35 acres per cubic foot of discharge against 58 acres in the previous year. In the rabi season, the average discharge at the head for the year was about 72 cubic feet per second, the area irrigated being 1,944 acres; allowing the same percentage for loss by absorption, the result is 54 acres per cubic foot as against 77 acres for the previous year.

Sugarcane.

15. The following table compares sugarcane cultivation for the past three years:—

Acres, 1893-94 17 1894-95 38 1895-96 ... 84

The increased area of sugarcane cultivation is a very favourable feature.

(6).—LOWER PA'NJRA RIVER WORKS.

These works have been in operation for 24 years.

Gross and irrigable area.

2. The gross area under command is 13,117 acres, of which the area irrigable at present is 12,627 acres.

3. The source of supply of water is principally the Pánjhra river. If the natural supply of the river falls short of requirements, it is supplemented from the Mukti Tank storage. During the year under report the river supply was found deficient

for 46 days in the hot season, for 6 days in the monsoon, and for 14 days in the rabi season;

Total 66 days.

4. The available storage in the tank at the commencement of the year was

237.56 million cubic feet, which, after being drawn
upon for 46 days to the extent of a daily discharge
varying from 25.37 to 7.50 cubic feet per second, fell to 138.16 million cubic

feet before the tank had its first replenishment on 19th June. It filled on 21st September 1895 At the close of the year the storage in the tank was 252.96 million cubic feet.

- 5. The area irrigated during the year amounted to 2,862 acres. Of this, 1,762 acres are classed as bágáyat, with a consolidated assessment for land and water, while the balance is classed for land only, separate water rates being charged. Of the káyam bágáyat, 2 acres were lying fallow at Nimkhedi.
 - 6. In the following table the year's irrigation is given by seasons:-

		Kharif.	Rabi.	Total.
		Acres.	Acres	Acres.
Mámul bágáyat la Dry crop land	nd	 1,059 534	703 566	1,762 1,100
•	Total	 1,593	1,269	2,862

The area of mamul bagayat is fixed under the settlement, but the remainder of the area under irrigation fluctuates according to the nature of the rainfall and the inclination and means of the irrigators. During the year under report there was an increase of 72 acres in the latter class of irrigation, due to extended cultivation of sugarcane, wheat, and ground-nut.

7. In connection with the mamul bagayat of the Mudhi and Mandal villages the anomaly resulting from the operations of the revision survey, referred to in paragraph 7 of the last year's report, still remains unsettled.

Rainfall.

8. The rainfall during the year was gauged at two stations in the tank catchment, and is recorded as under:—

Kharif.		
	Rabi.	Total.
Ins. cts.	Ins. cts.	Ins. cts.
30 90 22 89	" 1 85	30 90 24 74
53 79	1 85	55 64
26 89	0 93	27 82
_	ns. cts. 30 90 22 89 53 79	ns. cts. Ins. cts. 30 90 22 89 1 85 53 79 1 85

the total being 51 per cent. in excess of the quantity gauged at the dam site in the previous year.

· Classification of area irrigated.

9. The following is the classification of the areas irrigated outside the bágáyat limits during the year according to the rates levied:—

	,			Kharif.		. Ra	ıbi.	Total.	
			-	1895.	1894.	1895.	1894.	1895.	1894.
1 Perennial 2 Eight months 3 Four do. 4 Monsoon 5 Hot weather		•••	•••	216 296 13 9	201 234 1 17 10	2 564 	10 3 552 565	218 296 564 13 9	211 237 553 17 10

Gross revenue.	10. T Rs. 18,396	he ye as unde	ar's asses	ssmen	ts	amounted	tō
	200, 20,0		- •			Rs.	
On old irrigation of On new irrigation	r káyam bágáy	at land	•••		•••	13,036	
On new irrigation	or "dry crop"	land	•••		•••	4,515	
Miscellaneous	•••	•••	•••		•••	845	
	•			Total	•••	18,396	

as compared with Rs. 17,759 of the previous year. The increase of Rs. 637 was due to more irrigation of "dry crop" land especially in the kharif season.

11. The average rates per acre were :-

		•			Ks.	a.	p.	
Old irrigation	***	•••	•••	•••	7	6	5	
New irrigation	***		•••	•••	4	1	8	
=				_	_		_	

12. There were no remissions during the year.

13. The realizations amounted to:—

-				Rs.
Water-rates on old irrigation		***	•••	6,248
Irrigation share on land revenue		***	•••	6,788
Water-rates on new irrigation	***	•••	•••	4,527
•	Tot	tal water-rates		17,563
Revenue from other sources	***	•••	***	845
		Total	•••	18,408
•				

14. The unrealized balance of assessed water-rates is Rs. 58 only, in addition to the rabi assessment of Rs. 1,147, which was sent for realization after the close of the year under report. Measures are being taken to effect the recovery of the sum of Rs. 58 remaining unrealized.

Areas applied for and irrigated.

15. The following table contains a comparison of the areas for which applications for water were received and the areas actually assessed:—

1			Kharif, Rabi.		Total.	
Applied for Assessed	 Difference	•	Acres. 478 534	Acres. 476 566	Acres. 954 1,100	

The difference is due mostly to the "jiráyat" portions (i. e. portions classed as 'dry crop') of the "káyam bágáyat" (i. e. land classed as permanent garden land) in Mudhi and Mandal, which are watered without applications. The cause of this has been explained in previous reports.

- 16. The cost of measurement of crops irrigated in dry crop land during the year was Rs. 36-11-1 against Rs. 41-12-8 of the previous year, and the rate per acre 6 pics against 8 pies.
- 17. The working expenses of the year amounted to Rs. 7,998 against Rs. 8,569 last year. These being deducted from the gross assessed revenue, the year's net earnings amount to Rs. 10,398.
- 18. No special observations of the duty of water were taken during the year.

Evaporation and absorp-

19. The following figures represent the calculated loss by evaporation and absorption from the Mukti tank, after making deduction for leakage gauged below the dam:—

Kharif Season—
 April, May and June, 70 days... 2.18 feet.

Rabi Season—
 November-December 1895 and January 1896, 92 days... 1.245 ,,

Hot Weather—
 February and March 1896, 60 days 1.409 ,,

 Total ... 4.834 ,,

Daily average loss ... 0.0218 ,,

20. The number of trees on this work at the close of the year was 4,041;
70 trees such as bamboo, nimb, moho, mangoes, &c.,
were sold by auction, and 15 plants of sorts were
destroyed by white ants and by the excessive heat in the hot season.

The expenditure on plantations during the year was Rs. 262, which raise the total expenditure on this head up to the end of the year to Rs. 7,301.

(7).—KADVA RIVER SYSTEM.

The Wághad tank has been in operation for the last eleven years. As the waste weir has not been constructed as yet, the full supply level of the water in the tank is from 15 to 18 feet short of the designed full supply level. At the close of the monsoon, however, a temporary dam is annually thrown across the waste weir channel and 4 feet additional storage was thus obtained last year.

The erosion of the waste weir channel and the consequent necessity for building a waste weir wall and providing some protection works to the channel have led to a review of the general position of the Kadva river system. The plans and estimates for dealing with the Waghad tank, though completed, have been held back until a revised estimate for the tank and canals is ready. It is necessary to enlarge the carrying capacities of the canals, and to complete the proposals for distribution. Owing to an accident to the canal subordinate the survey has been unavoidably delayed.

- 2. From April 1st to June 1st, 1895, a period of 61 days, the tank was continuously drawn upon to feed the canals. The expenditure of water from the tank outlet was 78·15 millions cubic feet. The rivers brought in 4·93 millions cubic feet. Thus during this period 83·08 millions cubic feet were used in watering 354 acres applied for. The duty calculated on these data is 22 acres per cubic foot per second.
- 3. During this period the total reduction of quantity in the tank was 93·15 millions cubic feet, whereas the total discharge from the outlet was 78·15 millions cubic feet, which shows a difference of 15 millions cubic feet, i. e. 1·25 feet on the mean area of the period (11·908 millions square feet), or 1·60 feet over the mean tank area (9·529 millions square feet). From this the conclusion may be drawn that about 5 feet on the mean area of the tank represents the annual loss from evaporation.
- 4. Of the 83.08 millions cubic feet referred to in paragraph 2 above, 82.42 millions cubic feet passed into the canal, showing that whatever loss from evaporation occurred was practically compensated for by springs in the river.
- 5. In the Pálkhed Canal itself experiments made in April 1896 show that 52 per cent. was lost by evaporation and percolation. Deducting this loss (42.86 millions cubic feet) and the tail discharge into the Ojhar Támbat and Wadáli canals (18.69 millions cubic feet) from 82.42 millions cubic feet, we have 20.87 millions cubic feet irrigating 301 acres (obtained from statement of crops for the khárif season) actually on the canal. The duty thus arrived at is 76 acres per cubic foot per second.
- 6. At the head of the Wadáli Canal the quantity of water derived from the Parashari river and from springs between the Pálkhed and Wadáli weirs was 28:13 millions cubic feet

Deducting 42 per cent. (from actual experiment), or 11.81 millions cubic feet, for loss by evaporation and percolation, the remainder 16.32 millions cubic feet

was used up in irrigating 59 acres (of which 39 acres was the Thal irrigation). Hence the duty is 19 acres per cubic foot per second. This result is bad as compared with that of the Pálkhed Canal. It is however to be observed that the water is all derived from percolation and from the Parashari river, and that there is no irrigation further down.

7. The duty for the Ojhar Támbat Canal is worked out as follows:-

				Mil	lions c- ft.
Total quantity at the head Deduct—	***	•••	•	•••	19.85
For loss by absorption and ment) at 37 per cent.		(fro	m ex	peri-	7:34
					12.51

Thus the net quantity 12.51 millions cubic feet irrigating 76 acres gives a duty of 32 acres. The low duty is due to much scattered irrigation and longer field channels.

8. The tail flow of the Pálkhed Canal was all utilized, and practically no water was allowed to run to waste. This consideration and the high duty on the Pálkhed Canal show that the water was economically used and well managed

The balance of water left in the tank on the 8th June 1895, when its level was at its lowest, i.e. R. L. 100'25, was 85'99 millions cubic feet, or sufficient for irrigating 1,225 acres of hot weather crops on the Pálkhed Canal.

- 9. There was no replenishment to the tank during the hot weather season. On the 18th July, after 11.40 inches of rain had fallen at Waghad from the beginning of the monsoon, the tank began to overflow and water continued to run until the 4th of October 1895, when the temporary bank cut off the waste weir outflow. The water begins to flow in the waste weir channel at R. L. 110, at which level the storage is 197.64 millions cubic feet. The temporary dam brought the water level to R. L. 113.70, giving a storage at the beginning of the new season of 257.52 millions cubic feet.
- 10. By the 1st February 1896 the natural supply of the rivers had fallen so low that it was necessary to supplement it from the tank, the discharge from which varied from 4 to 19 cubic feet per second.
- 11. The duty for the rabi season is worked out for the Palkhed Canal as follows:—

- 12. Out of the 228.26 millions cubic feet, only 222.37 millions cubic feet passed into the canal, showing a difference of 5.89 millions cubic feet which probably represents storage behind the Palkhed weir.
- 13. From 222 37 millions cubic feet deducting (from experiment) 45 per cent., or 100 07 millions, for loss by evaporation, and 32 61 millions cubic feet as the tail discharge let into the Ojhar Tambat and Wadáli canals, the net quantity of water utilized was 89 69 millions cubic feet, irrigating 1,555 acres, of which 277 acres were under perennial crops. The duty for the rabi season (including the watering of hot weather crops) works out, therefore, to 205 acres per cubic foot per second, but there is reason to believe that this duty is too high to be reliable.

Taking the perennial duty at 76 acres as arrived at for the hot weather, the duty for the rabi crops alone works out to 325 acres.

14. On the Ojhar Támbat Canal the quantity supplied was

		M	illions c. ft	t.
***	•••	***	23.42	
***	•••	•••	31-97	
	Total supply	•••	55:33	
		***	••• •••	31-97

Out of this supply only 51.03 millions cubic feet passed into the canal irrigating 497 acres, the duty at canal head being thus 115 acres per cubic foot per second.

From 51.03 millions cubic feet deducting 25 per cent., or 12.76 millions cubic feet for loss by evaporation and absorption, the quantity used was 38.27 millions cubic feet irrigating 497 acres. The duty for the season thus arrived at is 154 per cubic foot per second.

15. On the Wadáli Canal the duty is worked out as follows:-

Total canal head discharge from 16th October to 29th
February 76.42

Deduct—
For loss by evaporation and absorption at 34 per cent. ... 25.98

Net supply ... 50.44

Thus 50.44 millions cubic feet irrigating 610 acres (of which 282 acres was the Thal irrigation) give a duty for the season of 143 acres per cubic foot per second.

16. The rainfall in the catchment area of the tank was 46.36 inches against the average 52.39 inches. Over the irrigated area the total of 28.84 inches is in excess of the average (25.53) for the last 22 years. The distribution according to seasons is:—

Locality of Gauge.		Kharif.		Rábi.		Total.		
,			Ins.	cts.	Ins.	cts.	Ins.	cts.
Pálkhed	***	•••	25	81	4	11	29	92
Niphád	• •••	•••	2 6	52	1	25	27	77

The monsoon season was characterised by timely and favourable rainfall at the beginning and insufficient rainfall at the end. At Palkhed there was no rainfall after the 25th October.

Irrigation.

17. The following table shows areas applied for and areas actually irrigated as compared with those of the previous year:—

V			Area a	pplied for in	Acres.	Area actually irrigated in Acres.			
	Year.		Kharif.	Rabi.	Total.	Kharif.	Rabi.	Total.	
			Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	
1894-95	•••	•	1,095	1,452	2,547	982	1,785	2,767	
1895-96	•••	•••	856	1,444	2,300	595	1,894	2,489	

The excess of areas actually irrigated as compared with areas applied for is due to the approximate character of the areas as entered in the applications. The decrease in kharif area for 1895-96 is due to the sufficiency of fodder and to favourable rainfall at the beginning of the monsoon.

Comparison of areas and assessments.

18. The following table shows by seasons the areas and assessments of irrigated land exclusive of permanent bágáyat:—

1895-96.

		Areas. Assessment.				· · · · · · · · · · · · · · · · · · ·		
Canals.		Kharif.	Rabi.	Total.	Kharif,	Rabi.	Total.	
		Acres.	Acres.	Acres.	Rs.	Rs.	Rs.	
Pálkhed Canal Wadáli Canal Ojhar Támbat Canal	***	1 59	1,201 281 412	1,622 339 528	2,921 291 749	3,477 771 1,436	6,398 1,062 2,185	
	Total .	595	1,894	2,489	3,961	5,684	9,645	

This compares as follows with the areas and assessments in the previous year:—

1894-95.

	,	Areas.		Assessment.			
Canals.		Kharif.	Rabi.	Total.	Kharif.	Rabi,	Total.
	,	Acres.	Acres.	Acres.	Rs.	Rs.	Rs.
Pálkhed Canal Wadáli Canal Ojhar Támbat Canal	•••	. 72	1,163 255 367	1,851 327 589	3,914 274 1,082	3,435 · 770 1,030	7,349 1,044 2,112
	Total	982	1,785	2,767	5,270	5,235	10,505

The comparison shows that the kharif area was much less than that of the previous year. The decrease is in hot weather crops, which were not raised for the reasons given in paragraph 17 above. The increase in rabi area is due to the raising of ground-nut crop mostly in the rabi season. The total area irrigated shows a decrease of 10 per cent. as compared with the average of the preceding five years. The total assessment is, in consequence of the falling off in kharif, less than that of the previous year.

Areas of crops.

19. The following table shows areas of principal crops for the year under review compared with the average of the previous five years:—

Name of Crop.	For the year 1895-96.	Average of the five pre- ceding years.	Increase.	Decrease.
Wheat Ground-nut Gram Sugarcane	172	Acres. 904 810 170 274	Acres 72 2 58	Acres. 213

^{20.} The most noticeable feature is that owing to the timely and sufficient rainfall there was considerable decrease in the area of irrigated wheat. There was however no diminution of the wheat area cultivated. The cultivation of ground-nuts increased owing to the rise in market price.

Assessments and realizations. 21. The total assessment and the amount realized during the year were as under:—

			$\mathbf{R}\mathbf{s}.$
Assessment during the year	• • • •	***	9,808
Unrealized rabi assessment for 1894-95	***	•••	5,235
Unrealized balance from previous years	•••	•••	1,449
Do. do. on Miscellaneou	s receipts	•••	5
Delina	Total	•••	16,497
Deduct— Total realizations during the year	•••	•••	9,256
Balance unrealize	d	•••	7,241

The above figures include direct receipts as noted below, Rs. 594 being for enhancement of land assessment:—

			Tro.
•••	•••	447	3
•••	•••	•••	2 2
produce	***		
Pálkhed	weir for 1895-96	•••	41
•	Total	•••	162
	produce	produce Pálkhed weir for 1895-96	produce Pálkhed weir for 1895-96

Working Expenses.

22. The following exhibits a comparison of working expenses, &c., under each head between the years 1895-96 and 1894-95:—

	C	HARGES F	ов 1895-	96.	CHARGES FOR 1894-95.			
Name of Work.	Mainten- ance and Repairs.	Estab- lishment.	Tools and Plant.	Total.	Mainten- ance and Repairs.	Establish- ment.	Tools and Plant.	Total.
Kadva River Works.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Pálkhed Canal Ojbar Támbat Canal Wadáli Canal Wághad Tank	389 543	2,376 570 591 389	 149	5,083 959 1,134 1,258	1,814 467 509 716	5,732 1,531 1,617 1,931	102 24 18	7,648 2,022 2,144 2,647
	4,359 (1)	3,926 (2)	149 (3)	8,434	3,506	10,811	144	14,461

Notes:—(1). The excess in Maintenance and Repair charges of the Palkhed Canal in 1895-96 were due to special clearance of silt accumulated in the canal owing to exceptionally heavy floods.

23. The usual works of maintenance and repairs were carried out during the year. The Wadzli Canal has been provided with mile and furlong stones.

The total maintenance charges on the three canals and the Waghad tank during the year amounted to Rs. 9,441 and are divided as follows:—

					Rs.
IMaintenance and Rep	pairs	•••	•••	•••	
II.—Establishment	•••	•••	***	•••	3,926
III.—Tools and Plant	***	***	•••	•••	149
IV.—Share of Collection	Charges	* ***	•••	***	457
VIndirect Charges		•••	***	***	550
VI.—Refund of Revenue	***	•••	***	•••	*****
		•	Total Rs.	•••	9,441

^{(2).} Balance of establishment charges is debited to this in proportion to outlay. Heavier expenditure being incurred in 1895-96 on other service heads, less balance was left to be charged to this, and hence decrease.

^{(3).} The excess in other heads being trivial requires no explanation.

Cost of measuring crops.

24. The crops were measured at a cost of Rs. 235 for 2,489 acres, which gives a rate of 1 anna 6 pies per acre.

25. The following table shows the cost of establishment debited to revenue management, the percentage it bears to the assessed revenue from irrigation, and the incidence of cost per acre irrigated as required per Government Resolution No. 213 A-I.

—1289, dated 14th August 1895:—

Name of Work.	Establishment debited to Revenue manage- ment.	Percentage of Revenue Estab- lishment on assessed Revenue.	Incidence of Cost per Acre irrigated.
Kadva River Works.	Rs.	,	
Pálkhed Canal Ojhar Támbat Canal Wadáli Canal	656 235 186	10·25 10·75 17·51	•40 •44 •55
	1,077	1,1.17	. •43

- 26. The Palkhed Canal was closed seven times and the Wadali Canal four times for periods aggregating 38 and 20 days respectively. The Ojhar Tambat Canal was not formally closed, but it ran dry four times for a period aggregating 22 days when the Palkhed Canal water was shut off.
- 27. The duty of water in the canals has been worked out in the remarks above relating to the storage tank. When calculated according to the ordinary method it varies from 20 to 47 for the kharif season and from 82 to 111 for the rabi season.
- 28. The following table shows results of special observations taken for ascertaining the quantity of water required for maturing different crops:—

		*****				Number of	Volume .	Volume of	Pariod of Water,		WATER,
Canal.		Village.	Crop.	A	ea.	Water- ings.	of Water.	Water per	From		To
Kharf Beason.				Δ.	g.		C, ft.	C. ft.			
Da		Pálkhed Datana Wadáli	Sugarcane Do Do Khondia	0000	13 14 10 10	17 17 29 6	60,286 1,47,754 46,792 15,930	1,85,496 4,22,155 1,87,168 63,720	19th February 1895 15th May 1895 23rd March 1895 2nd March 1895	***	14th March 1898.
Rabi Beason,		,	'	ì						1	
Pálkhed Canal Dixi Distributary Do _* Ojhar Támbat	::::	Dixi	Do Wheat	0	14 17 25 35	9 9 9 9	5,505 11,200 15,248 40,597	15,729 26,352 24,897 46,396	21st October 1895 26th October 1895 7th December 1895 27th October 1896	•	9th December 1895.

[•] The results are much below what are given in Jackson's Hydraulies. Perhaps this is due to the watering of the ground by rain being neglected.

Evaporation and percolation from canals.

29. Observations were made in October and December 1895 and in April 1896 for ascertaining the loss by evaporation and percolation.

The results are:-

·			LOSS IN CO		Percenta	GE OF HEAD COST.	Discharge	
Canala,		Kharif.	Rabi.	Hot Weather.	Ebarif.	Rabi.	Hot Weather.	Remarks.
Pálkhed Wadáli Ojhar Támbat	•••	·35 ·28 ·55	·47 ·45 ·69	•59 •58 •11	23 20	45 34 25	52 42 37	

Plantation.

30. The total number of trees standing on the canals at the close of the year was 12,319. Of these the principal were as under:—

	Number of Trees.			
D.4. 1		·		9,607
Bábul	***	• • •	, ••••	9,007
Mango Nimb	•••	•••	•••	1,026
Nimb	•••	•••	1	478
Moho	•••	•••	•••	641

The expenditure during the year was Rs. 287 from the Revenue Account.

(8).—PRAVARA RIVER WORKS—LA'KH CANAL.

The area irrigated during the year was 334 acres, of which 132 were under kharif and 202 acres under rabi crops. The total shows an increase of 24 acres on the area of the last year. The area of kharif was 6 acres less and the area of rabi 30 acres greater than in the previous year. The decrease in the kharif season is small and needs no explanation. The increase in rabi season is due to growth of irrigation under the Nevása distributary at the tail of the canal, as is shown by the following figures of cultivation:—

Nevása village.

Year.			Kb	arif.	Rabi.		Total.		
				A.	g.	A.	g.	Α.	g.
1892-93		•••		. 1	10			1	10
1803-94				. 2	0	10	24	12	24
1894-95		•••		. 14	13	42	0	5 6	13
1895-96	•••	•••		19	24	69	3	88	27

Comparison of Area applied for and ir.igated.

2. The following statement compares the areas applied for and irrigated during the year:—

Y	Кна	Khariy,		RABI.		Total.		Difference less Ibri- gated.		
Year.	Applied for.	Irrigat- ed.	Applied for.	Irrigat-	Applied for,	Irrigat- ed.	Kharif.	Rabi.	Total.	
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	
1895-96	. 232	132	303	202	535	334	100	101	201	

The area applied for but not irrigated is 37.57 per cent. of the total area applied for. Of the deficiency, 81 acres was on account of less cultivation on fields irrigated during the rabi, 94 acres on account of kharif lands which took on water as rainfall was sufficient, and 26 acres on account of garden crops for which water was applied for but which were not sown.

Water-rate assessments.

3. The water-rate assessments amounted to Rs. 1,120 against Rs. 1,065 in the previous year. The details were:—

Rs. 675
Rabi 445

Total ... 1,120

The increase is due to greater attention in keeping the canal flowing to the tail distributaries, which has resulted in a steady increase of irrigation in Nevása village as noted in para. 1 above.

Area irrigated per mile of main canal and of main canal and branches.

- 4. The area irrigated per mile of main canal was kharif 5.74 and rabi 8.78 acres, and of main canal and branches together was kharif 4.08 acres and rabi 6.24 acres.
- Comparison of area irrigated and revenue.
- 5. The following table compares the area irrigated and the revenue derived during the past three years with the figures for the year under report:—

	Year,				Revenue from Water-rates,	Rainfall from 1st April 1895 to 31st March 1896.		
		•		Acres.	Rs.	In. ets.		
1892-93 1893-94	•••	***	•••	158	532 1,078	32 41 27 17		
1894-9 5	•••	•••	***	343 310	1,065	26 71		
1895-96	•••	•••		334	1,120	17 46		

The South-West monsoon rainfall was deficient in August and October and the rabi rainfall below the average.

6. The incidence of water rate per acre was Rs. 3.35 against 3.44 in the Water rate per acre.

Water rate per acre.

The decrease is due to the lesser area of 8 months crops.

Capital Account.

7. There was no expenditure from Capital Account, which is closed.

Working expenses.

8. The working expenses amounted to Rs. 10,587 as detailed below, as compared with Rs. 13,319 in the previous year:—

•				Rs.
Maintenance and repairs	***	•••	•••	2,490
Share of establishment	•••	•••	•••	6,917
Tools and plant	***		•••	94
Share of collection charges	•••	***	***	68
Indirect charges	•••	•••	•••	968
		Total	•••	10,537

The rate of working expenses per mile of main canal open was Rs. 458 and per acre irrigated Rs. 31.55. The expenditure on repairs to head-works was reduced from Rs. 222 to Rs. 194, due to less cost of raising a temporary bund. On repairs to main canal and branches there was an excess over expenditure of 1894-95 of Rs. 212. Of this excess Rs. 120 was for replacing iron pipes of outlets which had become worn out through rust, Rs. 80 was for restoring the road surface over bridges which had been much injured by heavy rains and traffic, Rs. 66 was on plantations against which no charge had been made in the preceding year, and Rs. 35 on buildings. A large saving was anticipated on earth-work, but heavy rains caused many breaches in the canal banks, and therefore the expenditure could not be kept below Rs. 1,386 for both clearance and bank repairs. The section of the canal is now being maintained of sufficient depth and width to sppply the tail branches of the canal, and this of necessity causes some additional expense beyond what was previously incurred. The saving on earth-work was Rs. 102. The total expenditure for maintenance and repairs exceeded that of the previous year by Rs. 348.

- 9. The duty per cubic foot per second of water admitted into the canal was

 Buty of water.

 6.02 acres in the kharif and 10.31 acres in the rabi
 season. That of water actually utilized was. 6.45
 acres in the kharif and 11.16 acres in the rabi season. The cause of small
 duty is explained in last year's report.
- 10. The total cost of measuring 334 acres during the year was Rs. 39-11-2, or one anna and 11 pies per acre against one anna and 8 pies per acre on the previous year. The high rate is due to the fields irrigated being small and scattered along the canal at a distance from each other.
 - 11. The rainfall gauged at Malunja was 16.37 inches in the kharif and 1.01 inches in the rabi season; total 17.38 inches, or 4.30 inches less than the average of the last five years.
- 12. The supply of water in the river was more than sufficient to meet the requirements of the irrigators during the kharif and rabi seasons. In December 1895 a temporary earthen bund 2 feet high was constructed on the weir to increase the backwater during the hot weather of 1896-97. An increased supply during the hot weather is a desideratum, but can only be looked for after construction of a storage reservoir, for which a scheme is under consideration.
 - 13. The canal was closed six times (for 24 days altogether) for silt and weed clearance. It was also closed for 13 days more owing to heavy rains during the monsoon.

Plantation. 14. At the end of the year the number of trees on this canal was 20,107. The number of principal kinds were:—

Bábul	•••	•••]	13,261	Melingtoni	a,	•••	•••	32
Nimhárá	***	•••	•••	49	Divi-divi	•••	***		18
\mathbf{Nimb}	•••	•••	•••	1,444	${f Moho}$	•••	•••	•••	3
Bore	•••	•••	***	580	Jámbul	•••	•••	•••	869
Sandal	•••	***	***	87	Siras		•••	•••	31
${f Bakan}$	***	***		55	\mathbf{Mango}	•••	•••	•••	.649
Tamarind	•••	•••		14	${f Bamboo}$	•••	***.		175
\mathbf{Lamon}	***	•••	.,,	5	Orange		•••	•••	19
			Misc	ellaneons	2816.				

The total number in the previous year was 22,932. There is a decrease of 2,837 babul trees on the number of the last year. They were sold by public auction for the sum of Rs. 1,100. It was necessary to cut this large number of babul trees, as their shade was injuring a considerable extent of land bordering on the Toka and Nevasa distributaries.

(9).—MUTHA CANALS.

On the 1st April 1895, the water at Lake Fife was 21.28 feet above the sill of canal sluices, and the minimum level was reached on the 17th June, when the depth was 10.97 The water began to rise on the 18th June and the lake filled to overflowing the 22nd of that month.

The highest flood of the year occurred on the 18th July 1895, when the water rose to R. L. 247.22 or 3.15 feet above finished crest level. The flood of July 1891 rose to R. L. 249.17 and that of 21st July 1894, the highest recorded up to date, rose to R. L. 249.52 or 5.45 feet above finished crest level.

The standards and planks were fixed on the weir by the end of September, and on the 6th November the water stood at 4 feet above the finished crest of the weir.

The draw-off from the storage commenced from the 9th November, i.e. 15 days later than the previous year. On the 31st March 1896 the level of the water was 21.47 feet above the sill of the sluices, i.e. 0.07 higher than on the same date in 1895.

Assessment of revenue.

2. During the year under review the assessments amounted to Rs. 2,95,471 as noted below:—

		•	•		
•					Amount.
					Rs.
Water-rates	***	•••	•••	***	1,77,642
Sales of water	•••	0.04	***	•••	2,214
Water-supply of towns	***	•••	•••		1,07,219
Plantations	•••	***	***	•••	2
Water-power	***	•••	•••	***	6,000
Receipts from other can	al produc	B	•••	•••	1,000
Rents of buildings	•••	•••	•••	•••	117
Miscellaneous	***	•••	***	•••	4,235
Irrigation share on acco	ount of e	nchanced	revenue fro	m per-	•
colation from the M	utha Car	als in the	village of	Warza,	
Shivene and Kondwe	Dhawda,	táluka Ha	veli, as per	Canal	
Return No. VIII	***	•••	•••	•••	42
					2,98,471

This is Rs. 50,517 in excess of the total for the previous year and is the highest annual revenue obtained since the work has been in operation. The increase is due chiefly to the higher rates introduced for perennial crops and also to an increase in the revenue from the Poona water-supply.

3. The area irrigated during the year was 8,133 acres, of which 7,462 were kharif and 676 rabi crops. The total shows a decrease of 1,944 on the area irrigated in the previous year.

The principal decrease is in "jowári", of which only 83 acres were irrigated, as compared with 1,534 acres in the previous year. This is due to the favourable rabi rainfall and also to the fact that water for rabi crops was not available beyond the 39th mile of the canal, as the storage at Lake Fife was reserved for perennial and 8 months crops. If water had been allowed in the canal to the tail, probably 300 or 400 acres of jowari would have been irrigated, as some of the crops required one watering towards the end of the rabi season. There was a serious decrease, viz. 911 acres, in the area of sugar-cane, 5,277 acres being irrigated in 1894-95 and 4,366 acres this year. This is chiefly due to the abnormally low market rate of "gul" during the past two years; the rate fell at a time when the cultivators had to procure money for the next cane-sowing operations, and it was those who had to raise money on the security of their standing crops who failed to get the necessary advances. It is the farmers with no capital who suffer most in these circumstances, as they are entirely in the hands of the soukárs. The price of sugar fell to only Rs. 8 per palla, a fair rate being from Rs. 13 to Rs. 15. The fall of Re. 1 per palla means a loss to the cultivator of about Rs. 40 per acre, and therefore a probable loss of about Rs. 200 per acre was sufficient to make many cultivators give up a certain area, until they saw there was some chance of the price rising. It was unfortunate that this influence should have been at work just when the enhanced rates were That the increase, however, to Rs. 40 per acre for sugarcane has introduced. not checked the area under cultivation is proved by the fact that a certain area near the village of Mundwa, where the rate is Rs. 50 per acre, has increased. There is little doubt that as soon as the price of sugar goes up the maximum area of cane that can be irrigated will be applied for. The area this year was 4,306 acres and the storage at Lake Fife could serve about 5,400 acres. There will always be some fluctuation in the area, but the minimum should not be less than 4,500 acres.

The area of rice has increased from 294 to 375 acres. Seed was obtained through the Agricultural Department and issued to those who required it. The results were in every way most satisfactory, and the only thing to be regretted is that the area was not much larger. All the cultivators who grew the best kind of rice admit the crop to have been good and the value of the outturn very satisfactory. Apparently the reason for the slow development of this class of irrigation is want of capital.

There was an increase of 465 acres in the area of bijri, which is the principal monsoon dry crop, and the irrigation of which varies with the character of the rainfall,

- 4. The revenue derived from the Poona water-supply amounted to Rs. 1,07,219 as compared with Rs. 94,760 in the previous year, or an increase of Rs. 12,459. About one-third of this is due to an increased supply to private houses, more than a third to the Poona Municipality, and the balance to an increased consumption by the G. I. P. Railway Company and by Government in the Civil and Public Works Departments. The new settling tanks, filter beds and pumping machinery are complete and in good working order. The quantity of water supplied by the new works during the year amounted to 297,810,000 gallons, or 816,000 gallons a day. The quantity supplied from the old Sholápur Bazár filter is estimated approximately at 300,000 gallons a day. The average daily supply throughout the year amounted to 1,116,000 gallons a day.
- 5. The working expenses of the year, including Rs. 641 for refunds of revenue, amounted to Rs. 78,230 as compared with Rs. 82,187 in the previous year. The following table gives an analysis of the charges:—

Names of Works.	Mainte- nance and Repairs,	Establishment.	Tools and Plant.	Refunds of Revenue.	Leave and Pension Allowances.	Share of Collection Charges.	Total,
1895-96.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Mutha Canals	13,140	D. 1,187 C. 14,544	1,946	641	-2,835	7,834	42,127
Poonawater-supply	16,070	D. 1,452 C. 14,589	2,379	•••	1,613	•••	36,103
Total	29,210	31,772	4,325	641	4,448	7,834	78,230
1894-95.							
Mutha Canals	19,930	D. 4,136 C. 12,814	3,759	2,478	2,975	6,330	52,422
Poona water-supply	13,806	D. 2,172 C. 10,071	2,604	***	1,112	•••	29,765
Total	33,786	29,193	6,363	2,478	4,087	6,330	82,187

On the Mutha Canals the cost as shown above, excluding refunds of revenue, represents a rate for maintenance, administration, &c., of Rs. 471.43 per mile (the total mileage in operation being 88 miles) and Rs. 5.10 per acre irrigated (the total acreage being 8,138). The expenditure under maintenance and repairs amounted to Rs. 13,140 as compared with Rs. 19,930 in the previous year. The chief reason for the decrease is that the pay of Canal Inspector and Patkaris is now charged to "Establishment" instead of to "Works" as formerly. The increase in the amount charged as construction establishment is due to the decrease in capital outlay during the year. The excess on the Poona water-supply is due to the employment of a mechanic at Rs. 180 per mensem, and to repairs to fire plugs.

- 6. Deducting the total net working expenses, Rs. 77,589 plus Rs. 1,099, the amount of remissions and refunds sanctioned during the year, from the total earnings of Rs. 2,98,471, the net profits from the work amount to Rs. 2,19,783, or Rs. 3.34 per cent. on Rs. 65,88,127, the total entire capital outlay to the end of the year, against Rs. 2.53 per cent. in the previous year.
- 7. The areas irrigated were ascertained by actual measurements, the greater part of which were taken by measurers specially entertained for the purpose and assisted occasionally by the Canal Inspectors. From 9 to 12 per cent. of the area was checked by the subordinate in charge. The cost of measurements amounted to Rs. 1,432, or at the rate of 2 annas and 10 pies per acre against 2 annas and 2 pies in the

previous year. The increase in the rate is due to the area under irrigation being less than in the previous year.

8. The rainfall of the year along the canal varied considerably. The maximum was 34.31 inches at Hadapsar and the minimum 17.57 inches at Kedgaon as under:—

				Kha	rif.	Ra	bi.	Tota	ı.
								Ins. c	ets.
Hadapsar	•••	•••	•••	27	85	6	46	84	31
Kedgaon	•••	•••	•••	14	70	2	87	17	57

Both the kharif and rabi rainfall was favourable.

9. A statement is appended giving the particulars of the water issued gratis or at reduced rates to various institutions in accordance with the orders issued by Government from time to time. It will be seen from the statement that local institutions have received water during the year at Rs. 3,263 less than the normal rates.

Area actually irrigated compared with area applied

10. The following is the comparison of areas applied for and those actually irrigated:—

	Are	a applied	for.	Area irrigated.			M	ore,	Less.	
	Kharif.	Rabi.	Total.	Kharif.	Rabi.	Total.	Kharif.	Rabi.	Khurif,	Rabi.
•	Acres.	Acres.	Acres.	Acres	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Mutha Right Bank Caual	8,023	722	8,745	6,643	581	7,224	•••,	•••	1,350	141
Mutha Left Bank Canal	916	96	1,012	819	95	914	•••	•••	97	1
Total	8,939	818	9,757	7,462	676	8,138	•••	•••	1,477	142

The decrease in kharif is due partly to the cultivators being unable to plant as much sugarcane as they applied for and partly to favourable rainfall causing a reduction in the area of monsoon crops; that in rabi is partly due to favourable rainfall during the season and partly to the supply being confined to the first 39 miles of the canal.

Remissions. 11. Remissions amounting to Rs. 17 were granted during the year on account of erroneous assessments.

- 12. Refunds amounting to Rs. 1,082 were sanctioned during the year, of which Rs. 22 were for short supply of water, Rs. 650 on account of rebate given to the Indian Paper Mills Company for 39 days, for 19 days the supply having been insufficient to yield 60 horse-power and for 20 days the canal having been closed, and Rs. 410 on account of the use for irrigation of the surplus water from the Nána Phadnavis' conduit together with the leakage from the Mutha Canal in the village of Wadgaon Budruk, Táluka Haveli. The amount actually paid as shown in the statement in paragraph 5 was Rs. 641, the balance not having been paid by the Civil Department before the close of the year.
- 13. Gaugings to ascertain evaporation and leakage were taken for broken periods in the months of April, May, June 1895, and January, February and March 1896, or a total number of 164 days. During this period the loss amounted to

1,177,585,311 cubic feet, or rather less than one-third of the total capacity of the lake above outlet level.

14. The following statement shows the duty of water on the two canals for those months during which correct figures regarding the discharge and area under irrigation were available:—

	Month.		Discharge of Canal at head.				Э.Я.,	Duty per cubic foot	-	
			Cubic for per second		Perennial.	8 months.	4 months.	Total	per second,	
1595 1896	April Way January February	***	#4 1 4 4 4 940 840	116-96 123-10 96-75 97-08	3,775 4,756 3,747 3,822	38 46 95 103	80 93 242 72	3,893 4,895 4,084 3,997	33*28 39*76 42*21 41*17	Mutha Right Bank Canal.
1895	April May		•••	16·44 20·62	684 750	700	2 20	686 770	41°73 37′34	Mutha Left Bank Canal.

Sugarcane sowing was continued later than usual, and as there were signs of a reduction in the area, a more liberal supply than usual was maintained in the canal in order to encourage the cultivators to extend the area. This accounts for the reduction in the duty of water as compared with the previous year.

POONA WATER-SUPPLY.

Statement showing water supplies given gratuitously or at reduced rates during 1895-96.

To whom supplied.	Quantity supplied.	Amount paid.	Value at 6 annas per 1,000 gallons.	Difference between 4 and 3.	Remarks.
1	2	3 .	4	5	6
		Rs. a. p.	Rs. a. p.	Rs. a. p.	
The Civil Surgeon, Sassoon Hospital. Do. do. Superintendent, Byramji Jijibhoy	1,032,750 553,850	193 9 10 103 13 4	387 3 8 207 10 8	193 9 10 103 13 4	
Medical School Superintendent, Lunatic Asylum Secretary, Cantonment Com-	523,409 1,013,651	98 2 0 190 0 6	196 4 0 380 1 0	98 2 0 190 0 6	
mittee: (New Modikhana) (Beef Market)	1,205,001 1,285,995	. 225 14 8 241 2 0	451 13 4 482 4 0	225 14 8 241 2 0	
(Malcolm Tank) (Mutton Market) (Asurkhána) (Butler Moholla)	1,341,995 1,276,995 1,430,000 1,421,000	251 10 0 239 7 0 268 2 0 266 7 0	503 4 0 478 14 0 536 4 0 532 14 0	251 10 0 239 7 0 268 2 0 266 7 0	
Convent School	463,230 1,146,960 1,830,000	86 13 5 18 5 9	173 10 10 430 1 9 686 4 0	86 13 5 411 12 0 686 4 0	
				3,263 1 9	

(10).—EKRUK TANK.

The rainfall for the year under report was 31.09 inches (kharif 27.81 and rabi 3.28) against 20.18 inches of the previous year (kharif 19.25 and rabi 0.93), and was seasonable.

2. The lowest water level in the tank was R. L.1,509.057 prior to the commencement of replenishment, and the depth of water over sill of main or perennial canal sluice was 25 feet. On 7th September 1895 there was a heavy rainfall, 9.55 inches, and the tank water level rose to R. L. 1,524.107, or 3 feet over the crest of the waste weir, which overflowed from that date to 24th October, and again in November from 1st to 12th, both days inclusive.

- 3. The area irrigated during the year was 2,589 acres, of which 1,671 were kharif and 918 rabi, against 3,292 acres of the previous year (kharif 1,830 and rabi 1,462). The area applied Area irrigated. for was 2,192 acres (kharif 1,472 and rabi 720), or 397 acres less than that actually irrigated. The difference is due to the cultivators being ignorant of the areas of their fields.
- 4. The assessment of water-rates amounted to Rs. 12,291 as compared with Rs. 13,463 of the previous year, and the gross Assessed revenue. Assessed revenue. revenue from all sources was Rs. 25,576 against Rs. 29,551 of the previous year. The decrease is due to less area irrigated during the year and to a smaller number of trees sold. The details of revenue, other than from water-rates, are as under :-

	•						Rs.
1.	Plantation	•••	•••	•••			282
2.	Other canal produc	e	***	•••	•	•••	5,774
3.	Sales of water to-						
	(a) Sholápur I	Huni	cipality	•••		•••	4,731
	(b) G. L. P. Ra	ilwa	y Company	***		•••	1,203
	(c) Spinning as	nd V	Veaving Mills	•••		•••	704
	(d) Distillery	•••	•••	•••		***	60
4.	Miscellaneous	•••	•••	•••		•••	525
						•	
					Total	•••	13,285

Comparison with previous vears.

5. The following table compares the figures of area, assessements and working expenses with those of the previous eight years:-

		Years.			Kharif.	Rabi.	Total	Water-rate Assessment.	Gross Bevenue,	Working Expenses.
					Acres.	Acres.	Acres.	Rs.	Rs.	Rs.
1887-88	•••	***	•••		1,357	757	2,114	6,651	13,784	15,953
1 888-89	•••	***	•••		1,620	1,356	2,976	7,652	15,209	14,666
1889-90	•••	***	•••	•••	1,335	1,199	2,534	9,441	18,532	13,231
1890-91	•••	•••	•••	•••	1,835	763	2,598	10,188	23,516	13,824
1891-92	•••	***	•••	,	1,935	1,202	3,137	13,125	27,470	13,770
1 892 - 93		•••	•••	•••	2,425	613	3,038	14,760	23 830	27,043
1893-94		•••	•••		2,247	642	2,889	14,364	24 357	26,411
1 894-95	•••	•••	•••		1,830	1,462	3,292	13,463	29,551	12,050
1895-96	•••	•••	•••	•••	1,671	918	2,589	12,291	25,576	15,461

The falling off in kharif and rabi irrigation was due to the favourable rainfall of the year. The incidence of water-rate was Rs. 4.74 per acre irrigated against Rs. 4.09 of the previous year.

Area irregated and water6. The area irrigated by each canal and
rate assessment, &c., on each
water-rate assessment thereon were as follows:— 6. The area irrigated by each canal and the

Name of Canal,			Arba Ierigayed.						R. L. OF WAYER IN TABLE OS 57E JUES 1695.	
		dis- charge per day during	Kharil.		Habi.		Total.		R. L.	Height
		the year.	Acres.	Assem- ment,	Acres,	Ances. Ment.	Acres,	Assent.	on 5th June 1876.	of water over sile in feet.
				E4,		Ba,		Ra,		
Left Bank Low Level Canal	•••	22-04	1,391	8,015	718	1,920	2,109	9,935	1 5 (25/150
Left Bank High Level Canal	•••	3.43	179	1,207	83	475	262	1,682	15:19:537	1.350
Right Bank High Level Canal		5.37	101	363	117	311	219	674) = [1.410
Total		,,,	1,671	9,585	918	2,706	2,589	12,291		***

- 7. Working expenses, including indirect charges, amounted to Rs. 15,461.

 The item "Maintenance and Repairs" amounted to Rs. 5,993, or Rs. 125 per mile of canal against Rs. 126 of the last year, the length of the canals being 48 miles. The working expenses include the cost (Rs. 3,041) of a new iron bridge provided to the outlet tower of the perennial canal. Establishment charges, direct and indirect, amounted to Rs. 5,678.
- 8. The area irrigated was measured at a cost of Rs. 570, which gives a Measuring charges. charge of annas 3 and pies 6 per acre measured.
- 9. The rainfall over 159 square miles of catchment area was gauged at one place only, and amounted to 35.36 inches from 1st June to 31st October 1895. The run-off into the tank was 13,061 million cubic feet, which amounted to 48 per cent. of the total rainfall over the catchment area of the tank, assuming the fall at 35.36 inches throughout that area. The run-off from 1st June to 7th September 1895, on which date the waste weir began to overflow, is calculated to be 0.36 on the same basis, which is probably erroneous.
- 10. Bábul trees grow plentifully on the tank margin and on the canals, and form a good source of revenue, as there is always demand for firewood at Sholápur. The system mentioned in the Mhasvad Tank report regarding new plantation and sale of existing trees applies to this tank as well. No trees were sold during the year. The numbers of existing trees on 31st March 1896 on the tank contour and canals were as shown below:—

Names of	Trees.		Number above 5 feet in height.	Number under 5 feet in height.
Bábul Nimb Mango Jámbul Tamarind Shiras Bori Sandal Bamboo Guava Moho Nímboni Shindi Miscellaneou			50,836 1,146 649 100 186 137 37 90 194 25 5 88 50 471	73,291 79 162 7 124 20 34 5 2 7 300 63
. •		į	54,014	74,094
	Total	* • •	1,28	8,108

The fruit trees do not yield any considerable revenue as yet. The amount realized from this source was Rs. 241 against Rs. 81 of the previous year.

Evaporation and absorption.

11. The following figures show storage of water and loss by evaporation and absorption during the year:—

Cubic feet.

```
      Quantity of water in tank on 31st March 1895
      ... 1,677,836,301

      Quantity of water which flowed into the tank during the year
      ... 6,454,743,942

      Total
      ... 8,132,580,243

      Discharge through the canal, leakage gutters and over waste weirs
      ... 3,477,978,375

      Actual quantity of water in the tank on the 31st March 1896
      ... 2,503,472,751

      Total
      ... 5,981,451,126

      Quantity lost by evaporation and absorption
      ... 2,151,129,117
```

Duty of water.

On the Left Bank High Level Canal during the rabi season. The observations were made twice, first from 9th to 18th February 1896 and again from 22nd to 31st idem. The result of the first observation was a duty of 6.15 acres per cubic foot per second, and that of the second was a duty of 5 acres per cubic foot per second. These results are very unsatisfactory, the reasons being,—1st, that the canal runs through muram and porous soil and a great deal of water is therefore lost in transit, and 2nd, that most of the water was utilized for sugarcane while it was being sown in highly manured fields which absorbed large quantities of water in the initial waterings. It is proposed to make the next observations on one of the Ashti Tank canals during 1896-97.

(11).—KRISHNA CANAL.

The construction estimate of this canal was closed on 31st March 1892—

Expenditure on original works.

Expenditure on original 4th May 1892, and the completion report was approved of in Government Resolution No. 12 W.-I.—

119, dated 22nd January 1894. The following original works executed during the year under report were charged to the Revenue Account:—

			Rs.
Constructing 5 module heads	•••	•••	443
Do. 3 chawkidárs' huts	•••	•••	291
Providing Persian wheel to the well:	at Shenoli	•••	67
Providing furlong stones	•••	•••	115

The total Capital outlay, direct and indirect, to end of the year was Rs. 8,64,892.

Rainfall.

2. The rainfall, as gauged at Retre Budruk (16th mile of the canal), is shown in the following table:—

	Year.		Kharif.	Rabi.	Total.
			Inches.	Inches.	Inches.
1895-96 1894-95 Average, 18	 391—1894	•••	22·21 20·82 18·33	6·20 4·63 6·25	28 41 25·45 24·58

and exhibits an increase of 1.39 inches for the kharif and 1.57 in the rabi over last year. There is an increase of 2.96 over the total of the last year.

- 3. The hot weather flow of the river in 1895 (April and May) was less than the average. After that the supply was ample until the hot weather of 1896.
- 4. The area irrigated, the assessment, working expenses and average waterrate as compared with the average of the previous four years were as follows:—

Year.	Kha	rif.	Ra	bi.	To	otal	Average Water- rate,	Working Expenses.
1895-96	. 2,627	Rs. 31,402 33.376	Acres. 1,485 2,018 533	Rs. 7,063 7,199	Acres. 3,204 4,645 1,441	Rs. 38,465 40,575 2,110	12 8•70 8·30	Ra, 12,087 13,519 1,432

Area irrigated.

Area irrigated.

Area irrigated.

Area irrigated.

irrigated shows a decrease of 908 acres in the kharif season and of 533 acres in the rabi season. This decrease is due chiefly to the area of ground-nut crop irrigated being less than the previous year's, as that crop was injured by excessive rain in September and October of last year.

The area irrigated was 12 per cent. of the irrigable area and the measured area was nearly equal to that applied for.

6. There is a decrease in kharif assessment this year as compared with Assessment. the last two years. This was due to good and timely rainfall and the partial failure of the ground-nut crop. The following table will show that the sugarcane cultivation on this canal is on the whole steadily increasing, although this year there is a slight falling off compared with the two previous years. There were no remissions during the year:—

Year.			Area of Sugarcane.	Year.		Area of Sugarcane.
			Acres			Acres.
1885-86 1886-87 1887-88 1888-89 1889-90 1890-91	***	•••	852 907 1,089 1,144 1,023 1,036	1891-92 1892-93 1893-94 1894-95 1895-96	•••	1,219 1,319 1,449 1,566 1,419

- 7. The average water-rate per acre was Rs. 12 as compared with Rs. 9.50 of the previous year. The increase was due to the increase in water-rates sanctioned in Government Resolution No. 179 of 29th January 1895.
 - 8. The realizations of the year amounted to Rs. 30,823 against Rs. 56,050 in the previous year, and the outstandings were Rs. 10,169.

Miscellaneous revenue.

9. The miscellaneous revenue from all other sources amounted to Rs. 1,511 against Rs. 4,664 of the previous year.

Working expenses.

10. The working expenses, including direct and indirect charges, compare as under for the last five years:—

Particulars.			1891-92.	1892-93.	1893-94.	1894-95.	1895-96.
		-	Rs.	Rs.	Rs.	Rs.	Rs.
Works Establishment Tools and Plant Refund of Revenue Collection Leave and Pension A	 Allowan	ces	6,164 2,683 103 1,775 376	7,954 3,530 99 3,629 494	6,898 3,571 91 1 1,943 500	7,064 3,086 100 3,584 432	7,036 3,050 68 1,506 427
	Total	•••	11,101	15,706	13,004	14,266	12,087

The actual outlay on works and establishment was about the same as in the previous year.

11. The cost of working per mile of canal and per acre irrigated is as under for the past five years:—

	Year.		Per mile of Canal,	Per Acre irrigated.	
				Rs.	Rs.
1891-92	•••			182	2.07
1892-93	•••	***		255	4.14
1893-94	•••	•••		211	2.75
1894-95	•••			223	3.05
1895-96	•••	•••	•••	189	3.77

The higher figures for the year per acre irrigated are due to the decrease in the area irrigated. A better comparison would be between the working expenses and the total revenue:—

Years.		Gross Revenue.	Working Expenses.	Per cent.	Sury lus- Revenue.	
			Rs.	Rs.		Rs.
1891-92	*		40,970	11,101	27.1	29,86
1892-93	•••		40,057	15,706	39.2	24,35
1893-94:	•••		43,281	13,004	30-0	30,27
1891-95	•••		49,041	14,236	29.1	34.77
1895-96	***		39,976	12,087	30-2	27,88

The percentage of working expenses to gross revenue for the year under report shows a slight increase. This increase was due to the decrease in revenue—ride paragraph 4 above. The actual working expenses were the lowest of the series with the exception of 1891-92.

The capital sum at charge at end of the year was Rs. 8,64,892. The net revenue of the year amounted to Rs. 27,889, giving a return of 3-22 per cent. on the total Capital outlay, direct and indirect.

12. The cost of crop measurement alone was Rs. 593, equal to Re. 0-2-11 per acre against Rs. 767, or Re. 0-2-7 per acre for the previous year.

Duty of water.

13. The average duty of water obtained was for kharif 40 acres per cubic foot per second and for rabi 23 acres.

14. The number of trees of all classes on the canal at the beginning of the year was 22,692, and in addition 379 new saplings were planted. The number of trees cut and sold during the year was 1,359; the balance at the close of the year was thus 21,712. The net revenue from plantations was Rs. 1,229.

The principal varieties of trees on the canal are bábul 17,261, mango 732, nim 534, bamboos 413, and jámbul 190.

15. The canal has been heavily silted up and therefore it does not carry the estimated discharge. During the year under report the last five miles were cleared of silt at a cost of Rs. 1,534; the result was satisfactory as there were no complaints from cultivators. In 1896-97 three miles (28 to 30) of the canal will be cleared of silt.

MINOR WORKS AND NAVIGATION.

(12).-KHA'RI CUT.

The rainfall was 28.71 inches in the kharif and 3.11 inches in the rabi season, against 49.94 and 1.39 inches respectively during the previous year, the average of the last five years being as follows:—

Area irrigated.

2. The areas irrigated as compared with those of the previous year are as below:—

		Charif.	Rabi,	Total
		Acres.	Acres.	Acres.
1834-35	•••	2,053	35 -	2,088
1895-96	•••	3,109	17	3,126

3. Though the rainfall was not favourable, the tank was, with great care and economy, kept sufficiently full during the season; nevertheless but for the seasonable rain in the latter part of October 1895, the crops would have suffered to a very large extent. The revenue during the year was Rs. 14,854, or Rs. 2,593 more than during the previous year, and is the highest on record.

Assessments.

4. The assessments, excluding remissions and free grants (the former being Rs. 2,437 and the latter Rs. 2,218), were as under:—

			Kharif. Rs.	Rahi.	Total.
	·			Rs.	Rs.
1894-95	•••	•••	12,083	172	12,261
1895-96	444	•	14.802	52	14,854

Kharif cultivation is increasing every year; and as it proved difficult, vide paragraph 3 above, to keep the tank full, it is desirable to increase the supply in the Khari Cut Canal to the utmost extent practicable.

5. The amount of outstanding balances at the close of the year for the kharif season was Rs. 11,960-6-6; out of this the following recoveries have since been made:—

			,		$\mathbf{Rs.}$	a.	p.
April 1896	•••	•••			4,211	14	6
May 1896	•••				1,410		
June 1896	***			•••	827	13	6
July 1896	***	•••		•••	877	1	5
			Total	•••	7,327	2	3
	•						

- 6. The working expenses of the year amounted to Rs. 5,299 against Working expenses.

 Rs. 6,107 in the previous year. The incidence per acre was 1.69 against 2.92 of the last year.
- 7. The area under irrigation was measured by establishment specially employed for the purpose at a total cost of Rs. 184, or nearly one anna per acre irrigated, against 1½ annas per acre during the previous year. The cost of establishment debited to revenue management was as under:—

Years.	Cost of Establishment debited to Revenue management.	Percentage the Cost bears to the gross assessed Revenue.	Incidence of the Cost per Acre irri- gated.	REMARKS.
	Rs.		Rs. a. p.	
1894-95	556	4·3 0	0 4 3	
1895-96	562	3.70	0 2 10	

Average water-rate.

- 8. The average water-rate during the year was Rs. 4.75 per acre as compared with Rs. 5.87 during the previous year.
- 9. The supply drawn from the Khári river during the kharif season at the Duty of water. head of the Khári Cut was at the rate of 18.56 cubic feet per second, and the area irrigated was 3,109 acres plus the area assessed on the Chándola Tank, viz. 242 acres, making a total of 3,351 acres; these figures give a duty of 180.55 acres per cubic foot of discharge at head.
- 10. The discharge at headworks during the rabi season was 4.82 cubic feet per second and the area irrigated was 17 acres, giving a duty of 3.53 acres per cubic foot. With so small a discharge the proportionate loss by excessive, is necessarily excessive.

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- 11. A good beginning seems to have been made towards developing hot weather crop irregation, the area of this crop during the year under report being 92 acres against 3 acres in 1894-95, while there was none in previous years.
- 12. The year under report has been a most favourable one from a revenue point of view, the realization having been the highest on record; and there is reason to believe that the improvement will prove permanent.

(13).—HARTA'LA TANK.

This tank has been in operation for 23 years. It commands a gross area of 584 acres in the village of Hartála, of which the net irrigable area is 415 acres. The full storage of the tank would suffice for the irrigable area, but the actual irrigation is very fitful as the work is situated in the cotton-growing district.

- 2. The depth of water in the tank had fallen to 7.90 feet on 20th June 1895, after which the first replenishment was received. The greatest depth of water reached was 8.50 feet on the 22nd September, this being 5.20 feet short of full supply. At the close of the year there was only 4.08 feet depth of water.
 - 3. The rainfall of the year amounted to 18.61 inches against 34.71 inches of the previous year and 25.59 inches the average of the past 22 years.
 - Area irrigated.

 4. The area irrigated during the year amounted to:—

					Acres.
Kharif	•••	***	•••	•••	15
Rabi	***	***	***	•••	5 5
		•			
			Total	l	70

which is 16.86 per cent. only of the irrigable area commanded by the tank, as compared with 20 per cent. in the previous year. The falling off is in the rabi area owing to large cultivation of cotton.

- 5. The kharif areas consisted of 3 acres of fruit gardens, 10 acres of monsoon dry crops, 1 acre of chillies and 1 acre of ground-nut. The rabi crops were 53 acres of wheat and gram and 2 acres rájgira. The total value of these crops is estimated at Rs. 1,218.
- Gross revenue.

 Rs. 1,127, or nearly double the amount of the previous year. Of this, water-rates amounted only to Rs. 154 and the revenue from other sources to Rs. 973. The increase is due to the sale of full grown babul trees.
- 7. The incidence of water-rate per acre during the year was Rs. 2-3-2 against Rs. 2-8-1 of the previous year. The decrease is due to the falling off in rabi irrigation.
 - 8. The realization of revenue during the year amounted to:-

			*		Rs.
Water-rates	***	•••	•••	•••	185
Miscellaneous	•••	•••	•••	•••	973
			Tota	l	1,158

With the exception of the year's rabi assessments, Rs. 111, which were sent for realization after the close of the year, there is no outstanding of revenue.

Working expenses.

9. The working expenses during the year amounted to:—

In the Public Works Depart In the Civil Department	ment	***	•••	Rs. 864 30
In the civit Department	•••	Total		

against Rs. 1,030 in the previous year, in which some extensive repairs were carried out. This shows that the tank has to its credit during the year

•				Rs.
By assessments	•••	***	•••	733
" realizations	•••	•••	. •••	765

after paying the working expenses.

- 10. The cost of measurement of the area irrigated was Rs. 1-4-8 against Rs. 2-5-4 of the previous year, which gives a rate of 3 pies per acre against 5 pies of previous year.
- 11. The actual area irrigated compares as shown below with the area applied for:—

•				Kharif. Acres.	Rabi, Acres.
Applied for		***	•••	22	64
Actually irrigated	***	•••	•••	15	55
		Difference	•••	7	<u> </u>
		Dimerence	***		٠ ــــــــــــــــــــــــــــــــــــ

Daty of water.

12. The duty of water is shown in Statement I—E attached to this report. There were no special observations.

Loss by evaporation and absorption was absorption.

13. The loss by evaporation and absorption was as follows:—

Kharif Season.

April, May and June, 70 days	•••	•	=	Feet. 2.55
July, August and September	***	***	=	Nil.
Rabi	Season.	•		

October, November, December, 1895, and January 1896, 123 days = 2.94

Hot Weather.

(14).—MHASVA TANK.

This tank has been in operation for 19 years. The gross area under its command is 4,647 acres, of which the irrigable area is 1,700 acres. But owing to its situation in the cotton-growing part of the district the actual irrigation is very fitful.

2. The full supply depth of water in the tank is 22 feet. At the commencement of the year the depth of water was 18.61 feet, which fell to 15.42 feet on 9th June 1895, after which the tank received its first replenishment, and by 20th July 1895 it filled

to overflowing. The depth of water at the close of the year was 18.25. The supply was thus sufficient to meet the requirements of irrigation.

3. The rainfall of the year gauged at the tank amounted to 31.01 inches against 28.07 inches of the previous year and 29.00 inches, the average of the past 18 years. The monsoon or kharif rainfall was heavier than in the previous year, which made the monsoon crops independent of the tank water, and the heavy fall in September of 10.30 inches followed by a good fall in October also helped the rabi crops to grow independently of canal water. Late sowings in inferior land required watering from the tank.

4. The area irrigated during the year was as under:—

		·			Acres.
Kharif	•••	***	***	•••	18
Rabi	•••	•••	•••	•••	36
•			Tota	ı	54

against 127 acres of the previous year. This falling off in irrigation is explained by the nature of the year's rainfall described in the foregoing paragraph. The value of the crops grown during the year is estimated at Rs. 2,135.

Gross revenue.

5. The gross assessed revenue of the year was:—

against Rs. 1,036 of the previous year. The diminution is due to less irrigation in the year and to no babul wood having been sold.

- 6. The incidence of water-rate assessment per acre was Rs. 4-4-1 against Rs. 3-1-8 of the previous year. The increase in rate with less irrigation during the year is due to the proportion of the perennial crops to the low-rated crops being greater than in the previous year.
 - 7. The revenue realized was-

With the exception of the rabi assessments of the year, Rs. 72, which were sent for realization after the close of the year, there is no outstanding of revenue.

8. The working expenses amounted to:-

			Rs.
In the Public Works Departme	nt	•••	1,102
In the Civil Department .	••	•••	19
		Total	1,121
			-

against Rs. 1,223 of the previous year.

- 9. The cost of measurements of the area irrigated was Rs. 4-6-0, which gives a rate of anna 1 and pies 3 per acre against 1 anna 1 pie in the previous year.
- 10. The area applied for was 53 acres or 1 acre less than that actually irrigated.

11. The scale of water-rates during the year under report was the same as in the previous year and the following table shows the classification of crops and the revenue assessed under that scale:

No.	Crops.		Area irrigated.	Rate per Acre.	Assess- ment.
1 2 3	Perennial Eight months Four months	•••	Acres. 16 2 36	Rs. 10 4 2	Rs. 149 9 72

There were also 3 acres of lift irrigation assessed at half the sanctioned rate.

Loss by evaporation and 12. The loss by evaporation and absorption was absorption.

as under:—

Kharif Season.

,						Feet.	
April, May and June, 70 days		•••	•••		•••	2.05	
Rat	i seas	on.		•			
November, December 1895, and January 1896—92 days							
	Weat	her.					
February and March 1896, 60 day	ys .	***	•••		***	1.32	
•			/	Total	•••	5.08	
	•	\mathbf{D}	aily avera	ge loss	•••	·0228	

(15).—JAMDA CANALS.

These canals have been in operation for 29 years. The gross area under command is 46,288 acres, of which the area irrigable by the works as completed is 5,000 acres only.

- 2. The source of supply to these canals is the Girna River. Its discharge during the year under report was less than in the previous year, but was sufficient for all requirements. Care had to be taken in distributing the supply of water to the hot weather and perennial crops, the area under which was almost equal to that of the previous year.
 - 3. The rainfall of the year in the kharif and rabi seasons is given in the following table in contrast with that of the same seasons in the previous year:—

		Kharif.				Rabi.			
		1894. 1895.				1895.			
At Canal head.		Ins.	. cts.	Ińs.	cts.	Ins	.cts.	Ins.	cts,
Jámda Bungalow	•••	20	71	23	15	3	66	0	96
About middle of Canal Kolgaon Chauki	, 	24	74	24	68	5	87	1	56
At tail of Canal.	,		• •						
Bhadgaon Kacheri	٠	29	47	34	71	4	62	1	22

The favourable kharif rain led to a falling off in the irrigation of monsoon dry crops and the decrease in the rabi rain caused an increase in the rabi areas.

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Area irrigated.

4. The area irrigated during the year amounted

Kharif 743
Rabi 729

Total ... 1,472

against 1,148 acres of previous year. The increase is due to larger irrigation of monsoon wet and eight months crops and also of wheat and gram owing to short rain in the rabi season.

Gross revenue.
following table:—

5. The assessments of the year from all sources are contrasted with those of the previous year in the

•			1894-95.	1893-96.	-Increase.	Decrease.		
•			Rs.	Rs.	Rs.			
Water-rates Miscellaneous		•••	7,744 2,734	8,212 4,355	468 1,621			
	Total	•••	10,478	12,567	2,089	1		

The increase in water-rate is due to larger cultivation of hot weather and eight months crop as well as to a larger rabi area having been watered. The increase in miscellaneous revenue is due to large sale of full grown babul trees.

6. The remissions during the year amounted to Rs. 24 and the realizations

			 			Rs.
· Water-rates Miscellaneous		***	•••	, ·	•••	7,270 4,355
		•••	•			
•	•		To	tal	•••	11,625

or Rs. 364 more than the amount realized last year.

- 7. The unrealized balance of assessed water-rates is Rs. 1,830, in addition to the rabi assessment of Rs. 1,610 sent for realization after the close of the year. Measures are being adopted to effect the recovery of the amount unrealized.
- 8. The average incidence of water-rate assessment per acre during the year under report was Rs. 5-9-3 against Rs. 6-11-11 in the previous year.
- 9. The following table contains a contrast of the year's working expenses with the amount of the previous year:—

•				1894-95.	1895-96.	Increase,	Decrease.
. Direct Charges.			Rs.	Rs.	Rs.	Rs.	
Original wo	rks	•••		 3,071	3,721	650	•••
	E stablis	shment.			. 1	•	•
Direction Construction Tools and P	n lant	•••	•••	587 4,686 200	349 4,737 200	 51 ~	238
	Indirect	Charges.					•
Leave and I Capitalization Collection c	on .	allowance	•••	738 426	712 363	•••	26 63.;
		:	- ,	9,708	10,082	374	

There was an increase of Rs. 374 during the year owing to certain repairs which had to be carried out to meet the requirements of irrigation. Notwithstanding this increase the gross revenue shows a margin of Rs. 2,485 over working expenses.

Cost of measurements of crops.

10. The cost of measurements of crops irrigated during the year on the two canals separately is given below:—

	•	Area irrigated.	Area measured.	Cost of measurement.	Rate per Acre.
		Acres.	Acres.	Rs. a. p.	Rs. a. p.
Left Bank Canal Right Bank Canal	***	1,061 411	471 70	49 10 4 9 10 11	$\begin{array}{cccc}0&1&8\\0&2&2\end{array}$

On the Right Bank Canal there was an increase in the perennial area, which required more elaborate and accurate measurements.

Areas applied for and actual irrigation was 1,472 acres. The difference of a little over 2 per cent. is due to under-estimates in water applications.

Duty of water.

12. No special observations of the duty of water were taken during the year.

13. The expenditure on plantations during the year was Rs. 106 which brings the expenditure to end of the year to a total of Rs. 16,475. The number of trees on the canals has been reduced from 15,344 in the previous year to 11,568 during the year owing to large sales of babul trees. Arrangement is being made to replace the deficiency by new plantation.

(16).—PARSUL TANK.

1. This tank has been in operation for seven years. During the year under Area under command.

Area under command. report a survey of the area under command was made with the following result:—

	Villages.	•	Gross Area com- manded	Culturable Area commanded.	Area irrigable by works as completed.
	•		Acres.	Acres.	Acres.
Umrána Saundána Nándgaon	•••	***	1,439 405 1,493	1,358 361 1,478	400 300 300
•	Total	·••	3,337	3,197.	1,000

- 2. The tank works with the distributaries have been completed with the State of Work.

 State of Work.

 exception of the extension of the Saundána channel to irrigate the lands of Nándgaon. This was delayed pending settlement of the question of the formation of fixed bágáyat at Saundána and Umrána. The villagers have, however, now decided on the crop rate system, and the work of channel extension will be resumed to allow of irrigation at Nándgaon.
- 3. The tank supply during the year was sufficient to meet all demands.

 The storage in the tank at the commencement of the year was 70°37 million cubic feet, which fell to 42°49 million cubic feet on the 9th June 1895 when the tank received its first replenishment. The full storage was reached on 22nd September 1895 when water began to overflow the waste weir. The tank remained full up to 6th November 1895. At the end of the year the storage was 63°70 million cubic feet.

4. The rainfall of the year was 18.93 inches (kharif 16.47 and rabi 2.46)

Rainfall.

Rainfall.

Rainfall.

Rainfall.

seasons the year's fall was as given below in comparison with that of the previous year:—

•	Seasons.		1895	-96.	1894-95.		
	-		Ins.	cts.	Ins. cts.		
Kharif	•		16	47	21 95		
Rabi	•••		2	46	3 42		
٠	Total		18	93	25 37		

Although the rainfall in both the seasons was less than in the previous year, the irrigation was less during the year under report. This falling off was due to fear on the part of the villagers that all irrigated lands would be classed as bagayat at the coming revision settlement, and they consequently restricted the area as far as possible.

5. The areas irrigated during the year amounted to 252 acres, distributed as under by seasons and villages, in comparison with those of the previous year:—

				Kharif,		Rabi.		Total.	
	Villages.			1894-95.	1895-96.	1894-95.	1895-96.	1894-95.	1895-96.
			_	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Umrána Saundána Nándgaon	***		•••	77 39 	57 36 15	102 117 28	64 57 23	179 156 28	121 93 38
		Total	•••	116	108	247	144	363	252

There was a falling off in the irrigation of fodder crops during the hot weather, 21 acres being irrigated during the year against 68 in the previous year. Owing to the shortness of rainfall in the kharif season 29 acres of bajri and 34 acres of sesamum crops had to depend upon the tank supply.

Gross Revenue.

6. The total assessment of the year amounted to—

against Rs. 1,704 of the previous year, The falling off is due to less rabi and hot weather irrigation.

- 7. Remissions of Rs. 178-8-0 on account of Parsul tank water-rates, on kayam bagayat land at Saundána, had to be granted during the year, as this land is entitled to water under the existing settlement to the end of February.
 - 8. The realisations amounted to—

Water-rates Miscellaneous	***	•••		***	Rs. 1,125 26
		. •	Total	•••	1,150

9. The outstandings amount to-

Kharif, Rabi,	1895-96 1895-96	•••	•••		•••	Rs. 3 575
•	•			Total	•••	578

The first sum remained unrecovered because the Taluka Revenue Officer received order to realize it only after the close of the year. The rabi demands were sent for realization after the close of the year.

Working expenses.

10. The working expenses amounted to—

In the Public Works Depart In the Civil Department	tment	***	•••	Rs. 1,024 56
		Total	•••	1,080

is compared with Rs. 1,359 of the previous year.

11. The same scale of water-rates as in the previous year was in force during the year under report and is detailed in statement I—F. The perennial area was assessed at Rs. 11 per acre as explained in paragraph 12 of the report for 1894-95.

12. The year's irrigation may be classified as under:-

Crops.			Area.	Assessment.
			Acres.	Rs.
Kharif Rabi (including 8 months' crops) Hot weather (including perennial)		•••	65 139 48	65 565 272
	Total	•••	252	902

Measurement of crops.

13. There was no separate charge for measurement of irrigated crops which was done by the canal karkun.

Area applied for and irrigated.

14. The area applied for compares as below with actual irrigation:—

	•			Kharif. Acres.	Rabi.
Area applied for	•••	•••	•••	111	116
Do. actually irrigated	•••	•••	•••	108	144
		Difference	•••	 3	+ 28

The difference is due to wrong estimates in water applications.

Evaporation and absorption. 15. The calculated loss by evaporation and absorption was as under:—

Kharif Season.

April, May and June, 70 days		••••	Feet. 5·77
Rabi Season.		•	
November, December 1895 and January 1896, 92 days		•••	3.91
Hot Weather,		•	
February and March 1896, 60 days		•••	3.52
	Total	•••	13.20
Average dail	y loss		059

(17).—PRAVARA RIVER WORKS—OJHAR CANAL.

The area irrigated during the year was 1,896 acres, of which 577 were under kharif and 1,319 under rabi crops. The total shows an increase of 3.2 acres on the area of previous year. The area of kharif was 16 acres less and that of rabi 368 acres greater than in the previous year. The decrease in the kharif season is due to timely rainfall, which resulted in no water being taken for 492 acres for which applications had been submitted. It is also due to the decrease in area of perennial crops, as the cultivators were doubtful whether their applications for water for the perennial crops within \(\frac{1}{4}\) mile of the villages would be sauctioned without undue delay, as they had to be referred to the Chief Engineer and Sanitary Commissioner before acceptance. Of this decrease 6 acres 20 gunthas were on account of rejection of applications for water for proposed new plantain gardens within the \(\frac{1}{4}\) mile radius.

Comparison of area applied for and irrigated.

2. The following statement compares the area applied for and irrigated during the year:—

,		Кн	ABIF.	Rabi.		TOTAL.		Dipperence less ierigated.		
Year.		Applied for.	Irri- gated.	Applied for.	Irrigated.	Applied for.	Irrigated.	Charif.	Rabi.	Total.
			Acres.	Acres.	Acres.	Acres.	•	Acres.		Acres.
1895-96	•••	888	577	1,548	1,319	2, 436	1,896	311	229	5 <u>4</u> 0

The area applied for but not irrigated is 22.17 per cent. of the total area applied for. The decrease in kharif season is due to good rainfall in July and September, which rendered canal water unnecessary.

Water-rate assessments.

3. The water-rate assessments amounted to Rs. 6,189 against Rs. 4,678 in the previous year.

The details are:-

The assessment under the old scale would have been Rs. 4,837. The introduction of higher rates and the orders regarding restriction of perennial irrigation within 4 mile of all villages have unfavourably affected the revenue, but these causes are likely to have a temporary effect only.

Remissions.

4. Remissions amounting to Rs. 13-12-4 were granted during the year on account of erroneous assessments.

Refunds.

5. Refunds amounting to Rs. 12 were sanctioned during the year on account of wrong assessment.

6. The revised water-rates sanctioned in Government Resolution No.
110 A.I.—607, dated 30th March 1895, were brought into force from 1st April 1895. They are to continue for five years, and compare with the previous rates as follows:—

				d rat		Revi per	ed : Acr	
			Rs.	a,	p.	Rs.	а,	p.
Class I.—Perennial	•••	•••	8	0	0	10	0	0
Do. II.—Eight months		•••	4	0	0	4 2	0	0
Do. III.—Four months	•••		2	0	0		0	0
Do. IIIA.—Superior rabi crops				• • •		3	0	0
Do. IV.—Mongoon dry	• • •]	0	8	0	0	8	0
Do. VSpecial hot weather	•••	•••	4	0	0	4	0	0

Area irrigated per mile of main canal and of main canal and branches. 7. The area irrigated per mile of main canal was kharif 30:37 and rabi 69:42 acres, and that of main canal and branches was kharif 14:42 and rabi 32:97 acres.

Comparison of area irrigated and revenue.

8. The following table compares the area irrigated and revenue derived during the previous three years with the figures of the year under report:—

· . ·	Year.	Area irrigated.	Revenue from Water-rates.	Rainfall from 1st April 1895 to 31st March 1896.
		Acres.	Rs.	In. cts.
1892-93	•	1,100	3,471	37 72
1893-94	•••	2,243	6,030	25 09
1894-95		1,544	4,678	25 46
1895-96	•	1,896	6,189	24 57

The rainfall was deficient in August and also in and after October.

9. The incidence of water-rate per acre was Rs. 3.26 against Rs. 3.03 in the previous year, the increase being due to revision of water-rates.

Working expenses.

10. The working expenses amounted to Rs. 14,230 as detailed below, against Rs. 28,766 in the previous year:—

•	•			Rs.
Maintenance and repairs	•••	•••		3,196
Share of establishment	•••	***	•••	9,223
Tools and plant	***	•••	•••	255
Share of collection charges	•••	•••	•••	253
Indirect charges	•••		•••.	1,291
Refund of revenue	•••	•••	•••	12
•		Total		14,230

The rate of working expenses per mile of main canal open was Rs. 749, and per acre irrigated Rs. 7.51.

The expenditure on maintenance and repairs was Rs. 1,386 less than in 1894-95, most of which saving is due to no special clearance work having been carried out as in the previous year.

The cost of tools and plant increased from Rs. 122 to Rs. 255, or by Rs. 133 over that of 1894-95. As a large number of tools had been lying on this canal useless for want of repairs, the greater part of the allotment for the district was expended on them.

- 11. The total cost of measurement of 1,516 acres (excluding 380 acres sub-divided) during the year was Rs. 150, or 1 anna and 7 pies per acre, as compared with 1 anna and 9 pies per acre last year.
- 12. The duty per cubic foot per second of water admitted into the canal was 15.72 acres in the kharif and 33.97 acres in the rabi season. That of water actually utilized was 19.79 acres in the kharif and 56.25 acres in the rabi season.
 - 13. The rainfall, as gauged at Ashvi, was kharif 22.73, rabi 1.84, total 24.57 inches, or 1.41 inches more than the average of the last five years.
 - 14. The supply of water in the river was more than sufficient to meet all requirements for kharif and rabi. In January 1896 a temporary earthen bund was constructed on the weir

as usual to increase backwater during the hot weather of 1896-97. The discharge of the river on 31st March 1896 was 15 cubic feet per second against 40.80 on the same date in the previous year. A project for a storage reservoir to increase the hot weather supply is under consideration.

Plantation.	•	15. At on this canal kinds were:	was 13,783.	year The	the number of trees numbers of principal
Bábul		10,610	Bakan		35
Mango		930	Jámbul	•••	199
Do. grafts	•••	52	Sandal	4	89
Orange	•••	29	Nimb	•••	1,586
Bor	•••.	153	Bamboo		46
Moho	•••	4	Kyene	•••	2
Siras	•••	4	Miscellaneous	trees	44
_	_			-	

The total number last year was 13,105.

16. The canal was closed five times for silt and weed clearance, for periods aggregating 23 days. It was also closed for 13 days more on account of rains in July and August 1895.

(18).—BHATODI TANK.

The areas of the preceding year were 517 acres kharif and 1,181 acres rabi, but subsequent enquiries proved that 37 acres kharif and 65 acres rabi, which had taken no water, had been wrongly included. Deducting these, the areas of the two years compare as follows:—

	1894-95,	1895-96. 1	Difference less
	Acres.	Acres.	Acres.
•••	480	86 791	$\begin{array}{c} 394 \\ 325 \end{array}$
***	·		,
		1,116	

The reasons for the decrease are, good rainfall during the kharif season, increase in rates which came into force this year, and doubts entertained by the cultivators as to whether their applications for cultivation within the ½th mile radius of villages would be sanctioned or refused on sanitary grounds: see Government Resolution No. 154 W.-I.—1769, dated 18th November 1895. These causes of decrease are not likely to influence the area under irrigation in succeeding years.

- 2. The area applied for was 831 acres (kharif 60 acres and rabi 771 acres) and the area irrigated was 877 acres. The difference for and irrigated.

 Comparison of area applied is due principally to errors in entering areas of pût numbers in water applications.
 - 3. During the year the water-rate assessments amounted to Rs. 3,271; detailed as below, against Rs. 5,467 in the previous year:—

Rs. ... 727 Rabi 2,544
Total ... 3,271

The assessment under the old scale would have been Rs. 2,540. The reasons for the decrease are given in paragraph 1, and another reason is the large falling off in the area of ground-nuts which fell from 372 acres to 63 acres. There was no increase in water-rates for ground-nuts, and the reason for the falling off is not known.

- 4. Remissions amounting to Rs. 308-0-5 were sanctioned during the year on account of erroneous assessments for 1894-95.

 These were necessitated by the incompetence and dishonesty of the Canal Inspector who was dismissed in September 1895.
 - 5. Refunds amounting to Rs. 262 were sanctioned during the year on account of erroneous assessment, but Rs. 146 only Refunds.

 Were repaid during the year; the remaining amount will be paid in 1896-97.
- 6. The revised water-rates sanctioned in Government Resolution No.

 154 A.I.—893, dated 7th June 1895, were brought into force since 16th October 1895. They are to continue for five years, and compare with the previous rates as follows:—

		,	-	ld rate r Acre.		ised rate r Acre.	
,				Rs.	٠	Rs.	
Class I.—Perennial	***	441		12		12	
• Do. II.—Eight months		•••	0,0,0	4	•	4	
Do. III.—Four months	•••	•••	•••	2		3	
Do. IV.—Monsoon dry		***	1	1		1	
Do. V.—Special hot wea	ther			4		4.	
•							

Comparison of area irrigated and the revenue derived during the previous three years with the figures of the year under report:—

	Year.			Area irrigated.	Revenue from Water-rates.	Rainfall from 1st April 1895 to 31st March 1896.		
	,			Acres.	Rs.	Ins. cts.		
1892-93		•••		1,337	4,038	46 63		
1893-94	***	•••		1,613	5,173	31 50		
1894-95				1,698	5,467	28 55		
1895-96	•••	•••		877	3,271	24 65		
			- 1			,		

The increase of rates from Rs. 2 to Rs. 3 may have affected the area of jowári and gram, which fell from 690 acres to 431 acres and from 245 acres to 153 acres respectively, while ground-nuts, on which there was no increase in water-rate, fell from 372 acres to 63 acres.

8. The incidence of water-rate per acre was Rs. 3.73 against Rs. 3.22 in the previous year. The increase is due to the revision of water-rates.

9. The working expenses amounted to Rs. 9,101 detailed as below, against Rs. 12,281 in the previous year:—

Maintenance and repairs Share of establishment	•	•••			•••	Rs. 2,043 5,761
Tools and plant Share of collection charges Indirect charges		444 444			•••	344 807
Refund of revenue	-	 •	***	Total	•••	9,101

_ 1000 1

and per acre irrigated Rs. 10·38. The expenditure on repairs to head-works was reduced from Rs. 681 to Rs. 566. This item includes expenditure on account of raising a temporary dam across waste weir channel, and saving was on this dam. The cost of repairs to masonry works increased from Rs. 99 to Rs. 152; this was due to the necessity of replacing the teakwood planks of many of the escapes, the old ones having become unsound and incapable of being rendered water-tight; there was also increased expenditure on earth-work—main canal—amounting to Rs. 89, due to the necessity for clearance to parts of the canal in 2nd, 3rd and 4th miles and of Rs. 31 on earth-work—branch canals. The total expenditure for maintenance and repairs exceeded that of the previous year by Rs. 80.

The increase of Rs. 64 under collection charges is due to the increase in the amounts to be collected during the year.

Duty of water.

10. The duty per cubic foot per second of water actually utilized was 18.70 acres in the kharif and 123.40 acres in the rabi season.

- 11. The cost of measurement of 90 acres (excluding 787 acres subdivided) was Rs. 9-15-0 or Re. 0-1-9, against Rs. 30 or Re. 0-3-10 per acre last year.
 - 12. The rainfall as gauged at Bhatodi was kharif 23.51, rabi 1.14, total 24.65 inches, or 2.02 inches less than the average of the last five years.
- 13. On the 1st April 1895 the water in the tank stood at 11.85 feet above sill of outlet, i. e. 6.25 lower than on the same date in the previous year. The first replenishment was on 11th June 1895; water rose from R. L. 76.88 to 76.90. The highest R. L. of water in the tank was 93.60 on 21st October, i. e. 1.10 feet above the crest of the waste weir. On 31st March the R. L. of water was 87.34 against 81.90 on the same date in the previous year. The supply of water in the tank was ample,
 - 14. On 31st March 1896 the number of trees on the canal was 11,537 as compared with 7,681 in the previous year. The numbers of principal kinds were:—

Mango	•••		836	Jámbul	•••		111
Do.	grafts	441	41	Nimb	•••		425
Bor	•••	***	216	Sandal	464	•••	264
Orange	•••	***	18	Siras	•••	•••	102
Bábul	***	***	8,344	Tamarind	•••	414	40
		Miscellan	eous	1	.140	•	

(19).—MA'TOBA TANK.

The water in this tank stood at 17.83 feet above sill of outlet on 1st April 1895. The draw-off for irrigation reduced the supply until 4th June, when it stood at 8.85. From the 5th June it commenced to be replenished, and filled to overflowing on the 2nd August, and on the 31st March 1896 the level was 19.44 above sill of outlet, or 1.50 feet higher than on the same date in the previous year.

2. The area irrigated from the tank during the year was 1,168 acres, of which 840 acres were under kharif and 328 acres under rabi crops. The total shows a decrease of 252 acres as compared with that of the previous year, and is due to favourable rainfall. The assessments of water-rates amounted to Rs. 8,971 and the miscellaneous revenue to Rs. 116, making a total of Rs. 9,087 against Rs. 10,079 in the previous year. The cause of the decrease is chiefly due to the reduction in the area of sugarcane, as explained in para 3 of the Mutha Canals Report. The incidence of water-rates was Rs. 7.63 per acre irrigated against Rs. 7.00 in the previous year.

Cost of measurement:

- 3. The cost of measurement amounted to Rs. 63 for an area of 1,168 acres, or at the rate of 10 pies per acre.
- 4. The working expenses amounted to Rs. 3,014, which represents a rate per mile of canal in operation of Rs. 177.29, or 2.58 per acre irrigated.
- 5. The following statement shows the duty of water ascertained from special observations of discharge and area actually under irrigation during the months referred to:—

	•	Month.			Discharge Cubic feet per second.	Area irrigated	Duty in Acres per Cubic foot per second.	
1895 1896	···{ April May January February	•••	•••	• • • • • • • • • • • • • • • • • • •	8·01 7·70 8·79 8·13	374 353 662 408	46-69 45-84 75-31 50-18	

Area irrigated and applied for.

6. The following is the comparison of areas irrigated and applied for:—

ARBA APPLIED FOR,			· Arka irrigated.			More.		LESS.	
Kharif,	Rabi.	Total.	Kharif.	Rabi.	Total.	Kharif.	Rabia	Kharif.	Rabi.
1,019	531	1,550	840	.328	1,168	•••	•••	179	203

Decrease due to favourable rainfall.

(20).—KASURDI TANK.

During an unusually heavy storm, on the night of 9th June 1895, the Kásurdi tank dam was breached and the necessary repairs were in progress during this year at an estimated cost of Rs. 3,001.

Area irrigated and assessments. 2. The area irrigated was 3 acres of rabi only on leakage water.

The assessments amounted to Rs. 54, of which Rs. 8 were on account of water-rates and Rs. 46 for miscellaneous revenue.

3. The working expenses amounted to Rs. 3,766. The excess was due working expenses. to expenditure on special repairs to the dam and proportionate charge for establishment on the increased outlay.

(21).—SHIRSUPHAL TANK.

On the 1st April 1895 there was no water in the tank, and it remained empty till the 25th May 1895. The tank was replenished on the 26th May and water rose to 11.00 above the outlet sill on that day; the draw-off commenced from the same date and on 6th September water stood at 7.88 feet. Between September and November the water rose to 25.75 feet above outlet. The draw-off commenced from 10th November, and on 31st March 1896 the water stood at 19.55 feet.

2. The area irrigated was 131 acres of kharif and 589 acres of rabi, making a total of 720 acres against 177 acres in the previous year. The increase was due to increased supply of water in the tank for rabi crops. The assessments of water-rates amounted to Rs. 2,064, and the miscellaneous revenue to Rs. 173, making a total of Rs. 2,237 against Rs. 1,304 in the previous year.

Cost of measurement.

- 3. The cost of measurement amounted Rs. 15 for an area of 720 acres, or at the rate of 4 pies per acre.
- 4. The working expenses amounted to Rs. 2,692, which represents a rate working expenses.

 for maintenance per mile of canal in operation of Rs. 215:36 and Rs. 3:74 per acre irrigated.

Area applied for and irrigated.

5. The following is the comparison of areas irrigated and applied for:—

AREA APPLIED FOR.			Area irrigated.			Мо	RE,	Less.	
Kharif.	Rabi.	Total.	Kharif,	Rabi.	Total,	Kharif.	Rabi.	Kharif.	Rabi.
Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
168	520	688	131	589	720		69 •	37	•••

The difference is due to approximate areas being given by the cultivators in their applications for water.

6. To ascertain the loss by evaporation and leakage from the tank during the year, gaugings were taken for broken periods during the months of May 1895 to September 1895 and November 1895 to March 1896, or a total number of 252 days. During this period the loss amounted to 75,906,304 cubic feet, or nearly the of the total capacity of the tank above outlet level. The tank was empty up to 25th May 1895.

(22).—BHÁDALVÁDI TANK.

At the beginning of the year the water level stood at 20.07 feet above the outlet sill, or 9.17 feet higher than on the same date in the previous year. The tank filled to overflowing on the 15th September 1895. The draw-off commenced from 21st October, and at the close of the year, 31st March 1896, the water level stood at 28.25, or 8.08 feet higher than on the same date in the previous year.

2. The areas irrigated were 313 acres of kharif and 523 acres of rabi, making a total of 836 acres against 299 acres in the previous year. The increase was due to good supply of water in the tank.

The assessments of water-rates amounted to Rs. 2,292 and the miscellaneous revenue to Rs. 8, making a total of Rs. 2,300 against Rs. 746 in the previous year.

Cost of measurement.

- 3. The cost of measurement amounted to Rs. 41 for an area of 836 acres, or at the rate of 9 pies per acre.
- 4. The working expenses amounted to Rs. 1,968, which represents a rate of Rs. 201.85 per mile of canal in operation and Rs. 2.35 per acre irrigated.

Area applied for and irrigated.

5. The following is the comparison of areas irrigated and applied for:—

AREA APPLIED FOR.			AREA IRRIGATED.			Мови.		Less.	
Kharif.	Rabi.	Total.	Kharif.	Rabi.	Total.	Kharif.	Rabi.	Kharif.	Rabi.
Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
466	470	936	. 313	52 3	·836	•••	53	153	•••

The difference is due to approximate areas being given by the cultivators in their applications for water.

6. To ascertain the loss by evaporation and leakage from the tank during

Evaporation and leakage. the year gaugings were taken for broken periods during April 1895 to March 1896, or a total number of 310 days. During this period the loss amounted to 57,120,196 cubic feet, or 14th of the total capacity of the tank above outlet level.

(23).—KOREGAON TANK.

The rainfall for the year under report was 43.95 inches (kharif 41.75 and rabi 2.20) against 23.10 inches of the previous year (kharif 21.20 and rabi 1.90).

- 2. The lowest water level in the tank was 83.60 on 19th June 1895,

 Replenishment. representing a depth of water of 3.60 feet over the sill of canal sluice. Replenishment commenced on 22nd June 1895, and the waste weir began to overflow on 20th September 1895.
- 3. The area irrigated during the year was 343 acres (kharif 51 and rabi Area irrigated.

 292) against 391 acres of the previous year (kharif 85 and rabi 306). The area applied for was 57 acres and 305 acres of kharif and rabi respectively. The difference between the areas applied for and areas actually irrigated is due to the cultivators being ignorant of the areas of their fields.
- 4. The assessment on account of water-rates was Rs. 850 against Rs. 1,150

 Assessed revenue.

 of the previous year. The gross revenue from all sources amounted to Rs. 890 against Rs. 1,175 of the previous year. The decrease is due to a smaller area being irrigated during the year.

Comparison with previous years.

5. The following table gives a comparison with previous seven years:—

Years.			Kharif.	Rabi.	Total.	Water- rates.	Gross Revenue.	Working Expenses.
1888-89	•••		Acres.	Acres.	Acres. 230	Rs. 714	Rs. 1,289	Rs.
1889-90	•••		13	32 3	336	743	746	895
1890-91	• • • •	•••	121	99	220	. 590	599	773
1891-92	•••		66	363	429	1,061	1,073	886
1892-93	•••	•••	47	255	302	769	779	1,087
1893-94	•••	•••	94	258	352	1,006	1,015	822
1894-95		•••	85	306	391	1,150	1,175	730
1895-96·			51	292	343	850	. 890	815

The decrease under kharif of 34 acres in 1895-96, as compared with the previous year, was due to insufficient storage of water in the tank. The 1239-12

decrease under rabi is small (14 acres), and is due to favourable rainfall during that season.

6. The working expenses, including indirect charges, were Rs. 815, of Working expenses. which Rs. 365 were for maintenance and repairs, representing Rs. 97 per mile of canal, which is 33 miles in length, against Rs. 83 of the previous year. The increase was on account of extra repairs to the dam and the canal during the year.

Measuring charges.

7. The area irrigated was measured at a cost of Rs. 40 or at anna 1 and pies 10 per acre measured.

8. The rainfall over 4.40 square miles of the catchment area from 1st June

to 31st October 1895. was 43.95 inches, which gives

449.26 millions of cubic feet of water as having fallen on
the catchment area. Forty-four per cent. of this ran off into the tank. The
run-off from 1st June to 20th September 1895, on which date the waste weir
began to overflow, was 0.32.

Plantations.

9. There were no new plantations made during the year.

10. No special experiments were made during the year for ascertaining Duty of water. the duty of water required for different kinds of crops.

(24).—ASHTI TANK.

The rainfall for the year under report was 29.55 inches (kharif 25.60 and rabi 3.95 inches) against 21.70 inches of the previous year (kharif 19.30 and rabi 2.40 inches), and was seasonable.

- 2. The lowest water level in the tank was 1,535.90 prior to replenishment, and the depth of water over sill of canal sluice was 8.30 feet. The tank commenced to fill on 8th July 1895, and the cut in the waste weir began to overflow on 8th September 1895.
- 3. The area irrigated during the year was 1,323 acres (kharif 486 and rabi 837) against 1,459 acres of the previous year (kharif 645 and rabi 814). The area actually irrigated was nearly the same as that applied for. The land under command being subdivided into smaller irrigation numbers, the cultivators know the exact area of land to be irrigated.
- 4. The assessment on account of water-rates was Rs. 3,977 against Rs. 4,717 of the previous year. The gross revenue from all sources amounted to Rs. 4,545 against Rs. 5,136 of the previous year. The decrease is due to less area irrigated under kharif during the year.

Comparison with previous years.

5. The following statement compares the results of the year with those of the previous seven years:—

Years.			Kharif.	Rabi.	Total.	Water- rates,	Gross Revenue.	Working Expenses,
•			Acres.	Acres.	Acres.	Rs.	Rs.	Rs.
1888-89	•••	••••	980	1,437	2,417	4,598	4,990	7,981
1889-90	•••	•••	. 829	618	1,447	4,523	5,068	5,774
1890-91	•••	•••	578	548	1,124	3,284	4,294	5,151
1891-92	•••	•••	559	1,143	1,702	4,610	6,200	5,333
1892-93		•••	677	437	1,114	4,176	4,687	7,528
1893-94	•••	•••	711	487	1,198	3,860	4,207	5,440
1894-95	•••	•••	645	814	1,459	4,717	5,136	3,953
1895-96			486	837	1,323	3,977	4,545	3,918

There was a decrease of 159 acres in kharif and an increase of 23 acres in rabi as compared with the previous year. The decrease is due partly to unfavourable rainfall at the commencement of the monsoon season for sowing ground-nut, and partly to the cultivators not having sown ground-nut owing to the number of wild pigs in some of the villages under command. The increase in rabi is very small, and requires no explanation. The revenue from sources, other than water-rates, was Rs. 568, and was on account of land let out for cultivation and grazing, sale of aloe leaves and trees, &c. The incidence of water-rate per acre irrigated was Rs. 3 against Rs. 3.23 of the previous year.

- 6. The working expenses, including indirect charges, were Rs. 3,918, of which Rs. 2,360 were spent for maintenance and repairs, including special repairs to canals, representing a charge of Rs. 80 per mile of canal against Rs. 70 in the previous year, the length of canals, branch canals and distributaries being $29\frac{1}{2}$ miles. The increase was due to special repairs to canals costing Rs. 268.
 - 7. No. measuring charges were incurred as the lands under command have been subdivided into smaller pôt numbers for irrigation purposes.
- 8. The rainfall over 92 square miles of catchment area of the tank was gauged at two stations, and the average rainfall was 30.65 inches against 21.62 of the previous year. The run-off into the tank is calculated to have been 0.40 of the rainfall from 1st June to 31st October 1895. The run-off from 1st June to 8th September 1895, on which date the cut in the waste weir began to overflow, was 0.30.

Evaporation and absorption.

9. The following figures show the storage of water and loss by evaporation and absorption during the year:—

	Cubit feet.
Quantity of water in tank on 31st March 1895 plus the quantity that flowed into the tank during the year	3,119,107,415.50
over waste weir Balance of water in tank on 31st March 1896	1,622,532,752·00 838,180,734·50
Quantity lost bey vaporation and absorption	2,460,713,486·50 658,393,929·00

10. No new trees were planted during the year. The system mentioned in the Mhasvad Tank Report regarding new plantations and sales of existing trees, applies to this tank also. The existing trees on the tank contour and canals on 31st March 1896, were 52,932 in number as detailed below. Of these, 38,854 were over 5 feet and 14,078 under 5 feet in height detailed as below:—

Nan	nes of T	Crees,	Number above 5 feet in height.	Number under 5 feet in height.	
Mango Jambul Nimb Sindi Bori Babul Orange Tamarind Guava Miscellaneo	••• ••• ••• ••• •••			505 221 1,945 190 75 35,000 70 73 16 759	130 22 150 150 7 13,600
		Total	•	38,854	14,078
Total nu	mber	of trees	•••	52,	932

11, Special experiments were made to determine the duty of water required to mature certain kinds of crops, and the results were as under:—

One cubic foot of water per second was found sufficient to irrigate 91 acres of sugarcane, 172 acres of ground-nut, 166 acres of inferior rice, 125 acres of jod wheat.

(25).—REVA'RI CANAL.

The Capital Account of this canal was closed on 31st March 1893.

The only expenditure that was incurred on it during the year was Rs. 189 paid by the Civil Department on account of land taken up for the extension of the canal—vide note explaining the differences between the sanctioned and actual expenditure under II.—Main Canal and Branches, B.—Land, in the completion report of the work.

Rainfall. 2. The rainfall, as gauged at Revári near the head-works, is shown in the following table:—

Years.		Kharif.	Rabi.	Total.	
		Ins. cts.	Ins. cts.	Ins. cts.	
1895-96 1894-95 Average, 1891—94	•••	21 66 27 91 22 34	10 24 3 85 5 82	31 90 31 76 28 16	

3. The area irrigated, the assessments, working expenses and average water-rate as compared with the average of the previous four years were:—

· Years.	K	harif.	F	labį.	Tot	cal.	Average Water-rate.	Working Expenses.
1895-96	Acres.	Rs. 1,628	Acres. 1,083	Rs. 4,054	Acres. 1,224	Rs. 5,682	Rs. 4.64	Rs. 3,464
Average, 1891-92 to 1894-95	910	2,400	966	3,077	1,185	5,477	4.70	1,837
Increase Decrease	 78	772	117	977	39	205	0 ;06	1,627

4. As compared with the average of the previous four years there is a decrease of 78 acres in area and of Rs. 772 in assessment.

Area irrigated and assess.

ment in the kharif and an increase of 117 acres in area and of Rs. 977 in assessment in the rabi. The net increase in the water-rate assessment is Rs. 205 over the average of previous four years. But compared with the last year there is a decrease of Rs. 902 in assessment, which is due to timely and sufficient rainfall. Remissions of Rs. 27 and Rs. 38 were granted in the kharif and rabi seasons, respectively—vide Government Resolution No. 3610, dated 23rd August 1865.

5. The principal crops irrigated during the year were as follows compared with the previous four years:—

Name o	f crop.		Area irrigated, 1895-96.	Average area of the previous four years.
			Acres.	Acres.
Sugarcane			52	91
Wheat	•••	•••	124	134
Ground-nut	•••	•••	369	555
Jowári	•••	•••	577	309

- 6. The area irrigated was 34 per cent. of that irrigable and 15 per cent. less than that applied for.
- 7. The working expenses, including direct and indirect charges, amounted to Rs. 3,464 against Rs. 1,938 in the previous year, and working expenses.

 The rate per mile of canal was Rs. 693 and the rate per acre irrigated was Rs. 2.83 as compared with Rs. 387 and Rs. 1.26 for the previous year.

The excess expenditure during the year is partly due to works of the nature of original works having been charged to the Revenue Account, viz.:—

Constructing trough aqueduct 198
Constructing masonry escape with iron sluice doors ... 317
Constructing 2 modules 175
Sub-dividing the irrigated lands of the Revári village ... 63

Total ... 753

and in addition to this a sum of Rs. 503 was spent on special silt clearance.

8. The operations of the year show a net profit of Rs. 2,332, or 4 per cent. on the direct capital outlay of Rs. 56,771. This being an old native work the whole cost of construction is not included in the capital outlay.

Average water-rate and cost of measurement,

9. The average water-rate and cost of measurement, as compared with the previous years, were as follows:—

Years.	Area irrigated.	Average incidence of Water-rate	Cost of Measurement and Revenue Establishment.			
		per Acre.	Total Cost.	Per Acre.		
•	Acres.	Rs.	Rs.	Rs. a. p		
1892-93 1893-94 1894-95 1895-96	1,011 1,348 1,541 1,224	4·15 4·64 4·27 4·64	181 217 271 316	0 2 9 0 2 7 0 2 9 0 4 2		

Excluding the charge for Revenue Establishment, the cost of crop measurement alone was Rs. 233, which is equal to Re. 0-3-1 per acre against Rs. 187, or Re. 0-1-11 per acre for 1894-95,

- 10. The average duty of water obtained was for the kharif season 21 acres and for the rabi season 160 acres per cubic foot per second.
- 11. The number of trees of all classes on the canal at the beginning of the Plantations. year was 1,729 and at the end of the year 1,776.

The principal varieties are babul 1,188, jambul 139, mango 106 and bamboo 124. The net revenue from plantation was Rs. 87,

(26).—UPPER MA'N RIVER WORKS,

The Capital Account of this project was closed on the 31st March 1892.

Capital Account.

The only expenditure incurred during the year was Rs. 120 paid by the Civil Department on account of acquiring land likely to be damaged by the floods from the Pingli Tank.

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2. The rainfall, as gauged at Gondowli, the centre of the irrigated area, is Rainfall. shown in the following table:—

Years.	Kharif.		Rabi.		Total,		
		Ins.	cts.	Ins.	cts.	Ins.	cts.
1895-96 1894-95 Average, 1891—94		19 15 13	10 28 54	4 4 6	18 90 31	23 20 19	28 18 85

3. The area irrigated, the assessment, working expenses and average waterrate were as follows:—

Years.	s. Kharif.		Rabi. Tota		al.	Average Water-rate,	Working Expenses.		
		Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Rs.	Rs.
1895-96 Average, 1891-92	to	723	4,072	912	2,592	1,635	6,664	4.08	5,193
Average, 1891-92 1894-95 Increase Decrease	•••	756	3,368 704 	547 365	1,899 693	1,303 332 	5,267 1,397	4·04 0·04	4,710 483

4. As compared with the average of the previous four years, there is a decrease of 33 acres in area and an increase of Rs. 704 in assessment in the kharif season and an increase of 365 acres in area and of Rs. 693 in assessment in the rabi season. The assessment of the year under report is Rs. 1,397 more than the average of past four years, but is nearly equal to that of 1894-95. The area irrigated was 21 per cent. of the irrigable area and 4 per cent. in excess of that applied for.

Principal crops.

5. The principal crops irrigated during the year were as follows compared with the previous four years:—

Name of Crop.			Area irrigated in 1895-96.	Average of the previous four years.
	•		Acres.	Acres.
Sugarcane			92	67
Wheat	,		226	271
Jowári			567	229
Ground-nut			287	203

- 6. The revenue from all other sources amounted to Rs. 112, bringing the gross revenue of the year to Rs. 6,776.
- 7. The working expenses, including direct and indirect charges, amounted to Rs. 5,193 against Rs. 4,239 for 1894-95. The rate per mile of canal was Rs. 297 and per acre irrigated Rs. 3·18. The working expenses amounted to Rs. 77 per cent. on the gross revenue. The excess expenditure during the year under report is due to Rs. 788 spent on special repairs to the Pingli Tank and Canal, consisting of removing silt from canal and repairs to banks, &c., and the construction of a Famine Memorial Tablet at a cost of Rs. 136.
- 8. After deducting working expenses from the gross revenue, there was a net profit of Rs. 1,583, equal to a rate of 0.38 per cent, on the outlay of Rs. 4,07,541.

Average water-rate and cost of measurement.

9. The average water-rate and cost of measurement, as compared with the previous three years, were as under:—

	Years.				Total area irrigated.	Average incidence of	COST OF MEASUREMENT AND REVENUE ESTABLISHMENT.		
	·				irngaæu.	water-rate per Acre.	Total Cost.	Per Acre.	
					Acres.	Rs.	Rs.	Rs. a. p.	
1892-93 1893-94 1894-95 1895-96	•••	•••	•••		1,039 1,490 1,294 1,635	2:90 4:75 5:16 4:08	303 474 414 432	0 4 8 0 5 1 0 5 1 0 4 3	

Excluding the charge for revenue establishment, the cost of crop measurement alone was Rs. 298, or Re. 0-2-11 per acre, against Rs. 175, or Re. 0-2-2 per acre, for the previous year.

10. The average duty of water obtained was for kharif 209 acres and for Duty of water, rabi 174 acres per cubic foot per second.

Tank supply,

11. The following table shows the principal levels of the Pingli Tank which serves the system of canals:—

Particulars.	,	Height above M. S. L.	Remarks.
Water level on 31st March 1895 Do. 8th July 1895		9253.00	
Do. 25th September 1895 Do. 31st October 1895	•••	2371.19	•
Do. 31st March 1896 Outlet sill	•••	. 2342.09	
Full supply level	•••	2371.09	

There were no waste weir floods over 2' deep during the year.

12. The number of trees of all classes on the canal at the beginning of the Plantations. year was 5,003, and at its close 5,166.

The principal varieties are bábul 4,944, jámbul 32, saundad 20, mango 21, &c. The net revenue from plantation was Rs. 61.

(27).—YERLA RIVER IRRIGATION WORKS.

The works (1) Reconstructing a portion of Nehr Tank Dam, (2) Nehr Tank

Capital expenditure.

Service Road, (3) Special repairs to Nehr Store, and (4)

Famine Memorial Pillar, Nehr Tank, were in progress

last year and were all of them completed during the year under report, with the exception of No. 1. The expenditure incurred on them during the year was Rs. 6,360 on "Works."

Rainfall.

2. The rainfall, as gauged at Khatgun near the head of the irrigated area, is shown in the following table:—

Years.	•Kharif. Rabi.		abi,	Total.			
1895-96 1894-95 Average, 1891-94	•••	Ins. 18 23 21	cts. 42 49 08	Ins. 10 5 7	cts. 18 91 23	Ins. 28 29 28	cts. 60 40 31

3.	The area	irrigated, the	assessment,	working	expenses and	average	water-
rate wer	e as unde	r :		•	•	Ū	•

Years,	Kh	ırî f .	Rabi.		Total.		Average Water- rate.	Working Expenses.
C 410 10 14 14 14 14 14 14 14 14 14 14 14 14 14	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Rs.	Rs.
1895-96	773	4,166	1,834	4,907	2,607	9,073	3.48	6,418
Average, 1891-92 to 1894-95	E 10	3,020	1,592	4,868	2,105	7,889	3.75	10,636
Increase	261	1,146	242	39	502	1,185	•••	
Decrease		•••	•••	•••	· 		•27	4,218

As compared with the average of the previous four years there was an increase in area in both the seasons. This is principally due to the unfavourable rainfall in the kharif season. The replenishment to the Nehr Tank during the monsoon was good and the supply lasted throughout the hot season. During the year under report although the supply was certain and the people were given assurance of the same, yet the cultivators having failed with their sugarcane crop during the previous two or three years thought it wiser not to sow sugarcane.

Remissions to the extent of Rs. 6 were granted in the khárif season—vide Government Resolution No. 107 W.-I.—327 of 22nd August 1877. The revenue from other sources was Rs. 1,383 and the gross revenue Rs. 10,456.

Principal crops.

5. The principal crops irrigated during the year were as follows compared with the average of the previous four years:—

Name of	erop,	Area irrigated, 1895-96.	Average area of the previous 4 years.	
		•	Acres.	Acres.
Ground-nut	•••	••	930	712
Jowári	•••	•••	1,124	620
Wheat	•••	•••	154	274
Sugarcane	•••	•••	58	58

^{6.} The area irrigated was 24 per cent of that irrigable and 9 per cent. in excess of that applied for.

^{7.} The working expenses, including direct and indirect charges, amounted to Rs. 6,418 against Rs. 23,752 for 1894-95. The expenses represent a rate of Rs. 224 per mile of canal open and Rs. 2.46 per acre irrigated, and amount to 61 per cent. of the gross revenue.

Average water-rate and crop measurement.

8. The average water-rate and cost of the measurement as compared with the previous three years were as under:—

Years.		: Total area	Average incidence of Water-	Cost of Measurement and Revenue Establishment.			
		-	irrigated.	rate per Acre.	Total cost.	Per Acre.	
			Acres	Rs.	Rs.		
1892-93		·	1,831	3.48	466	0 4 1	
1893-94	•••		1,958	3.57	527	0 4 4	
1894-95	•••	•••	2,385	3 ·66	556	0 3 8	
1895-96			2,607	3 48 .	681	0 4 2	

Excluding the charge for the revenue establishment, the cost of crop measurement alone was Rs. 503, or Re. 0-3-1 per acre, against Rs. 216, or Re. 0-1-5 per acre, for 1894-95.

Duty of water.

9. The average duty of water obtained was for kharif 95 acres and for rabi 192 per cubic foot per second.

Tank supply.

10. The following table shows the principal levels of Nehr Tank:—

Particulars.		M. S. L.	Remarks.	
		•	,	, P
Water level on 31st March 1895 Do. 3rd June 1895 Do. 21st October 1895 Do. 31st December 1895 Do. 31st March 1896 Outlet sill Full supply level	•••	2,648·51 2,643·23 2,661·20 2,657·50 2,649·73 2,631·02 2,666·02	Lowest pre-monscon level. Highest monsoon level. Level at end of monsoon.	

There were no waste weir floods over 2' deep during the year. The general character of the supply and replenishments during the monsoon was fairly satisfactory.

11. The number of trees of all classes on the canal at the beginning of the year was 30,715 and at its close 24,756. The principal varieties are babul 17,538, mango 4,257, karanj 533, jámbul 148, teak 90 and bamboo 345. The net revenue from plantation was Rs. 1,178.

(28).—CHIKHLI CANAL.

Capital Account.

The Capital Account of this canal was closed on 31st March 1883,

Rainfall.

2. The rainfall, as gauged at Chhikli near the head of the irrigated area, is shown in the following table:—

Year,			Kha	ri f.	Rabi.		Total.	
			Ins.	cts.	Ins.	cts.	Ins.	cts.
18)5-96	•••	•••	17	50	4	86	22	36
1894-95	•••	•••	15	03	4	93	20	02
Average, 1891—1894		•••	14	92	6	81	21	73

3. The area irrigated, the assessments, working expenses and average waterate as compared with the average of the previous four years were as follows:—

Years,	K	harif.	R	Rabi.		Total.		Working Expenses,
	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Rs.	Rs.
1895-96	. 322	1,462	55	194	377	1,656	4.39	967
Average, 1831-9 to 1894-95	2 . 251	1,319	108	400	359	1,719	4:78	852
Increase .	. 71	143		•••	18	***	•••	115
Decrease .	•••	•••	53	206		63	0.39	

4. This year there was an increase in the area of 71 acres and of Rs. 143

in the revenue in the kharif season over the average of the preceding four years; while in the rabi season there was a decrease in both area and revenue of 53 acres and Rs. 206 respectively. The net decrease in the water-rate assessment is Rs. 63 as compared with the average of the previous four years.

Principal crops.

5. The principal crops irrigated during the year were as follows compared with the previous four years:—

Name of crop.	Area irrigated, 1895-96.	Average area of the previous four years,
Wheek	Acres. 27 8	Acres 29 28
Ground-nut	186	150

- 6. The area irrigated was 26 per cent. of the irrigable area and 7 per cent. less than that for which applications were received.
- . 7. Revenue from other sources was Rs. 44 and the gross revenue amounted to Rs. 1,700.
 - 8. The working expenses, including direct and indirect charges, were Rs. 967, and represent 57 per cent. on the gross revenue, Rs. 149 per mile of canal open, and Rs. 2.56 per acre irrigated.

The operations of the year show a net profit of Rs. 733, or $1\frac{1}{3}$ per cent. on the direct capital outlay of Rs. 53,803.

Average water-rate and cost of measurement.

9. The average water-rate and cost of measurement as compared with previous three years were:—

Years.		Total Average incidence area of Water-		Cost of Measurement and Revenue Establishment.				
			irrigated.	rate per Acre,	rate per		r Acre.	
	_		Acres.	Rs.	Rs.	Rs.	a. p.	
1832-93	***		263	4.65	62	0	3 8	
1893-94	•••	•••	370	5.49	113	0	4 10	
1894-95	•••		405	4.88	120	Ô	4 9	
1895-96	•••		377	4.39	133	0	5 8	

Excluding the charge for revenue establishment the cost of the measurement alone was Rs. 13, or Re. 0-0-7 per acre, against Rs. 36, or Re. 0-1-7 per acre, for 1894-95.

Duty of water.

10. The average duty of water obtained was for the kharif season 102 acres and that for the rabi 6 acres per cubic foot per second.

Plantations.

11. The number of all classes of trees on the canal at the beginning of the year was 2,652, and at its close 2,583.

The principal varieties are babul 2,408 and mango 94. The net revenue from plantation was Rs. 44.

(29).—MAINI TANK.

Capital Account.

The Capital Account of this work was closed on 31st March 1892.

Rainfall.

2. The rainfall, as gauged at Maini at the head of the irrigated area, is shown in the following table:—

Years.	Khar	Kharif.		i.	Total.		
•	Ins.	cts.	Ins.	cts.	Ins.	cts.	
1895-96	19	90	9	66	29	56	
1894-95	12	$\begin{array}{c} 31 \\ 25 \end{array}$	2	12	14	56 43	
Average 1891 to 1894.	16	25	6	12	19	87	

3. The area irrigated, the assessment, working expenses and average waterrate were as follows:—

Years,	Khs	Kharif.		Rabi.		Total.		Working Expen- ses.	
	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Rs.	Rs.	
1895-96		3,496	493	1,229	1,198	4,725	3.94	3,320	
Average 1891-92 to 1894-95	7/1/4	3,978	612	2,152	1, 356	6,130	4.52	7,705.	
Increase Decrease	90	482	119	 9 2 3	 15 8	 1,405	0.58	4,385	

Area irrigated and assessment.

Area irrigated and assessment.

Area irrigated and assessment.

Area irrigated and assessment.

The assessment during the year was less than that of the average of the past four years by Rs. 1,405. The reason for this decrease is the timely rainfall in the rabi season and the accumulation of silt in the tank which is now 14 feet above the outlet sill.

5. The principal crops irrigated during the year were as follows compared Principal crops. with average of the previous four years:—

Name of Crop.	Area irrigated, 1895-96.	Average of the Area of previous 4 years.
•	Acres.	Acres.
Sugarcane Wheat Ground-nut Jowári	53 82 439 131	66 153 532 91

- 6. The area irrigated was 26 per cent. of the irrigable area under command of the canal and 10 per cent. in excess of that applied for.
- 7. The revenue from other sources amounted to Rs. 86 and the gross revenue to Rs. 4,811.
 - 8. The working expenses, including direct and indirect charges, amounted to Rs. 3,320, i. e. Rs. 197 per mile of canal open, Rs. 2.77 per acre irrigated, and about 69 per cent. of the gross revenue.

The operations of the year show a net profit of Rs. 1,491.

Average water-rate and cost of measurement.

9. The average water-rate and cost of measurement, as compared with previous three years, were as under:—

				incidence	Cost of Measurement and Revenue Establishment.				
	Years.		Area irrigated.	of Water- rate per Acre.	•		\cre	cr e .	
		•	Acre.	Rs.	Rs.	Rs.	8.	p.	
1892-93	•••		1,101	4.46	419		6	1	
1893-94	•••	•••	1,359	4.81	532	0	6	3	
1894-95		• • • •	1,280	3.98	440	0	5	6	
1895-96	•••	•••	1,198	3.94	330	0	4	5	

Excluding the charge for revenue establishment the cost of crop measurement alone was Rs. 140, or Rs. 0-1-10 per acre, against Rs. 224, or Re. 0-2-9 per acre, for 1894-95.

10. The average duty of water obtained for the kharif season was 171 acres and for the rabi season 73 acres per cubic foot per second.

Tank supply.

11. The following table shows the principal levels of the Maini Tank:—

•	Particulars.			Height above	Bewares,
,,,	31st March 1895 1st June 1895 23rd September 1895 31st October 1895 31st March 1896	•••	•••	2,291·02 2,288·82 2,300·87 2,300·87 2,294·65	Lowest pre-monsoon level. Highest monsoon level. Level at end of monsoon.

The outlet sluice sill is at 2,269.32 above M. S. L. and F. S. L. at 2390.52 above M. S. L.

There was only one waste weir flood nearly 2 feet deep during the year.

12. The number of trees of all classes on the canal at the beginning of the year was 8,800 and at its close 8,219. The net revenue from plantation was Rs. 58.

(30).-MUCHKUNDI TANK.

 The rainfall of the year compares with that of the previous year and Rainfall. with the average of the 10 previous years as under:—

	Kharif.	Rabi.	Total,
Average of 10 years	12.57	7.03	19-66
1894-95 1895-96	13 [:] 22 7·58	4·65 5·02	17·87 12·58

Area irrigated and assessments. 2. The areas irrigated and assessed revenue of the past three years are shown below:—

Years.			Are	as Irriga	ATED.	Assessments.			
,	ears,		Kharif.	Rabi.	Total.	Kharif.	Rabi.	Total.	
	•		Acres.	Acres.	Acres.	Rs.	Rs.	Rs.	
1893-94 1894-95 1895-96	••• . •••	***	10 16 15	2 3 5	. 12 19 20	54 82 68	6 7 14	60 89 82	

The area applied for during 1895-96 was 30 acres (kharif 25 and rabi 5), or 10 acres more than that actually irrigated. The less irrigation was due to some of the applicants having not cultivated some perennial crops for want of funds and also to some applicants having applied for water for areas in excess of their requirements.

Miscellaneous revenue.

3. In addition to water-rates, a sum of Rs. 452 was realized under miscellaneous revenue as detailed below:—

(1) By sale of tarvad plants and grass within the limits of the	Ks.
tank (2) Sale of water to the Manager, Ginning Factory at Bágalkot	351
(2) Sale of water to the Manager, Ginning Factory at Bagaikot (3) Sale of dead trees in the bed of the tank ,	24 77
To be a second s	
	452

4. The working expenses amounted to Rs. 292 against Rs. 566 as shown in the previous year's report. The charge of Rs. 292 is made up as under:—

	Rs.
(1) Amount spent on account of survey for increasing the catch-	
ment area of the tank	17 ·
(2) Maintenance and repairs of the tank	203
(3) Establishment charges—	
Direction at 5 per cent. on Rs. 209	10
Executive at 18 per cent. on Rs. 209	37
(4) Revenue Establishment—Pay of karkún for measuring crops.	5
(5) Tools and Plant (Rs. 3) and Leave and Pension allowance	
(Rs. 7) and Share of collection charges (Rs. 4) as debited in	
the Examiner's Office	14
	
Total	$\bf 292$

5. The supply in the tank during the year under report, though less than that of the previous year, was sufficient for the small area under irrigation. On the 15th October 1895 the tank held 7.94 feet of water against 13.82 feet on the same date of the previous year. The run-off during the year amounted to 0.076 against 0.165 of the previous year.

6. The total number of trees and plants on the main and branch canals was 753, consisting of babul 722, nimb 28 and tamarind 3, as detailed below:—

,			Babul.	Nimb.	Tamarind.
Main Canal Broach Canal	•••	•••	509 213	25 . 3	 8
	Total	•••	722	28	3

The babul are mostly fair sized trees; the others are only small plants. B 1239—15

- 58 (31).—NILGUND TANK; (32).—GADIKERI TANK; (33).—DA'MBAL TANK.
- 7. The area irrigated being small, no separate measurers were entertained.

 The crops were measured by the gauge kárkún, part of whose pay, proportional to the time spent by him on the work, i. e. Rs. 5, has been debited to measuring.

(31).—NILGUND TANK.

An expenditure of Rs. 21 only was incurred on this work for removing the shutters of the sluice and conveying them to Bijápur. There is no irrigation under this tank, as in accordance with Government Resolution No. 98 W.-I.—1141 of 17th July 1894, the sluice is left full open in order that the water may not rise above sluice level.

(32).—GADIKERI TANK.

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

Rainfall.

2. The rainfall of the year was 28.36 inches against 28.53 of the previous year.

Area irrigated and revenue.

3. The area irrigated was 337 acres and the irrigation share of the consolidated revenue amounted to Rs. 1,987.

Working expenses.

4. The working expenses, direct and indirect, amounted to Rs. 199 against Rs. 236 of the previous year.

(33).—DA'MBAL TANK.

The rainfall gauge at the tank site amounted to 14.58 inches (10.68 inches during the kharif and 3.90 during the rabi season), against 12.98 inches of the previous year and 10.61 inches, the average annual rainfall for 16 years.

2. The tank was dry at the beginning of the year. Small replenishments in April brought some water in the tank, but it again ran dry at the end of that month and remained so till 3rd of July 1895. The tank received a fair supply of water by replenishments in October and November, but it ran dry several times in the interval. On the 6th November 1895 the water level was at R. L. 143.98 and it gradually fell to R. L. 136.56, i. e. 11.56 feet above the outlet sluices and 2.56 feet above the present bed of the tank on the 31st March 1896.

The supply was insufficient to meet the requirements of irrigation, and for this reason remissions for kharif crops were in some cases granted.

3. The following table shows the new area irrigated, assessment, working expenses and average water-rate as compared with the two previous years:—

Years.		Kharif.		Rabi.		Total.		Average Water-rate,	Working Expenses.
		Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Rs.	Rs.
1893-94	•••	110	623	17	50	•127	679	5.35	560
1894-95	•••	98	624	74	261	172	885	5.15	918
1895-96	•••	10	99	39	· 80	49	179	3.65	1,098

^{4.} The reason for the decrease in the area irrigated and in the assessment is the scarcity of water in the tank as explained above.

- 5. In addition to the above, 144 acres were irrigated under consolidated rates bearing assessment (irrigation revenue) of Rs. 981; thus the total revenue from both sources was Rs. 1,160, giving an incidence of Rs. 3.65 and Rs. 6.81 per acre for new and old irrigation respectively.
- 6. A sum of Rs. 401-3-0 was also received as miscellaneous revenue, Rs. 79-4-0 being on accout of bábul trees, &c., sold by this Department and Rs. 321-15-0 on account of sale-proceeds of grazing by the Revenue Department.
- 7. The revenue from all sources amounted to Rs. 1,561, and the net profit, after deducting the direct and indirect expenses and a remission of Rs. 29, was Rs. 434, or equal to 0.71 per cent. on the direct capital outlay of Rs. 60,847.

Duty of water.

8. The average duty of water per cubic foot per second was during the kharif season 171 acres and during the rabi season 72 acres.

(34).—MEDLERI TANK.

The rainfall of the year amounted to 18.70 inches, of which 14.35 inches fell during the kharif season and 4.35 during the rabi season. The rainfall of the previous year was 9.29 and the average rainfall for 18 years is 21.23 inches.

2. The water was below the sill of the outlet at the beginning of the year, and it was then used by lift for irrigation purposes. The tank received replenishments in May, June, September and October. The water level stood at R. L. 180, i. e. up to the waste weir crest, on the 8th of October. After that date it gradually fell to R. L. 170·10, i. e. 5·10 feet above the outlet sluices, on the 31st of March 1896. The tank maintained a sufficient supply of water for irrigation purposes.

Area, assessment and working expenses.

3. The area irrigated, the assessment, working expenses and average water-rate, as compared with the two previous years, were:—

Years.	Years. Kharif,		Ra	abi.	Tot	al.	Average Water-rate.	Working Expenses.	
		Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Rs.	Rs.
1893-94		75	283	21	127	96	410	4.27	527
1894-95	٠	100	361	37	116	137	477	3.48	835
1895-96	•••	124	454	21	68	145	52 2	3-6	920

The comparison shows a steady though small increase in the area under irrigation and in the assessment, though at the same time the working expenses have increased and the net result is not so good as it was. The new rates come into force this year and it is hoped that the result will show an improvement in revenue realised.

Duty of water.

4. The average duty of water per cubic foot per second during the kharif season was 159 acres and during the rabi 43 acres.

(35).—MADAG TANK.

The rainfall of the year (kharif 13.73 inches and rabi 7.77 inches) was 21.50 inches against 19.74 inches in the previous year.

The average annual rainfall for 26 years is 29.12 inches.

Area irrigated and Assessment.

2. The area irrigated, water assessment, working expenses and average water-rate, as compared with the two previous years, were:—

Years,	Kharif.		R	Rabi,		Total		Working Expenses.	
	Acres	Rs.	Acres.	Rs.	Acres.	Rs.	Rs.	Rs.	
1393-94	318	796	374	1,096	692	1,832	2.73	920	
1894-95	589	1,274	335	965	924	2,239	242	1,687	
1895-96	576	1,277	357	996	933	2,273	2.44	1,660	

- 3. The difference in area irrigated and in assessment, as compared with the figures of the last year, is trifling.
- 4. Rs. 190-4-0 from sale of grass, trees, &c., were realized during the year, making a gross revenue from all sources of Rs. 2,373.

Plantations,

- 5. The total number of trees above $8\frac{1}{3}$ in girth on the canals is 2,916, consisting chiefly of mango, bábul, nimb, sandal and tamarind,
- 6. The net profit from this work during the year, after deducting the amount of working expenses, Rs. 1,660, amounted to Rs. 713, equal to about 0.44 per cent. on the direct capital outlay of Rs. 1,61,248.
- 7. The average duty of water per cubic foot per second was during the kharif season 166 acres and during the rabi season 112 acres.

(36).—ASUNDI TANK.

The rainfall of the year was during the kbarif season 13.22 inches and during the rabi season 3.65 inches, total 16.87 inches, against 13.49 inches of the previous year. The average annual rainfall for 28 years is 23.12 inches.

2. The tank was empty up to 13th April 1895, after which several small replenishments were received till October. The water was at R. L. 104.46, i. e. 7.46 feet above the outlet sill, on the 1st of November 1895; it then gradually fell and stood at R. L. 99.02, i. e. 2.02 feet above the outlet sill, on the 31st March 1896. A fair supply of water was maintained throughout the whole year under this tank.

Area irrigated and assessment. 3. The area irrigated, assessment, working expenses and average water-rate, as compared with the two previous years, were:—

Years. Kharif.		R	Rabi,		Total.		Working Expenses,	
	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Rs.	Rs.
1893-94	60	175	25	116	85	291	3.42	731
1894-95	112	476	99	303	211	779	3.69	903
1895-96 •••	93	335	46	102	142	437	3.08	964

- 4. The considerable decrease in the area irrigated and in the assessment, as compared with the figures for the previous year, was due to seasonable rainfall, especially in the rabi season.
- 5. The area irrigated under consolidated assessment was 185 acres with an irrigation revenue of Rs. 632; thus the total revenue derived from both sources amounted to Rs. 1,069.
- 6. Deducting Rs. 964 on account of working expenses, direct and indirect, from the total revenue, the net profit under this tank during the year was Rs. 105, or equal to about 0.17 per cent. on the direct capital outlay of Rs. 60,741.

Duty of water.

7. The average duty of water per cubic foot per second was during the kharif season 133 acres and during the rabi 216 acres.

(37).—MA'VINKOP TANK.

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

- 2. During the year under report 540 acres were irrigated with a consolidated assessment of Rs. 2,321, the irrigation share of which is Rs. 1,857.
- 3. There was considerable increase in the area irrigated and in assessment as compared with the figures of the previous year owing to the revision settlement brought into force in 1895-96.
- 4. The total revenue from the tank amounted to Rs. 1,862, including Rs. 5-4-0 on account of miscellaneous receipts.

(39).—GOKA'K CANAL, 1st SECTION, AND STORAGE WORKS.

The capital expenditure, including direct and indirect charges, during the year was Rs. 16,707 and the total up to the end of the year under report was Rs. 12,11,583 against the estimated sum of Rs. 12,33,013. The principal items of the year's outlay on works were:—

			Rs.	,
1st.—Land compensation	•••	•••	5,131	,
2nd.—Improving Konur ford	•••	•••	5,455	;
3rd.—Extension of canal	•••	•••	3,511	

The Konur ford and extension of Gokák Canal, sanctioned in Government Resolutions No. 30 W.-I.—329, dated 22nd February 1894, and No. 151 W.-I.—1940, dated 21st December 1894, respectively, were completed during the year under report.

2. The rainfall gauged at the head of the canal compares with the average of the last ten years and with the fall of 1894-95 as under:—

	•		Average of ten years.	1894-95.	1895-96,
			Inches.	Inches.	Inches.
Kharif Rabi	•••	•••	12·49 8·84	8·25 5·65	18·00 6·92
	Total	•••	21.33	13.90	24.92

It will be seen that there was an increase of 9.75 inches in the kharif season and 1.27 inches in the rabi season as compared with last year, and that there were in all 3.59 inches over the average.

3. The storage reached its lowest level during the hot weather of 1895 on the 10th April of that year, when the water level was 18.86 feet above the sill of the canal sluices. The storage began to be drawn upon on the 5th January 1896. The tank filled and began to overflow on the 4th June 1895.

The maximum flood occurred on the 9th August 1895, rising to 2.95 feet above the weir crest and representing a volume of 50,828 cubic feet per second and a run-off of 0.08 inch per hour from the catchment basin.

4. The following table compares the areas irrigated and the water-rate assessments of the year with the average of the four years since the works were completed in 1891:—

Years.			. Ar	BA IRRIGAT	ED,	Assessment.		
			Kharif.	Rabi,	Total.	Kharif.	Rabi.	Total.
			Acres.	Acres.	Acres.	Rs.	Rs.	Rs.
1891-92	* *	•••	3,629	2,371	6,000	6,160	5,281	11,441
1892-93 1893-94	•••	•••	2,821 8,014	1,027 1,223	3,848 4,237	7,139 8,509	2,218 3,120	9,357 11,629
1894-95	•••	•••	3,038	1,325	4,363	8,507	3,408	11,915
	Average	•••	3,126	1,486	4,612	7,579	3,507	11,086
1895-96	•••		3,550	914	4,464	8,690	2,334	11,024

During the kharif season water was allowed free to an area of 116 acres under command of the new extension.

There was an increase of 512 acres irrigated in the kharif season, which was partly due to the small extension of the canal and partly to the rainfall being untimely. There was a decrease of 411 acres in the rabi season, which was due to a suitable rainfall during that season.

The area irrigated during the hot weather was 53 acres against 34 acres in the previous year.

No applications for perennial crops were refused during the year excepting in 4 or 5 cases where new land within $\frac{1}{4}$ mile of village sites was sought to be put under perennial irrigation. This matter has been referred to the Sanitary Commissioner for his decision under the orders contained in Government Resolution No. 52 W.-I.—646, dated 4th May 1896.

The irrigated area (4,464 acres) amounted to 62 per cent. of the entire irrigable area (7,200 acres) under the canal so far as it has been constructed.

No remissions were granted during the year.

The irrigators under the newly extended canal were allowed water free to the value of Rs. 117—vide Government Resolution No. 54 A.-I.—202, dated 7th May 1884, paragraph 2.

- Average water-rate per acre irrigated was Rs. 2.47 against Rs. 2.73 during the previous year.
- 6. The realizations of the year amounted to Rs. 22,797, including Realizations and outstand- Rs. 10,816 paid by the Falls Mills Company. Of this sum no amount remains outstanding.

Miscellaneous revenue.

7. In addition to water-rates the following miscellaneous revenue was derived from the canal:—

	• •		$\mathbf{Rs.}$.
Water supplied to the mills	•••	•••	10,816
Sale of canal produce	****	• • •	227
•	Total		11,043

The increased revenue derived from the Mills Company was due to the increased water-supply sanctioned to them from 1st August 1895, as per Government Resolution No. 109 W.-I.—1183, dated 26th July 1895.

Total assessed revenue.

8. The total assessed revenue of the year was:-

•		Total		22,067
Water-power Canal produce	•••	•••	•••	227
Water-rates	***	•••	•••	Rs. 11,024 10,816

There was a decrease of Rs. 891 in the assessed revenue on account of waterrates as compared with that of the previous year, which is chiefly due to the fall in the rabi irrigation.

9. The working expenses, including direct and indirect charges, compare as under for the last five years, being the period during which the present works have been in operation:—

Particulars.			1891-92.	1892-93.	1893-94.	1894-95.	1895-96.
	•		Rs.	Rs.	Rs.	Rs.	Rs.
Works			2,626	2,654	2,439	2,416	2,466
Establishment	•••	•••	1,501	1,650	1,587	1,859	2,348
Tools and Plant		•••	199	302	282	- 300	299
Refund of Revenue		• • •	10	14		24	3
Collection	•••		837	867	1,522	827	1,140
Leave and Pension	Allowar	ices	210	231	222	260	329
	Total	•••	5,383	5,718	6,052	5,686	6,585

The outlay on works was practically the same as last year. Establishment cost Rs. 489 more in consequence of the debit of the share of the canal (Pátkaris, Head Pátkaris, &c.) and sub-divisional office establishment to revenue management. Collection charges exceeded by Rs. 313 those of last year, and the whole cost of working was Rs. 899 more than that of the previous year.

Cost of working per mile of 10. The annual working expenses are compared canal and per acre irrigated. below:—

Years,			Per mile of Canal.	Per Acre irrigated.	
			Rs.	Rs.	
1891-92 1892-93 1893-94 1894-95 1895-96	•••	•••	368 391 414 389 409	·89 1·49 1·43 1·30 1·47	

In this statement the length of both the main canal as far as constructed and also of the Waddarhatti Branch have been taken into calculation—vide remark on page 65, paragraph 10, of the printed Revenue Report for 1894-95.

The total length now taken is thus 16.10 miles for the year under report and for previous years.

The rate of working expenses per acre irrigated is rather higher than that of last year on account of the extra establishment charges taken into account under the orders issued in Government Resolution No. 12 A.-I.—70, dated 12th January 1895.

11. The following table compares the gross assessed revenue with the working expenses for the last five years:—

Years.		Gross assessed Revenue,	Working Expenses.	Per cent.	Surplus Revenue,	
			Rs.	Rs.		Rs.
1891-92	•••	•••	19,317	5,383	27.9	13,934
1892-93	•••	•••	19,340	5,718	29.6	13,622
1 893- 9 4	•••	•••	21,665	6,052	358	15,613
1894-95	•••	•	£1,987	5,686	25.9	16,301
1895-96	•••	•••	* 22,067	6,585	29.84	15,482

After deducting the working expenses from the assessed revenue of the year there remains a surplus of Rs. 15,482, which represents a net return of nearly 1½ per cent. on the whole capital outlay (Rs. 12,11,583) to the end of the year, (both direct and indirect).

There was no change in the water-rates and the current rates will continue till the end of 1897-98.

- 12. From the 1st August 1895 a constant supply of 58 cubic feet per second was sanctioned to the Falls Mills in place of the 47 cubic feet per second given to them before, as per Government Resolution quoted in paragraph 7.
- 13. The area irrigated was measured by a special establishment consisting of two measurers and the required number of khalásis. The cost of measurement was Rs. 610, which is equal to Re 0-2-2 per acre irrigated against Rs. 749, or Re. 0-2-9 per acre of the previous year. The decrease in the rate is due to reduction of the measurers' salaries during the last five months of the year.

Duty of water. 14. The average discharge of the canal was

Kharif ... 16.92 cubic feet per second. Rabi ... 23.13 do. do.

and the duty of water was thus as follows:-

Kharif ... 210 acres per cubic foot per second.
Rabi ... 81 do. do.

15. The number of existing trees during the year was 7,228, consisting chiefly of babul 6,607. The others are pimpari 64, banian 76, shami 128, mango 48, tamarind 78, jambul 18, bori 11, guava 7, nimb 147, nandarki 2, karanji 3, nibeti 37 and ajani 2; of the total number, 3,386 trees are over 6 feet in height and 3,842 are below 6 feet and upwards of 2 feet in height.

PART II.

WORKS IN OPERATION FOR WHICH ONLY REVENUE ACCOUNTS ARE KEPT.

1. The following table shows the areas irrigated in the different districts in the Deccan and Gujarat and the consolidated revenue Areas irrigated and revenue. assessed during the year:-

		Number			Revenue.	,	•
Collectorates.	lectorates.		Area irri- gated,	Irrigation share.	Land share.	Total.	Вемавка.
1		2	3	4	5	6	7
			Acres.	Rs.	Rs.	Rs.	
Ahmedabad		66	10,802	21,948	29,128	51,076	
Kaira		2	7,286	29,658	21,652	51,310	•
Surat		291	12,377	49,415	1,17,229	1,66,644	
Broach		28	905	3,027	4,739	7,766	•
Khándesh	•••	82	9,017	58,433	12,475	70,908	
Násik	.	§ 191	17,817	80,804	26,002	1,06,806	*In charge of the Khandesi
	"	1 *80	10,483	80,602	11,780	92,382	Irrigation District.
Ahmednagar	•••	2	147	353	132	485	
Poona Sátára	•••	3 1	515 100	2,857 623	1,015 415	3,872	
Sátára Belgaum	•••	67	9,910	33,049	8,255	1,038 41,304	,
Deigaum Dhárwá r		474	61,657	1,73,008	43,250	2,16,258	•
Bijápur		17	1,440	5,924	1,474	7,398	
Ratnágiri		4	1,349	3,664	2,798	6,462	
Total	•••	1,308	1,43,805	5,43,365	2,80,344	8,23,709	

The following table shows the actual expenditure and receipts for the year 1895-96 on all the irrigation works in the Deccan and Gujarát for which only Revenue Accounts are Expenditure and receipts. kept:-

					Expend	ITURB.	·	-			Ac	TUAL RE	CEIPTS.			ij
		Direct Charges.						Indirect Charges.		Direct Receipts.		Indirect Receipts.	Grand	Revenue,	Gross Receipts less refunds.	
Collectorate.	Extensions a		inte-	Establi	shment.	Tools	Total Direct	Share of collec-	Grand Total.	Water Rates from	Miscel-	Total Direct	Share of	Total Direct and Indirect	ŏ	eceipts l
	Improv		nd pairs.	Direc- tion.	Execu- tive.	Plant.	Charges.	tion Charges.		Irriga- tion.	laneous.	Re- celpts.	dated Revenuc.	Receipts.	Refunds	Gross R
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.
Ahmedabad . Kuira	. 1,	67 3	2.514 3,485	353	2,697	96	10,212	{ Z,906	15,374	13	1,030	13 1,030	21,948 29,658	21,961 30,688		21,961 30,688
Surat Broach		291] 11 46	1,637 627	940	3,417	281	23,469	4,965	28,737		326	326	49.415 3,027	49,741 8,027		49,741 3,027
	. (a)17		1,144 3,087	483	2,289	201	8,303	8,088	(16,481	74	6	80	80,804	80,884	··· _,	80,884 81,790
		32 1	1,802	3,070	22,119	732	58,716	8,177 5,813	72,786	1,160	19 16	1,188 16	80,602 58,433	81,790 58,449		58,149
Pagna		7	0a	7	52		136	353 353	35 489	671		671	853 2,857	353 3,528	:::	353 3,523
Satara		"						62	62				623	623		623 33,049
Dharwar	i2.		1,192 1,909	1,851	190 35,437	297 3,892	1,727 78,959		5,032 96,437	523	1,512	2,035	33,049 1,73,008	33,049 1,75,043		1,75,043
Markettatat	··i i	182	128	15 6	55 23	5	380 157	59:	972		6	6	5,924 8,684	5,930 3,604		5,930 3,664
-		_ -							523	<u>:-</u> -						5,48,730
Total .	. 53,	372 CG	9,696	6,733	60,309	5,489	(6)1,82,149	(c, 51,729	2,86,878	2,450	2,915	4,365	5,47,365	5,48,730		0,-10,100
	1	- 1		l -	1	ł	, ·	ļ	\	ł	ì	ļ	1	ŀ	1	l

 ⁽a) Expenditure and revenue on account of the works in charge of the Khandesh Irrigation District,
 (b) Excluding Rs. 25 on account of "Suspense."
 (c) Represents charges in the Civil Department not adjusted in the Finance Accounts,

в 1239-17

Comparison with previous years.

3. The total amount of revenue realized from and the expenditure incurred on this class of works during the past three years were as follows:—

•				1893-94.	1894-95,	1895-96.
			-	Rs.	Rs.	Rs.
Revenue realized Expenditure	•••		•••	5,46,333 2,80,571	5,47,425 2,78,906	5,48,730 2,36,878
·		Net Revenue		2,65,762	2,68,519	3,11,852
Percentage o	of Expend	iture to Revenue		51.85	50.94	43.17

4. The expenditure from contributions and Pátphála funds on all irrigation works for which only revenue accounts are kept for the year 1895-96 is as shown in table below:—

, market	Collectorate.			,	Expenditure			
Colle				Contributions.	Pátphála Fund.	Total.	Remarus,	
	1			2	3	4	5	
·				Rs.	Rs.	Rs.		
Ahmedabad	•••		•••	109	***	109	•	
Kaira	•••		•••		•••		,	
Surat	•••			2,080	•••	2,080	1	
Násik	•••		•••	1,726	2,023	3,749		
Khándesh	***		•••	75	677	752		
Abmednagar	•••		•••	•••	***	•••	1	
Poona	•••		•••		• • •	•••	1	
Sátára	•••		•••		***			
Belgaum	•••			331		391		
Dhárwár			•••	6,031	•••	6,031		
Bijapur	•••		•••	14	• • • •	14	# 4 4 2 P = 2n 41 = 77n	
Ratnágiri	•••		•••	•••	•••	•••	Accounted for in the Finance Accounts under "Works for	
	•	Total	•••	10,426	2,700	* 13,126	which neither Capital nor Revenue Accounts are kept."	

AHMEDABAD DISTRICT.

- 5. The work of improving and extending the Naika Channel, estimated to Khári Irrigation Sluices. cost Rs. 16,274 and sanctioned in Government Resolution No. 224 W.I.—262 of 13th February 1891, was completed during the year under report at a total cost of Rs. 16,137.
- 6. The receipts for the year amounted to Rs. 60,283 derived from the following sources:—

	Астев.	Assessments.
I.—Irrigation above the Kalambandi villages. II.—Irrigation from tanks fed by the river	1,108	4,891
Khári	249	1,800
III.—Irrigation below the Kalambandi vil- lages IV.—Irrigation from Khári Sluices proper	50	239
IV.—Irrigation from Khari Sluices proper (i.e. Kalambandi villages)	7,537	53,353
Total	8,944	60,283

The figures of area and assessment were not furnished last year and as the assessment statements have not been received from the Collectors, the results for the year under report are compared below with the figures of 1893-94:—

- I. There has been a small decrease of about 4 acres in irrigation above the Kalambandi villages.
- II. Irrigation from tanks fed by Khári river has remained stationary.
- III. Irrigation below the Kalambandi villages has increased by 30 acres and the revenue by Rs. 158; a large number of lifts were used owing to scantiness of water.
- IV. The area of irrigation from the Khári sluices proper decreased by 747 acres, but there has been an increase of revenue of Rs. 12,298, as no remissions were necessary, with the exception of Rs. 136-8-10 to Naika cultivators.
- 7. The mean rate of assessment was Rs. 4-6-8 on land irrigated by lift above the Kalambandi villages, Rs. 7-3-8 on land irrigated by the tanks fed from the Khári river, and Rs. 4-12-6 on land irrigated below Kalambandi villages. On lands under the Khári sluices proper, i. e. Kalambandi villages, the rates are consolidated, the shares per acre for the land and for water privileges being as under:—

•			· Land share.	Water share.	Total.	
Government land Alienated land Inámi land, consolidated Assessment jiráyat land	••• ••• •••	••• ••• •••	Rs. a. p. 4 9 7 4 3 3	Rs. a. p. 6 4 4 6 1 6	Rs. a. p. 10 13 11 10 4 9 7 14 6	

^{8.} The working expenses during the year, exclusive of charges for revenue collection, amounted to Rs. 987, the figure of the previous year being Rs. 1,133.

Old works.

- 9. The old works in this district were fully described in the report for 1892-93, and there is nothing to add thereto.
- 10. During the year under report three tanks were repaired at a total cost of Rs. 2,324, inclusive of Rs. 181 contributed by villagers.
- 11. The revenue derived and areas irrigated from tanks in this district are as under:—

Number of tanks	•••	•••	•••	66
Areas irrigated	•••			10,802 acres.
Revenue { Irrigation share Land share	•••	 Total Rs,		Rs. 21,948 29,128 51,076

SURAT AND BROACH.

12. During the year 30 tanks were repaired at a total cost of Rs. 20,862,

Tanks. of which Rs. 13,592 were spent on repairs and
Rs. 7,270 on improvements. Of the above a sum of
Rs. 2,080 was contributed by the villagers interested. Last year 38 tanks were
repaired at a cost of Rs. 15,200 for repairs and Rs. 16,160 for improvements,
and Rs. 3,083 were contributed by the villagers.

- 13. Of the 30 tanks, 4 belong to the Broach district, the total cost of repairs and improvements carried out to them amounting to Rs. 673. Last year two tanks were treated at a cost of Rs. 1,869.
- 14. A sum of Rs. 24 was expended in surveying tanks for preparation of estimates for repairs and improvements as compared with Rs. 496 last year.
- 15. The total area irrigated and the consolidated revenue assessed on lands under irrigation tanks in the Surat and Broach districts, as reported in Canal Return No. VIII by the Collectors, are as under:—

	District,		. Area.	Net consolidated Assessment,	Irrigation share.	Land share.
•			Acres.	Rs.	Rs.	Rs.
Surat	•••	***	12,375	1,66,644	49,415	1,17,223
Broach	,	•••	952	7,766	3,027	4,739

The figures are almost identical with those of last year. The management of irrigation tanks rests with the Revenue Department; hence no separate establishment is entertained on this account. The receipts also are realized by the Revenue authorities.

NA'SIK DISTRICT.

- 16. The area under permanent bagayat is 17,817 acres, paying Rs. 1,06,806 consolidated assessment, of which the irrigation share is Rs. 80,804, representing about 4½ rupees per acre.
- 17. The expenditure on maintaining the works was Rs. 5,638 on extensions and improvements, and Rs. 1,185 on repairs. These amounts include contributions by the rayats of Rs. 1,364 for improvements and Rs. 41 for repairs.
- 18. The improvements to the Dátáli bandhára mentioned in the last report have been completed. The bandhára at Gondegaon, táluka Dindori, has been provided with protection works as a precaution against floods, and small improvements and repairs have been made to the channel. All the other works are of too small and unimportant a character to deserve special description.

Details of expenditure,

19. The expenditure in detail was as follows:—

			18	95-90	•		
No.	Names of Works,	Allot	ment	l.	Outlay.	REMARKS.	
	REPAIRS.	Rs.	a.	p.	Rs.		
	Na'sik.						
ļ	Surveys for bandbára repairs in the Godá- vari basin for 1895-96.	182	0	0	112	Completed.	
	Dindori.			•		•	
2 3	Repairs to old Wadáli Canal Repairs to Rámeshwara Baudhára at Dindori.	189 365	0	0	180 346	Do. Do,	
	Nipha'd.						
4	Repairs to Bandbara No. 27 at Gondegaon	131	0	0	130	Do.	
5	and No. 7 at Niphád. Repairs to Pálkhed Street Bandhára at	88	0	0	ε0	Do.	
6	Shirwada (Wani). Repairs to Dhotarkhed Bandhára at Shir- wada (Wani).	67	0	0	62	Do.	

			. 1 8	95-96	i . 	
No.	Names of Works.	Allot	men	t.	Outlay.	Bemarus.
	REPAIRS—continued.	Rs.	а.	p.	Rs.	
•	CHA'NDOR.				•	•
7	Providing teakwood boards for outlets of bandhara at Wahegaon.	24	0	0	24	Completed.
	SINNAB.	,				
8	Repairs to bandhára at Musalgaon near Habiwádi.	. 251	Ò	0	25 1	Do.
	Total Repairs	1,297	0	0	1,185	
	EXTENSIONS AND IMPROVEMENTS.			•		•
	Na'sir.					
1	Surveys for bandhára extensions and im- provements in the Godávari basin for		,0	0	37	Completed.
2	1895-96. Constructing a permanent bandhara near Padali village on the Malunja river	200	0	0	200	Do.
	Dindori.					
3	Improvements to bandhára No. 26 near village at Khedgaon.	•••	••••		69	Do. Unfinished work of previous year.
4	Constructing two new slab drains on Rá- meshwar Bandhára Channel at Dindori.	452	. 0	0	426	Completed.
	Nipha'd.					
· 5	Improvements to Bandbara No. 27 at	1,244.	0	0	1,163	Do.
В	Gendegaon and No. 7 at Niphad. Improvements to Palkhed Street Bandhara at Shirwadi.	316	0	0	317	In progress.
7.	Improvements to Dhotarkhed Bandhara and Channel at Shirwada (Wani).	329	. 0	. 0	226	Do.*
	SINNAR.		•			
8	Improvements to Datali Bandhara and Irri-	1,281	0	0	1,207	Completed.
9	gation Channel. Improvements to Thangaon Bandhára	•••	• • • •	•	87	Do. un- finished work of
10 11	Improvements to Shevda Bandhara Constructing 5 feet culvert and road diversion for Vadgaon-Sinnar road, Pachora Bandhara Channel.		0	0	536 918	previous year. In progress. Completed.
12	Constructing 5 feet culvert near Lonarwadi village for crossing channel from ban-		0	0	305	Do.
13	dhára, Niphád. Improvements to bandhára at Musalgaon	114	8	0	111	Do.
14	near Habiwadi, No. 37. Constructing a masonry regulator for irrigating the Mahars' land at Datali Bandhara.		0	.0	35	Do.
	Total Improvements	5,866	8	0	5,637	•
	Total Repairs and Improvements	7,163	8	a	6,822	1

20. The following statement shows the areas assessed as irrigated and the consolidated revenue assessed on second class Revenue Works during the year 1895-96:—

	•		÷				•	REVENUE.		
No.		Táh	ıka.			Area irrigated.	Irrigation share.	Land share,	Total.	
						Acres.	Rs.	Rs.	Rs.	
		Násik Col	lectoral	te.	•	,				
1 2 3 4 5 6	Násik Sinnar Dindori Niphád Chándor Yeola	Táluka do. do. do. do. do.	•••	•••	•	2,756 4,457 3,054 4,562 2,812 176	8,585 21,988 15,622 21,056 13,126 427	4,258 6,470 4,607 7,177 3,413 77	12,843 28,458 20,229 28,233 16,539	
			•	Total		17,817	80,804	26,002	1,06,806	

KHA'NDESH IRRIGATION DISTRICT.

Area irrigated and Revenue.

21. The following table gives a summary of the area irrigated and the revenue derived from old irrigation works:—

• Particulars.	Khándesh.	Násik.	Total.
Area irrigated at consolidated rates Area irrigated at separate water-rates	9,017	10,483 330	19,500 330
Total area in acres	9,017	.10,813	19,830
Consolidated revenue Rs	70,908	92,382	1,63,290
Irrigation share of consolidated revenue Rs. Separate water-rates Rs.		80,602 1,168	1,39,035 1,168
Total, revenue realized, in Rupees	58,433	81,770	1,40,203

The above figures are exclusive of the old irrigation under the Lower Pánjhra system. The miscellaneous revenue from these works realized in the Public Works Department amounts to Rs. 35. This sum, added to the total revenue in the above table, makes the gross irrigation revenue from those works Rs. 1,40,238.

- 22. A sum of Rs. 763 is outstanding from the separate water-rates from works improved by the State. Out of this amount the sum of Rs. 222 is reported to have been realized in April 1896, and measures are being taken to realize the balance.
- 23. Revenue is also due from a portion of the new 'Thal' that was added to the irrigation at Sampur in Baglan in 1882. The irrigators pleaded insufficiency of water-supply and asked for exemption from the assessment. But the Assistant Collector has observed that there was no insufficiency of water. The people neglected the silt-clearance, which caused a shortness in the supply and they are themselves responsible for it. The revenue due will be recovered in 1896-97.
 - 24. The outlay on improvements and repairs of these works during the year is given in the following table in contrast with expenditure in the previous year.

Pa	rticulars.	1894-95,	1895-96.		
Improvements Repairs Establishment Tools and Plant	•••	•••	Rs. 25,204 6,305 32,557 805	Rs. 27,865 4,889 25,187 722	
	Total in Rupees	•••	64,871	58,663	

It will be observed that in the year under report, although the expenditure under Improvements increased, the total outlay was less than in the previous year. The establishment charges were considerably less, as the charge is now made proportionately to the expenditure. The improvements carried out are all with one exception in the interest of the present revenue and not with the object of increasing it. The exceptional case is that of the restoration of the Khanapur-Sarai Bandhára in Navápur Petha, which is expected to bring in an additional annual revenue of Rs. 150 from the next year.

- 25. In addition to the above outlay from Imperial funds some expenditure from the Pátphála Fund was incurred on up-keep as well as on works designed . to meet the local wants of the irrigators. The amount spent was Rs. 2,700 only during the year against Rs. 4,772 in the previous year. This fund is now abolished. Arrangements are being made to profitably expend the available balances, and it is expected that a considerable sum will be spent in 1896-97.
- 26. Local Fund money was also obtained to supplement the Imperial grants in order to defray partly the cost of works for local convenience such as communication bridges over channels. The outlay was:

	Rs.
Works	. 387
Establishment	_
Tools and Plant	. 6
	400
Total	. 439

AHMEDNAGAR DISTRICT.

27. The only two works of this class are situated. in the Akola taluka-

1 Sávargaon Bandhára.

2 Gárdáni

Area irrigated and revenue.

28. The following table shows the area irrigated and the consolidated revenue assessed during the year:

						Bevenus.			
	Name of Pan	• ,		Area irrigated.	Irrigation share.	Land share,	Total.		
					Acres.	Rs.	Rs.	Rs.	
Sávargaon Gardáni	•••	•••		•••	76 71	200 153	61 71	261 224	
		•	Total	•••	147	353	132	485	

POONA DISTRICT.

- 29. The following are the works in this Collectorate for which only Revenue accounts are kept:-Old Works.
 - 1. Dam at Kasur.
 - Dam at Vadaj.
 - 3. Dam at Agar.
- 4. Dam at Náráyengaon.
- 5. Dam at Pátas.6. Tank at Wadhána.

The description of these works was given in the Revenue report for 1881-82.

Expenditure.

30. During the year 1895-96 Rs. 50 were expended in strengthening the banks of the existing channel at Náráyengaon Bandhára.

31. Rs. 27 were expended during the year for gauging the heights of water in Supa, Wadhana and new Patas tanks.

BELGAUM DISTRICT.

32. The total number of second class tanks in this district irrigating over

Number of Tanks.

50 acres each is 67 with an irrigation area of 9,910
acres, paying a consolidated assessment amounting to
Rs. 41,304, of which the irrigation share is Rs. 33,049. Of the above, some
slight repairs were made to one only, viz. the Kiledkeri Tank at Belgaum. The
work was taken in hand and completed during the year at a cost of Rs. 102.

Rupees 255 were paid as land compensation during the year on account of repairs to the Tumbavakeri Tank (No. 18) at Margankop.

Expenditure.

33. The following table shows the progress made in repairing and improving the tanks during the year:—

•		J Gaz :						• ,
Nature of Tanks.		NCED IN 8 YEAR.	COMPLETE	CED AND D DURING FEAR.	COMPLETE	D BUT NOT DUBING	TOTAL.	
	Number of Tanks.	Cost of Work.	Number of Tanks.	Cost of Work,	Number of Tanks,	Cost of Work,	Number of Tanks.	Cost of Work.
Tunionating over 50		Rs.		Rs.	·	Rs.		Rs.
Irrigating over 50 acres Irrigating less than	1	255	2	102	. 2	304	5	661
50 acres		•••	1	19	sl.	80.	2	99
Total	1	255	3	121	3	384	. 7	760

34. An expenditure amounting to Rs. 594 was incurred during the year on surveying some of the irrigation tanks of the district.

DHA'RWA'R DISTRICT.

35. The number of tanks according to the printed list, irrigating over 50 acres, is 471. Since the date of the printed list, areas irrigated under the tanks in this district have in some cases been reduced and in others increased. The discrepancies will disappear when complete tank lists, which are being prepared separately for each taluka, are ready.

Expenditure.

36. The following table shows the progress made in repairing and improving these tanks during the year:—

					<u>'</u>			
Nature of Tanks,		NCED IN	COMMENS COMPLETE THE Y	DURING	D BUT NOT D DUBING EAR.			
	Number of Tanks,	Cost of Work,	Number of Tanks,	Cost of Work.	Number of Tauly.	Cost of Work,	Number of Tanks,	Cost of Work.
		Rs.		Rs.		Rs.		Rs.
Irrigating over 50 acres	23	14,747	8	.5,093	23	17,272	54	37,102
Irrigating less than 50 acres	101	1,507	9	1,285	18	3,798	37.	6,590

A sum of Rs. 6,031 as rayats' contribution was utilised towards the expenditure incurred on these tanks during the year under report.

37. The area irrigated under the 474* tanks which irrigate over 50 acres each is 61,657 acres assessed at Rs. 2,16,258, of which Rs. 1,73,008 represents the irrigation share. In addition to this Rs. 1,768 were realized under the following heads:—

Water-rates 523 8 7
Other canal produce—Sale of grass, &c. (Miscellaneous) . 1,244 4 0

Total ... 1,767 12 7

38. Since the receipt of Government Resolution No. 125 W.-I—1473, dated 15th September 1892, many tanks irrigating each less than 50 acres were repaired or improved, but no portion of the consolidated assessment derived from them has yet been credited to this department as irrigation share.

BIJA'PUR DISTRICT.

- 39. There are altogether 17 small irrigation works at present in charge of the Public Works Department in the Bijapur District. The area irrigated was 1,440 acres and the irrigation revenue under the sventeen works was Rs. 5,924.
- 40. During the year Rs. 305 from Imperial funds and Rs. 14 from rayats' contribution were spent on extensions and improvements and repairs to four tanks.

RATNA'GIRI DISTRICT.

41. There are only four irrigation tanks in this district. Annual ordinary repairs to two of them, viz. the Pat and Warad tanks, were executed by this department during the year under report at a cost of Rs. 40 and Rs. 86 respectively.

AGRICULTURAL WORKS.

Drainage Channels in results of in the Broadh.

42. The following table shows the financial results of the several drainage channels constructed in the Broach Collectorate:—

Names of Channels.	Expenditure dur- ing the year,	Total Cost up to date.	Receipts from sale of Occu- pancy Rights.	Balance against Capital,	Area assessed under Settlo- ment.	Land taken up for Cultivation.	Assessment of Land taken up for Cultivation.	Irrigation share.	Percentage of Revenue on Capital,	Remarks.
Jambusar Tilluka.	Rs.	Rs.	Rs.	Rs.	Acres.	Acres.	Rs.	Rs.	Rs.	-
 Kora-Madaphar Channel, including Jantrau Branch Amanpur-Nadiád Channel Sindhav Chanuel Vigra Táluka 		16,003 14,401 1,238	2,376 2,104 	13,627 12,297 1,238	2,750 980 63	1,478 749	5,405 3,093 		*39 66 25 15	
4. Samadpur-Kadodr a- Paniddra Channel. 5. Pakhajan-A m b h e l Channel 6. Akh o d-N a d i r d a Channel 7. Jolwa Channel	3,147 · 1,442 369	7,072 27,064 1,442 369	3,800 8,242 	3,272 18,822 1,442 369	495 1,251 53	477 566 	1,006 1,421 		*30'74 7'55 	In progress.
Anklescar Taluka. 8. Adol-Hajat-Piludra Channel Total	4,958	12,296 79,885	3,486	8,830 59,877	653	495 3,764	1,980		22·47 21·55	

43. Of the figures in the penultimate column those marked* are the same as those for last year. The second item was 25°35 last year; the fifth was 9°12; and the last was 22°13. The average last year was 23°49, so that the high rate of profit has been practically maintained.

Occupancy rights.

44. The amount realized from sale of occupancy rights during the year 1895-96 was as follows:—

Anklesvar Táluka.

Adol-Hajat-Piludra Channel ... Rs. 78

No land has as yet been taken up on the Sindhav Drainage Channel owing to the poverty of the people and the unfavourable nature of the seasons.

- 45. Two new channels, viz. the Akhod-Nadirda and the Jolwa channels, both in Vágra Táluka, were commenced during the year and completed before the rains of 1896; arrangements are being made to commence the Ora Vichiad Channel during the next cold season.
- 46. The total revenue from all the drainage channels amounts to 21.55 per cent. of the total net outlay.
 - 47. Current repairs to the dam at Borvi in the Kolába Collectorate were Dam at Borvi. carried out during the year at a cost of Rs. 38.

No. 16 W. I.—225 of 1897.

Public Works Department.

Bombay Castle, 11th February 1897.

Letter from the Chief Engineer, Central Division, No. 4722, dated 5th October 1896. Forwards the Irrigation Revenue Report, Parts I. and II. of works in the Central

Division for 1895-96, with the usual statements.

Letter from the Superintending Engineer, Northern Division, No. 4977, dated 10th October 1896.

Forwards similar report for works in the Northern Division.

Letter from the Examiner of Public Works Accounts, No. B.-3-1203, dated 12th October 1896.

Submits the statements and tables required in connection with the Revenue Report of Irrigation Works in the Deccan and Gujarát for 1895-96.

Letter from the Superintending Engineer, Central Division, No. 4854, dated 12th October 1896.

Reports certain figures for insertion in statement IV.E.

Letter from the Superintending Engineer, Central Division, No. 4977, dated 19th October 1896.

Letter from the Superintending Engineer, Southern Division, No. 3647, dated 26th October 1896.

Forwards the Irrigation Revenue Report, 1895-96, Parts I. and II., with the usual statements.

Memorandum from the Superintending Engineer, Southern Division, No. 3692, dated 30th October 1896.

Advises certain corrections in statement IV.E., and reports certain figures for insertion in the same statement.

RESOLUTION.—The salient points of the year's operations are noticed in the general remarks prefacing the report.

- 2. The number of works in operation included in Part I. is the same as in the previous year. The capital expenditure amounted to Rs. 1,43,733, and was incurred mainly on the Níra and Mutha Canals. The large debit shown against the Mhaswad Tank during the year was on account of capitalization. The entire capital outlay at the end of the year stood at Rs. 2,62,61,246, including Rs. 2,94,655 on the three projects which are still in abeyance.
- 3. The total area irrigated was 74,923 acres, and compared with 84,237 acres of the previous year, it shows a falling off of 9,314 acres, due to various causes mentioned in the review of the annual statement of Irrigation and Rainfall. The general prohibition, for sanitary reasons, of perennial irrigation within a quarter of a mile of villages, is also responsible in some small measure for the decrease in area.
- 4. The principal crops irrigated were sugarcane (11,897 acres), wheat (8,315 acres), rice (6,056 acres), jowári (18,581 acres), bájri (6,869 acres), and ground-nuts (7,874 acres), and there was a decrease in the area under most of them
- 5. The assessed revenue amounted to Rs. 6,32,211, against Rs. 5,93,737 in the previous year. The increase in assessed revenue, notwithstanding the decrease in area irrigated, is a notable result of this year's operations. The increase, which is mainly under water-rates, is almost wholly from Productive Public Works, principally the Mutha Canals, and is due chiefly to the higher rates introduced for perennial crops. There was also increased revenue from the Poona Water-supply. It is satisfactory to note that the total revenue from the Mutha Canals amounted to Rs. 2,98,470, which is the highest obtained since the work came into operation. The total revenue realized was Rs. 5,98,839. The outstandings at the end of the year amounted to Rs. 81,016, the greater portion of which has since been realized.

- 6. A satisfactory feature of the year's operations is the large decrease in working expenses which fell from Rs. 3,50,926 in 1894-95 to Rs. 2,94,287 in 1895-96. Looking to the distribution of charges under the principal heads, the greatest decrease is under 'Establishment.'
 - 7. The net revenue of the year was
 - (1) on basis of assessment... ... Rs. 3,37,924 (2) do. of realizations ... ,, 3,04,552

as compared with Rs. 2,42,811 and Rs. 2,12,556, respectively, in the previous year.

- 8. Protective works show a profit of Rs. 35,878 (entirely due to the Nira Canal) against Rs. 12,500 in the previous year. Productive Public Works show a profit of Rs. 2,37,194 against Rs. 2,10,824 in 1894-95. Minor Works, Imperial, also give a profit of Rs. 15,042 against a loss of Rs. 21,862 in the preceding year. The only Provincial Irrigation Work, Gokák Canal, shows an improvement to the extent of Rs. 5,344.
- 9. Under Part II., Works for which only Revenue Accounts are kept, there is a slight improvement in revenue receipts and a decrease in expenditure. Looking to the details of expenditure there is a decrease under nearly all heads. The decrease under Extensions and Improvements and Maintenance and Repairs of these old works is to be regretted, and endeavour should be made to work up to the grants which Government allot. On the Agricultural works the high rate of profit has been practically maintained.
- 10. In reviewing the report for 1894-95 Government remarked that the record of that year showed unsatisfactory results, and it is gratifying to be able to note that the operations of the year under review produced a marked improvement. Increased assessments and decreased working expenses have contributed to the satisfactory increase recorded in the net earnings of the year. Government trust that no effort will be spared to establish a continuance of the good results exhibited in the report of the year under review; this is most likely to be secured by careful attention to economy in the working expenses. .
- 11. Copies of the report and of this review should, as usual, be forwarded to the Government of India and the Secretary of State.

S. REBSCH, Under Secretary to Government.

To

The Revenue Department, Secretariat.

The Financial Department, Secretariat.

The Commissioner N. D. The Commissioner C. D.

The Commissioner S. D.

The Survey Commissioner and Director of Land Records and Agriculture.

The Superintending Engineer C. D. The Superintending Engineer N. D. The Superintending Engineer S. D.

The Chief Engineer, Indus Right Bank Division.

The Superintending Engineer, Indus Left Bank Division.

The Examiner of Public Works Accounts.

The Government of India.

The Secretary of State for India.

The Editors' Table.

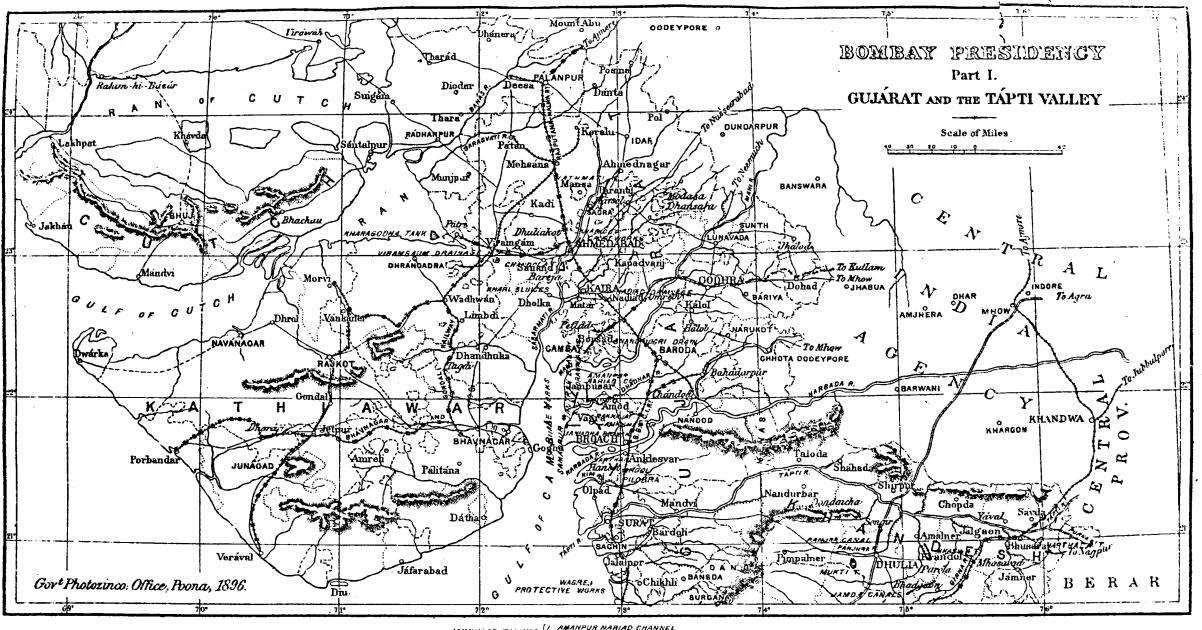
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of 1897. No.

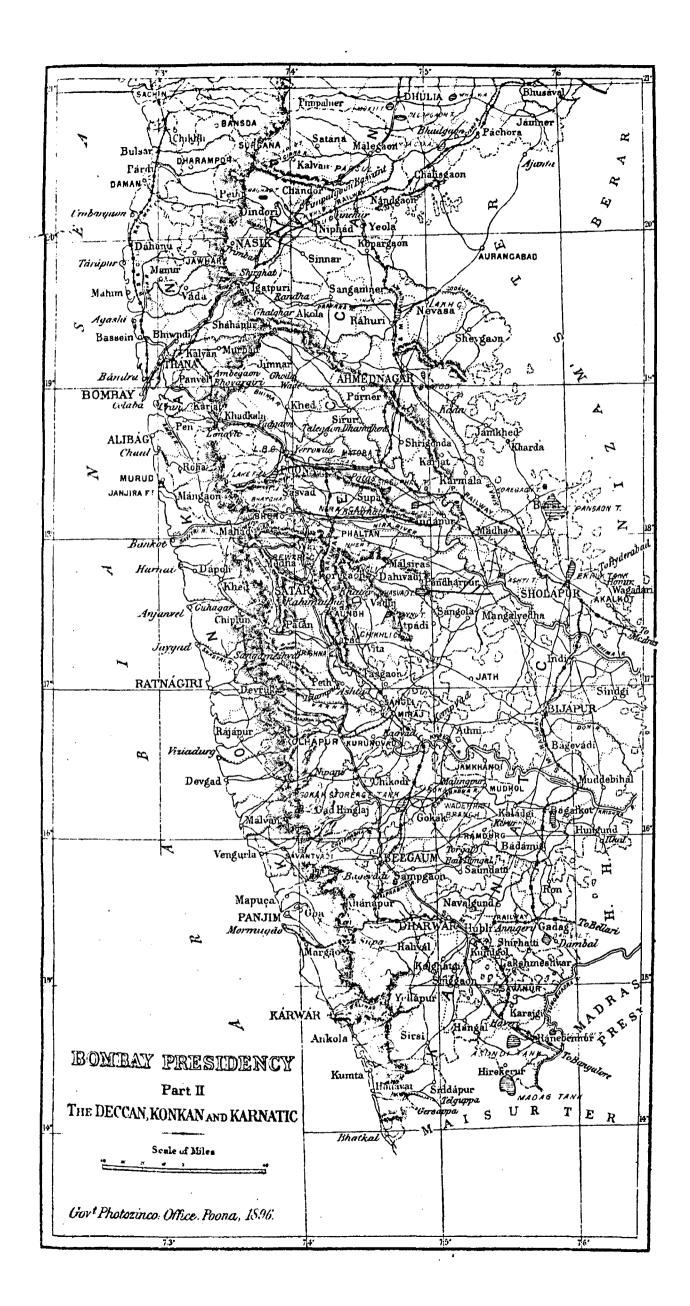
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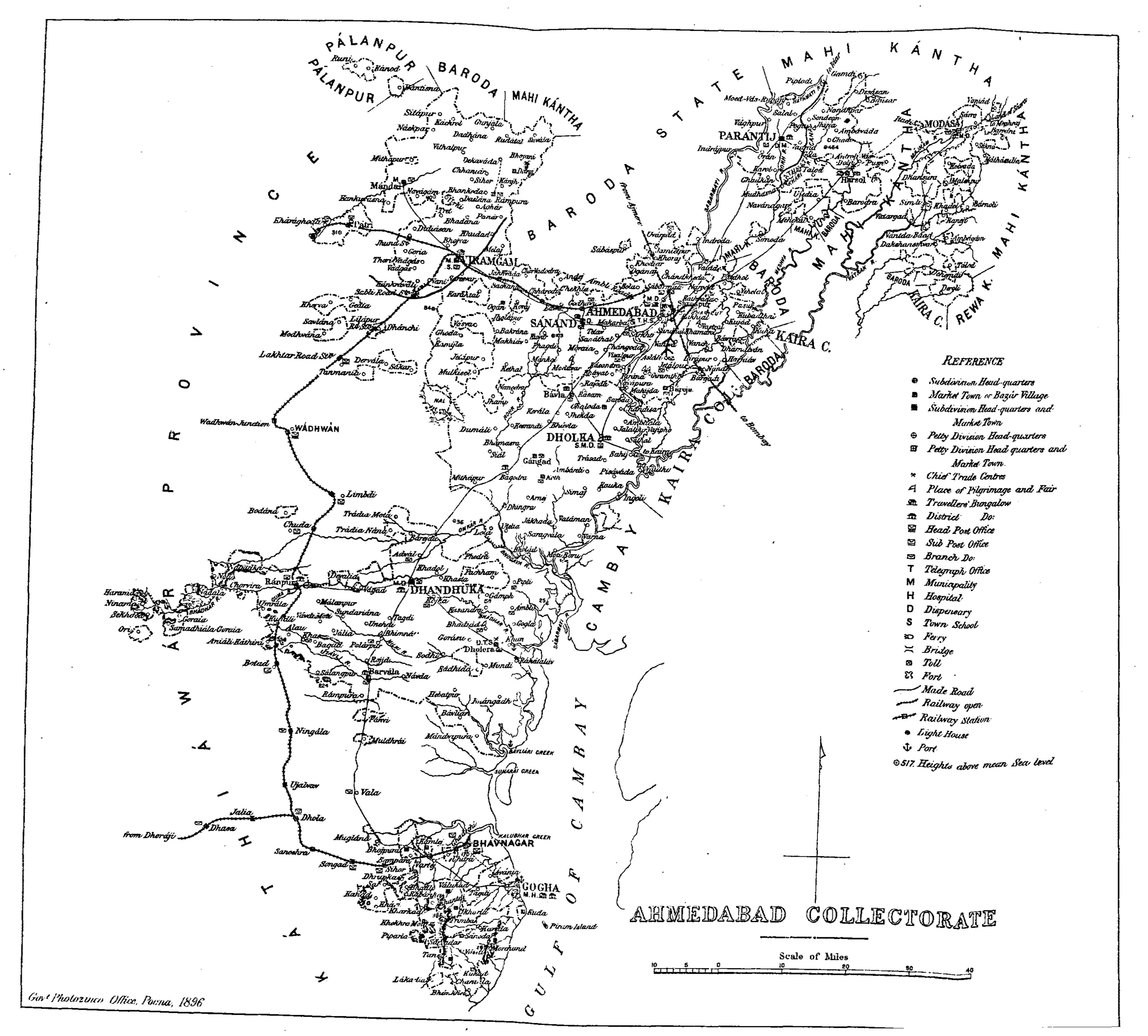
Division.

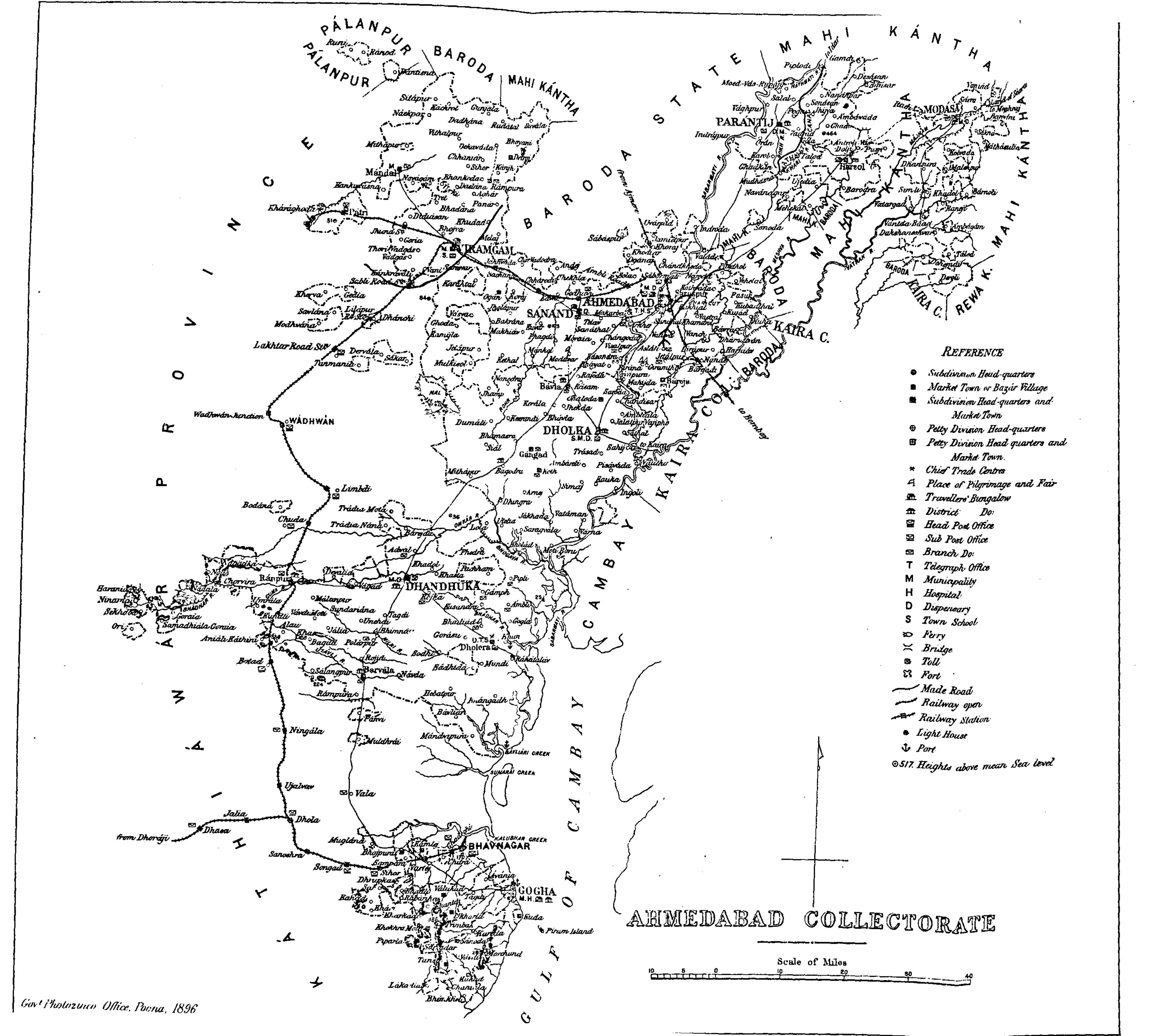
With copies of report. .

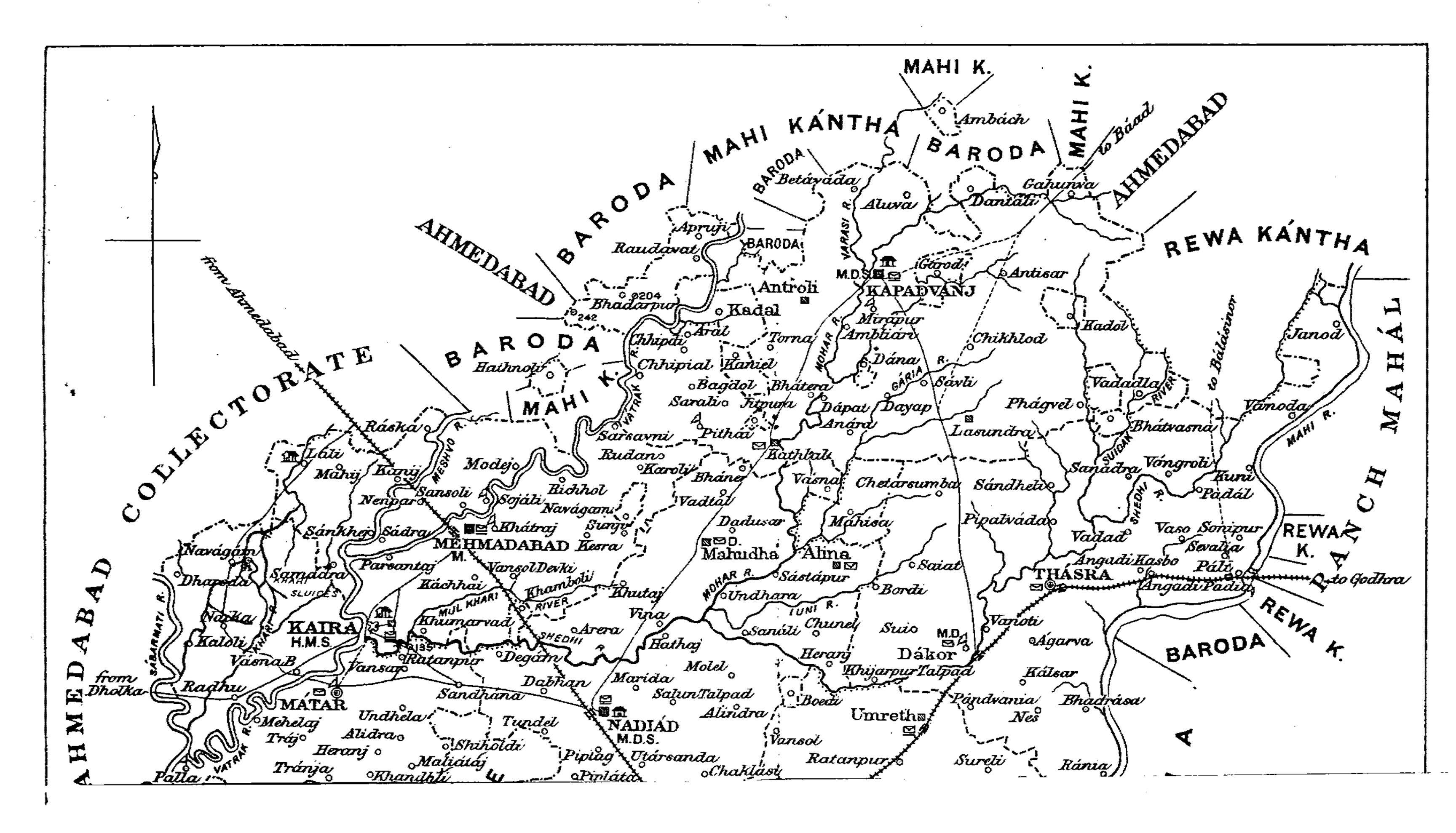


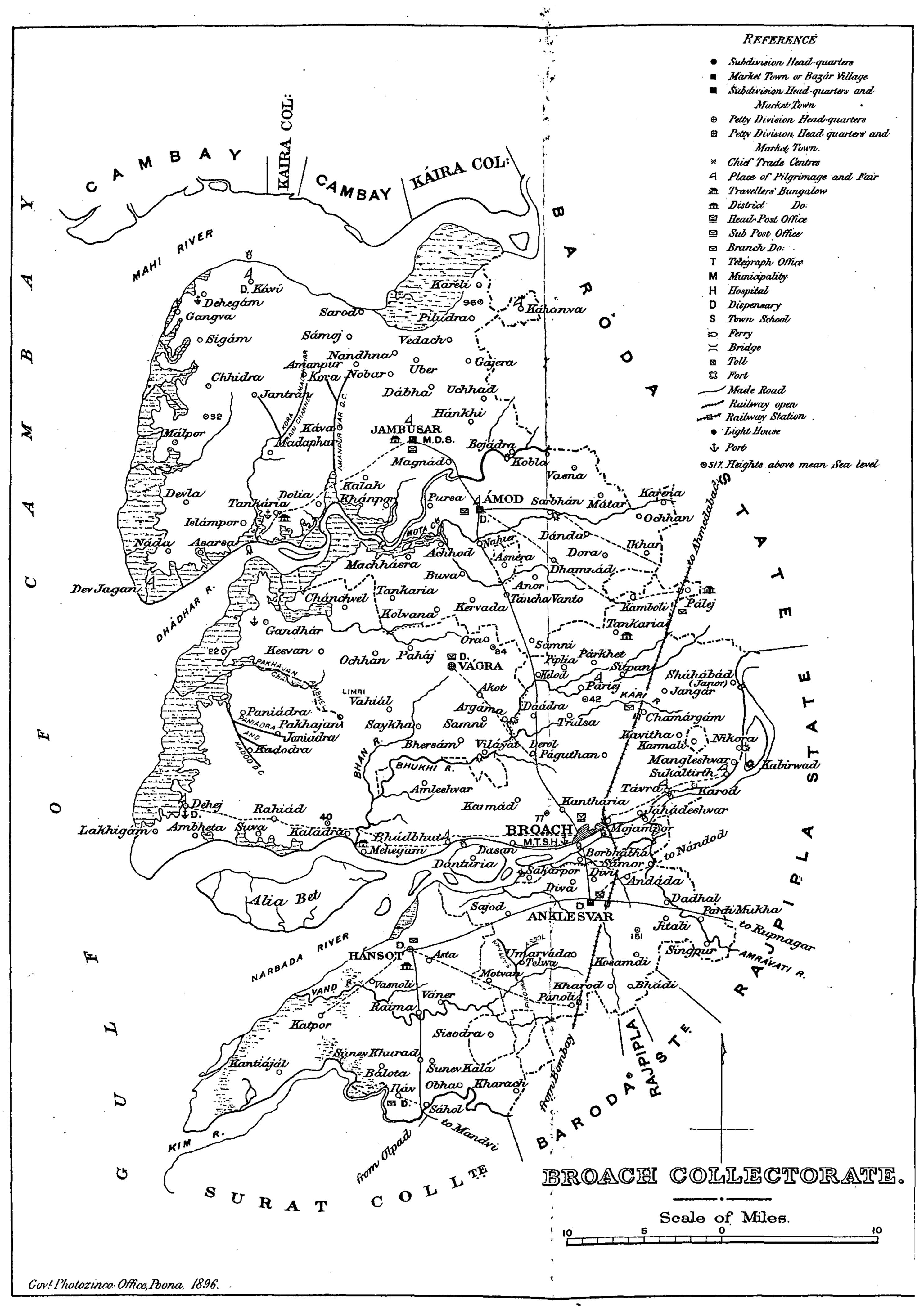
JAMHUSAR TALUKA { AMANPUR NARIAD CHANNEL ? KORA MADARAR. DO. ‡ VAGRA DO. 3. SAMADI'UR HADODHA PANIADRA CHANNEL † ANKLESHVAR DO. 4. SARI'HAN ARDOL PILUPAR DO. ½ VAGRA DO. 5. PAKHAJAN AMBKEL DO. \$ JAMBUSAR. DO. 6. SIMDIHAO DO. Ø VIHAMGAUM DO. FURSINGS R VIRAMGAUM DRAINAGE CHANNEL











KHANDESH COLLECTORATE Scale of Miles Khamkhed +to Nagpur Hárankhed - Namthi - Ravad Chincholi Shahapur! REFERENCE Pumpalgaon B. Fordapur Subdivision Head quarters Market Town or Bazar Village from Malegaon +: Subdivision Head-quarters and Ajanta ò Market Town Petty Division Head-quarters # Petty Division Head quarters and Market Town. * Chief Trade Centres Place of Pilgrimage and Fair Travellere Bungalow 1 District Head Post Office ram or Ranjangaon Ghat Sub Post Office Mahadev Hill 2985 James Ko Branch Do: T Telegraph Office M Municipality H Hospital D Dispensary S Town School > Ferry × Bridge 2 Toll & Fort - Made Road Railway open Gor' Photozinco Office, l'oona 1896. Railway Station 0517. Heights above mean Sen level

