# IRRIGATION REVENUE REPORT

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of the

## BOMBAY PRESIDENCY,

EXCLUDING SIND,

1894-95.

PARTSI&II.

# CONTENTS.

#### Pabt I.

.

								PAGES.
General	Remarks.	•	•••	•••				i-xiv
Statemer								
		nent of Ca	anals in th	he Bomba	y Presidenc	y, excluding	Sind.	27
						Presidency, e		
	ing	Sind		• •••	• `	***	•••	xvi & xvii
<b>I</b> —)	B.—Capita	al Account	t of Irriga	ation Wor	ks in the E	Combay Presi	idency,	
_		-		l to end of		***		xviii & xix 🐇
I(	the . Ma	Bombay P	residency, Realizat	, excludin;	g Sind, for t	rigation Wo he year endin is of revenu	ng 31st	<b>xx &amp; xx</b> i
11_		•		ancial res	ults of Irric	gation Works	in the	
	Boi on	nb <b>ay Pr</b> es	idency, ex eipts. Pr	cluding S incipal re	ind, for the	year 1894-95 ations for th	based	xxii
III-(	C.—Demai	ads and re	alizations	during th	e year 1894	-95 in the B	ombay	
	Pre	sidency, e	xcluding	Sind.	•	•••	•••	xxiii
IV-C						ation Works		
	Bor	nhay Pres	idency, ex	cluding Si	ind, for the Principal re	year 1894-95 sults and ope	based millions	
	for	the year e	ended 31st	March 1	895	suits and ope		xxiv
<b>I</b> —		-				rks in the B	ombay	
					ng the year			xxvi & xxvii
II-)	wat		e on Cana	ls in the ]		enses and as esidency, exc	luding	xxviii & xxix
III—I		-	-			ted in the B		
	Pre	sidency, e	xcluding l	Sind, duri	ng the year	1894-95		xxx—xxxiii
IV_I						nfall for the nex. excludin		
	FStates	ment show	ing the o	peration	of Irrigation	on Works i	in the	
<b>T</b> 1		•		-		year 1894-9		XXXVI
11						a during 18 ncy, excludin		xxxvii
1	GState	ment show	wing area	and w	ater-rate a	ssessments	duriog	¥?7.411
	103 fixi	4-90 acco ng the scal	raing to le of wate	r-rates	210 OI CIASSI	fication adop	ted in	xxxviii
		-			10 year 189:	••• 1-95		XIXIX
	reports :-		0 1					
	Nira Car		•••	•••	***			1-5
	Mhasvad		•••	•••		•••		5-7
	Háthmat Laman D		***	***		•••		7 & 8
	Lower P Kádva R			5 	***		•••	8-12
	Pravara				•••	***	***	13-18 18 & 19
	Mutha Ċ		,		•••	•••	•••	20-24
	Ekrúk <b>T</b>		•••	•••	•••	•••		24-26
• • •	Krishna Klári C.		***	•••	•••		•••	26-29
	Khári Co Hartála		***	***	•••	• • •	•••	23 & 30
	Mhasva		•••	•••	•••	•••	•••	30 & 31 31-34
(15)	Jámda C	anals	•••	•••	•••	•••		34-36
	Parsul T				•••	•••	•••	36-39
(18)	) Pravara ) Bhatodi	niver WOI Tank	-		•••	***	•••	39
<b>(</b> 19)	) Mátola '	<b>Fank</b>	•••	•••	•••	•••	 	41-43 43 & 44
(20)	) Kásurdi	Tank	•••	***.		•••	•••	44
	) Shireupt	al Tank			•••		•••	44 & 45
в1	340							

-

### CONTENTS.

\_

•

		•				PAGES,
(22) Bhádalvádi Tank					•••	<b>45 &amp; 4</b> 6
(23) Koregaon Tank			•••			46 & 17
(24) Ashti Tank			•••		•••	48 & 49
(25) Revári Canal	•••				***	49 & 50
(26) Upper Mán Rive	r Works	***				51 & 52
(27) Yerla River Irrig	ation Work	8				52 - 55
(28) Chikhli Canal						55 & 56
(29) Maini Tank Can	al	•••	**			57 & 58
(30) Muchkundi Tank			•••			<b>58 &amp; 5</b> 9
(31) Nilgund Tank	•••	•••			•••	59
(32) Gadikeri Tank	•••		•••	•••		59
(33) Dámbal Tank			•••	•••		59 & 60
(34) Medleri Tank			•••		***	60 & 61
(35) Madag Tank		***	••••	•••	•••	61
(36) Asundi Tank	•••	• • • •	•••	•••		61 & 62
(37) Mávinkop Tank			•••	***		62 .
(32) Gokák Canal, Fi	rst Section,	and Stor	age Works	•••		62 - 65
		PART	II.			

PART II.

	Remarks	•••			•		•••		68 & 67
Works i	in Ahmedabad Dist	rict					•••	•••	67 & 68
Do.	Surat and Broad	հ					***	***	68
Do,	Násik			•••					68-70
De,	Khándesh Irriga	tion	•						70 & 71
Do.	Ahmednagar			••• ·			•••		71
Do.				•••			***	•••	72
Do.					•				72
Do,	Dhárwár								72 & 73
Do.	Bijápur		•				***		· 73
Do.	Ratnágiri			•••					73
Agricult	ural Works	•••		•••				•••	73 & 74
Do. Do. Do. Do. Do.	Bijápur Ratnágiri	• • • • • • • • • • • •	•	•••• ••• •••	•	···· ···· ····	4 * * • * * • * * • *	•••	72 72 72 & 73 73 73

.

Maps.

.

ii

## IRRIGATION REVENUE REPORT, BOMBAY PRESIDENCY (EXCLUDING SIND),

### 1894-95.

## 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.

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Collectorate,	Number.	Names of Works.	Storage Works completed or proposed.
	-	Major Woeks.	
•		Protective Works.	· .
Poona	. 1	Nira Canal	Storage lake at Bhatghar practi- cally completed.
Sholápur	. 2	Mhasvad Tank	Completed, except a part of the waste weir which was demolished in order to enable repairs to the
		Productive Works.	dam to be carried out and which still requires raising.
Ahmedabad	. 8	Háthmati Canal	Storage works under consideration.
Khándesh	6	Lower Pánjhra River Works.	
Násik	7	Kadva River Works Fálkhed Canal Ojhar Támbhat Canal. Wadáli Canal.	
Ahmednagar	8	Pravara River Works-Lákh	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
			Samrad, revised survey of which is completed and plans, &c., have
		· ,	been prepared.
Poona	9	Mutha Canals	Lake Fife at Khadakvásla com-
Sholápur	10	Ekrúk Tank	plete. Complete.
Sátára	11	Krishna Canal	Site for a storage reservoir is
			under consideration.
		MINOE WORKS AND NAVIGA- TION.	. ·
Ahmedabad	12	Khari Cut	The Bokh project under considera- tion.
ſ	13	Hartála Tank ,	
		Mhasva do Jámda Canals	Do. Recommendate Chambérer en etiened
Khándesh	10		Reservoir at Chankápur sanctioned and commenced, but work sus- pended. Question of resumption of work under consideration.
ť	16	Parsul Tank	Complete.
Ahmednagar {	17	Pravara River Works—Ojhar Canal.	Vide remark against (8) Lákh
ann Bar S	18	Bhátodi Tank	Canal. Complete.

**B** 1340—a

Collectora	te.	Number.	Names of Works. Storage Works completed or proposed.
-			MINOB WORKS AND NAVIGA- TION—continued.
Poona	{	13 20 21 22	Mátoba Tank Complete. Kásurdi do Do. Shirsuphal Tank Do. Bhádalvádi do Do.
Sholápur	{	23 24	Koregaon do Do. Ashti* do Do.
Sátára	{	25 26 27 28 29	Revári CanalStorage Tank at Sonkeh proposed.Upper Mán River WorksPingli Tank complete.Yerla River Irrigation Works.Nehr Tank complete.Chikhli CanalMaini Tank
Bijápur	{	- <b>8</b> 0 31	Muchkundi Tank Do. Nilgund do Do.
Belgaum		32	Gadikeri do Do.
Dhárwár	{	33 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 com- pleted for the present.

Nos. 3 and 4, or Chaukapur and Maladevi Tauks, 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-Gokák Canal, 2nd Fection, is in abeyance.

Capital outlay.

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

Main Heads.	To end of 1893-94.	During 1894-95.	To end of 1894-95.
A.—Direct Charges.	Rs.	Rs.	Rs.
I.—Works IL—Establishment III.—Tools and Plant IV.—Suspenso Profit and Loss	. 44,65,074 . 5,00,965	1,73,357 36,118 	1,98,27,082 45,01,192 4,99,442 
Total A Veduct—Receipts on Capital Account	2,46,19,764 t 35,109	2,07,952 116	2,48,27,716
Net Total, A Direct Charges	9 45 94 655	2,07,836	2,47,92,491
BIndirect Charges.			
Capitalization Loss by Exchange Leave and Pension Allowances	795759	1,61,832  5,056	5,24,208  8,00,815
Total, BIndirect Charges .	. 11,58,135	1,66,888	13,25,023
Grand Total A and B .	2,57,42,790	3,74,724	2,61,17,514

		Number of Works,	Expen	DITURE, 18	94-95.	Total Expendi- ture, Direct and Indirect,	Amount of
			Direct.	Indirect.	* Total,	to end of 1894-95.	Estimates.
Major 1	(In operation	. 2	Rs. 1,10,409	Rs. J,36,116	Rs. 2,46,525	Rs. 76,41,862	Rs. 82,32,709
Protective Works	{ In abeyance	2	166	25	191	1,03,319	17,42,810
	Total	4	1,10,575	1,36,141	2,46,716	77,45,181	99,75,519
Productive Works	In operation	7	81,193	3,197	84,390	1,08,36,333	1,08,45,341
	( In operation	26	11,546	13,677	25,223	61,50,810	63,95,171
Minor Works	{În abeyance	1	•••	***		1,90,284	1,91,995
	Total	27	11,546	13,677	25,223	63,41,124	65,87,166
Provincial Minor Wo	ksIn operation	1	4,522	13,873	18,395	* 11,94,876	12,33,013
	Graud Total	39	2,07,836	1,66,888	3,74,724	2,61,17,514	2,56,41,039

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

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 Chankápur and Máládevi Tanks and the Gokák Canal, 2nd Section, are still in abeyance. Government have ordered further investigations in regard to the Chankápur Tank and the requisite survey is in hand. A report on the result of this survey is awaited. The question of the storage works at Samrád for the development of irrigation under the Lákh and Ojhar Canals is still under consideration. A rough project was submitted to Government in May 1895 but it has been returned for further revision.

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."

On the Nira Canal the work done was chiefly on the Bhátghar Reservoir. The masonry has been practically finished. What remained of the top corbelling has been done and all the hand railing finally put up, with the exception of the portion over the south waste weir which would interfere with the erection of the gates. All the gates required for the south waste weir were supplied from Bombay by Messrs. Gabagan & Co. and before the end of the year all except five sluices had their frames fixed in position ready for final cementing. The whole of the south waste weir will be in working order before the monsoon of 1895-96. The north waste weir automatic gates were all in working order by the end of July, and under a head of 3 feet above crest level worked extremely satisfactorily. At Vir a masonry and concrete protective wall was substituted for the pitching below the subsidiary weir on the Left bank of the Nira as an efficient protection against the erosive action of the floods.

On the Mutha Canals the greater portion of the expenditure was on the alterations and improvements to the Poona Water-Supply, and the works which were in progress last year were completed, except a portion of the roofing of the pure water tanks which is in progress. The works were carried out without interfering with the supply to the City and Cantonment. The new filters are complete and in perfect working order.

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

	Δυουκτ.					AMOUNT.	
•	Protec- tive Works,	Produc- tive Works.	' Total.		Protec- tive Works.	Produc- tive Works.	Total,
Total Interest, charges to end of 1993-94	29.93,704 2,53,175		1,14,91,515 7,05,329	Net Revenue realized to end of 1893-94	4,815 12,500	2,10,824	• 17,14,93 2,23,32
	-			Balance net Interest charges to end of 1894-95	00 00 000		19,39,31
Total to end of 18:4-95	32,96,879	88,99,995	1,21,86,874	Total	32,86,879	88,99,995	1,21,86,87

5. The gross revenue realised from all sources during the year, after Revenue. deducting refund of revenue (Rs. 4,430), was Rs. 5,63,482, of which Rs. 5,49,871 were direct, and Rs. 13,611 indirect, receipts. The net revenue actually realised was Rs. 2,12,556.

The gross revenue shows a decrease of Rs. 10,264, and the net revenue a decrease of Rs. 73,772.

Area under command and 6. The gross area under command was irrigable area. 6. The gross area under command was 315,694 acres.

		Rav				
	Areas Irrigated.	Direct Receipts.	Share of Land Re- venue.	Total.	Working Expenses,	Net Revenue.
Class I Works for which Capital and Rovenue Accounts are kept.	Астев,	Rs.	Rs,	Rs,	Rs.	Rs.
Major Works { Protective Works Productive Works	32,596 28,111	94,548 3,51,896	 7,571	94,548 3,59,467	82,048 1,48,643	12,500 2,10,824
	60,707	4,46,444	7,571	4,54,015	2,30,691	2,23,324
Minor Works Provincial Minor Works	20,324 4,363	86,671 16,756	6,040	92,711 16,756	1,14,573 5,662	-21,862 11,094
Total Class I	85,394	5,49,871	13,611	5,63,482	3,50,926	2,12,556

The area shown as irrigated includes an area of 1,157 acres on which a consolidated land and water assessment is levied, and which 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 Areas irrigated. working expenses, as compared with former years, are as follows :---

17			Area irrigated.	REVE	NUE.	Working	
Хевгв.		TERP. ALE IN		Assessment. Realization		Expenses.	
		•	Acres.	Rs.	Rs.	Rs.	
1883-84			32,962	2,44,247	2,78,130	1,70,08	
1884-85		• •••	39,655	2,47,702	2,60,080	1,92,61	
1885-86			59,450	2,83,232	2,79,877	2,10,68	
1886-87			42,628	3,03,475	3,34,468	2,39,41	
1887-88	•••	• • •	46,187	3,49,512	3,43,445	2,41,38	
1888-89	•••		79,195	4,14,153	3,71,545	2,34,31	
1889-90			85,550	4,49,838	4,22,859	2,47,12	
l 800-91	• • • •		74,852	4,44,281	4,60,813	2,39,61	
891-92			96,025	5,76,586	5,12,072	2,85,89	
892-93			65,487	4,79,042	5,45,542	3,07,77	
1893-94	•••		79,950	5,91,487	5,73,746	2,87,41	
1894-95	•••		84,237	5,93,737	5,63,482	3,50,92	

There was an increase of 4,287 acres in the total area irrigated as compared with the previous year, but the area was still considerably less than that of 1891-92, though the assessment is larger.

The increase of 4,287 was distributed over the several classes of works as follows :---

						Acres,
	Protective	Works	•••		•••	2,810
	Productive				•••	2,150
	Minor		•••	•••	•••	-799
	Do.	Provinci	al			126
,						
				Tota	1	4.287

Under Protective Works the Nira Canal shows an increase of 3,867 acres and the Mhasvad Tank a decrease of 1,057 acres. Under Productive Works, the Mutha Canals account for an increase of 1,823 acres, and the balance is the net result of increases and decreases under the remaining works. A large number of Minor Works show a decrease, the most noticeable being the Ojhar Canal and the Shirsuphal Tank.

Distribution of area.

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

•		Kharif.	Rabi.	Total.	
•		Acres.	Acres.	Acres.	
1893-94	•	45,300	34,650	79,950	
1894-95	•••	41,314	42,923	84,2	

The kharif area shows a decrease which was more than made up in the rabi season. 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 84,237 and 73,990 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 82,475 acres. The excess in the measured area over that applied for was chiefly on the Nira Canal, the difference arising from the cultivators entering in their applications only the minimum area they can be charged for and irrigating generally much more. Similarly, it is stated to be due in other cases to their ignorance of the areas of their holdings and consequent inability to estimate correctly the area they propose to irrigate. The reports of the individual works contain the necessary explanations on this point.

Distribution of rainfall.

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

		IWorks having an unfailing Supply.					п	-Works dep	ks dependent on Local Rainfall.			
			1890-91.	1891-92.	1892-93.	1893-94.	1894-95.	1890-91.	1891-92.	1892-93.	1893-94,	1894-95.
Kha	ri <i>f.</i>		Inches.	Inches.	Inches.	Inches.	Inches.	Inches,	Inches.	Inches.	Inches.	Inches.
June July August September	····	•••	3.32	<b>3.</b> 57 7.11 3.03 2.93	5 83 6 36 6 51 9 13 27 83	9.85 2.05 4.58 2.43 18.91	3·27 9·30 1·98 6·30	4.29 2.79 3.73 4.80	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 19.04
Rđ									12.35	20.00		
October November December January	••• ••• •••	•••	3.09 2.70 1.17 	3·25 0·26	5•14 0·34 0·02	2·24 1·16 	4·77 0·14 	2·45 8·10 1·94 0·01	3·81 0·13	8·77 0·63 	4·13 0·96 	8·04 0·01
	Total	•••	6•96	3.21	5•50	3.40	4.91	7.20	4.04	9.40	5.09	3.02
Total Khari	if and R	abi.	23.90	19.15	33.33	22.31	25.76	23.11	16.43	35.78	22.42	. 22.09

The rainfall in the year under report compared with that of the previous year varied in the case of almost all works. On some it was heavier and on others lighter.

The average in the two seasons, taking all the works together, was 23.13 inches as compared with 22.74 inches in 1893-94.

в 1340 — в

Collections of Revenue.

12. The state of the collections was as follows :--

Balance of demands unre Demand of the year-	ealized at	the commer	ncement of the	year.	33,277
Rabi, 1893-94		•	Rs. 90,578		
Kharif, 1894-95	•••		3,20,749		
Miscellaneous receipts			1,50,357		
<b>F</b>			M 1,00,001		5,61,684
<b>.</b>			Total		5,94,961
Remissions		•••	•••	***	243
Amount unrealized at th	e close of	the year	Net Total	•••	5,94,718 40,417
Actual receipts of the ye		•	•••		5,54,301
Add Share of Land Revenue	•••		•••	***	13,611
Deduct					5,67,912
Refunds of Revenue	•••	•••	•••	•••	4,430
Revenue realized as per	paragraph	is 5, 7 and	8	•••	5,63,482

Rs. Af demands unrealized at the commencement of the year 33 277

The remissions and refunds together amount to Rs. 4,673.

The total amount, Rs. 40,417 unrealized at the close of the year, shows an increase; this total is made up of the following :---

				Ks.
Mutha Canals			•••	22,359
Khári Cut	***			8,051
Bhátodi Tank		•••	•••	2,339
Kadva River Wo	rks	•••		1,454
Jámda Canals		•••		1,191
Hathmati Canal	***		***	1,113
Other Works	•••		•••	3,910
• .	• -···	Total	•••	40,417
			-	

The outstanding balance on the Mutha Canals, which is heaviest, includes (Rs. 9,564) bills for water-rates for March 1895, 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, and it is hoped there is now no balance outstanding.

On the Khári Cut, out of the balance of Rs. 8,051, Rs. 3,635 have since been collected, and steps are in progress for recovery of the balances.

Under the Bhátodi tank it is reported that several villagers complained of double assessment and refused to pay the amount due from them. The unrealized balance is also attributed to late submission of some of the demand statements; the matter is being enquired into and the necessity for early submission of the demand statements will be impressed on the officers concerned.

Most of the balance on the Kadva River Works has since been recovered, while on the Jámda Canal the whole has since been collected.

On the Hathmati Canal the outstandings were due to the inability of the cultivators to pay before the close of the year. The amounts have since been realized in full.

In some cases the outstanding balances are represented to be due to the inability of the cultivators to pay the water-rates and land assessments at one and the same time, and the Revenue Department are taking the necessary steps for their recovery.

		•		1893-94.	1º94-95.	Lifference.
Major Works Protective Works Productive Works	•••	•••	•••	84,107 1,28,925	82,048 1,48,643	2,059 ++ 19,718
	٠	Total	<b></b>	2,13,032	2,30,691	+17,659
Minor Works and Navi Provincial Minor Work	gation 8		 	68,334 6,052	1,14.573 5,662	+ 46,239 — 390
	•	Grand Total		2,87,418	3,50,926	+ 63,508

13. The total working expenses for the year amounted to Rs. 3,50,926 Working expenses. against Rs. 2,87,418 in the previous year, showing an increase of Rs. 63,508 distributed as follows :--

Under Major Works, Protective Works show a decrease of Rs. 2,059, while Productive Works show an increase of Rs. 19,718. The working expenses under Minor Works Imperial show an increase of Rs. 46,239.

The decrease under Protective Works is made up of a decrease of Rs. 8,459 on the Nira Canal and an increase of Rs. 6,400 on the Mhasvad Tank. The increase under Productive Works is made up of increases on the Lower Panjhra River Works, Kadva River Works, Lakh Canal, Mutha Canals and the Krishna Canal, the Mutha Canals showing the largest increase (Rs. 12,498). The Ekruk Tank shows a decrease of Rs. 14,361. The Minor Works which principally account for the increase are the Ojhar Canal (Rs. 21,958), Bhatudi Tank (Rs. 8,133) and Yerla River Works (Rs. 17,805).

The working expenses of the Nira Canal include a sum of Rs. 1,770 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 natureof the soil of which they were originally made. It is stated that in a couple of years all these leaky places will be made perfectly sound. The working expenses amounted to Rs. 53,588 as compared with Rs. 62,047 in the previous year. With 96 miles of main canal in operation this gives a rate of 558.21 per mile and includes the maintenance of 132 miles of distributaries. The cost of maintenance per acre irrigated was Rs. 1.89 against 2.53 and 3.22 of the two previous years.

There was a large increase on the Mhasvad Tank due to special expenditure of Rs. 11,198 incurred during the year under review under head "Extensions and Improvements" on remaking a portion of the dam with better material. The work was necessitated on account of damage caused by leakage.

On the Lower Panjhra River Works the increase was in a great measure due to the charge for construction establishment being now apportioned equally on all revenue works in proportion to the outlay on works and repairs on each, and to a large refund of revenue which was assessed at penal rate on lands at Mudhi and Mandal, which had been degraded from bágáyat to jiráyat. There has however been a considerable decrease on the 2nd Class revenue works, the charge on which used to be very heavy under the former method of apportionment. The same reason accounts for the increase under the Kadva River Works and the Lakh Canal, that on the last being also partly due to special silt clearance.

The expenditure on account of working expenses of the Mutha Canal amounted to Rs. 79,709 against Rs. 67,211 in the previous year, including all charges. Out of Rs. 79,709, Rs. 29,765 are debitable to maintenance of water-supply and the balance Rs. 49,944 to maintenance of irrigation. The excess in the expenditure as compared with the previous year was due to increase in cost of maintenance of the Poona water-supply, special repairs to the water wheel and pumping by steam during alterations being necessary. The chief increase is however in the cost of Establishment and Tools and Plant. The establishment charges were heavier owing to decrease in Capital outlay and the revised rule ordering 18 instead of 20 per cent. as the charge to capital. The increase in tools and plant was due to the cost of new meters and component parts of meters required for the Poona water-supply.

The increase under the Krishna Canal was on collection charges due to increased realizations of the year.

The increase in Minor Works and Navigation is chiefly in establishment charges on most of the works due to the introduction of the rules, *vide* Government Resolution No. 280 A. I-1903, dated 14th December 1894, referred to above, the Ojhar Canal and Bhatodi Tank showing the most noticeable increases, solely due to that cause. The large increase in the case of the Yerla River Works is attributed to the expenditure incurred on the reconstruction of the Nehr dam and debited to the revenue account.

The percentage of working expenses on gross assessed revenue was 59:10 against 48:59 in the previous year, and the rate per acre was 4:17 against 3:59 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 :---

					1892-93,	1893-94.	1894-95.
		•		ľ	Rs.	Rs.	Rs.
Works	•••	•••		•••	6,070	13,641	27,253
Repairs	41.		•••	••••	1,39,710	1,21,787	<b>1,22,</b> 496
Establishment		***			1,19,234	1,04,596	1,48,362
Tools and Plant	•••		***		3,913	9,482	9,006
Total	in the	Public Work	s Department	•••	2,68,927	2,49,506	3,07,117
Collection charg	es	***		•••	22,026	23,271	23,039
Indirect charges	• • • •	•••	***		16,825	14,641	20,770
			Total	•••	3,07,778	2,87,418	3,50,926

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

				1893-94.	1894-95.	Difference,
Direction and Accounts	•••	***		22,528	22,304	-224
Executive		•••	•••	82,068	<b>1,</b> 26,058	+ 43,990
		Total	•••	1,04,596	1,48,362	+ 43,768

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

	Average incidence of	Cost of Me.	SUREMENT.	WORKING EXPENSES TOTAL IN THE PUBLIC WORKS DEPARTMENT.		
Names of Works.	Water-rate per Acre.	Total Cost	Per Acre.	Per mile of Main Canal,	Per Acre Irrigated.	
• Canals.			Rs.	Rs. a. p.	Rs.	
Nira Canal	3-20	1,844	0 1 0	485	1.64	
TT/11 11 (lama)	2.50	141	0 · 0 6	259	1.29	
Háthmati Canal Kádya River Works	3.80	291	0 1 8	599	5.23	
Radva River Works Pravara River Works—Lákh Canal.	1	32	0 1 8	517	38.36	
Mutha Canals	13.81	1,366	0 2 2	787	6.87	
Krishna Canal	0.50	767	027	291	<b>2</b> ·19	
Jámda Cauals	6.75	49	0 1 11	219	7.44	
Pravara River WorksQjha Canal.		118	019	1,341	16.51	
Gokák Canal, 1st Section	2.73	749	029	315	1.05	
Upper Mán River Works	5.18	175	022	216	2.92	
Rewári Canal	1.97	187	0 1 11	307	0.99	
Chikhli	1.00	36	0.17	119	1.90	
Khari Cut	5.07	162	0 1 3	340	2.61	
Tanks.			•			
Mhasvad Tank	3.28	610	023	441	6.29	
Ekrúk Tank	4.00	557	0 2 8	225	3.27	
Bhatodi Tank	2.09	30	0 3 10	239	6·34	
Mátoba Tank	7.00	81	0 0 11	210	2.51	
Shimm-hal Tanly	6.10	16	$0$ $1$ $\overline{5}$	232	16.37	
Bhádalvádi Tank	0.01	19	0 Î Ŏ	160	5.20	
Maini Tank	0.00	224	0 2 9	375	2.71	
Madag Tank	0.10			160	:1.50	

The cost of measurement per acre was generally less than last year. The works in the Sátára District show a reduction of nearly 52 per cent. The high rate of measurement on the Bhatodi Tank is explained to be due to the fields being at a distance from each other and to the incompetence as a surveyor of the canal inspector. It is proposed to have the measurements made by a special measurer in future.

On the Madag Tank the land under command having been subdivided into pot numbers of suitable sizes no special measuring establishment was employed.

The varying ratio of working cost on the different works is due to the varying nature of the works 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.
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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
•descenses	•					
1.	Nira Canal	•••		4,484	4.93	0.16
2.	Mhasvad Tank			3,075	<b>2</b> 2·17	0.73
3.	Hathmati Canal			141	1.20	• 0.03
4.	Lower Pánjhra River Works	•••		784	7.51	0.28
5.	Kadva River Works	•••		1,363	12.97	0.43
6.	Pravara River Works-Lákh Canal			83	7.79	0.27
7.	Mutha Canals	•••		3,073	2.20	0.30
8.	Ekruk Tank			2,376	17.64	0.72
9.	Krishna Canal	•••		1,554	3.50	0.33
10.	Khari Cut	***	•••	556	· 4·30	0.26
11,	Hartála Tank	•••	<b>.</b>	· 186	89.42	2.24
2.	Mhasva Tank	•••		264	66.83	2.08
3.	Jámda Canals		•••	2,083	26.90	1.81
14.	Parsul Tank			1 004	19.71	0.92
l5.	Pravara River Works-Ojhar Canal			. 853	7.55	0.23
16.	Bhatodi Tank	•••		44	0.80	0.03
17.	Matoba Tank			. 115	1.16	0.08
18,	Kásurdi do		•••	90	250.00	20.00
19.	'Shirsuphal do			010	19.46	1.19
20.	Bhádalvádi do.		•••	65	9.64	0.22
21.	Koregaon do	***	•••	100	16.43	0.48
22.	Ashti do.			808	14.54	0.47
23.	Revari Canal			271	4.11	0.18
24.	Upper Mán River Works			· 631	9.45	0.48
25.	Yerla River Irrigation Works	•••		1,055	12.08	0.44
26.	Chikhli Canal			120	6.07	0.23
27.	Maini Tank		-	830	16.30	0.64
28.	Muchkhundi Tank		• • •	5	5.62	0.27
29	Nilgund Tank					
30.	Gadikeri do		•••			
B1.	Dambal do		***	256	13.72	0.81
32.	Medleri do			255	53.46	1.86
33.	Madag do	•••		391	17.46	0.42
34.	A	•••	***	051	17.79	0.63
35.	Mavinkop do	•••	• • •			
36.		•••		1,303	10.94	0.29
90.	Gokák Canal, 1st Section	•••		1,000	1034	029

1

It will appear that the percentages of revenue establishment on assessed revenue from irrigation water rates are high on Hartála, Mhasva and Kasurdi Tanks and the Jamda Canals. The Executive Engineer for Irrigation Kháudesh reports that the high charges on the Hartála and Mhasva Tanks and the Jamda Canals are due to the areas irrigated during the year 1894-95 on these works being smaller than in the previous year, but that, in the interests of efficient management of what irrigation there was, the establishment could not be reduced. The irrigation in the locality in which these three works are situated has always been and is fitful, and depends largely on the extent of the cultivation of cotton, which can be carried on without canal water. There was no irrigation on the Kasurdi Tank during 1894-95, the tank being dry, and hence the high charge.

The percentage in the case of the Khari Cut Canal is higher than that of the Hathmati Canal as in the former a share of subordinate establishment employed in revenue management is included, while on the Hathmati Canal the work was performed by temporary establishment charged to maintenance. The reasons for this procedure which appears to be exceptional should be furnished.

Enquiries are being made as to the possibility of diminishing the charges on the Maini, Dambal, Medleri, Asundi and Madag Tanks and on the Yerla River Works. 16. The indirect receipts, as shown in Statements I-C, IV-C and II-E, were Rs. 13,611. If Rs. 5,830 plus Rs. 41,328 on account of supply to the Poona City=Rs. 47,158, 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. 6,40,395. 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 Net assessed Revenue. preceding paragraph, was Rs. 2,42,811 as compared with Rs. 3,04,069 in 1893-94.

•		1	DIRECT REVENUE	Indirect	Total.	
• • • • • • • • • • • • • • • • • • •	4	Water Rates.	Other Recipts.	Total.	Revenue.	LUCAL
Major Works.						•
Protective Works Productive Works		1,04,733 2,29,641	<b>4,111</b> <b>1,3</b> 1,689	1,08,844 3,61,330	 7,571	1,08,844 3,68,901
Total	•••	3,34,374	1,35,800	4,70,174	7,571	4,77,745
Minor Works Provincial Minor Works	•••	83,480 11,915	9,405 5,152	92,885 17,067	6,040 	98,925 17,067
Grand Total	•••	4,29,769	1,50,357	5,80,126	13,611	5,93,737

The details of the assessment were as follows :---

18. The water-rates in force during the year are shown in Statement I—F. Water-rates. has been raised to Rs. 12. For the Gokak Canal it has been ordered that the

perennial rate shall be raised from Rs. 14 to Rs. 18 in five years and accordingly the rate for the year under report was Rs. 15.

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

· •			1893-94	1894-95,	
Protective Works	•••		3.23	3.21	
Productive Works			8.73	817	
Minor Works		***	4.30	4.35	
Provincial Minor Works	•••	***	2.74	2.73	
Average of all taken toget	her	•••	5.37	5.10	•

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

_	1893-94.	1894-95.
Water-rates	<sup>·</sup> Rs. 4,29,408	Rs. 4,29,769
Other Receipts- Plantations Water-power	6,198	4,024
Water-supply to towns Miscellaneous	20,760 97,077 25,065	10,920 98,779 36,634
Share of land revenue	1,49,100 12,979	1,50,357 13,611
• •	1,62,079	1,63,968
	5,91,487	5,93,737

The above comparison shows an increase under all heads except Plantations and Water power.

The assessments of water-rates are nearly the same as those of the previous year. The figures for the several works show increases and decreases due to the variation in the area of irrigation, the decrease which was chiefly on the Mhasvad Tank (Rs. 7,623) Shirsuphal Tank (Rs. 2,357) and Bhádalvádi Tank (Rs. 3,675) having been counterbalanced by the increase on the Nira Canal (Rs. 7,161) Krishna canal (Rs. 2,294) Khari Cut (Rs. 2,345) and the Yerla River Works (Rs. 1,736); of the decrease on plantations the most noticeable was on the Hartála Tank (Rs. 541) and the Jamda Canals (Rs. 1,201) due to the sale of babul trees not having been effected before the close of the year. The decrease under water power is solely on the Gokak Canals and is nominal. The assessment for the year was Rs. 9,840, but half of this sum was paid in advance last year and therefore was taken credit for in that year.

Under Miscellaneous revenue the increase was almost wholly under Major Works.

Crop acreages.	21 1893-9	1. The pi 94 and 189	rincipal 94-95 we	crop acrea ere as follo	ges irrigat ws:—	ted during
				1893-94	1894-95.	Increase or Decrease.
· •			-	Acres.	Acres.	Acres.
Gardens and orchards				3,367	3,009	-358
Sugarcane	•••	•••		13,063	14,624	+ 1,561
Wheat		•••		10,856	8,833	2,023
Rice				5,217	6,187	+ 970
Maize	•,•	•••		2,031	1,924	107
Jowári				11,604	19,955	+ 8,351
Bájri				4,378	6,722	+ 2,344
Gram, &c	•••	•	• • • •	5,830	5,990	+ 160
Ground-nuts				16,390	9,084	-7,306
Condiments				2,935	<b>3,</b> 809	+ 374
Fodder	•••	***	•••	593	1,117	+ 524

of these the chief crops were :---

-					Acres.
Sugarcane			•••		14,624
Wheat		•••	··· ·		8,833
Jowári					19,955
Bájri	***	•••			6,722
Gram, &o.			***	•••	5,990
Ground-nuts		•••		***	9,084
Rice		•••		•••	6,187

The figures of sugarcane, rice, jowári, bájri, gram, condiments and fodder show an increase. All the other crops show a decrease, the falling off being particularly noticeable in wheat and ground-nuts. The decrease in wheat is made up of small decreases on several works.

Of the total decrease of 7,306 acres in ground-nuts the Nira Canal contributes 3,743 acres, which the Executive Engineer anticipated, as explained in paragraph 16 of the Nira Canal report, and the Mhasvad Tank 2,115 acres, due to the lowering of the water-level in the tank by cutting 6 feet from a portion of the waste weir to facilitate the remaking of the damaged portion of the dam. This lowering caused a large diminution in the contents of the tank which led to the decrease of the ground-nuts irrigation. The decrease of ground-nut was general over the works in the Satara District owing to the favonrable rainfall of the year.

The increase in the area of jowari was most noticeable on the following works ;--

				•	1893-94.	1891-95.
					Rs.	Rs.
	Nira Canal	•••	•••	••		11,114
	Mhasvad Tank			**	. 442	2,072
	Mutha Canals		***	••	. 511	1,534
•	Ekruk Tank	412		••	. 110	823

On the Nira Canal it rose from 6,537 acres in 1893-94 to 11,114 acres in 1894-95 which is very satisfactory.

The total estimated value of crops irrigated is shown as Rs. 56,57,235 against Rs. 58,59,742 for the previous year and Rs. 39,47,775 for 1892-93.

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

Duty of water. Duty of water. 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 frequently situated towards the tail of the canal at a long 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:

#### POONA DISTRICT.

#### Nira Canal.

Sugarcane .	Cubic feet	186,356 pe	r acre ( For	particulars	please see
Do.	•• ••	214,835		ara. 13 of t or that work	
•		Mutha C	anals.		•
Sugarcane .	•• • •••			822,702 C	. ft. per acre.
	4	SHOLAPUB I	ISTRICT.		
		Mhasvad	• Tank.		<b>-</b> .
Plot No. 1 S	ugarcane	***	***	282,426 (	J. ft. per acre.
" <u>2</u> V	Vheat jod	•••		40,412	<i>ii ii</i>
	Theat		***	47,422	מי ננ
<b>" 4</b> B	arley	•••		<b>36,522</b>	<i>))  </i>
		Ekruk T	ank.		
Plot No. 1 W	Theat 1st sort		<b>\$</b> • • •	60,594 C	. ft. per acre.
	do. ordinary		~**	41,838	)) )) ))
", 3 G	ram	***	•••	12,229	70 yı
• •		Koregaon !	Tank.		•
Plot No. 1 St	ugarcane	-		100 606 0	. ft. per acre.
9 G	round-nut		•••	115,689	-
	owári …		***	59,740	27 <u>5</u> 7
,, · · ·	•••	Ashti Ta		00,110	در در
		a anti au			
Plot No. 1 St	agarcane	<b>*</b> * »		370,492 C	. ft. per acre.
" · 2 Cl		• • •	***	117,730	3 <b>)</b> 37
" ) K	ice inferior•	•**		70,991	»- »
•	K	HA'NDESH I	)ISTRICT.		· · ·
	Lower	r Panjhra 🛛	River Works	<b>t.</b> .	÷
<i>,</i>		Village of I	Tahalo <b>d</b>		
Plot No. 1 Pe " 2 W	71 4	35,640 17,397	per acre.	Owing to watering	rain one sufficed.
		Jamda Ca	nals.	•	
Wheat			•	28,240 рег	acre.
		NASIK DIS	TRIC <b>T.</b>		
		adva River		•	
Ground-nuts Do. Methi		10,532	" <u>}</u> 2	particulars eparate tabl 6 of report ork.	

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#### 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 1893-94 :---

•			1898- <b>94</b> .	1894-95.	Increase,	Decrease,
	•		Acres.	Acres.	Acres.	Acres.
Area irrigated	***	•	147,393	143,907		3,486
. <sup>.</sup>			Rs.	Rs.	Rs.	Rs.
Revenue receipts Expenditure Net revenue	•••	•••	5,46,333 2.80,571 2,65,762	5,47,425 2,78,906 2,68,519	1,032 	1,665

The area irrigated shows a decrease of 3,486 acres. In the Dhárwár district, there is an increase of three in the number of tanks and still the area irrigated shows a falling off of 3,895 acres. This discrepancy is not explained. The Revenue receipts show an increase of Rs. 1,092 and the expenditure a decrease of Rs. 1,665, the result being an increase under net revenue of Rs. 2,757.

24. The following gives some details of expenditure :---

	Expend	ITURE.	COMPARISON.			
	1893-94.	1894-95.	Increase.	Decrease.		
	Rs.	Rs.	Rs.	Rs.		
Extensions and improvements Maintenance and repairs Establishment Tools and Plant	50,917 57,346 1,15,825 2,065	65,948 64,871 93,116 3,147	15.031 7,525 1,082			
Total	2,26,153	2,27,082	· 929	••••		
Share of collection charges	54,418	51,824		2,594		
Total	2,80,571	2,78,906	*****	1,665		

The increase under Extensions and Improvements, Maintenance and Repairs and Tools and Plant shows more extensive operations on second class works. The decrease under establishment charges is the result of orders regarding the apportionment of establishment charges referred to in paragraph 13 above.

Statement of Canals in the Bombay Presidency, excluding Sind.

4		· .	Stateme	ent of Cana	ls in the	Bombay Pre	esidency, ex	cluding S	ind.		·		
			· (7) Ka	DVA RIVER W	ORKS.	(8)	(11)	(12)	(15)	(17)	(25)	(28)	(39) Goka'k Canal, 18t
Bource of Supply of Wator,	(1) Ni'ba Canal,	(5) HATHMATI Canàl.	PA'LEHED CANAL.	OJHAR Ta'mbat Canal,	WADA'LI CANAL.	LA'ER CANAL.	KRISHNA CANAL.	Кна'ві Сут,	JA'MDA CARALS,	OJHAB CANAL.	REVA'BI CANAL	CHIKHLI CANAL,	SECTION AND STORAGE WORKS.
	River Nira and Reservoir at Ehâtgh <b>ar</b> .	Hathmati River,	Kádva River.	Banganga River.	Kádva River,	Pravara River.	River Krishna and Rainfall	Rh4ri River,	Girna Biver.	Pravara River.	River Wárna and Rainfall.	River Nándní and Rainfall,	River Ghat- prabha and Storage Works,
Minimum discharge C. ft. per second per second. Maximum discharge n v	{ K. J338 R. 34 H.W. 5 456	191	K. 12.19 R. 8.21 H.W.0.39 30.64	K. 14 <sup>.</sup> 28 R. 0 <sup>.40</sup> H.W 8 <sup>.</sup> 82	R. 19.25		K. 45.99 R. 215.92 H.W. 45.99 87:78	R 73	April and May 1894 28-22 K. 262-21 R. 174-23 H. W. 54'01 April and May 1895 47:25 Left Right Bank, Bank, K. 42'83 23'34 R. 51'33 19'45 H.W.53'00 14'85	42·00	K. 8'43 R. 9'71	K. 1.37 R. 5.36 H.W. 1.37 6.13	R. 33
Average annual rainfailInches, Gross area commanded Acres, Culturable do Acra irrigable by complete project , Do, at present ,	17·75 274,447 227,670 56,640 58,640	<b>R. 33</b> 20 R. 0.62 44,744 28,840 11,336 8,000	<pre>29.51 28,832 26,280 23,466 9,837</pre>	20*94 8,055 7,421 6,824 2,367	20·94 8,486 2,729 2,433 2,433	24-64 29,913 25,536 22,760 11,280	25*60 +28,327 +36,453 +26,453 - 126,453	<pre>{ K.32:52 R. 0.81 17,300 12,000 11,500 3,000</pre>	$\left\{\begin{array}{c} 1, w, 53 \ 00 \ 14 \ 85 \\ 26^{\circ} 82 \\ 37, 122 \ 9, 166 \\ 33, 124 \ 7, 061 \\ 3, 500 \ 1, 500 \\ 3, 500 \ 3, 500 \end{array}\right\}$	24.61 23,794 21,155 20,088 14,763	28.71 3,813 3,624 3,624 3,624 3,624	24·29 1,871 1,478 1,478 1,478 1,478	{ Dhupdal26.93 Goksk 23.03 18,668 17,627 \$6,170 \$6,170
Sanctioned Estimate Direct charges Rs. Indirect charges	57,34,655 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 32,15Q	3,75,189 20,277 3,65,298	8,29,067 48,216 7,83,613	1,66,857 11,823	10,27,238 61,402	\$,25,902 22,309	56,324 3,121	53,803 3,613	11,72,084 60,929 1,44,865
Total, Estimate Rs.	89,49,307	8,07,392	4,66,403	17,785	63,461	7,60,764	16,60,896	1,78,680	10,88,640	3,48,211	59,448	57,415	13,77,878
Expendituro Direct charges Rs. to end of Indirect charges	53,01,632 2,91,345	4,90,925 27,470	2,21,154 15,372	6,789 193	27,955 1,899	3,52,446 19,445	8,18,545 46,347	1,69,868 11,980	9,90,546 49,900	8,09,63 20,614		53,803 3,639	11,55,517 39,359
to end of Interest during con-	21,57,378	4,14,113	2,00,854	1,409	30,739	3,69,502	8,80,728	•••	••••••	•••	******	•••••	2,09,017
Total, Expenditure "	77,53,355	9,32,508	4,37,380	8,431	60,093	7,41,393	17,45,620	1,81,848	18,40,446	3,80,249	. 59,429	57,442	14,03,893
AVorks as now sanctioned—         Main Canals, Irrigation         Branch Canals         do,         Distributaries         Of show	100-23 132-16	21 25	11 21.50	8	8.62 	23	35-25 26-25	16 7 7	39 	19 28	5.25	6*50	2·63 13· 26·55
Navigable channels Works completed at and of 1894-95- Main Canals, Irrigation, Miles. Branch Canals do,,, Miles. Oistributaries,,,	96 182-46	*** 21 ** 30	 11 (a)14·36	4·50	8°62 	23 (ð) 9*87	\$5•25 \$28•62	 16 7 7	89  75	···i · 11 · 21	5+25	6.50 	 2:63 13 26:55
Navigable channels	•••••		•••	*****	•••		4+4+** <sub>1</sub>		***	····.	*** **	4+1+44	*****

• Including 47 c. ft, discharge for Mills: † These figures include the area (920 acres) commanded, culturable and irrigable under the Burli Branch Channel newly constructed. (a) The total longth measured at present is 14'30. The difference is due to the shortening of the Ohnurd newly constructed. (a) The total longth measured at present is 14'30. The difference is due to the shortening of the Ohnurd newly constructed. (b) 9'37 is the result of the enquiry referred to in paragraph 5 of Gevernment Resolution No. 3 W, 1,-82, duted lath January 1805.

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## Statement of Reservoir Projects in the

•		ເພ	(2) •	(6)	m	(9)	(10)	(13)	(14)	(16)	(18)	(19)	(30)
- 6	purce of Sapply:	Bhátghar Beservoir Nira Canal.	Mhas- vad Tank.	Lower Pánjra River Works and Mukti Tank.	Kádva River Works (Waghad Tank).	Mutha Reservoir, Lake File	Ekrók Tank,	Hartála Tank.	Mhasva Tank,	Parsul Tank,	Bhātodi Tank,	Mátoba Tank,	Kasurdi Tank,
·	varce of Supply.	Yelwandi River and Ghát Catch- ment.	Møo Biver apd Rain-fall.	Local Streams.	Kolvas River.	Muths River and Rain-fall,	Adhela River and Rain-fall.	Local Streams	Local Streams.	Parsul River.	Mehekri Rivor,	Nála, Rain- fall and surplus water from Mutha Right Bank Canal.	Kásurdi Néla and Raiu- fail,
$ \begin{array}{c} & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & $	rea of catchment, Sq. miles verage Annual rain-fallInches	. 128 145	*460 25*49	34-2 22-83	29 52-73	196°00 33°50	159 82-01	6*80 26*31	15*40 29*79	17-83 · 21-77	• 44·0 25·88	10-00 16-15	
	s between levels of supply and sill of uice		· <b>2</b> ,633	842-3	606	(1)2,679°65 (2)3,283°30	3,310	134-9	169-6	118.70	154	229	14.5
Area of surface	at full supply { Acrea	i } 3,584	4013-80	5 <b>09</b> °0 <b>0</b>	778{	(2)3,629 <sup>.</sup> 78 (1)3,299 <sup>.</sup> 34	4,640	473	421	151	815-13	477-46	37-92
Gross area comu Culturable de Area irrigable b		ration direc de Russrroit	129,045 106,214 106,214	13,117 13,637 12,627	(0) (0) (0)	94,087 49,600 16,800	17 152 16,941 16,330	584 527 415	4,647 4,975 1,700	2,593 2,800 (j)1,500	18,657	7,188	475
Do. a Wells supplied	at present	10 11 11	45,813 12	12,627 	(8) 	16,800	14,852	415	1,700 	(i)1,500 	12,1%	2,600 	478 • '
Sanctioned Estin Direct Charge Indirect Charg Interest durin	5 Rs	(a) (a) (a)	20,24,327 1,03,947 6,56,222	<b>4,44,496</b> 23,774 <b>4,18,83</b> 9	4,67,662 16,835 2,17,233	62,14,206 2,40,697 34,30,296	12,28,243 1,06,687 8,00,650	48,890 26,150 	1,29,813 10,202 	2,15,360 8,246 	8,51,767 26,511 		
	Total Estimato Rs	. (a)	27,84,496	8,66,099	7,01,730	96,85,199	21,35,580	75,040	1,40,015	2,93,619	3,78,278	3,10,500	<b>46</b> ,590
Expenditure to end of 1894-95.	Direct Charges Ra. Indirect Charges , Interest during con- struction ,	(a) (a) (a)	19,85,060 60,825 9,68,869	4,39,052 \$2,812 4,18,639	4,37,913 11,691 1,97,000	63,22,843 2,34,147 51,42,695	12,28,117 1,12,269 12,24.389	47,948 25,484	1,28,781 10,175	2,12,38 <u>2</u> 7,057	8,52,665 27,022	1	40,81 <b>2</b> 6,778
•	Total Expenditure Re	. (a)	80,14,754	8,60,703	6,46,604	1,16,99,184	25,64,775	78,382	1,38,956	2,19,419	8,79,707	3,01,422	<b>4</b> 5,590
Works as now a Dam (earth or Total Heigh*	masonry)	Masonry (b) 127 (c) 108	Earth. 79-79	Earth. 65	Earth. 85	Masonry. . * 97-84	Earth. 76	Earth. 61'50	, Earth, , 44	Earth. 62 <sup>.</sup> 27	Masonry 60	1	Earth. 88-65
Canals ,			(h)60-25	•••	( <b>ʃ)</b>	89	49		•		<b>6</b> :50	-	• • 1
Distributaries	مر دده محم وهم وه	Fide - State	84	45	ഗ	- 70		8-5	7	<b>4</b> •75	8.20	17	1.75
Works complete Dam (height)	d at end of 1894-95-	(d)	79-79	65	93	97*84	76	\$1° <i>5</i> 0	64	62-27	60	. <mark>48-4</mark> 1	83 45
Canals		State-	(h) 80° 25		(f)	68	48		··· .		<b>4</b> '50		
Distributaries	gana yer dana yer gy u	$\int \frac{\text{ment}}{1-A_{\star}}$	84	45	( <b>ภ</b>	67	-	8.9	• 7	• 4•75	5°60	17	1-75
<u> </u>		l			!	!	•	l	J	<u> </u>	۱ ۰	l	l

#### Bombay Presidency, excluding Sind.

		<u></u>	-	<u></u>		1			1		1			1	1
(21)	(23)	(23)	(24)	(26)	(27)	(29)	(30)	(32)	(33)	(34)	(35)	(36)	(37)	(39)	
hirsu- phal Tank,	Bhsdal- vádi Tank.	Koregnon Tank,	Ashti Tank.	Upper Man River Works (Pingli Tank).	Yerla River Irriga- tion Works (Nehr Tank).	Maini Tank.	Much- kundi Tank.	Gadi- keri Tank.	Dambal Tank	Medleri Tank,	Madag Tank-	Asundi Tank,	Mavin- kop Tank,	Gokák Canal, lst Section, and Storage Works,	 -
finor ribu- ary of the hima River and Rain- fail.	Minor Tribu- tary of the Bhima River and Rain- fall.	Nála and Rainfall.	Ashti Ngla and Rainfall.	Man River and Rain- fall,	Yerla River and Rain- fall.	Wanga NAla and Rain- fall.	Much- kundi Nála and Rain- Iall.	Rain- fall.	Rain- fall.	Medleri Nála and Rain- fall.	Kumud- wati River and Bainfall,	Rain- fall-	Rainfall.	Ghatprabha Biver.	BEMARKS.
23·00 20*75	\$3·00 23·88	- 4·4 83*03	92 29·25	20*00 19*35			26 22 <sup>.</sup> 69		43 ¥ 19-68	11 21-23		23 23*20	6 <sup>.</sup> 25 89 <sup>.</sup> 01	1,050 55 <sup>.</sup> 00	*Exclusive of 29 square miles for Gondoli Tank.
<b>3</b> 65	222	81	. 1,419	195-24	489.77	188-59	680	<b>27</b> *5	113 <sup>.</sup> 664	57-600	54-630	105.500	45.75	701-597	
833-79	<b>\$</b> 35·18	. 202	2,677	349-4	676-9	880*4	1,059	129	442	169	962	418	170'5	2,272.45	•
<b>4,50</b> 0	<b>3,0</b> 00		17,582	8,443		1	<b>5,</b> 570	687	4,595			1,800	-	18,668	(e) Information supplied in Statement I—A. the tank being only a feeder. fAscertained this year on
2,500 2,600	2,400 2,400	1 Not	16,825	7,623 7,623			5,417 3,417	Not Known. 450	4,525 6,595		• •	1,800 1,800	-	17,627 . 6,170	actual survey.
-2,500	2,400 	J 		7,623 25	· ·		3,417 Nil	337 None.	4,525 Un- certain,	1,052 Nil.	ff2,188 <sup>-</sup> Nil,	1,800 Nil.	¶617 Nil.	6,170 .None.	(j) Approximate figures.
•		40 800			¢ 80 010	3,68,000	· '10 000	8,888		#10 DOT		67,731	08 800	(a)	
12,823	2,14,382 14,342	40,731 1,318	7,54,250 80,677	28,190	47,260	22,492	20,220	<b>3</b> 50	61,163 3,744	8,468	17,144	12,754	27,889 3,928	(a)	
114		42,049	8,34,927	44 531	7.20 073	 3,90,492	1 69 490	 9,238	64,906	81,705	2,49,407	80,485	31,817	(a)	•
	2,23,724 2,13,107	87,923	7,52,189			3,67,671			60,847	78,354		60,741	27,612	(a)	(a) Figures given in State-
1,273	14,307	1,266	78,914	22,14)		22,239	18,490	364	8,133	3,039		14,254	3,235	(a)	
•••• , • .	····				**	•••			••• 	•••	···			(a)	
23,703	2,27,414	39,139	8,31,103,	4,20.562	6,86,244	3,89,910	1,58,707	9,279	63 <b>,9</b> 80	81,392	1,67,598	74,995	30,847	' (a)	) 
arth. 84 32	-	2 dams 1 earth 1 masonry 71 and 16	Earth. 67*75	Earth. 63·5(	Earth. 74		Masonry 60	Earth. 20	Earth. 42'25	Karth. 41	Earth. 100	Earth. 33 95	Earth. 30•53	Masonry weir. 25' high, Ma- x i m u m a b o y c f o u n d a- tion 23' earthwork	
•		3.75	(i) 27 <sup>.</sup> 50	17:50	28.60	9*25	5,5	Nil.	-		9		•••	14.62	(d) The main dam com- pleted to full height, and weir brought up to correct level.
15.2	<b>9•</b> 75	<b>•••</b>	. 2	6~ <i>5</i> 0	4	7.69		Irriga- tor's Channel	3.52	5.64		<b>4•</b> 86	Irrigator's Channel,	<b>2</b> 6•5 <b>5</b>	(/) The tank supplies the Paikhed, Ojhar Tambat and Wadali canals as noted in Statement I-A.
64·32	65-09	71 and 16	57.75	<b>53</b> *50	74	<b>57</b> •33	. 60	20	<b>42</b> ·25	41	- 100	<b>38</b> 95	<b>3</b> 0° 53	25	(k) Includes 321 miles of Branch Canals.
•••		8.76	(i) 27·50	17-50	28.00	<b>9-2</b> 5	<b>6</b> *6	Nil.		•	9	1, at m		2.62 and Waderhatti branch 12	(i) Includes 6 miles of Branch Canals.
12.2	9.75		2	<b>6</b> *50	4	7.28	<b>2</b> •25	Irriga- tor's Channel	<b>3</b> •27	5-64		4-86	Irrigator's Channel,	miles. 26*55	

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of the finished crest of weir. water is annually impounded at end of monsoon by fixing standards and boards on waste weir crest. B 1340-e -

#### I.--

Capital Account of Irrigation Works in Deccan and

		T				I	DUBING TRA					<u>. anu</u>
Norma of Blac		ľ			Direct Cha				Indi	rect Charge	4	
Name of Wor	κ.	-	Works.	Establish- ment,	Tools and Plant.	Total.	Deduct Receipts on Capital Account.	Total.	Capitali-	Leave and Pension Allow- ances	Total.	Grand Total.
1			3	8	•	5	e e		8	9	10	11
IMPERIA	L.		Rs.	Rs.	Bs.	Rs.	Rs.	Rs.	Rs.	Re,	Rs.	Rs.
MAJOR WOR PROTECTIVE W	KS.						•	18,	<b>t</b> (a)		7/0,	1.3.
In operation 1. Nira Caual 2. Mhasvad Tank	N, *** ***		88,714 2,920	19,372 656	-1,165 -35	1,06,921 3,541	53	1,06,868 3,541	1,33,312	2,719 93	1,86,024 92	2, <b>42</b> ,892 3,633
-	Total		91,634	20,028	-1,200	1,10,463	53	1,10,409	1,33,312	2,804	1,36,136	2,46,525
In abeyance	f.					*********						
3. Chankápur Tank	• * •		141	32	-1	173	6	166	21	4	25	191
4. Máládevi do.	*** #8_1 \$	- 41		32			· ··· ·	•••				
	Total	•••	141			173	6	166	21	<u>+</u>	25	191
		•••	91,775	20,060	-1,201	1,10,634	59	1,10,575	1,33,333	2,808	1,36,141	2,46,716
PRODUCTIVE W		ľ						1				
In operatio	л.					1		•			1	
<ul> <li>5. Háthmati Canal</li> <li>6. Lower Pánjhra River V</li> </ul>	Vorks	•••	··· 428		 			519				53
7. Kádva River Works 8. Pravara River Works-		•••	 513	***					•••	•••	 	51
9. Mutha Canals 0. Ekruk Tank		•••	67,217	13,449	699	79,967	.57	79,910	•••	1,883	1,883	81,79
I. Krishna Canal	•••	•••	206	47	•••	253		253	1,294	1	1,301	3,55
Total, Prod	uctive Works	•••	68,364	13,587	-701	81,250	57	81,193	1,294	1,903	8,197	64,39
. Total, I	Major Works		1,60,139	33,647	-1,902	3,91,884	116	1,91,768	1,34,627	4,711	1,99,338	3,31,10
MINOR WORKS AND	NAVIGATIO	N.								-		
In operatio	) <b>n.</b>											
2. Khári Cut	•••	••••	•••			·						
3. Hartála Tank 14. Mhasva do		•••	•••					••				
5. Jámda Canals 6. Parsul Tank	•••	•••	743 902	171 195	$100 \\ -277$	1,014 820	•••	1,014		. 27	47	1,06
17. Pravara River Works- 18. Bhátodi Tank	-Ojhar Canal	•••	51	11	5	57	•••	57		1	1	٥ 
19. Mátoda do. 20. Kásurdi do.	•••	•••	• # #		•••	***	•••		695		695	69
21. Shirsuphal do.	***	•••	2,141			2,141		2,141	•••			2,14
22. Bhádalvádi do. 23. Koregaon do.	•••	•••	•••						185		185	18
24. Ashti do.	•••	•••	10			10		"10				·"1
25. Revári Canal 26. Upper Mán River Wo	orks	•••	49			49		49				4
27. Yerla River Irrigation		•••	5,772	1,327	356	7,455		7,455		180	186	7,64
28. Chikhli Canal 29. Maini Tank	•••	• • •			•••	•••	•••					
30, Muchkundi Tank	*** .	•••								•••		
31. Nilgund do. 32. Gadikeri do.	***	•••							•••			
33. Dámbal do.		•••										
34. Medleri do. 35. Madag do.	***	•••				•••		•••	•••			
36. Asundi do.		•••	•••			•••			12,536		12,536	12,53
37. Mávinkop do.	•••	•••	•••	***								***
	Total	•••	9,668	1,704	174	11,546		11,546	13,439	238	13,677	25,22
In abeyan			'	·		1					[	
88. Gokák Canal, 2nd Sec	tion	•••		•••								
Total, Minor Works and	Navigation	•••	9,668	1,704	174	17,546		11,540	13,439	238	13,677	25,22
PROVINCI	AL.							·	-	-		•
	NAVIGATION,											
MINOB WORKS AND			1	· ·	1	1	1	1	1	1	1	1
MINOB WORKS AND In operation	714					ļ				1		1
	*	rage 	3,550	767	205	4,522		4,522	13,766	107	13,873	18,59

• Including expenditure charged to "35 Construction

B. Gujarat for and to end of 1894-95.

	<u></u>	Direct C	harges,		•		Indirect charges.		
Works.	Establishment.	Tools and Plant,	Total.	Deduct Receipts on Capital Account.	Total.	Capitalization.	Leave and Pension Allowances.	Total,	Grand Total.
12	13	14	15	16 :	17	18	19	20	21
Rs.	Rs,	Rs.	R8.	Rs.	R s.	Rs.	Es.	Rs.	Rs.
41,62,714 15,81,745	10,16,889 3,41,988	1,30,038 62,800	53,09,641 19,86,533	8,009 1,473	53,01,632 19,85,060	1,34,709 7,817	1,59,636 53,008	2,94,345 60,825	55,95,97 20,45,88
57,44,459	13,58,877	1,92,838	72,96,174	9,482	72,86,692	1,42,526	2,12,644	3,55,170	76,41,86
38,927 20,967	18,013 11,600	• 7,260 1,456	64,200 34,023	J81 63	64,019 33,955	21	3,163 2,161	3,184 2,161	67,20 36,11
59,894	29,613	8,716	98,223	249	97,974	21	5,324	5,345	1,03,3
58,04,353	13,88,490	2,01,551	73,94,897	9,731	73,84,666	1,42,547	2,17,968	3,60,515	77,45,18
3,83,636 3,62,148 5,37,980 2,64,529 52,47,967 10,07,089 6,74,654	99,517 73,713 1,38,961 68,641 9,69,847 2,12,509 1,42,209	9,060 3,228 16,960 19,477 1,16,754 9,713 • 1,682	4,92,213 4,39,089 6,93,901 8,52,647 63,34,568 12,29,311 8,18,645	1,288 37 140 201 12,226 1,194 	4,90,925 4,39,052 6,93,761 3,52,446 63,22,342 12,28,117 8,18,545	7,640 8,432 4,316 5,824 52,502 69,948 18,516	19,630 14,380 21,339 13,621 1,81,645 42,321 27,831	27,470 22,812 28,655 19,445 2,34,147 1,12,269 46,347	5,18,39 4,61,86 7,22,4 3,71,88 65,56,48 13,40,38 8,64,89
84,78,003	17,05,397	1,76,874	1,03,60,274	15,086	J,03,45,188	1,67,178	3,23,967	4,91,145	1,08,36,3
1,42,82,356	30,93,887	3,78,428	1,77,54,671	24,817	1,77,29,854	3,09,725	5,41,935	8,51,660	1,85,81,51
$\begin{array}{c} 1,35,618\\ 33,437\\ 1,01,259\\ 7,85,878\\ 1,61,294\\ 2,30,067\\ 31,433\\ 1,49,237\\ 31,433\\ 1,70,379\\ 1,56,993\\ 30,044\\ 6,05,284\\ 46,868\\ 3,07,424\\ 5,27,482\\ 30,984\\ 46,868\\ 3,07,424\\ 2,66,543\\ 1,11,830\\ 1,11,830\\ 1,11,830\\ 1,11,830\\ 1,26,596\\ 43,505\\ 21,665\\ 44,87,059\\ 92,036\\ 44,87,059\\ 92,036\\ 45,79,095\\ \end{array}$	32,298 11,936 26,399 1,91,750 42,572 75,184 70,183 35,982 8,495 38,190 53,493 7,661 1,44,175 9,693 93,456 1,10,120 13,611 98,353 26,350 1,700 1,755 10,769 15,524 31,841 10,881 5,762 11,67,953 70,024	2,133 2,579 1,129 12,929 8,567 4,528 9,354 2,937 884 2,861 2,621 218 8,122 218 8,122 218 8,122 218 8,122 219 6,782 7,964 2,08 3,315 2,294 1,30 140 878 1,155 2,825 1,055 323 85,952 14,246	1,70,049 47,953 1,28,787 9,90,567 2,12,433 3,09,779 3,53,375 1,68,156 40,812 2,11,430 2,13,107 37,923 7,57,581 56,582 4,07,662 6,45,566 53,803 3,68,211 1,40,494 8,768 8,915 60,909 78,360 1,61,262 60,741 27,750 57,40,964	131 4 6 21 71 144 690 8  5,392  5,392  241 2,365  640 267  62 6 14  133 10,150	1,69,863 $47,948$ $1,28,781$ $9,90,546$ $2,12,362$ $3,09,635$ $3,52,685$ $1,88,148$ $40,812$ $2,11,430$ $2,13,107$ $37,923$ $7,52,189$ $56,582$ $4,07,421$ $6,43,201$ $53,803$ $3,67,671$ $1,40,217$ $8,768$ $8,915$ $60,847$ $78,354$ $1,61,248$ $60,741$ $27,612$ $57,30,814$	$\begin{array}{c} 6,350\\ 23,052\\ 5,026\\ 12,015\\ 1,078\\ 5,806\\ 13,023\\ 6,274\\ 3,079\\ 5,041\\ 4,067\\ \hline \\\\\\\\\\\\\\$	5,630 2,382 5,149 37,885 5,979 14,808 13,999 7,000 1,699 7,232 10,240 1,266 26,603 1,781 17,354 20,675 2,722 19,165 4,104 2,59 351 2,099 2,795 6,350 1,718 1,152 2,50,397	11,980 $25,434$ $10,175$ $49,900$ $7,037$ $20,614$ $27,022$ $13,274$ $4,778$ $12,273$ $14,307$ $1,266$ $78,914$ $2,847$ $22,141$ $43,043$ $3,639$ $22,239$ $18,490$ $259$ $864$ $3,133$ $3,038$ $6,350$ $14,254$ $3,235$ $4,20,026$ $13,978$	1, \$1, \$1, \$1, \$1, \$1, \$1, \$1, \$1, \$1, \$
		1,00,198	59,17,270	10,150	59,07,120	2,00,369	2,33,635	4,34,00 <del>1</del>	63,41,12
								•	
9,65,631	1,69,328	20,816	11,55,775	258	11,55,517	14,114	25,245	89,359	* 11,94,87
1,98,27,082	45,01,192	4,99,442	2,48,27,716	\$5,225	2,47,93,491	5,24,208	8,00,815	13,25,023	2,61,17,5

F. HUTCHINSON, Examiner, Public Works Accounts.

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#### Statement showing the Financial Results of Irrigation Works in

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			•	•					Reali	zations un	der Main	Heads of
	-			Ru	ranua (Act	TAL RECEI	778).					
•		Irrigation,	•									Revenue
Name of Work.	Wister- rates	Share of Land	Total.	Naviga- tion.	Planta- tious	Water- power.	Miscel- laucous.	Total,	Refunds of Revenue.	Gross Revenue less Refunds.		Estab
	directly paid,	Revenue,									Direction,	Executive.
1	8.	•	4.	5	8	7	8	9	10	11	12	13
IMPERIAL. Majob Wobes.	Bs.	Rs.	Rs.	Rs,	Ra,	Rs.	Rs.	Rs.	Rs. •	Rs.	Rs.	Rs.
Protective Works,	60,042	••••	80,042			•••	1,625	81,867	37	\$1,830	<b>3</b> ,322	12,039
2. Mhasvad Tank	90,491	•••• ••••	10,452 90,494	•••	•••	•=+ 	2,266 4,091	12,718 94,585		12,718 91,548	1,785	3,360 15,399
Productive Works,				***				- 4000				10,039
5. Høthmati Canal 6. Lower Pánjhra River Works 7. Kádva River Works 8. Pravara River Works		6,788 591	9,88 <b>3</b> 17,909 11,504	 	296 37 26	••• •••	900 492 357	11,079 18,438 11,887	1,88 <b>3</b> 8	11,079 16,555 11,879	11 301 617	46 1,980 9,318
Lákh Canal 9. Mutha Canals 10. Ekruk Tank 11. Krishns Canal	1,269 1,27,308 12,537 51,385	147 43	1,416 1,27,350 12,537 51,385	  	86 38 208	<b>6,</b> 000	146 1,03,476 16,126 4,664	1,648 2,35,864 28,871 56,049	2,478	1,648 2,33,386 28,871 66,049	386 4,525 179 164	8,718 16,418 2,331 1,267
Total	2,24,413	7,571	2,31,984		691	6,000	1,25,161	3,63,836	4,369	3,59,467	6,773	40,073
Total, Major Works	3,14,907	7,571	3,22,478		691	6,000	1,29,252	4,58,421	4,406	4,54,015	11,880	55,472
MINOR WORKS AND NAVIGATION.												
12. Khári Cut          13. Harta'la Tank          14. Mhasva do.          15. Jámda Canals          16. Parsul Tank          17. Pravara River Works	9,035 282 601 8,527 2,887	  	9,035 - 282 601 8,527 J,887	•••• ••• •••	270 1 230 2,318 	•••• •••• •••	376 423 412 416 30	9,681 711 1,243 11,261 1,897	···· ···· ····	9,681 711 1,243 11,261 1,697	65 57 61 502 64	414 411 496 4,003 572
Ojhar Canal 18. Bhátodi Tank 19. Mátoba do 20. Kásurdi do 21. Shirsuphal do	$216 \\ 2,356$	76 1,351 	7,284 4,226 9,663 216 2,356	     	55 33  	  	399 510 143 301 225	7,738 4,769 9,806 517 2,58]	 	7,738 4,769 9,806 517 2,581	828 354 253 13 200	19,608 7,951 747 74 695
<ol> <li>Bhádalvádi do</li> <li>Koregaon do</li> <li>Korári Canal</li> <li>Rovári Canal</li> <li>Upper Mán Biver Worka</li> <li>Verla Biver Irrigation</li> </ol>	1,003 3,969 6,790 5,936	  	779 1,003 3,969 6,790 5,938	···· . ···· ···	•••• ••• •••	•••• ••• •••	71 25 419 126 - 100	850 1,028 4,388 6,916 6,036	•••• •••• •••	\$50 1,028 4,388 6,916 6,036	110 45 255 24 61	836 152 682 228 522
Works 29. Chikhli Canal 29. Maini Tank 10. Muchkundi Tank	6,593 1,379 3,473 89	• • •-•	6,593 1,379 3,473 89	040 141 445 419	 	 	986 63 515 200	7,579 1,442 3,988 269	 	7,579 1,442 3,988 289	122 12 64 	584 96 725 
31, Nilgund do 32 Gadikeri do 33. Dámbal do 34. Medleri do 35. Madag do 36. Asundi do	597 489 2,713 725	1,987 982  632	1,987 1,579 489 2,713 1,357	*** *** ***	204 154 1	••• ••• ••• •••	321 16 153	1,987 2,104 505 3,020 1,358	••• ••• •••	1,987 2,104 505 3,020 1,358	 9 12 26 12	332 357 608 854
37. Mávinkop do Total, Minor Works and Navigation	77,185	1,012 6,040	1,012 83,225		3,265		6,220	1,017 92,711		92,711	8,165	89,177
PROVINCIAL.											·	
Minor Works and Navigation.								1	•			
19. Gokák Canal, First Section and Storage Works	11,628		31,628		67	<b>4,920</b>	165	16,780	24	16,756	82	1,173
GRAND TOTAL	4,03,720	13,611	4,17,331		4,024	10,920	1,35,637	5,67,912	4,430	5,63,482	35,127	95,623

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Notes -(1) The irrigation share of the Land Revenue Assessment relates to the Revenue year 1894-95. (7) The division of Establishment charges between "Revenue Management" and "Mainteaance and Repairs" is made in accordance

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#### xxi

#### Deccan and Gujarát for the year ending 31st March 1895.

Revenue and Working Expenses.

		-			W	ORKING EX	PENSES.	•				•			
lanage	ment.				•	M	intenance	and Repair	15.			.			
ishmen	i. ·	Total Revenue		Estab lisi	hments				Sun-	Tools and	Plants-	Total cost of	Indirect charges.	Grand Total Working	Net Revenue.
tion.	Civil Officera,	Manage- ment,	Direction.	Executive.	Medi- cal.	Total.	Works.	Repairs.	dries.	Plant.	tions.	Mainten- ance.		Expenses.	
14	15	18	17	18	19	20 •	21	23	23	24 .	25	. 26	27	28	29
Rs.	Rs.	Rs.	Bs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs,	Rs,	Rs.	Rs.	Rs.
•••	4,002 534	19,363 5,679	1,311 1,481	4,749 2,791	279 66	6,339 4,338	502 11,198	22,506 5,575	***	603 25	1,232 317	31,187 21,453	3,038 1,328	53,588 28,460	28,24 
	4,536	25,042	2,792	7,540	345	10,677	11,700	28,081		633	1,549	52,640	4,366	82,048	12,50
•••• •••	494 1,547 551	551 3,828 10,486	193 62 54	847 412 822	1-1 <b>5</b> 1 1-14	1,045 474 \$76	 563	3,894 1,104 3,266	150 	6 100 144	287 229 240	5,382 2,472 4,526	154 386 J,514	6,087 6,686 16,526	4,99 9,86 <b>4</b> ,64
409 0.7 0.7 0.0	78 6,330 624 <b>3,</b> 584	9,177 27,273 3,734 6,005	23 1,783 379 . 179	512 6,467 1,136 1,486	•••• ••• •••	535 8,250 1,515 1,665	 760 2 297	2,142 32,849 4,950 5,806	 403	116 6,363 95 100	 1,107 558	2,793 48,349 7,669 8,829	1,349 4,087 647 432	13,319 79,709 12,050 14,266	
	13,208	60,034	2,678	11,682	•••	14,360	1,624	54,011	553	6,924	2,548	80,020	8,569	1,48,643	2,10,8
	37,744	85,096	5,470	19,222	345	25,037	13,324	82,092	553	7,557	4,097	1,32,660	12,935	2,30,691	2,23,3
											••				
•••••••••••••••••••••••••••••••••••••••	452 35 30 426 94	931 503 587 4,931 730	133 11 10 85 9	855 79 82 683 86	· • • · • • • • •	988 90 92 768 95	 33 	3,916 355 170 3,071 320	•••• ••• •••	30  50 200 50	37 4 200  62	4,971 449 545 4,039 527	205 78 91 738 102	6,107 1,030 1,223 9,708 1,359	3,57 -31 1,55
···· ··· ··· ··· ··· ···	372 280 483 11 118 39 50 163 337 296	20,008 8,585 1,483 108 1,019 485 277 1,100 589 879	48 21 124 10 85 52 15 142 23 63	1,097 470 369 33 296 160 63 378 214 555	···· ···· ····	1,145 491 493 43 884 212 78 520 237 618	•••• •••• ••• ••• ••• •••	4,535 1,865 1,972 173 1,538 848 312 1,843 869 2,224	••• ••• ••• ••• ••• •••	122 11 100 25 76 50 20 50 97 100	47 98   236 78 250	5,849 2,465 2,565 241 1,970 410 2,649 1,261 3,192	2,909 1,231 209 20 180 92 43 504 68 168	28,766 12,281 4,257 369 3,196 1,687 730 3,953 1,938 4,239	-21.02 -7.51 5.54 -61 -83 29 43 4,97 1,79
*** *** *** ***	331 69 174 4	1,037 177 963 4	754 14 41 9 1	3,624 118 480 98 3	   	4,378 132 521 107 4	13,647 	3,221 488 2,109 132 20	• • • • • • • • • •	112 4 50 3	645 39 128 39	22,003 663 2,681 547 24	712 34 183 15 1	23,752 874 3,827 566 25	-16.175616-27-2
••• ••• ••• •••	199 144 25 136 99 301	199 485 394 770 465 101	1 2 3 6 3	6 54 73 155 73	•••• ••• ••• •••	7 56 76 161 76	110 	29 211 303 500 806	••• ••• ••• •••	···· ··· ···	 145	36 377 379 806 382	1 56 62 111 62	236 918 835 1,687 909	1,75 1,18 -33 1,33 44
	4,468	46,810	 1,668	10,104	••• 	 11,772	 13,929	31,330	•••	 1,149	2,008	60,188	7,575	, 101 1,14,573	91 
				•							<b>*</b>				-
•••	827	2,082	39	565		604	•••	2,240	•••	300	176	3,320	260	5,662	11,09
•••	23,039	1,33,988	· 7,177	29,891	345	57,413	27,253	1,15,662	553	9,006	6,281	1,96,168	20,770	3,50,926	2,12,55

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

## F, HUTCHINSON,

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Examiner, Public Works Accounts,

#### xxii

#### II.-C.

Statement showing the Financial Results of Irrigation Works in Deccan and Gujarat for the year 1894-95, based on actual receipts.

Principal Results of operations for the year ended 31st March 1895.

Irrigation Works,	Direct and Indirect Capital	Gross Receipts, Direct and	Working Expenses,	Net revenue (excluding	on	on direct		TER PAT-	EXCESS C INCLUDING ON DI CAPITAL	INTERES
	outlay to end of 1894-95,	Indirect, from all sources.	Direct and 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 at Charge.
· 1	2	8	4	5	6	7	8	9	10	11
IMPERIAL.	Rs.	Rs.	Rs,	Rs,		Rs.	Rs.		Rs.	
MAJOE WOBKS.								]	·	
PROTECTIVE WORKS.								].		
In operation.	55,95,977	81,830	53,588	28,242	•50	2,09,928			1,81,686	2:41
2 Mhasvad Tank Total	20,45,885	12,718 94,548	28,460	-15.742	•77	2,89,860			95,074	8-24 2-64
In abeyance.						2,08,000				
S Chankapur Tank	67,208 36,116	*****		******		2,557 1,858			2,557 1,358	2.28
Total	1,03,319					3,915			3,915	2.06
Total Protective Works	77,45,181	94,548	82,048	12,500	•16	2,93,175			2,80,675	2.04
PRODUCTIVE WORKS.										
In operation. 5 Hathmati Canal 6 Lower Panjhra River Works 7 Kadva Biver Works 8 Pravara River Works—Lákh Canal 0 Mutha Canals 0 Ekrnik Tank	5,19,395 4,61,864 7,22,416 3,71,891 65,56,489 13,40,326	11,079 16,555 11,879 1,648 2,83,886 28,871	6,087 6,686 16,526 13,819 79,709 12,050	4,992 9,869 	*96 2·14 -64 3·14 2·84 •1·25	27,751 14,088 2,51,295 49,124		···· ···· ···	14,645 7,653 82,349 25,759 97,618 83,308	1·47 1·04 2·99 3·17 1·00 1·22
1 Krishna Canal	8,64,892	56,049 3,59,467	14,266	<u>41,788</u> 2,10,824	4.83	4,12,184	9,040	•57	 2,01,360	1.14
Total Major Works	1,85,81,514	4,54,015	2,30,691	2,23,324	1.50	7,06,359			4,82,035	1.7
·						·				
MINOR WORKS AND NAVIGATION. In operation.							1	1		}
2 Khári Cut	2,19,419 3,50,249 3,79,707 2,01,423 4,5,599 2,27,741 3,9,189 6,81,103 5,9,429 4,29,662 6,68,244 5,68,940 1,66,707 9,027 9,027 9,027 9,027 9,027 9,027 9,027 9,027 9,027 9,027 9,027 9,027	9,681 711 1,243 11,261 1,897 7,738 4,769 9,606 517 2,651 8,550 1,028 4,888 4,888 4,888 4,888 4,888 4,888 4,888 4,888 4,888 4,888 4,888 4,888 4,888 4,916 5,017 2,104 5,057 2,104 5,057 2,104 5,057 2,104 5,057 2,104 5,057 2,104 5,057 2,104 5,057 2,104 5,057 2,104 1,947 2,104 1,947 1,957 2,051 1,497 1,957 1,9	6,107 1,030 1,223 9,709 98,706 12,:61 4,227 369 98,706 1,667 4,289 3,106 3,106 3,106 3,106 3,905 3,106 23,702 874 5,250 23,02,02 23,02,02 23,02,02,02 23,02,02,02,02,02,02,02,02,02,02,02,02,02,	S,574 -319 200 1,553 538 -21,028 -7,512 6,549 148 -615 -537 299 4,978 1,761 1,761 1,761 1,761 1,761 1,781 -237 -25 -21,863	•27 •87 •76	8,476 12,884 14,107 7,626 8,414 8,534 1,617 3,0087 10,217 25,679 2,162 14,707 6,649 351 857 2,434 8,134	2,716  1,804	2.56	3,221 2,237 6,131 58,049 7,940 37,940 21,019 1,219 2,1455 1,219 2,9452 1,219 2,452 1,546 4,164 4,164 5,856 3,107 1,243 3,244 2,147 2,243 2,243 2,244 3,244 2,245 2,147 2,245 2	1:3: 2:1 1:7: 5:7: 5:7: 5:7: 1:5: 2:7: 2:7: 1:3: 2:1: 2:4: 2:4: 2:4: 2:4: 2:4: 2:4: 2:4
In abeyance,								1		
8 Gokák Canal-Second Section Total Minor Works and Navigation	1,90,284	92,711	1,14,678	-21,863		2,36,054	···•	· ····	7,052	2.31
•								¦		86 2
PROVINCIAL.			•	1	ł					
MINOR WORKS AND NAVIGATION. In operation,	•									
9 Gokak Canal-Pirst Section and Storage							• •			
Works in in in in in	11,94,876	16,7564	5,603	11,094	-93	46,180		¦	\$5,036	2 64

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

F. HUTCHINSON, Examiner, Public Works Accounts.

### III.—C.

•	Balance of	Di	BRANDS OF	THE TEAR,		Total	Deduct-		Deduct-	
Irrigation Works.	demands unrealized at com- mence- ment of year-	Rabi, 1593-94.	Kharif, 1894-95.	Miscella- neous Receipts,	Total.	including balance at commence- ment of year,	Remis. sions not including Cash Refunds.	Net Total.	Amount unrealized at close of year.	Actual realizations of the year.
1 *	2	3	4.	5	6	7	8	9	10	11
THEFT	Rs.	Rs.	Rs.	Rs.	R	Rs.	Rs,	Rs.	Rs.	Re.
IMPERIAL. Major Wobks.		1			•	·.				
Protective Works.										
1 Mint Canal	40	25,449	54,558	1,845	81,852	01.000		81,892	25	81,867
2. Mhasvad Tank	324	4,334	6,302	2,266	12,902	81,892 13,226		13,226	508	12,718
Total	36 ±	29,783	60,860	4,111	94,751	95,118	•••	95,118	. 533	94,585
Productive Works.										
5. Háthmati Canal 6. Lower Panjhra River Works 7. Kadya River Works 8. Pravara River Works	339 465 2,095	5,019 (d) 3,338 5,063	5,638 7,422 5,270	1,196 529 319	11,853 11,289 10,652	12,192 (a) 11,754 (a) 12,747	 104	12,192 11,650 12,747	1,113  1,454	11,079 11,650 11,293
Lakh Canal 9. Mutha Canals 10. Ekruk Tank 11. Krishna Canal	8 11,532 1,397 7,924	563 4,918 2,326 7,164	721 1,33,160 9,913 36,957	232 1,08,661 16,088 4,664	1,516 2,46,739 28,327 48,785	(a) 1,524 (a)2,58,271 29,724 56,709	•••• ••• •••	1,524 2,58,181 29,724 56,709	23 22,359 853 660	1,501 2,35,822 28,871 56,049
Total	23,760	28,391	1,99,081	1,31,689	3,59,161	3,82,921	194	3,82,727	26,462	3,56,265
Total Major Works	24,124	58,174	2,59,941	1,35,800	4,53,915	4,78,039	194	4,77,845	26,995	4,50,850
MINOR WORKS AND NAVIGATION.					- <del></del>					-
12. Khávi Cut	4,878  1,035  1,247 542  542  542  542  542  9 126  	$\begin{array}{c} 127\\ 216\\ 429\\ 2,270\\ 1,165\\ 4,008\\ 2,097\\ 1,066\\ 208\\ 1,277\\ 716\\ 530\\ 1,163\\ 3,797\\ 1,938\\ 4,910\\ 309\\ 1,671\\ 7\\ \cdots\\ 50\end{array}$	12,089 66 172 6,413 708 2,617 2,573 8,607 63 473 2,825 3,011 4,264 1,693 1,061 1,760 82   623	646 429 642 2,734 10 371 545 143 301 225 71 225 71 225 71 225 71 225 515 200  525	12,862 711 7,243 11,417 1,883 6,996 5,215 9,806 5,215 9,806 5,215 9,806 5,17 2,581 8,500 1,028 4,407 6,934 6,302 7,689 1,433 3,946 289  1,198	17,740 711 1,243 12,452 1,883 (a) 8,243 (a) 5,757 9,806 5,17 2,581 850 1,028 4,949 6,934 6,402 7,614 4,949 6,934 6,402 7,614 1,442 2,89  (a) (a) (a) 1,198	8  8  15 18  	17,732 711 1,243 12,452 1,883 8,235 5,757 9,806 517 2,581 850 1,628 4,934 6,916 6,402 7,614 1,442 4,072 2,89  1,198	€,051  1,191 14 573 2,339   546  3546  84   76	9,681 • 711 1,213 11,261 1,897 7,662 3,418 9,806 517 2,581 \$500 1,028 4,388 6,916 6,036 6,05
34. Medleri do 35. Madag do	516	127 1,097	362 1,275	16 307	505 2,679	505 3,195	···	505 3,195		505 3,020
36. Asundi do	133	116 	476 	1 5	593 5	(a) 726 (a) 5		726		• 726
Total Minor Works and Naviga- tion	9,153	29,284	52,300	9,405	90,989	1,00,142	49	1,00,093	13,422	86,671
39. Gokák Canal, 1st Section, and Storage Works	1	9 1 6 9						10 50-		16,780
monthe inortha		3,120	8,508	5,152	16,780	16,780	•••	16,780		5,54,301

#### Demands and Realizations during the year 1894-95 in Deccan and Gujarát.

(a) Exclusive of irrigation share of consolidated assessment.
 (b) Inclusive of Rs, 1,803 on account of Rabj of 1894-95 shown in Canal Return No. IX.

F. HUTCHINSON, Examiner, Public Works Accounts.

47

## xxiv

### IV-C.

# Statement showing the Financial Results of Irrigation Works in Deccan and Gujurát for the year ended 1894-95, based on the Assessment of the year.

•	,				• 1	REVENUE	485 <b>5</b> 58RD	DURING TH	E YBAR,					
	Irrigation Works.	Capital Outlay (direct and indirect) to end of year,	·		Direct as		т́елие. (4	z)		Indirect Revenue- Land Reve- nue due to	Grand Total.	Working Expenses direct and indirect.	Revenue of the	Pero centage on Capi- tal Out- lay to end of
• .			Occupier's rate.	Owner's rate.	Plant- ation,	Water power.	Naviga- tion.	Miscel- laneous.	Total.	Operation of Canal), (b)				Jear.
	. 1	2	3	4	б	6	7.	8	Đ	10*	11	12	13	• 14
	IMPERIAL, Major Worke.	Rs.	Rs.	Rs.	Rs.	Rs,	Rs.	Rs.	Rs.	Rs.	Rs.	Rs,	<b>£</b> в,	Rs.
, 1 , 2	Protective Works. Nira Canal Mhasvad Tank	55,95,977 20,45,885	90,864 13,869		••• •••			1,845 2,206	P2,709 16,135	******	92,700 16,135	68,678 28,400	89,121 13,325	•70 •60
	Totai	76,41,862	1,04,733					4,111	1,08,844	·	1,08,844	82,048	26,796	*35
6 7 9 10 11	Productize Works. Hathmati Canal	6,18,395 4,61,864 7,22,416 3,71,801 65,56,489 13,40,386 8,64,892	10,537 10,442 10,505 1,065 1,39,252 13,463 44,377	···· ···· ····	296 37 20 86 38 208 	  6,000 	···· ··· ··· ···	900 492 293 146 1,02,623 15,880 4,664	11,738 10,871 10,824 1,297 2,47,913 29,551 49,041	• 6,788 594 147 42 	11,738 17,759 11,418 1,444 2,47,955 29,551 49,041	6,087 6,686 16,526 18,819 78,709 12,050 14,256	5,646 11,078 -5,108 -11,575 1,68,246 17,501 \$4,775	1*60 2*40 *71 8*19 8*57 1*81 4*02
	Total "	1,08,36,333	2,29,611		691	6,000		1,24,908	8,61,830	7,571	3,08,901	1,48,643	\$,20,238	2*03
	* Tutal Major Works	1,84,78,195	3,34,374	***	691	6,000		1,29,109	4,70,174	7,571	4, 77, 745	8,30,601	2,47,054	1-34
12 13 14 15 16 17 21 22 24 25 26 27 29 30 51 32 33 34 55 37	MINOR WORKS AND NATIGATION. Khári Cut	1, 91, 848 73, 382 1, 88, 956 10, 40, 446 2, 19, 419 3, 50, 249 9, 579, 707 2, 201, 422 45, 5590 2, 23, 703 8, 27, 414 3, 59, 189 8, 31, 103 8, 69, 429 4, 29, 5, 24 6, 86, 24 8, 86, 010 8, 86, 100 8, 86, 100 8, 86, 100 8, 86, 100 8, 86, 100 8, 86, 100 8, 80, 100 8, 100	12,261 596 596 4,678 5,447 9,846 1,079 6,524 1,670 4,717 6,524 1,670 5,061 5,061 5,071 4,717 6,524 1,970 5,071 4,717 6,524 1,970 5,071 4,717 6,724 1,570 4,717 6,724 1,570 4,717 6,724 1,570 4,717 6,724 1,570 4,717 6,724 1,570 4,717 6,724 1,570 4,717 6,724 1,570 4,717 6,724 1,570 4,717 6,724 1,570 4,717 6,724 1,570 4,717 6,724 1,570		270 1 2:0 2,313 55 33      			\$76 429 416 300 516 512 225 419 225 419 225 419 225 515 200  515 200  5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	12,007 13,037 1,037 1,037 1,037 1,057 1,057 1,057 1,057 1,057 1,057 1,175 5,136 6,070 8,070 2,039	76 1,361 	12,007 1,037 1,037 1,0478 1,005 5,125 7,803 10,079 909 1,314 745 5,136 6,640 8,039 2,040 2,0	6,107 1,030 1,229 6,708 1,529 26,708 1,529 26,708 1,529 3,106 1,527 7,300 3,106 1,525 1,053 1,053 4,259 5,106 3,106 1,057 4,257 5,106	6,800 	8.74 -54 -13 -07 -16 7.16 7.16 -7.17 -7.28 -7.17 -7.28 -7.17 -7.28 -7.17 -7.28 -7.17 -7.28 -7.17 -7.28 -7.17 -7.28 -7.17 -7.28 -7.17 -7.28 -7.17 -7.17 -7.18 -7.17 -7.18
	Total Minor Works and Naviga- tion	Ø1,£0,840	\$3,480		*,266			6,139	92,885	6,640	US,925	1,14,678	15.648	
<b>39</b>	PROVINCIAL, MINOR WOBES AND NAVIDATION, Gokák Canal First Section and Storage Works	11,94,976	11,915		. 67	4,920		•	17,007		17,087	5,862	11,408	-D&
	Суляр Тотац "	2,58,23,911	4,29,760		4,024	10,920		1,85,418	5,80,126	13,611	5,93,787	8,50,926	2,42,811	-94

Principal Results and Operations for the year ended 31st March 1895. .

(a) Excluding remissions shown in Canal Baturn No. V for kharif and rabi seasons of 1894-96, (b) Irrigation share of land percenue assessment.

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#### F. HUTCHINSON, Examiner, Public Works Accounts.

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## STATEMENT I.--E.

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	·			ARBA IRRI	GATED IN A	CBES.			Аувн	AGE DISCH. FER	argus, Cubic Sucond,	l sor
No.	Name of Canal.			•			Double	-cropped.	At H	lead,	Utilii	d.
		Kharif,	Rabi,	Total.	Flow.	Litt.	Area irrigat ed.	Percent- age of Total Area.	Kbarif.	Rabi.	Khail.	Г.ы.
1	2 .	3	. 4	δ	6	7	8	•	10	11	13	13
	MAJOR WORKS.		•									
	Protective Works.											
12	Nira Canal	12,349 1,207	16,021 3,019	28,370 4,226	28,326 4,209	44 17	320	7.57	205 35.52	286 60.15	258 35*52	28 60°1
i	Total	13,556	19,040	32,596	32,535	61	320	0.98	·			
	Productive Works.								·			
5 6	Háthmati Canal Lower Páhjra River Works (Waghad Tank		2,402 1,098	4,199 2,790	4,191 2,786	8 4	120	4·30	62 16'36	62 	25 16:36	3 
7	Kádwa River   Pálkhed Canal Works.   Ojhar Támba Canal.	222	1,163 367	1,851 589	1,840 579	11 10	65 26	3·51 4·41	16.67 3.8Q	26.97 6.08	- 11·34 2·96	16·1 4·5
8	Wadáli Canal., Pravara River Works-Lákl	72 138	255 . 172	327 310	326 299	1 11	17 10	5·20 3·23	6'47 34'68	8.76 29.20	4 85 32 36	5.8 25.4
. 9	Canal. Mutha Canals	7,562	2,520	10,082	10,026	56	1,247	12.37	149-84	J62·28	Notobtaina wed to run Matoba Ta	into t
10 11	Ekrúk Tank Krishna Canal	1,830 2,689	1,462 1,982	3,292 4,671	3,251 4,015	41 656	141 27	4·28 0·58	38·29 57·75	41.06 68.99	29'95 54'35	38·1 88·9
	Total	1,6690	11,421	23,111	27,313	798	1,653	5'88				
•	Total, Major Works	30,246	30,461	60,707	59,848	859	1,973	3.25	•••	•••	•••	
	MINOR WORKS AND NAVI- GATION.											
12 13 14 15 16 17	Khári Cut Hartála Tank Mbasva do Jámda Canals Parsul Tank Pravara River Works—Ojhas Canal	21 539 116	<b>35</b> 71 106 609 247 951	2,088 83 127 1,148 363 1,544	2,008 83 125 1,148 361 1,522	80 2 2 2 23	 2 39 75 70	4'82 1'57 3'39 20'66 4'53	8'49 0'49 0'76 25'53 1'53 32'29	5.91 0.94 1.06 27.93 1.69 32.72	8:90 0:49 0:76 25:53 1:53 23:45	6.0 0.9 1.0 27.9 1.6 25.0
38 19 20	Canal. Bhátodi Tank Mátoba do, Kásurdi do,	517 828 - 1	1,181 592	1,698 1,420 1	1,679 1,420 1	19	108 295	6·36 20·77	4·23 8·75	8 <sup>.</sup> 77 9 <sup>.</sup> 12	4·23 8·75	8·7 9·1
21 22 23 24 25 26 27 28 29 30	Shrisuphal do, Bhádalvádi do, Koregaon do, Ashti do, Upper Mán Biver Works Yerla River Irrigation Works Chikhi Canal Maini Tank Mudakundi Tank	6 85 645 342 614 147 147 272	293 306 814 1,199 680 2,239 258 1,008 3	177 299 391 1,459 1,541 1,294 2,386 405 1,280 19	177 299 391 1,450 3,537 1,293 2,368 400 7,264 19	 9 4 1 18 5 16	 95 17·20 168 27 <b>3</b> 61	6.51 1.12 12.99 1.13 0.74 4.77	5.13 2.66 2.76 10.83 4.77 8.80 7.02 4.17 3.32	3.73 3.91 2.20 9.85 9.87 5.88 11.62 6.02 7.53	5.13 2.66 2.76 10.83 4.77 1.88 8.15 2.55 3.52	3.7 3.9 2.2 9.8 9.8 4.6 7.9 6.0 7.5
31 3? 33	Nilgund do, Gadikeri do, Dámbal do	•337 { 98	· · ·	*337 { 172 *143	   			···	· ··· ··· 1·69	  2 <sup>.</sup> 26	•	•••
34 35	Medleri do Madag do	100	87 835	187 924	) 117 923	20 1		 	0.42 4.90	0.52 7.20	All uti except le in Can	akage
86	Asundi do, «	1	99 •185	211 •185	} 192	19			1.82	1.92		•••
37	Mávinkop do			*492		<u> </u>						
	• Total	8,030 •972	11,1 <b>3</b> 7 *185	19,167 •1,157	18,919	218	964	5.03		•••	•••	
39	PROVINCIAL. Gokák Canal, Jat Section	3,038	1,325	4,363	4,266	97		***	12.70	17.05	Approxim	ately
		41,314	42,923	84,237				<u> </u>			al	L.
	GBAND TOTAL	41,314 *972	42,923 •185	81,237 *1,157	63,063	1,174	2,937	3.49		•••		

Statement of Areas irrigated by Irrigation Works in the Bombuy

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## Presidency, excluding Sind, during the year 1894-95.

		unic Foot Pi		BASE TO WHICH THE DITIE	S OF WATER ARE CALCULATED.	
Discharge	ed at Head.	Uti	lized.	•		Кямавки.
tharif.	Rabi.	Kharif.	Rahi,	Kharif.	Rabi,	
15	· 15	18	17	. 18	19	20
				•	•	· · ·
47 33 <sup>.</sup> 98	50 50 <b>·19</b>	48 33 98	57 50°19		16th October to 15th January. 16th October to 15th January.	
		•••	•			•
28.98 103.42	38·74 	71 <sup>.8</sup> 8 103.42	80'07 	lst June to 30th September . April to 15th October	Ist October to 31st December . 16th October to 15th January .	
41:27 58:42	43.12 . 60.36	60°67 75°00	71·88 80·48	Ist June to 15 October	16th October to end of Febru- ary.	
43·74 3·93	48·74 5·89	58*35 4*26	72·74 6·76	June to September	October to January.	
50-47	15*53	Not ob	tainable,	16th January to 15th October	16th October to 15th January.	
47·79 47·00	35.60 22.00	61·10 49·00	35·32 22·00	16th January to 15th October. 15th January to 14th October.	Do. 15th October to 14th January,	
			•••			
		<b>*</b>		· · ·	•	
241-81 24-49 27-63 21-11 75-81	5.92 75.53 100.00 21.80 146.15	230.67 24.49 27.63 21.11 75.81	5.77 75.53 100.00 21.80 146.15 27.00	July to October	November to February 16th October to 15th January.	<sup>‡</sup> Besides this, water was used for 242 acres of land assessed on the Chaudols Tank which have not been accounted for.
18·36  22·22  94·63	29.06 134.66 64.91	25-29 122-22 91-03	37-90 1 <b>34</b> -66 64-91	June to September.	October to January.	
31.50 2.20	 74*94	34.50 2.26	 71-94	16th January to 15th Octo- ber.	16th October to 15th January.	
30·79 59·55 72	135°39 82°63 121	30·79 59·55 72	135·39 82·63 121	) 16th January to 15th Octo- ber.	16th October to 15th January.	
162 21 35 82	316 107 43 - 131	327 47 58 82	146 280 43 134	> 15th January to 14th Ooto- ber.	15th October to 14th January.	
Not k	nown,	Not k		No experiments made,	No experiments made.	. •
  143	 (a) 88	)	•••	]	<b>.</b>	
238 120	(b) 119 (c) 84	Notk	nową.	16th January to 15th Octo- ber. •	16th October to 15th January.	Area on which consolidated assessment is levied.
e) 133 	(d) 149	J		j		
•••		•••	•••			
238	144	238	]41	16th January to 15th October.	16th October to 15th January.	+ During rabi season 8 months and perennial crops
••••		••••		•	••••	are irrigated. The area of this is included in kharif, but must be added to rabi area to get duty of water.

#### xxviii

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### II—

		Average Discharge		WAT	BR-RATE ASSES	ISBD.			
No.	Name of Work,	of the year at Canal Head in Cubio feet per Second.	Oocupier'a.	• Owner's	Total Direct,	Indirect.	Total Direct and Indirect.	Gross assessed Revenue from all Sources.	Working Expenses Direct au Indirect.
			·Rs,	N	Rs.	Rs.	Rs.	Rs.	Rs.
	MAJOE WORKS.						5 - S		
	Protective Works.			•					
12	Nira Canal Mhasvad Tank	228·00 41·68	90,864 13,869	***	90,864 13,869	•••	90,864 13,869	92,709 16,135	53,58 28,46
	Total		1,04,733	•••	1,04,783	•••	1,04,733	1,08,844	82,04
	Productive Works.						•		
5 6	Háthmati Canal	62	10,537		10,537	•••	10,537	11,733	6,08
0	Lower Pánjra River Works Wághad Tank	16.36	10,442	·	10,443	6,788	17,230	17,759 156	6,68 2,91
7	Kádva Kiver Pálkhed Canal, Works Ojhar Támbhat	18.20	7,349	•••	7,349	594	7,943	8,086	8,80
8	Works Canal Wadali Canal Pravara Eiver Works-Lakh	3•68 6·01	2,112 1,044	•••	2,112 1,044	***	2,112 1,044	2,122 1,054	. 2,34 2,40
9	Canal	30.82	• 1,065		1,065	147	1,213	1,444	13,31
9 0 1	Mutha Canals Erkûk Tank Krishna Canal	156-03 38-99 65-56	1,39,252 13,463 44,377	••• ••• •••	1,39,252 13,463 44,377	42 	1,89,294 13,463 44,377	2,47,955 29,551 49,041	. 79,70 12,05 14,20
	Total		2,29,641		2,29,641	7,571	2,37,212	3,68,901	1,48,64
	Total, Major Works		3,34,374	·	3,34,374	7,571	3,41,945	4,77,745	2,80,6
	MINOE WOBES AND NAVI- GATION,	_	•				•		
2	Khari Cut	7.16	12,261		12,261	•••	12,261	12,907	6,10
3   4	Hartála Tank Mhasya Tank	1·71 0·85	208 395		208 395	•••	208 395	637 •1,037	1,03
5	Jámda Canal	24.92	7,744		7,744	•••	7,744	10,478	9,70
	Parsul Tank Pravara River Works-Ojhar	1.61	1,695	•••	1,695	· •••	1,695	1,705	1,3
8	Canal Bhátodi Tank	33*60 6*08	4,678 5,467		· 4,678 5,467	76 1,351	4,754 6,818	5,125 7,363	28,70 12,29
9	Mátoba do	8-93	9,936	***	9,936		9,936	10,079	4,28
0	Kásurdi do Shirsuphal do	4.43	8. 1,079	***	8 1,079	104 111	1,079	309 1,304	· 80 3,31
2	Bhadalvadi do	3.58	674	•••	674	•••	674	745	1,68
3 4	Koregaon do	2.63 10.59	1,150 4,717	•••	1,150 4,717	194	1,150 4,717	1,175 5,136	7: 3,9
5	Revari Canal	4.41	6,534	***	6,534	•	6,534	6,660	1,93
6 7	Upper Mán Biver Works Yerla River Irrigation Works	4·32 8·16	6,675 8,722	***	6,675 (8,722		6,675 8,722	6,775 9,708	4,23 23,71
8	Chikhli Canal	4.63	1,976	•••	1,976	***	1,976	2,039	8
9 0	Maini Tank	4.21	5,091 89		5,091 89	44.9	5,091 89	<b>5,606</b> 289	8,8 5
1	Muchkundi do Nilgund do	Not known.		•••		648 647	***		:
2 3	Gadikeri do Dámbal do	1		••• •••		1,987 982	. 1,987 1,867	1,987 2,392	2: 91
4 5 6	Medleri Madag Asundi	0°44 5*49 1*86	478 2,239 779	0 # 0 7 4 9 7 4 1	478 2,239 779	··· 632	478 2,239 1,411	494 2,518 1,412	8: ],6: 9(
7	Asundi		·	•••	···· •	1,012	1,012	1,017	10
	Total	· · · · ·	83,480		63,480	6,040	89,520	98,925	1,14,5;
	- ·				•				
	PROVINCIAL.			:					
9	Gokák Canal, 1st Section, and Storage Works		11,915	***	11,915	•••	11,915	17,067	5,60
	GRAND TOTAL		4,29,769		4,29,769	13,611	4,43,880	5,93,787	3,60,92

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Statement showing Incidence of Working Expenses and Assessed Water Revenue

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	· v	VORKING EXPE	N885	Occupy	IRR'S BATH	TOTAL V Dibect A	VATER-RATE, ND INDIRECT,	
Area trigated during the year 1804 95,	Per cent. on Gross Revenue,	Per Acre irrigated.	Per Cubic Foot per Second of Discharge at Canal Head.	Per Acre irrigated.	Per Cubic foot per Second of Discharge at Canal Head,	Per Acre irrigated.	Per Cubic foot per Second of Discharge at Canal Head.	Rymanus,
Acres,	Rs.	Rs.	Rs.	Rs.	Rs	Rs.	Rs.	
								•
28,370 4,226	57·80 176	1·89 6·73	235 683	3·20 3·28	398 "333	8·20 3·28	398 333	
82,596	75.38	2.52	*****	3.21		3.21	*****	
<b>4,199</b> <b>2,</b> 790	51'88 37'65	1•45 2•39	98•18 409	2·50 3·74	169°95 638	6.12	169 <sup>.</sup> 95 1,053	
1,851	1870 110	4.79	479	3.97	• 397	4.53	429	
58 <b>9</b> 327	110 228	3·97 7•36	636 401	3·59 3·19	574 174	3·59 3·19	574 17 <b>4</b>	
310 10,083 3,292 4,671	922 32*15 41 29	42.96 7.90 3.66 8.05	432 510.86 309 218	3·44 13·81 4·09 9·50	35 892·47 419 677	3·91 13·82 4·09 9·50	39 892·74 419 677	
28,111	40.29	5.28		8.17		8.44		
60,707	48-29	3.80	******	5.51	•••••	<sup>-</sup> 5·63	101.11	
								· ·
2,088 83 127 1,148	47 31 162 118 92	2*92 J2*41 9*63 8,46	852*93 602 1,439 389	5.87 2.50 3.11 6.75	1,712·43 122 465 311	5.87 - 2.50 3.11 6.75	1,712•43 122 465 311	
363	. 79	3.74	844	4.67	1,052	4.67	1,052	
1,544 1,698 1,420 1	561 167 42 23 119 42	18*63 7*23 2*99 369*00	856 2,020 476·71	3.03 3.22 7.00 8.00	139 899 1,112.65	3·08 4·02 7·00 8·00	141 1,121 1,132.65	•
177 299 391 1,459	245.09 226.14 63 77	18.06 5.64 1.87 2.71	721·44 514·33 277 373	6·10 2·25 2·94 3·23	243.56 205.48 437 445	2·25 2·94 3·23	243·56 205·48 437 445	
1,541 1,294	29 62	1•26 3•28	439 981	4.27	1,493 1,545	4·27 5·16	1,493	
2,386 405 1,280 19	245 43 68 196	9 95 2·16 2·99 30	2,911 189 909 Not known.	3*66 4*88 3*98 4*68	1,069 427 J,209 Not known.	3.66 4.88 3.98 4.68	1,069 427 1,209 Not known.	•
*337 172 *143	11.87 38.38	70 5•34 †2.92	502	5.15	484	5-29	911	• Area on which consolid ed assessment is levied. † On total area of 316 acr
137 924 211 *185	169·37 66·23 64·38	6.09 J.82 4.31	1,898 307 489	3·48 2·42 3·69	1,084 408 419	3·48 2·42 3·56	1,084 408 759	t Do, 896 acr
*49 <u>2</u>	<b>9</b> •93	2.30 0.21	*****	•••	••••	•	••••	
·19,167 *1,157	115-8	. 6-98		4.35	+++++++	4•67	F F Ø 0 0 0	
<b>4,3</b> 63	25.86	1*30	400'70	2.73	839	2.73	. 830	• • •
84,237 •1,157	59-10	4.17	400	5•10	•	5.26		

## on Canals in the Bombay Presidency, excluding Sind, during the year 1894-95.

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Statement of Quantity and Value of Crops irrigated in the Bombay Presidency, excluding Sind, during the year 1894-95.

								5)	1	(7) KA	UVA R	IVER WO	RES.		1_	(5)	[	
		(1) Canal,	MHASV	(2) ad Tank.	Натны	(5) ri Canal.	PANJHR	WER A RIVER RES.	Palkhed	l Canal.	Ojhar C	Támbat anal.	Wađá	li Canal.	WORK	RA RIVER — LÁKH INAL.	MUTHA	(9) Canals.
	Arca irri- gated.	Estimated Value,	Area irri- gated.	Estimated Value.	Area irri- gated.	Estimated Value,	Area irri- gated.	Estimat- ed Value,	Area irri- gated.	Estimat- ed Value.	Area irri- gated.	Estimat- ed Value,	Area irri- gated.	Estimat- ed Value.	Area irri- gated.	Estimat- ed Value.	Area irri- gated,	Estimated Value,
	Acres,	Rs.	Acres,	Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Acres,	Rs.	Acres.	Rs.	Acres,	Rs.	Acres.	Rs.
Gardens and { Vegetables Orchards { Fruit and other trees		8,710 7,910	53 51	1,060 3,315	1	30	89 581	711 38,435	56 18	1,960 990	16 2	560 110	8 8	105 165	7 26	134 2,510	71 691	8,740 1,41,462
Sugarcano	4,329	8,16,095	321	80,250	88	5,700	387	11,567	267.	26,700	67	6,700	18	1,800	86	5,040	5,277	19,05,528
Wheat           Barley           Barley           Rice           Maize           Jowár           Kójri           Miscellaneous	808	56,245 7,395 70 2,22,280 3,960 31,105 20	657 27 92 220 2,072 55 27 	19,710 270 3,840 2,220 31,080 550 270	3:2 4 <sup>2</sup> 5 1,739 40  263  30	9,360 10,375 43,475 600  5,260 	551 	8,119  1,500 17 13 412 25	456  24 2 1  31	11,400 720 20 8  10 310	180 2 1 3  8	4,500  60 10 24  10 80	87   6 4	2,175     60 40	34  22 89 23 	1,190  50 440 1,869 322 	298 284 5 1,534 10 870 28	9,871 30 5,711 131 30,680 250 15,040 806
Pulses		37,000 680 73,845 90	197 8 411	],970 60 20,550	1,192  	23,840  	20 1 358 542 	241 11 2,969 13,897 	85  533 	1,275  19,388 	16  169 	240  6,084 	37  344 	255  5,184 	23   	552   	513 2  44 4	11,883 20 · 1,105 75
Fodder Crops . { Fodder	 289	5,780	9	450 •••			7	62 10	63 	1,020	15 	225	 		3 	187 	3) 184	818 80,175
Fibros (Cotton	2 2	50 20	 				225 4	1,834 20	·	1,695	 82	480	24	560		••• •••	 	•••
Dyes	•••		•••	•••								•••	•••			•••	•••	•••
Drugs and Nar- { Tobacco	1 10	180 250	01 	500	***		1	11	<sup>1</sup>	28	····	 	•••		<sub>8</sub>	736	7	260 
Oil-seeds { Mustard, Sesam Linseed, Castor-oil		•••	2	40	<sub>17</sub>	6°0	33 11	500 75			 	 	···	 	 	 	•••• . •••	 858
Condimente   Chilly and Onions	268	13,440 	19 	760	/ 2 150	300 5,950	41 37	951 322	56 108	3,640 4,860	54 23	8,510 1,035	2 19	130 855	85 	2,062 	95 20	3,278 243
Miscellancous	61		•		•••		•••		31	155		•••	•••		•	•••	127	2,987
Land insufficiently irrigated	•••			•••						•••		***		•••	2			
Total	28,370	12,83,125	4,226	1,64,895	4,199	1,05,370	2,790	82,348	1,851	73,979	<u>5</u> 99	23,628	327	11,129	310	15,092	10,082	21,64,028
Area on which consolidated assessment is levicel	•••	490	•••		•••		•••		•••	•••		•••	•••					•••

XXX.

						II	I-E-	confin	ued <sup>%</sup>					•				
· · · · · · · · · · · · · · · · · · ·	EKR	(10) J'K TANK.	KRISHN	(11) A CANAL.	(1 Кна'в	2)		3)		4) . Tank.	(] J∡'mda	5) Canals.	(1) Parsul	5) Tank,	(1 Pbavab. Wobks- Can	a River —Ojhar	(1 Внатор	
	Area irri- gated.	Estimated Value,	Area irrigated.	Estimated Value,	Area irrigated.	Estimat- ed Value,	Area irrigated.	Estimat- ed Value,	Area irrigated.	Estimat- ed Value.	Area irrigated.	Estimat- ed Value,	Area irrigated.	Estimat- ed Value.	Area irrigated.	Estimat- ed Value,	Area irrigated.	Estimat- ed Value,
	Acres,	Rs.	Aores.	Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.
Gardons and Vegetables Orchards. Fruit and other trees	92 44	3,6 <sup>8</sup> 0 4,400	·· 106 · 7	2,038 215	27	810 	3	<b></b> 200	· · 1 · · 14	<b>3</b> 1,130	30 52	740 2,857	8	350	23 42	608 3,685	5 39	75 8,117
Sugarcane	581	1,74,300	1,566	4,38,225	23	4,600	•••	•••	2	180	826	23,199	14	. 700	207	28,990	28	4,312
Wheat	283	7,075	196 1	6,514 20	6	150	66 •••	1,325	. 82	569	483	5,040	113	834	180	6,300	157	5,495
Rice Maize		16,350 340	358 1	14,312 15	2,027 2	60,810 10	1	25	··· 2	10	27 7	255 34			 15 7	900 175	19 1	720 30
Chino, Rági, Rála, Wara	. 823 8	16,460 80	219	7,917	ī 	δ	•••	•••	***		8	79			60 2	J,200 16	690	20,700
Bájri Miscellaneous	8 •••	- 80 	5	 150	•••	•••	•••	•••	•••	***	`•••	•••	25	124	163	2,268	15	210
Gram, Udid, Mug	67	1,005	15	288	•••		5	- 38	19	· 182	49	540	52	360	700	16,800	245	4.900
Pulses	10  495 	200 14,850	 1,967	 86,592	*** *** ***	••• ••• •••	···· ··· 1	 35 	···· ···· 3	 20		103 18	  	••• ••• •••	 14	770	 872	 10,416
Fodder Crops { Fodder	114 	2,280	45 22	1,140 430	•••	••••	 5 	25 	1	2	6	55 5	68 	600	65 1	4,062		25
Fibres { Cotton Tig (Hemp)		••• •••	••• • <i>•</i> •	••• •••	•••	 	1	11 •••	 	•••	4 25	39 999	••• •••	•••	2 2	220 60		
Dyes			•••	·	•••		•••	•••	·•••	•••		••••						•••
Drugs and Nar- { Tobacco cotics { Bhang	1 	30	3 4	140 500	•••	•••	•-•	•••	•••	4++ +++	5	97 			·2	360 	29 31	1,856 2,480
Oil-seeds { Mustard, Sesam Linseed, Castor-oil	1 21	20 420	•••	••• •••	 •••	 	 	•••	•••	•••	•••			•••	2	48 		 120
Condiments { Chilly and Onions Garlic, Turmeric and Methi	141 21	4,935 630	96 47	4,280 1,128	··· 1		1	5	- 3 	55 	87 18	2,989 344	- 9 63	210 500	54 4	2,718 240	63 4	6,048 240
Miscellaneous	20	•••	13		1	***	•••		•••	•••	7		10	72				
Land insufficiently irrigated		•••	•••	•••	***	•••	•••	<b>~</b>	4 <b>7</b> 4	•••			•••	`			•••	
	3,292	2,47,135	4,671	5,63,904	2,088	66,415	83	1,664	127	2,151	1,148	37,893	363	8,758	],544	69,510	<b>J,6</b> 98	65,744
Area on which consolidated assessment is levied		•••			•;••			••••	•••		•••	•••		•••	•••			·

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111-E-continued.

•	<u> </u>			(19) ba Tane.	(2 Ka'suri	0) di Tane.	SHIR	21) SUPHAL ANK.	Вна'і	22) DALVA'DI ANK.	Kor	(23) REGAON ANE,		24) 1 Tane.	( Reva' <i>i</i>	25) XI CANAL.	UPPE	(26) 28 Ma'n Works.	YEEL JEEL	27) A RIVER GATION ORKS.		28) i Canal
		ا ب	Arca irri- gatıd.	Estimated Value.	Arca irrigated.	Estimat- ed Value.	Area irri- gated.	Estimat- ed Value.	Area itri- gated.	Estimat- ed Value,	Area irri- gated.	Es: imat- ed Value.	Area irri- gated.	Estimat- ed Value.	Area. irri- gated.	Estimat- ed Value,	Area irri- gated.	Estimated ed Value?	irri-	Estimat- ed Value.	Area	Estima ed Value,
<u> </u>			Астев.	Rs.	Acres.	Rs.	Acres.	· Rs.	Acres.	Rs.	Acres.	Rs.	Acres'	Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.
	and { Vegetables { Fruit ando ther	tices		J,883		····	 29	4,057	· 8	3,643	· · 2 · 1	- 80 - 100	- 3 14	120 1,400	61 5	2,318 831	- 33 - 3	520 •• 120	36 22	506 880	5	 
Sugarcane	••• •••		483	1,66,672			148	49,476	·	• •••	48	14,400	120	86,000	94	1,532	113	2,373	- 68	1,700	34	9,380
Cereals .	Wheat Barley Rico Maize Jowar Chino, Ragi, Rál Bájri Miscellaneous	a, Wara	181 4 58 1 302 1 220 15	7,630 - 144 1,167 25 4,525 13 5,506 540	•••• 	···· ···· ···· ····	· · · · · ·	···· ··· ··· ···	17  266 	691  3,992  	9  167 	225 75 8,340 30	267  165 68 893 8 6 11	6,675 3,875 1,360 7,860 30 150 450	187 29  470 	6,570 728 11,776  	372 26 8 72 45 20 11	5,268 812 112 1,296 675 130 99	294 6 28 708 8 	5,184 40 90 868 14,060 20 	86 4   7 	1.131 176 1,530 109
Pulses	Gram, Udid, Mu Tur Peas Ground-nut Miscellancous	8	4 .	2,122 10  77 	•••• •••	···· ··· ··· ···	•••• ••• •••	••• ••• •••	7  	137   	7  118 	175  4,720 	157 24  336 	8,925 600 5,440	10 · •••• 653 · •••	157  8,986 	195  1 171 	1,950 11 3,420	284  17 861 1	2,292  170 17,220 8	7  191	130  8,404 
Fodder Crops	{ Fodder Lucerne, &c.	•••• •••		•••			 	·	•• * • • •	·		•••	•••	•••		 	173	8,114	1 8	8 112	••• •••	•••
Fibres	···· { Cotton •··· { Tág (Hemp)	••• •••	1	•••• ···	•••	 	 	••• •••	 	·	•• •••	" •**	•••	•••	•••	••• •••	••• •••	•••	• 	•••	•	•••
Dyes			•••		•••		***	•••		•••	•••	· •••	••*	••• `		1		•••				•••
Drugs and Na cotics	ar-{Tobacco Bhang	••• •••	1	····	•••	 	•••	•••	 •••	••••	 	••• •••	 	360 	 	••• •••	1 	15 	 	••• •••	•••	 
Oil-seeds	( Mustard, Fesam Linseed, Castor-	oil	6	•••		 	•••	 	·	••••`	 	•••	••• •••	 	 	•••	*** ***	· •••	 	500 101	····	 
Condiments	{ Chilly and Onion Garlic, Turmeric	and Methi	40 2	841 18	•••	 	•••	•••	· 1 	23 	6 27	240 1,215	93 ·	3,72Q	16 16	814 1,345	-38 2	646 20	46 4	640 92	84 37	1,52 85
Miscellancou	<b>8</b> ,	••• •.	2	56	1	12				•••			•••			·	4		5	··· ·		
Land insuffici	iently irrigated	••• •••	J				•••	•••				•••					***	<u></u>				
Area on whi levied	ich consolidated ass	Total		1,91,529	1 	<u> </u>		53,533 	29 <b>9</b> 	<b>8,4</b> 86	391	24,600	<u>1,459</u> 	72,065 	<u>1,541</u> 	29,507		20,081	2,386	43,890	405	23,33

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III-E-concluded.

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•	MAIN	29) 1 TANE.	(30 Мионк Тан	UNDI	(3 GADI TA	EBRI	( Да'мв	33) al Tank,	(3 M rd Ta	LBRI	( Mada	35) g Tank.	(3 Asundi	6) ( Tane.	MA'VI	7) NEOP NE.	Gor∆' ]st bec	39) E CARAL, TION, AND E WORKS,	• To	FAL.
	Area irri- gated.	Estimat- ed Value.	Area irrigated.	Esti- mated value.	Area irri• zated.	Esti- mated value,	Area irri- gated.	Estimat- ed Value.	Area irri- gated.	Esti- mated value,	Area irri- gated.	Estimat- ed value.		Esti- mated value.		Esti- mated value.	Area irrigated.	Estimated value.	Area irrigated.	Estimated value.
	Acres.	Rs.	Acres,	Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.
Gardens and \ Vegetables Orchards. \ Fruit and other trees	1 28	15 2,500	4 5	102 520			66 15	1,320 1,200	9 30	675 2,975	72 1	5,720 75	49 3	3,880 800	••• •••	••• •••	130 34	2,600 1,360	1,114 1,895	42,89 2,37,20
Sugarcane	40	. 6,400	1	5	•••	•••	34	3,400	1	150	13	1,275	3	250			137	13,700	14,624	88,40,58
Coreals Wheat Barley Naize Jowar Chino, Rigi, Rdia, Wara Bajri Maiscellaneous	132 8 86 5 47 4  20	6,600 100 1,440 200 J,150 120  800	5 1 2	 110 30. 20	· · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	···· ••• ••• •••	···· ···· ···· ····	1  47  JO 1  2	15 1,170 210 15 45	 261 13 23  1	 6,538 270 450  15	1  19 16 	15 75 380 320	· · · · · · · · · · · · ·	•••• ••• ••• ••• ••• •••	21  98 1,392 921 332 5 86	315 2,450 22,272 23,025 3,758 60 988	8,833 482 6,187 1,924 19,955 1,045 6,723 240	1,96,19 11,29 1,71,23 30,74 4,03,98 14,98 55,63 4,38
Gram, Udid, Mug	356 1 566	8,875 25 24,417	···· ···· ····	•••• ••• •••	•••• ••• •••	···· ····	· · · ·	•••• ••• •••	• 29 6 • • •	  	   	• • • • • • • • • • • • • • •	····	•••• •••• ••••	••• ••• •••	1 1 1 1	182  119 2	4,550  3,570 16	5,990 59 418 9,084 16	1,25,6 1,6 3,2 3,23,7 1
adder Crops   Fodder	• • •			***	 Teg			•••		 	 	···		···	•••	•••		•••	439 678	10, 39,
bros { Cotton TAg (Hemp)	•••	·	· ·	•••	•••• •••	•••	·	····	7	<b>i</b> 40	••••		· · · ·	····	•••• •••		51 23	930 690	265 232	3, 4,
Yes	•••			•••									••••				•••	•••		•••••
rugs and Tobacco	5	875		•••	•••	•				•••			····	••••	 	•••	••••		77 53	4, 8,
Narcotics. { Bháng 1-seeds { Mustard, Sosam Linseed, Castor-oil	•••					•••			• 	•••	•••	` 		· · · · · · · · · · · · · · · · · · ·	•••		5	30	39 57	1,
ndiments .   Chilly and Onions Garlic, Turmeric and Methi.	22 19	1,050 435	1	5	••••		• 25	 254	 29	870	532	15,945	116	3,495	••••		671 1	20,300 30	1,994 1,315	78, 40,
scellaneous	•••	184					32	803	•••		•	•••		·			175	1,750	489	5,
nd insufficiently irrigated		•••			•••			•••		•••	8	·	1				·		11	******
Total	1,250	54,502	19	792			172	6,477	137	6,265	924	30,288	211	8,715	•••		4,363	1,02,394	84,237	56,57,
es on which consolidated assessment is levicd	•••		•••	•	337		143			*==			185		492				1,157	

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# IV.--

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Comparative Statement of Irrigation and Rainfall for the years 1893-94

		•						1
No.	Work supplying I	rrigation.	Civil Stati	on.	Total Area of the Civil District,	Culturable area of the Civil District,	Cultivet of ana	Culturable area com- manded by Irrigation Works in Column 2.
. 1	2		3		4	5	6	7
-	·		-				•	
•	MAJOB WOR	E9 <sub>4</sub>				•		
	Protective Wo	erks.		i				
1 2	Hathmati Canal Khári Cut	* 444 - 445 - 444 -	Ahmedabad	•••	24,43,565	19,61,338	18,89,163	11,336
		Total .			ļ			* 22,838
3 4	Nira Canal Mutha Canals							(*,27,670 49,500
5	Matoba Tank Kasurdi do	••• •••	. Poona	•• ••	34,24,059	25, 53, 547	25,43,863	7,133
78	Shirsuphal do Bhadalvádi do	••• ••• •	:)					2,500
		Total						2,89,931
9	Lower Pánjhra River Wo							12,627 527
10 11	Hartála Tank Mhasva do, Jamda Canals		Khándesh		. 56,60,898	36,15,079	32,67,596	4,075
12		and the second sec				1		57,414
	Kádwa River Wághad	Tank	-h			5		(
19	Works. Ojhar Ta Wadali (	mbat Canal	Nasik	·	. 37,20,295	25,87,961	24,48,450	26,280
14	Parsul Tank							2,729
		Total .			-		1	• 38,816
15	Pravara River Works-L:							1 25,536
- 16 17	Do. —Oj Bhatodi Tank			ur	• <u>4</u> 2,15,468	32,38,434	30,18,744	
		Total						60,348
18 19	Mhasvad Tank Ekruk Tank		)					(1,06.214
20 21	Koregaon do	•••		••• ••	. 29,05,194	24,74,349	24,61,559	16,941 Not
<b>-</b> -,	Ashti do	m + 1	···· )'		<b>)</b> .			( 16.525
22	Krishna Canal							C 26,453
23 24	Revári do Upper Mán River Works	•••• ••••	·••			22,67,671	00.00.000	3,624
25 26	Yerla Biver Irrigation Wo Chikhli Canal	orks	Sótára	•••	. 30,87,783	22,07,071	22,66,130	10,680
27	Maini Tank	***	¦j			-		4.625
		Total						54,483
28 29	Muchkundi Tank Nilgund do,	*** ***	Bijápur	··· ··	. 36,01,552	32,21,649	31,66,029	5,417
		Total						5,417
50	Gadikeri Tank	• •						Not   kuown.
- 31	Gokák Canal, 1st Section	*** ***	Belgaum	••• ••	. 28,45,285	21,61,279	21,49,309	37,627
		Totai						
52				•			1	17,617
33 34	Dámbal Tank Medleri do							( 4,525
35	Madag do		Dhurwar	•••	. 29,45,632	24,08,035	23, 18,586	1,052 2,452
-4-	Asundi do	*** ***	]					1,500
		Total						9,829
36	Mávinkop Tank	<b>.</b>	Kanara		25,22,266	8,86,535	2.34,109	
	аталитер тепе	Cased 17-4-1			3,73,72,197		2,57,64,15	6,97,456
		Grand Total	)		-,			0,1,1,000

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# and 1894-95 in the Bombay Presidency, excluding Sind.

Culturable area at		ARE	A IBBIGAT	ID IN ACBE	8.		RAIN	FALL.	
present igrigable by works		1893-94.			1894-95,		1893-94.	1894-95.	REMARKS_
pecified in Column 2.	Kharif.	Rabi.	Total.	Kharif.	Rabi.	Total.			
8	9	30	ñ	12	13	14	]5	16	17
Acres.	Acres,	Acres.	Acres.	Acres.	Acres.	Acres.	Inches.	Inches.	
8,000 3,000	1,259 1,760	2,442 26	8,701 1,786	1,797. 2,053	2,402 35	4,199 2,088	50•99 43•48	50°95 51°33	
· 11,000	3,019	2,468	5,487	3,850	2,437	6,287			
56,640 16,800 2,600	13,556 6,634 732	10,947 1,625 410	24,503 8,259 1,142	12,349 7,562 828	16,021 2,520 592	28,370 10,082 1,420		$17-75 \\ 32 \cdot 22 \\ 15 \cdot 28 \\ 12 \cdot 14$	* Average of 8 stations.
478 2,500 2,400	41 475 487	83 438 277	124 913 764	1 177 6	293	1 177 299	14·67 11·93 10·85	13·14 15·24 14·23	•
81,418	21,925	13,780	35,705	20,923	19,426	40,349			
12, 627 415 2, 983 30, 538	1,558 11 18 508	1,442 107 211 1,080	3,000 118 229 1,588	1,692 12 21 539	1,098 . 71 106 609	2,790 83 127 1,148	18*23 29*85 19*86 19*52	18·47 34·71 28·07 24·37	
46,563	2,095	2,840	4,935	2,264	1,884	4,148			
9,837 2,367 2,433 Not yet ascertained.	 605 174 185 69	1,439 364 200 290	2,104 538 385 359	 688 222 72 116	J,163 367 255 247	1,851 589 327 .363	28·32 23·22 15·34	25·38 30·28 25·37	
. 14,637	1,093	2,293	3,386	1,098	2,032	3,130	-		
11,280 14,763 12,124	76 352 648	267 1,891 965	343 2,243 1,6 <sup>1</sup> 3	138 593 517	172 951 1,181	310 1,544 1,698	- 18·77 16·77 24·39	25.64 24.29 24.95	
38,167	. 1,076	3,123	4,199	1,248	2,304	3,552	-		, '
45,813 14,352 known. 14,476	3,907 2,247 94 711	1,376 642 258 487	5,283 2,889 352 1,198	1,207 1,830 85 645	3,019 1,462 306 814	4,226 3,292 391 1,459	- 17·30 24·22 18·80 23·65	15.71 20.18 23.10 21.70	
74,641	6,959	2,7.63	9,722	3,767	5,601	9,368	- 20 00	2110	one British Village in Mán Táluka of the
26,453 3,624 7,623 10,680 1,478 4,625	2,810 213 942 424 291 866	1,932 1,135 548 1,534 79 493	4,742 1,348 1,490 1,958 370	2,689 342 614 147 147	1,982 1,199 680 2,239 258	4,671 1,541 1,294 2,386 405	20.09 26.73 17.96 25.48 21.24	31.76 20.18 29.40 20.02	Satara District and three Pant Pratini- dhi's villages in the Atpadi Mahal which are under command of Mhasvad Tank Canal
54,483	5,546	5,721	1,359 11,267	272	1,008	1,280	15.56	14.43	No. 1.
3,417	10	2	11,207	4,211	7,366	11,577	21.56	17.87	
***									
3,417	10	2	12	16	3	19			
337	+337	103.	+337	+337	•##	+337	28.63	28-53	+ Area on which consoli- dated assessment is.
6,170	3,014	1,223	4,237	<b>3,0</b> 38	1,325	4,363	24·11	13•90	levied.
6,507	+337 3,014	. 1,223	+337 4,237	+337 3,038	1,825	+337 4,363			
4,525	110 +97	17 21	127 +97	98 +143	74	172 +143	20.37	12-98	
1,053 2,188	. 75 318	374 25	96 692	100 589	37 335	137 924	14·98 25·31	9·29 19·74	•
1,800	60	+ 24	85 <b>+1</b> ?4	112	99 +185	211 + 85	} 23.21	13.49	
<b>9</b> ,565	+97 563	†124 437	+221 1,000	+143 899	†?85 545	+382 1,444			
617	+492		+192	+492	•••	+192	No gauge.	No gauge.	
3,41,015	45,300 <del>1</del> 926	34,650 +124	79,950 †1,050	41,314 +972	42,923 †185	84,237 +1,157	22.74	23.13	

#### xxxvi

# STATEMENT F.

# Statement showing the Operation of Irrigation Works in the Deccan and Gujarát for the year 1894.95.

N0.	N	Amount De	n, 1694-95.	Raulse	lok <b>s.</b>	Tota	L <b>i.</b> ,	Grand	_
	Names of Works.	Kharif, 1854-95.	Rabi, 1894-95.	Kharif.	Babi	Kharif.	Rabi.	Total.	RBMARKS.
1	2	3	4	5	6	7	8	9	10 .
	MAJOB WORKS. * Protective Works.	Rs.	Rs.	R3.	Rs,	Ra,	Ra,	Bs.	
. <mark>1</mark> 2	Nira Canal Mhasvad Tank	54,558 6,302	36,306 7,567	•••		54,558 6,303	36,306 7,507	90,864 13,869	
	Total	60,860	43,873	•••	+ + + + + + + + + + + + + + + + + + + +	60,860	43,873	1,04,733	
	Productice Works.		•		·				
.2 6	Háthmati Canal Lower Pánjhra River Works (Waghad Tank .	5,708 7,422	4,949 3,020	71	49 •••	5,637 7,422	4,900 3,020	10,537 •10,442	•Includes water-rates or dry land and enhanced
7	Kádva River Pálkhed Canal. Worka Ojhar Tambat	3,914	3,435	•••	•••	3,914	3,435	7,849	water share of consoli dated revenue on Manu Irrigation.
8	Vadali Canal Wadali Canal Pravara River Works—Lákh	1,083 274 731	1,030 770 344	•••	+++ +++ 440	1,082 274 721	1,030 770 344	2,112 1,044 1,065	
9 10 31	Canal Mutha Canals Ekruk Tank Krishna Canal	1,33,160 9,913 36,957	6,092 3,550 7,420	•••	•••	1,33,160 9,913 36,957	6,092 3,550 7,420	1,39,252 13,463 44,377	
	Total	1,99,151	30,610	71	49	1,99,080	30,561	2,29,641	
	Total, Major Works	2,60,011	74,483	71	49	2,59,910	74,434	3,34,374	
	MINOR WORKS AND NAVIGATION.								
12 13 14 15 16	Khári Cut Hartála Tank Mhasva do Jámda Canals Parsul Tank	13,661 66 172 6,413 708	172 142 223 1,331 987	1,572   	  	12,089 66 172 6,413 708	172 142 223 1,331 987	12,261 208 393 7,744 1,695	
17 18 19	Pravara River Works-Ojhar Canal Bhatodi Tank Matoba do	2,617 2,572 8,607	2,061 2,895 1,329	 	 	2,617 2,572 8,607	2,061 2,895 1,329	4,678 5,467 9,936	
20 21 22 23	Kasurdi do Shirsuphal Tank Bhádalvádi do Koregaon do	8 J,636 63 473	· 611 677		•••	8 1,079 63 473	  611 677	8 1,079 674 1,150	
24 25	Ashti do Revári Canal	2,825 3,035	1,892 3,549	24	26	2,825 3,011 4,264	1,692 3,523 2,411	4,717 6,534 6,675	
26 27 28	Upper Mán River Works Yerla River Irrigation Works Chikhli Canal	4,264 1,694 1,061	2,411 7,034 915	 , 	6	1,694 1,061	7,028 915	8,722 1,976	•
29 30	Maini Tank Muchkundi Tank	1,760 82	3,331 7	••• •••	 	1,760 82	8,331 7	5,091 89	
31 32	Nilgund do Gadikeri do	  624	···  261	••• •••	 	  624			,
33 34 25	Dámbal do Medleri do Madag do	362 1,274	116 965	•••	····	362 1,274	116 965	478 2,239	
35 - 36 37	Asundi do, Mavinkop do,	476 	30 <b>3</b> 			476 •••	303 	779	
	Total	54,453	31,212	2,153	82	52,300	81,180	83,460	
	PROVINCIAL.								
9	Gokak Ganal, 1st Section, and Etorage Works	8,507	3,403			8,507	8,408	11,915	
	GRAND TOTAL	3,22,971	1,09,103	2,224	81	3,20,747	1,09,022	4,29,769	

## I-F.

# Statement showing Water-rates per Acre in force during 1894-95 on Irrigation Works in the Bombay Presidency, excluding Sind.

······	•		•	WATER-RATES.					
No.	Names of Works.	Class I.	Clase II.	Class-111,	Class 1V,	Class V.	Occupier's Rate.	's Rate. advantage.	Remarks,
-		Perennial.	Eight months.	Four months.	Monsoon dry.	Special hot, weather,	Occupie	Owner's Rate Water advants	
1	2	3	4	5	6	7	8	9 10	11
	MAJOB WORKS.	- 12	Rs. a. p.	Rs. a. p.	Rs, a. p.	Rs, a. p.		•	
1 2	Protective Works. Nira Canal Mhasvad Tank Productive Works.	10 10	400 400	200 200	0 12 0 0 12 0	500 400			Half rates are levied on irrigation, from leakage water picked up from nálas at the expense of the cultivators,
5	Háthmati Canal Lower Pánjhra River Works	10 10 8	$\begin{array}{c} \ddagger 3 & 0 & 0 \\ 4 & 0 & 0 \\ 4 & 0 & 0 \end{array}$	200 200 200	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccc} 6 & 0 & 0 \\ 4 & 0 & 0 \\ 6 & 0 & 0 \end{array}$			; Rice flooding land is charged at Re. 1.
7	Kadva River Ojhar - Támbat Works. Canal	8	400	200	100	600			
8	(Wadali Canal Pravara River Works-Lákh Canal	8	400	200200	100	6.0.0 400			
	First Section, i.e., within the Poona City and the Suburban Municipal and	11_	5 0 0		1 4 0	600			
	Cantonment limits or within one mile of these		J	200					
	limits. Second Section, <i>i.e.</i> , for all villages excepting those within the above-men-	11		280					
9	within         the         above-men- to tioned           tioned         limits         within         a           radius         of         8         miles         from           Poona.         Poona.         Third Sortion         i.d. for will ages	i	500	200	}1 <u>4</u> 0  }	600			
	And Cection, i.e., for villages	$\begin{cases} A. 18 \\ B. 12 \end{cases}$	} 4 0 0	§ 2 0 0	31 0 0	600		j	
•	beyond those limits. For pán gardens wherever	(C. 10	)	(180	)				
10	situated throughout the canal Ekruk Tank	30 *12	400	2 0 0	0 12 0	6 0 0	es.		*The original rate of Rs. 10 has been
11	Krishna Canal MINOR WORKS AND NAVIGATION.	22	400	200	100	600	under water-rates		increased to Rs. 12 in Government Resolution No. 239-A I-1900, dated 24th October 1894.
12 13	Kbári Cut Hartála Tank	14 10	$\begin{array}{ccc} 7 & 0 & 0 \\ 4 & 0 & 0 \end{array}$	5 0 0 2 0 0	100	$\begin{array}{ccc} 6 & 0 & 0 \\ 4 & 0 & 0 \end{array}$	er wa	NII.	
14 15	Mhasva Tank Jámda Canals	•10 16	400 400	$   \begin{array}{cccc}       2 & 0 & 0 \\       2 & 0 & 0 \\       4 & 0 & 0   \end{array} $	1 0 0 0 8 0 1 0 0	400 400 600	od und	UN	
16 17	Pravara River Works (Ojhar Canal)		4 0 0	200	080	400	detailed		
18	Bhatodi Tank	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	400 }400	$ \begin{array}{c} 2 & 0 & 0 \\ 2 & 0 & 0 \\ \vdots \\ \vdots$	$\frac{100}{100}$	400 600	A8		
19	Matoba Tank	C. 10   Pán gar-   dens 30	)	(180	<b>)</b> .			· [*	
20	Kásurdi Tank	$\begin{bmatrix} A. & 16 \\ B. & 12 \end{bmatrix}$	4 0 0	200	 0 12 0	 600			
21 22	Shirsophal Tank Bhadalvádi do	(C. 10 10 10	400	$\begin{smallmatrix}2&0&0\\2&0&0\end{smallmatrix}$	$\begin{array}{ccc} 0 & 12 & 0 \\ 0 & 12 & 0 \end{array}$	$\begin{array}{c}4&0&0\\4&0&0\end{array}$			
23 21 25	Koregaon do Ashti do Revári Canal	6 12 18	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$   \begin{array}{cccc}       2 & 0 & 0 \\       2 & 0 & 0 \\       2 & 0 & 0   \end{array} $	$\begin{array}{cccc} 2 & 0 & 0 \\ 0 & 12 & 0 \\ 1 & 0 & 0 \end{array}$				
26 27	Upper Man River Works	18 18	400	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	0120 100	600 600			
28 29 30	Maini Tank	18 18 8	4 0 0 4 0 0 4 0 0	$     \begin{array}{cccc}       2 & 0 & 0 \\       2 & 0 & 0 \\       2 & 0 & 0     \end{array} $	$\begin{array}{cccc} 1 & 0 & 0 \\ 0 & 12 & 0 \\ 1 & 0 & 0 \end{array}$	6 0 0 6 0 0 4 0 0			
31 32	Nilgund do Gadikeri do Dímbal do		( §1 0 0	a 2 0 0					§ From 15th June to 15th February.
33 31	Dúmbal do Medleri do	10 10	1600 19400 1600	b 2 0 0 a 2 0 0	\$0 8 0 }0 8 0	400			<ul> <li>1 3th October to 15th June,</li> <li>a , 15th June to 15th October.</li> <li>b , 15th October to 15th February.</li> </ul>
35	Madag do,	10	\$4 0 0 ¶6 0 0	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	30 8 0	4 0 0			
36 37	Asundi do Mávinkop,	10	§1 0 0 16 0 0	a 2 0 0 b 2 0 0	}0 8 0	400			• •
39	PROVINCIAL. Gokak Canal, 1st Section, and		(b) <b>3 B 0</b>						<ul> <li>(a) This is a special rate for sweet potatoes which require water for 10 months.</li> <li>(c) &amp; (b) from 15th June to 15th February.</li> </ul>
	Storage Works	(a) 8		$ \begin{array}{c} (e) & 1 & 8 & 0 \\ (f) & 2 & 8 & 0 \\ (f) & 2 & 8 & 0 \\ (f) & (f) & (f) & (f) \\ (f) & (f) & (f) $	•	g)6 0 0			<ul> <li>(d) a top train is a sume to lath reprust,</li> <li>(d) a lath October to lath June,</li> <li>(e) 1sth June to 1sth October,</li> <li>(f) Jath October to 1sth February,</li> <li>(g) Jath Pebruary to 1sth June,</li> <li>(g) Jath Pebruary to 1sth June,</li> </ul>

Note.—(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 rame as ordinary rates,

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## xxxviii –

### STATEMENT G.

# Statement showing Areas and Water-rate Assessments during 1894-95 according to the system of classification adopted in fixing the Scale of Water-rates.

	. Name of Work.	CLASS PERKEN	I 144.	CLAN B Mo	8 II 8 TH8.	CL188 4 Moi	III,— "ТН?,	CLARS Mons Dry	100	CLASS Specia What	1 Hor	MISC	81.1.4. 108.	GRAND	TOTAL.	•
Number.	,	Areas.	Assess- ment.	Areas.	Акеста- шець	Areas.	Annens. ment.	Areas.	Arsene-	Areas.	Anser- ment.	Areas.	Annetr- ment.	À rese.	Asness- ment.	Remarce,
	MAJOB WORKS.	Aores,	Rs.	Acres.	Ba.	Acres.	Re.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Bs.	
•	Protective Works.				r											
1	Nira Canal	4,455	41,788	3,615	14,442	14,165	28,482	5,786	4,359	349	1,763			28, 370	90,864	
2	Mhasvad Tank	373	8,779	1,081	4,522	2,680		83	62	8	87	2	64	4,228	18,689	
.	Total	4,828	46,567	1,696	18,964	16,945	33,887	5,868	4,451	351	1,800	3	64	32,596	1,04,733	
	Average rate	*****	9.44		4-04	1	2.01	-	0•76		6' 04		\$2.0		8-3)	
	Productive Works.															
6	Háthmati Canal	39 211	994 2,090	237	5,144 948	<b>1,33</b> 1 55ರ	4,008 1,109		 17	61 30	361 29	<b>30</b>	30	4,199 1.028	10,537	
7	Kádva River Pálkhed Canal Works. Ojhar Támbat Canal.	285 69	2,330 612	223	2,666 876	688 238		89 89	115 39	98 12	730		- 95 16	1,651	7,349 8,112	
B	Pravara River Works-Lighh Canal	91 62	.168 514	45	590 184	126 175	252 345	84	\$4 13		8		"1	837 810	1,044	•
	First Section, i.e., within the Poons	A. 761	\$0,339									n –				
	City and the Subur- ban Municipal and Cantonment limits		4,591													
	or within one mile of these limits.	C. 232	1,383							Į		1				
	Second Section, i.e., for all villages ex-	A. 3,798	82,045		1,025	363	1,006	8	9	• •••	•••					
,	cepting those with- Mutha Canals. ( in the above men-	B. 38	562									> 81	476	10.081	1,89,252	
ſ	tioned limits with- in a radius of 8			1												
	miles from Poons. Third Section, i.e.,	C. 90	1,053 9,369	)										1		
	those limits.	{B. 10 (C. 14	104 108		762	2,177	4, 380	896	900		***	Î	]		1	
	For pan gardens wherever situated												[		{	
	Ekruk Tank	38	1,140									)				
	Krishna Canal	671 1,575	6,413 32,880	788 2,656	3,173 10,182	1,337 340	2,657 692	857 8	276 5	119 84	854 593	20 13	90 25	8,292 4,671	18,463 44,377	
	Total	9,167	1,76,005	6,835	25,550	8,328	16,941	1,493	1,406	886	2.66/	140	783	25,349	2,28,892	
ļ	Average rate	*****	19-2		8.74		·2·03		0.88		6*90		5.53	***	9.48	
ł	MINOR WORKS AND NAVIGATION.		—			-								*****		
	Khári Cut	- 23	223	2,027	11,848	84	170			. 8	16	1	2	2,088	12,261	
	Hartála Tank	3 16	37 363	2	8 22	71 101	142 205	2	2	5	19			88 127	201- 995	
	Jámda Canals	375 22	6,044 212	92 1	868 · 6	577 239	1,162 956		89 24	76	181 490	198 197	••• •••	1,148 843	7,744	
	Pravara Biver Works (Ojhar Canal). Bhatodi Tank.	250 64	1,962 822	81 475	329 2,063	963 1,127	2,089 2,524	204 27	110 43		18- 15	4 4 4 4 4	•••	1,644 1,698	4,676 5,467	
		(A. 483 B	7,97) 	]						ļ					0.000	
'	Mátoba do	C. 5 Pán gar-	49	} 113	458	583	1,165	234	236			•••	•••	1,420	9,936	
	Kásurdi do,	den 2	 	ί.					Ì							
	Kasurdi do,	{	 	Ţ	8			<i></i>	-			***				
	Shirsuphal do	A. 147 B. 21 C. 8	904 118 55	{				•••		-		1	2	177	1,079	
		A	2	j			· .									
2	Bhádalvsdi do	{C. 1  Pán gar-	2		. 39	28:	567				•••	1	1	299	074	
	Koregaon do	L den 6 76	63 455	125	257	183			11	2	30			391 1,4/19	1,150	
5	Ashti do,	133 85	1,593 1,873	719	1,000	804 659	1,828		)84 •''-	75	104 579 1,874		, "",	1,541	*6,5×4 6 675	sion of Bs. t
71	Yerla River Irrigation Works	116 90 .34	2,107 1,623 620	606 1,118 290	2,443 4,443 1,162	\$44 1,130 69		3	29	45	1,5/1 842 51	6	ıı ıı	2,856	18,73H 1,977	fincludes re
) i	Maini 'Iank	63 6	1,129 47	290 729 7	2,896 80	473	943	4			115		2	1,240	6,09) 84	
	Nilgund do Gadikeri do					"		•••			l		-			
1	Dámbal do Medleri do	49 82	491 240	85 10	213 49	87 70	72 150	20 21	21	19			<b></b>	172	89! 477	
	Madag do Asundi do	14 6	186 65	91 74	501 474	766 90	1,536 205	86	2: 30		- 84 - 14		1	924 . 201	2,2%H 771	
1	Mavinkop do Total		29,052	6,668	31,420					 	 * 631			19,167	88,537	
	Average rate	2,134	18.6		4-56		18,600 2.16	988	0.81		8,631		1-81		4-36	
	PROVINCIAL,	*****				-					<u> </u>	_		ļ		
	Gokák Canal, 1st Section, and										1			1	1	•
"	Storage Works	171	2,559	964	8,323	2,110		POS	79:	- 84	301	178	619	4,863		(Exclusive of ) arres of Már
	Grand Total	16,30)	2,53,273	19,308	79,267	35,990	78,844	P, 250	7,440	1,823	6,307	849	1,4 68	182,476	14,28,570	sugarat
N	· ·								<u> </u>		-					enlianced w
	Average rate		15.2		4-09		2.06	•••	0.30		6.27		6.10		6.18	Lower Pki

Note.—/The difference between the figure's of total areas and assessments in this statement and those in Statements J-E to JV-K is due to difference in treatment S fractions in some cases, and in others to the fact that the figures in this statement are more or less by pythetical and are arrived at on the assumption that certain areas are assessed at certain rates.

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STATEMENT H. Statement showing Operations of the year 1894-95.

No.	Names of Works,	Amount of Estimate,		TLAY DIBSCT.		GTH OP CLUDED).		UNDES MAND.		Dis- charge of canal	<b>A</b> 3	8Å.	Amount	R en Vie			
	•	Direct and Indirect.	Daring 1894-95.	To end of 1894-95.	Canal.	Distribu- taries.	Gross.	Irrigable at present.	Bain- fall.	at head, Cubic feet per second.	Applied for.	Irrigated.	of gross Assessment.	Realiza- tions,	Working Expenses.	Net Revenue.	Romarks.
	MASOR WORKS. Protective Works.	Bs.	Rs.	Rs.	Miles.	Miles.	Acres,	Acres.		·	Acres.	Acres.	Ba.		Bs.		
1	Nira Canal	* 69,49,307 * 27,84,496	2,42,892 3,633	55,95,977 20,45,885	98*0 60*25	132·46 84·0	274,447	56,640	17.75	228	20,972	28,370	93,700	81,830	53,688	Re. 28,243	
	Total	1,17,33,303	2,48,525	76,41,862	156*25	166*40	129,045	45,818	15.71	41'68	8,533	4,226	16,135	12,718	28,460		• Includes Interest charges.
	Productive Works.						403,492	102,403	<u></u>		24,505	33,596	1,08,844	94,548	82,048	12,500	
5	Háthmati Canal	* 8,57,392 * 8,86,099	532	5,18,395 4,61,864	21-0	20•0 45 *0	. 44,744	8,000	50-95	62-00	8,883	4,199	11,733	11,079	6,087	4,992	
,	Kadva River Works Swachad Tank Pálkhed Canal Ojhar Támbat Canal	* 7,01,730 * 4,66,402	**	4,49,604	11-0	14.36	13,117	12,627	18-47	16.36	896	2,790	17,759 156	16,555 155	6,696 2,917	9,869 2,761	f Includes 1.763
1	(Wada)) Canal	<ul> <li>17,785</li> <li>68,461</li> </ul>	••••	6,932 29,354	4.50	••••	29,832 8,055	9,837 2,367	25·38 } 80·28	18.20 ( 8.68	1,661 518	1,851 589	8,086 2,122	8,878 744	8,861 2,840	17 1,596	acres of Mimul Bagayat,
8	Pravara Biver Works-Lakh Canal	*7,60,764 *98,85,199	511 81,793	3,71,891 65,56,489	23.0 88.0	9·37 67•0	3,486 29,918	2,433 11,280	25'64	1 6·01 30·83	368 481	827 810	1,054 3,444	2,101 1.648	3,408 13,819	-307 -11,671	
20	Ekruk Tank	*21,35,580 *16,60,896	1,554	13,40,886 8,84,892	48'0 63'87		94,087 17,152	16,800 14,352	82-22 20-18	156.01	$11.366 \\ 2,768$	10,082 8,292	2,47,955 29,551	2,33,386 28,871	79,709 12,050	1,58,677 16,831	•
			1,001			<u> </u>	28,327	26,453	25.45	66.26	4,397	4,671	49,041	56,049	14,260	41,783	
	Total	1,74,35,308	84,390	1,08,88,333	267.99	165*73	267,715	104,149			25,781	28,111	3,68,901	3,59,467	1,48,643	3,10,824	
	Total, Major Works Minob Works and Navigation.	2,91,69,111	3,30,915	1,84,78,195	424-24	833-19	671,205	203,602			\$0,286	60,707	4,77,745	4,54,015	2,30,691	2,23,324	
	Khári Cut	1,78,680		1,81,848	23.0	7.0	17,800	3,000			1.000						
14	Hartála Tank	75,040 1,40,015	**	73,382 1,38,956		5*50 7-0	584 4,647	415 1,700	51·38 34·71	7.16	1,800 83	2,088 83	12,907 637	9,681 711	. 6,107 1,090	8,574 	
16	Jamda Canais Parsul Tank	10,98,640 2,28,612	1,061 847	10,40,446 2,19,419	89.0	75-0	46,288	5,000	28.07 24.87	0.85 21.92	114	127 1,148	1,037 10,478	1,243 11,261	1,223 9,708	20 1,553	Approximate figures.
18	Pravara Biver Works-Ojhar Canal	8,48,211 3,78,278	58	3,30,249	19-0	21.0	2,593 23,724	1,500 14,763	25-87 24-29	1.61 83.60	237 1,870	363	1,705 5,135	1,897 7,738	1,859 28,766	538 	#B
191	Mathoba do.	2,10,500	695	3,79,707 2,01,422	<b>4</b> •30	5.50 17.0	15,128 10,700	12,124 2,600	24-95 15-28	6.08 8.93	2,098	1,698 1,420	7,363	4,769 9,806	12,281	-7,512	
21	Shirsuphal do.	45,590 2,22,282	2,141	45,590 2,23,703		1.75	597 4,500	478 2,500	18.14		8 209	1	309	617	4,257 309	5,540 148	
23	Koregaon do	2,28,724 42.049	185	2,27,414 39,189	3.75	8.75	8,000	2,400	15·24 14·23	4·43 3·28	534	177 299	1,304 745	2,581 850	\$,196 1,687	615	
26	Ashli do. Bevári Canal	8,34,927 59,448	10	8,31,103	27.50	2.0	Not kn 17,882	own. 14,476	23·10 21·70	2-63 10-59	587 1,470	891 1,459	1,175 5,136	1,028 4,388	730 8,953	298 435	
26 27	Upper Man River Works	4,44,531	49	59,429 4,29,562	10.25	6.50	8,813 8,443	3,624 7,623	81°76 20°18	4*41	1,460 1,238	1,541 1,294	6,660 6,775	6,916	1,038	4,978	
28	Chikhli-Canal	* 7,30,073 57,415	7,641	6,86,244 57,442	28-60 6-50	4.0	11,284	10,680	29.40	8.16	2,139	2,886	9,708	6,036 7,579	4,239 23,752	1,797 —16,178	
	Maini Tank. Muchkandi do	3,90,492 1,68,420		3,89,910 1,58,707	9°25 5°50	7*58 2*25	1,871 4,876	1,478 4,625	20.02 14.43	4·63 4·21	844 1,149	405 1,280	2,039 5,606	1,442 8,988	874 3,827	668 161	
81	Nilgund do			9.027			5,570	3,417	17-87	Not known,	80	19	289	289	566	-277	
82	Gadikari do	9,238		9,0279		Irrigator's chaunel.	687	337	28 53		::	<b>9</b> 337	·*·· 1,987	1,987	25 236	<u>-25</u> 1,751	Acres on which consolidated
	Dámbal do.	64,906.		63,980		3.27	4.595	4,525	12.98	1.00	190	<b>(</b> 172	2				assessment is
34 35	Medleri do	81,705	• ••	81,392		5.64	1,000	*,525 1,052	12.58	1·88 0·44	133 129	1 ¶ 148 187	} 2,392 494	2,104 505	918 975	1,186	levied.
- 1 F	Asundi do	2,49,407 80,485	•••••	1,67,598	9.0	••••	2,851	2,188	19.74	5.49	914	924	2,546	3,030	835 1,687		§ See foot-note to Statement II A.
87	Mávinkop do.	31,817	12,536	74,995 30,847	·	4*86	1,800	1,800	13'49	1.86	142	211 ¶ 185	} 1,412	1,358	909	410	
				30,811		Irrigator's channel.	873	617	No gauge.			<b>¶ 4</b> 92	1,017	1,017	101	916	
	• Total	63,84,485	25,223	61,50,840	203-35	202'85	195,469	103,922		••	19,545	19,167 ¶ 1,157	98,925	92,711	1,14,573	21,863	
29	Gokák Cansi	* 18,77,878	18,395	11,94,876	14.62	26*55	10 000										
	Ga						18,668	6,170	13.90		4,159	4,363	17,067	16,756	<u>5,662</u>	11,094	
	GBAND TOTAL	3,09,31,474	8,74,533	2,58,23,911	642-21	561-59	885,842	815,694	23-13		73,990	84,237 ¶1,157	5,93,737	5,63,482	3,50,926	2,12.556	
	:			·····				<u>_</u>					,,	,	!		

xxxix

## xxxviii

## STATEMENT G.

# Statement showing Areas and Water-rute Assessments during 1834-95 according to the system of classification adopted in fixing the Scale of Water-rates.

		Сълна Развата			а } Ц БУЖБ.	C1486	III FTB+,	CLANG Mong Dat	001	CLAN Specia Wrat	ь Нот	Masc 3 40	RLL	GLAFD	TOTAL	•
Numbor	Name of Work.	Areas.	Assess-	Areas.	Anone. mont.	Areas.	Assos.	Areas.	Assas-	Arose.	Anone mont.	Aruas.	Asses-	À TGAI.	Annue ment.	Banarka.
	MAJOR WORES.	Acres.	Ba.	Acres.	Ra.	Acres,	.Ba.	Acres.	R6.	Acres.		Acres.	<b>B4</b> .	Acres.	Rs.	
1	Protective Vorta, Niza Canal	4,455	41,786	3,615	14, 442	14,165	28,482	5,766	4,359	3:0	1,763	-	-	38, 370	<b>20</b> ,964	· •
2	Mhasvad Tank	373	3,779	1,081	4.523	<b>2,6</b> 90	5,405	82	62	8	37	2	64	4,226	13,969	
	Total	4,828	45,567	1,696	18,964	16,945	13,627	\$,868	4,461	\$57	1,800	3	64	32,596	1,04,735	
	Artragt rate Productive Works,		***		4.04	-	201		<b>0-</b> 76		50		32.4	-	8-21	
5	Háthmati Canal	39	394	1,758	6,144	2,331	4,60%	_	_	61	361	30	30	4,199	10,537	
<b>6</b> 7	Lower Panjhra River Works	211	2,090	237	948 2.6%6	665 669	1,109	_17 _115	17 115	)0 9ei	2		- 95	1,008 1,651	4,165	
8	Works. Wadali Canal	<b>69</b> 91	612 	223 ]46	876 590	236	465 252	37	39 34	-	- 54 			6-10 \$21	1,112 1,014	
-	Pravara River Works-Lath Canal. (First Section, i.e., within the Poopa	(A. 761	514 <b>30,33</b> 9	, 45 ]	184	175	ે કાર્ડ	24	13	1		. *	1	510	ljeni	
	City and the Subur- ban Maniripal and	{ B. 536	4,59)										1			
	Cantonment limits or within one mile	1	1 400	l		ł							1			
Ì	of these limits, Second Section, i.e., for all villages ex-	(C. 230 (A. 3,7%)	1,383 82,045	} 198 	1,025	363	1,006	8	9	<b>-</b>	-			[		
9	Cepting those with- Mutha Canals. { in the above-men- tioned limits with-	{B. 58	502	ļ								51	676	10,081	1,30,251	
	in a radius of 8	1		1								1				
	miles from Poona. Third Section, i.e., for villages beyond	(A. 117	1,053 9,3% 104	) } 180	762			896	900			I				
	those limits. For pán gardens	16. 14	105		102	<i>1</i> 1 لوقة ا	4,380	000		-	-	ſi		1		
i	wherever situated throughout the															
10 11	L canal. Ekrnk Tank	38 671	1,140 6,413	798	3,173	1,357	2,657	357	2.6	119	854	20	90	8,292	13.653	
~	Krishna Canal	9,167	31,880 1,76,005	2,656 6.835	10,182	340 8,328	692	3	1,406	84 886	2.66	13	733	4,671	44,517	
'	Average rate		19-2		3-74	-	2.03		0.96		6-90		6-23	-	ê 4é	
							_		_		_					
12	MINON WORKS AND NAVIGATION.															
13	Khári Cut Hartán Tank Mhasys do	23 3 16	224 37 164	2,027 2 6	12,848 8 22	<b>34</b> 71 10		2	2	5	16 36 36			2,069 63 127	12,261 9,** 3x6	
15 16	Jámda Canals	\$73 22	6,044 212	92 1	306		1,162	ที่ ช	34	30	]3) 49	Ξ	Ξ	1,146 >3	7,144	
17	Pravars River Works (Ojhar Canal). Bhatodi Tank.	250 64	1,969	81 475	359 2,063	953 1,127	1,089 2,524	514 27	1)0	46	1 <del>0</del> - 36		=	1,545 1,608	4.67e	•
19	Mátoba do	(A. 483 B	7,971	]				~						1,420	9,936	
	مىس جىم مىم يىسى 000 ALALOOS .	{C. 5 iPán gar- iden 2	49 57	} 113 	458	563	1,165	234	276		- 1	-	-	1,400	1,55	•
20	Eśsurdi do		=	ĺ.	8	_	_	-	_	_		-	-	1	6	
2	();	(A. 147	904	1										177		
	Shirsaphal do	B. 21 C. 8	118 54	<b>} -</b>	-	-	-		-	-	-	1	2		3,074	
2	Bhádaivsídi do	B. 1 {C. 1		} •	. 30	29.	567	<b>8</b> 44		-	-	1	1	259	674	
23	Korregaon do	Pán gar- L den 6 76	63 435	)	257	183	c	5	11			_	_	391	3,164	
24 25	Ashti do	133	1,593 1,873	262 719	1,000	804 659	1,634	241	]81 	)9 75	10 571	-,	-	1,450	4,117 96,544	"Includes rema
28 27 2	Upper Mán Biver Works Yeria Biver Irrigation Works Chikhli Canal	116 90 34	2,1·7 1,623 691	600 1,113 550	9,443 4,643 1,102	344 1,154 64	2,213	37 3 7	29	45	1,374 3% 51	4	11	3,254 2,256 646	6,475 18,725 3,477	sive of Es. 5). Hochdes remis and of Es. 6.
28 29 30	Maini Tank	53 63 6	1,12	129	2,8%6	473	943				310-	-		3,290	6,091 80	
31	Nilgund do Gadikeri do			Ξ.		-	_			Ξ	=	-	-	=	-	
- 53 34 55	Dimbal do Medieri do	49 32	401 240	23 10	213 49	5.	72 150	28 21	2) - 2)	19	7.	-	-	)72 )57 921	67 47	
- 36	Madag do Asundi do Mavinkoy do	14 6	136 60	91 74	50] 474	744 9.1	2.5	X X	21 30		34 14	8	e 1	. 211	2,1%	
57	Total	2,134	29,052	6,668	31,420		18,000	-	784	5465	8,63]			19,167	63,53	
	Avenge mie		13-6		4-56	-	3 16		<b>0</b> -81				1-31	-	4-31	
	PROVINCIAL.					—			—		—	-		1		•
20	Gokák Canal, 1st Section, and Storage Works	171	2,5%	964	1,223	2,110	4,416	4	79-	34	311	178	616	4,363	11.91:	tEarlanat of 1,743
	Grand Total	16,30)	2,53,273	·	79,257	·	73,844	9,250	7,440		8,302				:4:2,571	Augural area
c											—			<u>}</u>		and he. 1.24
_			15-5		4-09		2.05	_	0-50	_	+27	_	6-16	-	6-13	word of the
٦́-	Average rate	****				- 1										Lover Fan, Lin

Note.-The difference between the figures of total areas and assessments in this statement and these in Statements I-E to IV-E is due to difference in twatment Structure in the statement is come cases, and in others to the fact that the figures in this statement are more or isse hypothetical and are arrived at on the assumption tip' critals areas are assessed at certain rates.

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# STATEMENT **H.** Slatement showing Operations of the year 1894-95.

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No.	Names of Works,	Amount of Estimate,		TLAY DIRECT.		GTE OF CLUDED),		UNDEB MAND.		Dis- charge of canal	A	38A.	Amount	Realiza-			· · ·
	•	Direct and Indirect.	During 1894-95.	To end of 1894-95.	Canal.	Distribu- taries,	Gross,	Irrigable at present.	Bain- fall.	at head, Cubic feet per second.	Applied for.	Irrigated.	of gross Assessment.	tions.	Working Expenses.	Net Revenue.	RBMARKS.
	MAJOB WORKS. Projective Works.	Rs.	Rs.	Rs.	Miles.	Miles.	Acres.	Acres.	·		Aores,	Acres.	Rs.	Be.	Rs.		
12	Nira Canal	* 89,49,307 * 27,84,496	2,42,892 3,633	55,95,977 20,45,885	96*0 60*25	132·46 34·0	274,447 129,045	56,640 45,818	17.75	228	20,073	28,370	93,709	81,830	53,588	Rs. 28,242	• Includes Interest
	Total	1,17,33,803	2,46,825	76,41,862	156*25	166*40	403,492	102,453	15.71	41.68	3,533 24,505	4,226	16,135	12,718	25,460 82,049	15,742	charges.
	Productive Works. Háthmati Canal	* 8,57,392							<b> </b>		- <u> </u>						
•	Lower Pánjhra Biver Works	* 8,86,0%9 * 7,01,730	532	5,18,395 4,61,864 4,49,604	21.0	30°0 45°0	44,744 18,117	8,000 12,627	50-95 18-47	62°00 16'36	3,893 895	4,199 2,790	11,733 17,759	11,079 16,555	8,087 6,696	4,992 9,869	
7	Kadva Biver Works Palkhed Canal	* 4,66,402 * 17,785	••••	2.86,526 6,932	11 0 4 50	14.36	28,832 8,055	9,837 2,367	25-88	18.20	1,661 518	1,851	156 8,086 2,122	154 8,878	2,917 8,861	2,761	† Includes 1.763 acres of Mamul
8	(Wadali Canal Pravara River Works—Lákh Canal Mutha Canala	<ul> <li>68,461</li> <li>*7,60,764</li> <li>*98,85,199</li> </ul>	511	29,354 3,71,891	8·62 23·0	9'37	8,486 29,918	2,433 11,280	30-28	8-68 6-01 30-82	368 481	589 827 810	1,054	744 2,101 1,648	2,840 2,408 13,819	-1,596 307 11,671	Bágájat.
10 11	Ekruk Tauk Krishua Canal	*21,35,580 *16,60,896	81,793 1,554	65,56,489 13,40,886 8,64,892	88.0 48.0 63.87	67•0 ••••	94,087 17,152 28,327	16,800 14,352 26,453	92·22 20·18 25·45	156-03 88-99 66-56	11,366 2,768 4,397	10,088 8,292 4,671	2,47,955 29,551 49,041	2,33,386 28,871 56,049	79,709 12,050 14,266	1,53,677 16,831 41,783	• •
	Total	1,74,95,308	84,390	1,08,36,333	267-99	165*73	267,715	104,149			25,781	28,111	3,68,901	3,59,467	1,48,643	3,10,824	
	Total, Major Works	2,91,69,111	3,30,915	1,84,78,195	424-24	33319	671,205	203,603		<u> </u>	\$0,286	60,707	4,77,745	4,54,015	2,30,691	2,23,324	
12 18	MINOR WORKS AND NAVIGATION. Khari Cut	1,78,680		1,81,848	23.0	7-0	17,800	3,000									
14	Hartála Tank Mhasva Tank Jámda Canals	75,040	••••	73,883 1,88,956	** • •	5*30 7*0	584 4,647	415 1.700	51-33 34-71 28-07	7-16 1-71 0-85	1,800 83 114	2,088 83 127	12,907 687 1,037	9,681 711 1,243	. 6,107 1,030 1,223	8,574 	
16	Parsul Tank Pravara Biver Works-Oihar Canal	10,98,640 2,23,612 8,48,211	1,061 847 58	10,40,446 2,19,419	89.0	75-0 4•75 21•0	46,288 2,593	5,000 1,500	24·37 25·87	24·92 1·61	1,106 227	1,148 363	10,478	11,261 1,897	9,708	20 1,553 538	1 Approzimate figures.
39	Bhatodi Tank	3,78,278 2,10,500		8,30,249 8,79,707 2,01,422	19°0 4°ô0	5.60 17.0	23,724 15,126	14,763 12,124	24·29 21·95	83-60 6-08	1,870 2,096	1,544 1,698	5,135 7,363	7,738	28,766 12,281		
21	Kásurdi do Shireuphal do Bha'dalvádi do	45,590 2,22,282	2,141	45,590 2,23,703		1•73 12•50	10,700 597 4,500	2,600 478 2,500	15·28 18·14 15·24	8-99 4-43	1,948 ¥ 209	1,420 1 177	10,079 309 1,304	9,806 517	4,257 369	5,549 148	
23 24	Koregaon do	2,28,724 42,049	185	2,27,414 39,189	3.75	9.75	8,000 Not ku	2,400	14·28 23·10	8·28 2·63	534 587	299 891	745	2,581 850 1,028	3,196 1,687 730	615 887 298	
26 26	Upper Man River Works	8,34,927 59,448 4,44,531	10 49	8,31,103 59,429	27*50 . 10*25	2*0	17,882 3,813	14,476 3,624	21·70 81·76	10-39	1,470 1,480	1,459 1,541	5,136 6,660	4,338	8,953 1,938	485 4,978	
27 28 29	Yerla River Irrigation Works	* 7,30,073	7,641	4,29,562 6,86,244 57,443	17-50 28-60 6-50	6°50 4°0	8,443 11,284	7,628 10,680	20-18 29-40	4·33 8·16	1,238 2,139	1,294 2,386	6,775 9,708	6,036 7,579	4,239 23,752	1,797 	
30	Maini Tank	3,90,492 1,68,420		8,89,910 1,68,707	9·25 5·50	7*68 2·25	1,871 4,876 5,570	1,478 4,625 3,417	20·02 14·48 17·87	4.63 4.21 Not	844 1,149 80	405 1,280 19	2,039 5,606 289	1,442 8,988 289	874 3,837 566	568 161 377	
81 32	Nilgund do	9,238	••••	9,027 9,279	•••••	Irrigator's channel.			28.53	known,		<b>4</b> 337	.: 1,987	1,987	25 236	-25 1,751	Aores on which
83	Dámbal do	64,906.		en 000								( 172		-			consolidated assessment is
34 35	Medleri do	81,705	• •	63,980 81,392		8•27 5•64	4,595 1,916	4,525 1,052	12.08 8.29	1·88 0·44	133 129	¶ 148 187	} 2,892 494	2,104 505	918 835	1,186 	levied, § See foot-note to
36	Asundi do	<b>3,</b> 49,407 80,485	12,536	1,67,598 74,995	9°0	4.86	2,851 1,800	2,188 1,800	19·74 13·49	5-49 1-86	914 142	924 \$ 211	2,546	8,020	1,667	1,333	Statement II A.
87	Mávinkop do	31,817	••••	80,817		Irrigator's channel.	872	617	No gauge.			¶ 185 ¶ 492	f 1,012 1,017	1,358 1,017	909 101	449 D16	
		63,84,485	25,223	61,50,840	203-35	202.85	195,469	103,922	••	 	19,545	19,167 ¶ 1,167	08,925	92,711	1,14,573	21,862	
89	PROVINCIAL. Gokák Canal	* 19,77,878	18,395	11,94,876	14.62	26*55											
		3,09,31,474		2,58,23,911	642.21	561.50	18,668	6,170	13.90	34.19	4,159	4,363	17,067	16,756	5,662	11,094	
			0112000	-100,00,011	042.21	001-00	885,342	315,694	23-18		73,990	84,237 ¶1,157	5,93,737	<b>5,63,48</b> 2	3,50,926	2,12.856	

xxxix

# PART I.

# MAJOR WORKS.

### PROTECTIVE IRRIGATION WORKS.

#### (1).—NIRA CANAL.

On the 31st March 1894 the culturable area commanded by the distributaries in operation was 183,862 acres, the same as in the Gross, culturable and irri-

gable areas. It given by Government, an alteration in the figures in Statement I—A. becomes necessary. The gross area commanded by complete project is 274,447 acres. The culturable area under command of the complete project is 227,670 acres. The irrigable area, or in other words the irrigating capacity of the work, ascertained from the maximum discharging capacity of the canal and an assumed duty

of water, has been estimated at 56,640 acres, vide paragraph 28 of the Nira Canal printed report. This is therefore entered as the area irrigable by complete project. The existing distributaries are able to carry more than the full discharge of the canal, and, therefore, the irrigable area at present is the same as for the complete project. The construction of the two end distributaries, *i. e.*, Nos. 60 and 61, would increase the culturable area to the maximum, but would not increase the irrigable area.

During the year no fresh area was brought under command, though the head regulators of three distributaries were enlarged to accommodate increased irrigation.

¥	ert.		Kharif.	Rabi.	Total.	Water-rates assessed.
			Acres.	Acres.	Астев.	Rs.
1889-90		•••	9,819	12,111	21,930	24,688
1890-91		•••	8,920	7,993	16,913	36,226
1891-92	•••		9,595	19,268	28,863	66,390
1892-93	•••		11,104	7,142	18,246	60,036
1893-94	•••	•	13,556	10,947	24,503	83,703
1894-95	•••		.12,349	16,021	28,370	90,864

2. The total area irrigated during the year was 28,370 acres. The following table gives the figures for the last six years :--

3. The total area irrigated was 3,867 acres more than in 1893-94. The kharif season showed a decrease of 1,207 acres, chiefly due to reduction in area of sugarcane crops. The rabi season showed an increase of 5,074 acres, due to the scanty rain during the rabi season in this district.

4. The excess of the measured area over that applied for, as shown in the following table, was 7,398 acres. The difference is due to the fact that cultivators are in the habit of entering in their applications only the minimum area they can be charged for, and irrigating generally much more. Measures are being taken to check this:

в 1340—1

## (1) .--- NIRA CANAL.

<del></del>	Season and ;	years,		Applied for.	Irrigated.	Difforence.	Percentage of difference on area applied for
	Kharif	•		Acres.	Acres.	Acres.	
1893-94 1894-95	484 	•••	•••	11,629 11,039	13,556 12,349	1,927 1,310	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
1893-94 1894-95	Rabi.  	•••	•••	7,113 9,933	10,947 16,021	3,834 6,088	<b>57</b> 7 6 8 8
•	m-4-1	<b>∫</b> <sup>1893-94</sup>	•••	18,742	24,503	5,761	30.74
	Total			20,972	28,370	7,398	35.28

Rainfall. 5. The rainfall during the year was very scanty in the rabi season and compares with the last two years as follows :--

	Year	'8 <sub>a</sub>	Kharif.	Rabi.	Total
đ			Inches.	Inches.	Inches.
1892-93		***	 21.34	10.67.	32.01
1893-94		•••	 10.20	5-63	· 15·83
1894-95	***		 13.62	4.13	17.75

Norz.—The kharif and rabi rainfall 13.62 and 4.13 shown in the above table is correct. The fall of 9 cents and 1.60 was through oversight not included in the figures shown against Nira Canal in Irrigation operation Statements for first half of October 1894 and first half of January 1895, respectively, and the comparative Statement of Irrigation and Rainfall for 1894-96.

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

	Stations.					1894	-95,			Aver for 10	age Venra	Aver for 5	rage Veace
•		``	Kharif,		Rabi.		Total.		from 18t <b>4-93</b> .		fro		
				In.	c.	In.	c.	In.	c.	In,	c.	In.	C.
Pimpra	***	*** *	•••	12	26	4	96	17	22	20	77	18	39
Wadgaon	•••			12	40	3	63	16	03	20	63	20	91
Pandhara	•••	•••			84	2	66	18	50	20	68	20	70
Bárámati		•••	•••	12	99	3	72	16	71	20	19	20	14
Sansar	***		•••	13	88	3	50	17	38	21	43	20	71
Haturna	•••	***	•••	16	40	3	92	20	32	*21	38	22	37
Nimbgaon Bávda	***	•••	** •	13 11	44 75	6 4	61 03	20	05 78	*19 +16	51 82	18 +16	82 82
Davua -	***	***	•••									140	
		Total	•••	108	96	33	03	141	99		•	158	86
		Average	•••	13	62	4	13	17	75		•	19	86
Virwadi		•••	•••	11	55	3	14	14	69	19	20	18	40
Indápur		•••	•••	12	15	4	-54	16	69	22	51	18	00

• 8 years. + 3 years.

6. The first flood in the Nira river occurred on the 15th July, and Replenishment. Replenishment. Water was not drawn off from Bhatghar reservoir until the 10th November 1894. Water was stored suc-

cessfully to a level of 3 feet above weir crest, giving a storage of 4,300 millions of cubic feet, and proved largely in excess of requirements.

7. The monthly average discharge at head of the canal is given below. The first column shows the average struck on the

figures correspond with those reported in the monthly statements of irrigation, while the second column gives the mean average discharge for the month ascertained by dividing the total quantity of water by the full number of days in the month :--

	Months.		Average actual discharge taken on number of days.	Mean discharge taken on full number of days in month.
April		•	162	162
May			184	142
June			181	151
July			246	199
August .	•••		308	248
September	•••		245	225
October	···· ·		257	223
November			247	247
December	•••		393	380
January		•	250	228
February	•••	***	230	147
March	•••	•••	186	186
Mor	thly average		239 .	211

Working Expenses. 8. The working expenses, including direct and indirect charges, amounted to Rs. 53,588.

With 96 miles of main canal in operation, this gives a rate of Rs. 558 21 per mile, and it includes the maintenance of 132 miles of distributaries. The cost of maintenance per acre irrigated was less than last year, the rate being Rs. 189 against Rs. 253 and Rs. 322 of the two previous years. The working expenses included a sum of Rs. 1,770 for special repairs, which consisted in 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. This charge will appear again next year and perhaps in the year following, and by that time all these leaky places will have been made perfectly sound.

9. The gross revenue from all sources amounted to Rs. 92,709, consisting Gross Revenue. sources. The rate of assessment thus works out at Rs. 3.20 per acre against Rs. 3.42 of the previous year.

Deducting Rs. 53,588 for working expenses, and Rs. 33 for remissions sanctioned during the year, from the gross revenue Rs. 92,709, the net revenue was Rs. 39,088 or Rs. 16,014 more than that of the previous year.

10. The expenditure on plantations was Rs. 1,232, and receipts amounted to Plantations. Rs. 548. The trees were not counted during the year.

11. The cost of measuring the irrigated area was Rs. 1,844 giving a rate Cost of measurement. of 1 anna per acre against 1 anna and 4 pies in the previous year.

12. The figures in Statement I-E, showing the duty of water during the kharif and rabi seasons, show merely the average of all

Duty of water. sorts of crops actually irrigated per cubic foot of dis charge at the head of the 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.

Period taken.	Average dis- charge of head, less waste.	Actual area irrigated,	Crops irrigated,	Duty.
10th December 1894 to 10th January 1895.	323 cubic feet per second.	17,383	Rabi, perennial, 8 months kharif, 4 months kharif.	54
1st to 28th February 1895.	147	5,538	Perennial, 8 months kharif.	38

The duty of the whole discharge at head of canal was taken for certain periods in the rabi and kharif seasons, the results of which are as follows :---

During these periods the area under irrigation was very carefully recorded and the results arrived at may be depended on.

The supply in the second period was practically for perennial crops, chiefly sugarcane. The low duty is due to some of the sugarcane being situated at a great distance from the head, the loss by leakage in the canal being very great. As long, however, as the supply is in excess of the demand, there is no object in checking the perennial irrigation in the lower reaches of the canal. Every endeavour will be made to develope this class of irrigation as close to the head as possible and so increase the duty of water.

13. During the year special experiments to ascertain the quantity of waterconsumed by sugarcane crops were carefully carried out, a crop conveniently situated near the head of a small distributary being chosen for the purpose. Two days before water was required for the crop, the cultivators gave notice to the sub-divisional officer, who then arranged to be present during the time of watering. The supervisor was present at three-fourths of the total number of waterings, and the remainder were watched by an intelligent Inspector. At each watering the total quantity of water used was accurately gauged by means of a carefully constructed triangular notch at the field head, the supply being kept constant by means of the head sluice of the distributary. No other crops were allowed to take water during the time the one under experiment was being watered. Similar arrangements were made on other distributaries. The results of these experiments are tabulated below.

Ar und comm	ler	Number of waterings.	Total quality of water given,	Average watering.	Period of irrigation.	Duty per cubic foot at field,	Outturn.
A.	g٠		Cubic feet.	· .	Days.	Acres.	Lbs.
1	18	24	270,216	11,259	314	145	11,280
1	0	34	214,835	6,319	340	137	5,850

The outturn of both the crops was abnormally low.

Experiments of this nature will be repeated.

14. The duty of water passing down five principal distributaries was obtained during the rabi season by daily gaugings. The period of observation was from 15th October to 28th February and the results are here given.

Number of distributaries.	Quantity of water passed between 15th (wtober 1894	• Area	Duty of water for	ים	TAILS OF	BOPE WAT	kRAD.	Na. of
A DED Der Of districturies.	to zeth February 1895.	Irrigated.	a base of 136 days.	Perennial.	Eight monthe.	Rubi,	Total.	daye open.
Distributaries No. 8 , No. 13 , No. 16 , No. 54 , No. 57	17,380,807 39,542,400 55152 800	Aores. 417 316 388 784 979	Acres. 227 336 262 235 135	Acres. 190 59 42 96 116	Acres. 4 2 14 120 117	Acres, 223 255 332 568 746	Acren. 417 316 388 784 979	77 62 77 70 12

15. The total area under command was 183,862 acres, and of this 6.7 per cent. was irrigated during the kharif season and 8.7 per cent. during the rabi season.

16. The most noticeable feature of the year was the large area of rabi irrigation, the cause being plentiful rain favourable for

General remarks. sowing operations and scarcity afterwards. The eight and four months' kharif was rather less than in the previous year, and the perennial irrigation, which promised to increase so largely, received a severe check, owing to the poor outturn obtained and to the low market rate for molasses. There were various reasons for this; in several cases unsuitable soil irrigated for the first time kept the cane stunted, and in others the cultivators were new to the sort of irrigation required. The groundnut area, as anticipated, was less than last year, being altogether 1,568 acres.

During the year the depth of water admitted into the canal was 7 feet, and the banks stood well, except in the weak and leaky places near Limbodi and Kurra, which are now being well strengthened by means of the puddle hearting, extending from full supply level down to firm soil. An improvement in this puddle has also been made by means of an addition of  $\frac{1}{3}$ rd part of fine sand, which seems to prevent cracking when the canal is dry.

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

#### (2).—MHASVAD TANK.

2. The lowest level reached by the water was R. L. 1919.70 on the 2nd June, and then the tank commenced to fill. On the 2nd

Replenishment. October water began to flow through the cut, which had been made in the waste weir to prevent danger of slips in the dam, and the R. L. of which was 1931.64, and continued flowing until the 28th November.

3. The area irrigated during the year was 4,226 acres (of which 1,207 were

Area irrigated. Area applied for was 3,533 acres (kharif 1,037 and rabi 2,496 acres), or 693 acres less than that actually measured. The difference is about 20 per cent., and is due to the cultivators being ignorant of the areas of their fields.

4. There was no increase in water-rates during the year. The assessment on

Gross revenue. Gross revenue. from all sources was Rs. 16,134, against Rs. 22,490 of the last year.

Comparison with previous years. 5. The figures for the previous years, since the opening of the canals, are given in the following state-

Years.		Kharif.	Rabi,	Total.	Water rate assessment.	Gross Revenue from all sources,	Working expenses.
•		Acres.	Acres.	Acres.	Rs.	Rs.	Rs.
1886-87 1887-88 1888-89 1889-90 1890-91 1891-92 1892-93 1893-94 1894-95	••••	617 1,717 2,965 4,074 4,081 3,544 3,561 3,907 1,207	727 2,144 3,139 2,718 3,025 4,760 1,436 1,376 3,019	1,344 3,861 6,104 6,792 7,106 8,304 4,997 5,283 4,226	1,030 5,897 12,733 14,969 13,541 25,457 19,997 21,492 13,869	1,8256,88312,87516,32714,24126,10420,61322,49016,134	11,812 15,618 13,269 12,285 12,729 12,633 15,121 22,060 28,460

There was a decrease of 2,700 acres in kharif and increase of 1,643 acres in rabi during 1894-95, as compared with the previous year. The decrease in kharif was due to the lowering of the water-level in the tank, by opening a portion of the waste weir in order to facilitate the remaking of the river portion of the dam, which work was in progress in the monsoon of 1894. The increase in the rabi area was the result of unfavourable rainfall. The incidence of waterrate per acre was Rs. 3.28, against Rs. 4.07 of the previous year.

6. The rainfall over 480 square miles of catchment area of the tank was Tank supply. June to 31st October 1894 was 18:36 inches, which gave 20,474 millions cubic feet of water on the catchment area. The run-off is calculated to have been 0:098 of the rainfall from 1st June to 31st October 1894, and 0:103 of the rainfall from 1st June to 2nd October, on which date the waste weir began to overflow. The supply in the tank at R. L. 1931:64 (cut in waste weir), or 15:94 feet above the sill of the canal sluice was sufficient for the irrigation of about 5,000 acres up to 31st March 1895, without calculating on further rain.

7. The working expenses, including direct charges, amounted to Rs. 28,460.

Working expenses. The expenditure on maintenance and repairs amounted to Rs. 5,892. The length of canals, branches and distributaries being 94 miles, this represents a charge of Rs. 62.69 per mile against Rs. 80 of the previous year.

Measuring charges.

8. The area irrigated was measured at a cost of Rs. 610, or Re. 0-2-3 per acre against Re. 0-3-10 of the previous year.

Duty of water.

9. Special experiments to determine the duty of water per acre of different crops were made, and the result was as under :---

Number of Plot.	Name	e of Crop.		Quantity of water required for one Acre to mature the crop.
				C. feet.
1	Sugarcane	•••		282,426.07
2	Wheat Jôd		•••	40,411 86
3	Wheat			47,422.36
	Barley			36,522.00

Plantations.

10. At the end of the year, the numbers of trees above and below 5 feet in height on this work were :---

				Above 5 feet.	Below 5 feet
Bábul	•••	•••		9,545	9,079
Nimb				3,046	1,174
Mango		•••		419	366
Tamarind		•••	•••	14	17
Chandan	4'9 9		***	4	12
Nimboni	***				10
	444			497	478
Bori	***		•••		
Guava	•••	***	***	24	12
Miscellane	ous	• • •	•••	2,146	737
				15,695	11,875
		1	otal	27,5	70

There was no expenditure on plantations, except for renewing aloe fencing in places, which cost Rs. 28. The ground along the channels being chiefly muram, the plantations are not generally in a flourishing state.

11. The evaporation could not be ascertained, as the water in the tank Evaporation and absorption. was allowed to pass through the cut in waste weir and canal to ensure the safety of the dam.

12. The particulars in regard to the leaks that occurred in the dam, and the steps taken to prevent the dam being carried

General remarks. The work of remaking the affected portion of the dam with better material and constructing two drains from centre of the dam to rear slope, in order to prevent accumulation of water, was completed in March 1895. The cut in the waste weir, 6 feet in depth, is to be raised by 2 feet every year, and the work is in progress.

#### PRODUCTIVE PUBLIC WORKS.

## (5),—HA'THMATI CANAL.

The rainfall during the year under report was 50.74 inches in the kharif and 0.21 inches in the rabi season, against 48.94 and Rainfall. 2.05 inches, respectively, during the previous year. The average of the last five years was as follows :----

						J.M. UV3.		
Kha Rab			••	•••	•••	33 2 <b>0</b> 0 62		
Tran	1	•	**		***	0 04		
Area irrigated.	. 1	2. table be			irrigated se of 1893		rasted in	the
•			•	Kharif	. Rabi	Total.		
				Acres	. Acres.	Acres		
1893	3.94		• • •	1,259		3,701		
		•••						
1894	7-22			1,797	2,402	4,199		
Assessments.		3.	The a	ssessm	ents were	as follows	; :	
	•			Kharif.	Rabi.	Total.		
				Rs.	Rs.	Rs.		
189	3-94			4,069	5,019	9,088		,
1894		•••	•••	5,637	4,900	10,537		

4. Although the rainfall was nearly the same as in the previous year, the total area irrigated exceeded that of the previous year by about 500 acres. The increase is wholly under kharif, and seems to bear out the remark made in last year's report that it is not the rainfall alone, but also the growing appreciation on the part of the cultivators of a regular and steady supply of water, to which the improved results are due. There was a sufficient supply available in the canal and there was no difficulty in complying fully with the demands of the cultivators.

Comparison with previous 5. The following table shows the rainfall, areas iryears. rigated, and assessments from 1888-89 to 1894-95 :--

	RAINFALL,					AREA.		Assessment.			
	Year	3.		Kharif,	Rabi.	Kharif.	Rabi.	Total,	Kharif.	Rabi.	Total.
				Inches,	Inches.	Acres.	Acres,	Acres.	Rs,	Rs.	Rs.
888-89	•••	•••		13.00	2.17	3,010	1,457	2,467	3,200	2,018	5,218
1889-90	•••	•••	••••	27.89	0.12	909	1,441	2,350	2,809	2,854	5,663
1890-91	•••	4+#		<b>22·11</b>	0.28	1,266	2,500	3,766	8,727	4,947	8,674
1891-92	•••	••••		22.46	0.22	1,367	J <b>,</b> 349	2,716	4,074	2,641	. 6,715
1892-93	•••	•••	••••	44.60	01.0	387	2,341	2,728	1,126	4,698	5,824
1893-94	•••	•••		48.94	2.05	1,259	2,443	3,701	4,069	5,019	9,088
1894-95		•••		<b>5</b> 0·70	0.21	1,797	2,402	4,199	5,637	4,900	10,537

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

			Kharif,	Rabi.	Total.	
Applied for Irrigated	•••	•••		1,820	8,332	
Irrigated		•••	1,797	2,402	4,199	

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

8. The miscellaneous revenue realized during the year amounted to Rs. 1,196 against Rs. 1,169 in the previous year.

9. The areas irrigated were measured by the ordinary establishment employed on the canal (charged to Revenue establish-

irrigated, against 7 pies per acre during the previous year.

10. The average water rate per acre irrigated during the year was Rs. 2.50, as compared with Rs. 2.46 during the previous year.

	Years,		Extensions and Improvements.		Establishment including in- direct charges.	Tools and Plant.	Total.
		······		Rs.	Rs.	Rs.	Rs.
1893-94	** 9			4,269	1,743	. 13	6,025
1894-95	***		•••	4,331	1,750	6	6,087

Working expenses. 11. The working expenses of the year, as compared with those of the previous year, were as follows :--

The rate per acre irrigated was Rs. 1.45 for the year under report against Rs. 1.63 in the previous year, which shows a decrease of nearly 18 per cent. There would have been a slight reduction in the working expenses but for some special repairs which were executed at a cost of Rs. 144. The average amount spent on silt clearance from the commencement, including the year under report, was Rs. 576, or Rs. 11.3 per mile on a length of canal and distributaries of 51 miles,

12. No reliable data can be given regarding the duty of water. The canal has been gauged for a series of years, and the results

buty of water. show 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. The average discharge gauged at the head during the kharif season was 62 cubic feet per second. Out of this only about 31 cubic feet per second reached the first distributary. Assuming the quantity consumed during the kharif season to have been 30 cubic feet per second, the duty was 58 acres per cubic foot of discharge against 36 acres in the previous year. This was due to increased irrigation. In the rabi season the average discharge at the head for the year was about 62 cubic feet per second, the area irrigated being 2,402 acres. Allowing the same percentage for loss by absorption, the result is 77 acres per cubic foot as against 65 acres for the previous year.

13. Sugarcane cultivation is increasing near Parántij. The area under this crop during 1893-94 was 17 acres, and during the year under report 38 acres.

#### (6),-LOWER PA'NJHRA RIVER WORKS.

These works have been in operation for the past 23 years.

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

3. The source of supply of water to the irrigation is principally the Sources of supply. Fanjhra river. If the natural supply of the river falls

Sources of supply. short of requirements, it is supplemented by the Mukti tank storage. During the year under report the river supply was deficient in the hot season. The tauk supply was therefore let out for 50 days from 18th April to 6th June 1894. In the monsoon and cold weather succeeding it, the river supply was sufficient.

4. The available storage in the tank at the commencement of the year was Tank supply. 227.56 million cubic feet, which, after delivering water

for irrigation for 50 days by a daily discharge varying from 25.20 to 4.59 cubic feet per second, went down to 132.94 million cubic feet before the tank had its first replenishment on the 8th June. The highest level reached by the water was on the 27th October when the quantity of water impounded was 309.94 million cubic feet, or 32.46 million cubic feet short of the full contents of the tank, viz 342.4 million cubic feet. At the close of the year the storage in the tank was 237.56 million cubic feet.

5. The area irrigated during the year amounted to 2,790 acres, of which 1,762 Area irrigated. Area irrigated. 1,028 acres in the dry-crop land under the survey

settlement.

6. The mamul bagayat irrigation is detailed in the following table by villages and by seasons :---

Numler		Villages.		Area under settlement.	AREA IRBIGATED. 1894-95.					
	•			•		•		Kharif.	Rabi.	Total,
				•	•	•	-			Rs.
1	Dhulia	•••	•••	•••	•••		311	209	102	311
2	Nimkhedi	•••	•••	•••		••	151	124	25	149
8	Japi•	•••	•••				147	129	18	147
4	Nahálod	•••	•••	•••	•••	•••	279	186	. 93	279
5	Kaothal		•••	•••		•••	167	95	72	<b>1</b> 67
6	Mandal	•••	•••	•••	··· ·		238	145	93	238
7	Mudhi	•••	•••	•••	•	•••	124	96	28	124
8	Betávad	•••	••••	•	•••	•••	347	.245	102	347
·	•					ļ				<u> </u>
	•				Total	•••	1,764	1,229	533	1,762

This is the same as was irrrigated last year. Two acres were lying fallow at Nimkhedi.

7. The first five villages in the above table are in Dhulia Táluka, where the revision settlement has not yet been declared. The areas are according to the old settlement. Four of these pay the enhanced water-rate to the Irrigation Department for the benefit of the ensured water-supply from the Mukti Tank constructed after the settlement. The fifth is a Jághir village. The question of the operations of the revision survey at the 6th and 7th villages, in the table in paragraph 6, still remains unsettted. At Betávad, the last village in the table above referred to, water-rates on káyam bágáyat land are directly credited to the Irrigation Department, as well as the irrigation share of consolidated revenue on the thal land.

в 1340—3

Number.	Villages.					Kh	wif.	Ri	Ribi. Total,		<b>s</b> ], '
		VIII	ages.			1893,	1894.	1893.	1894.	1893.	1694,
										Rs.	Rs.
1 2 3	Mahindle Dhulia Kimdana	•••	 	•••		7 9 1	6 6 	<sup>.</sup> 2	3	7 11 1	6 9
<b>4</b> 5	Nimkhedi Japi	•••	•••	•••			2 3	7	1	7	3
6 7	Nahálod Kaothal	•••	•••	•••	•••	14	30	119 4	61 4	133	91 4
8	Mohadi	•••	•••	•••	•••	42	76	255	194	4 297	270
9 10	Mandal Mudhi	***	•••	•••	•••	45 86	•49 88	96 75	73 55	141 161	$122 \\ 143$
11 12	Bodarda Walkheda	•••	•••	•••	 	82 154	13 118	*32 135	37 128	64 289	50 246
13 14	War Betávad	•••	•••		•••	3 71	2 70	 39		3 110	2 74
15	Padleavad	•••		•••		7		3		_ 10	
				Total		471	463	767	565	1,238	1,028

10. The following table shows the irrigation of dry-crop land in the villages under command :--

This irrigation is assessed under the crop rates sanctioned from time to time. The present scale of rates will be found in Statement I.-F. The areas under this irrigation fluctuate according to the nature of the rainfall, and the inclination and means of the irrigators. During the year under report there was a decrease of 17 per cent. in the areas irrigated, as compared with the previous year with only 1 per cent. of increase in the rainfall. The monsoon dry-crop and the eight months' crops have decreased in the year. Similarly the rabi area has also decreased on account of timely rainfall: a little more than half of the previous year's wheat areas required water.

11. The total rainfall during the year was 18.62 inches, gauged at Rainfall. the dam site, against 18.48 inches of the previous year, and 22.83 inches the average of 21 years. The

year's rainfall by seasons was as under in comparison with the fall of the previous year :--

•	Year.		Kharif.	Rabi,	Total.	
			In. cents.	In. cents.	In. cents.	
1894-95	•••	••	16 82	1 65	18 47	
1893-94	•••	•••	14 68	3 55	18 23	

On the whole there was nearly 1 per cent. increase, which was in the kharif season, and consequently the eight months' and monsoon areas have decreased. The rabi rain of the year was only  $\frac{1}{3}$  of the rabi rain of previous year, but it fell in October and made the wheat crop independent of the canal water.

Classification of area irrigated.

1

12. The following is a classification of the areas irrigated in dry-crop land during the year, according to the rates levied :---

#### (6) .- LOWER PA'NJHRA RIVER WORKS.

		Kharif.		Rabi.		Total.	
		1894,	1893.		1893.	1894.	1893.
1 Perennial 2 Eight months 3 Four do. 4 Monsoon 5 Hot weather	··· ·· ···	234 1 17	163 273  23 12	· 10 3 552 	 767 	211 237 553 17 10	163 273 767 23 12
	Total	463	471	565	767	1,028	1,238

Only 290 acres of wheat were irrigated against 522 acres of previous year.

Gross Revenue. 13. The year's assessments' amounted to Rs. 17,759 as under :---

			Ks.
On old irrigation or káyam bágáyat	land_		13,036
On new irrigation or dry-crop land			4,193
Miscellaneous		•••	530
	,		,
		Total ·	17,759

against Rs. 17,847 of the previous year. The small decrease of Rs. 88 was due to falling off in the dry-crop land irrigation.

14.	The average rates	per acr	e, were :	<u> </u>			٠		
		•				Rs.	a.	p.	
	Old irrigation	•••	•••	•••	•••	7	6	5	
	New irrigation	•••	•••		•••	4	1	3	

The new irrigation has paid more than last year owing to the increase in the highrated perennial crops.

15. The remissions during the year amounted to Rs. 104, on account of the penal rate levied upon the káyam bágáyat land in the villages of Mudhi and Mandal, which was degraded to jiráyat. The irrigators had no knowledge of the degradation and the penal rates charged were remitted.

16.	The realizations amounted to :-	- ·		Rs.
	Water-rates on old irrigation Irrigation share of land revenue	•••	•••	6,248 6,788
•	Water-rates and new irrigation	Total	•••	13,036 4,872
	Revenue from other sources	Total water-rates	•••	17,908 530
	•	Total	•••	18,438

#### 17. There were no outstandings of revenue.

Areas applied for and 18. The following table contains a comparison of the areas for which applications for water were received and the areas actually assessed:---

	-	Kharif.	Rabi.	Total.
Applied for Assessed	 Difference	   Acres. 417 463 46	Acres. 478 565 - 87	Acres. 895 1,028 133

The difference is due mostly to the jiráyat portions of káyam bágáyat lands in Mudhi and Mandal, which are watered without applications. The cause of this has been explained in previous reports.

19. The cost of measurement of crops irrigated in dry-crop land during Messuring crops. The year was Rs. 41-12-8 against Rs. 55-6-3 of the previous year, and the rate per acre 8 pies against 9 pies.

20. The working expenses of the year, including refunds of revenue Rs. 1,883, amounted to Rs. 8,569 against Rs. 4,952 last

year. The increase was due to the charge for construction establishment now apportioned equally on all revenue works in the district in proportion to the outlay on works and repairs on each, and a large refund of revenue which was assessed at penal rate on the irrigation at Mudhi and Mandal referred to in para. 15 above. The establishment charges have increased on this work but there has been a corresponding decrease on the second class Revenue works, the charge on which used to be heavy under the old method of apportionment. The minimum establishment is maintained, and there is no margin for reduction.

21. Special experiments were made during the year to find out the duty Duty of water. village of Nahálod. The results are given below :--

Village.	Sarvey Number.	Crops irrigat- ed.	Aren irrigated.	Number of watering given.	Total quantity of water given.	Total quantity of water used per Acre.		Remarks.
	 		·			·		
Nabálod {	170 132	Pea. Wheat.	A.g. 012 037	2 1	10,692 16,092	35,640 17,397	- 298 611	Owing to raiu one watering sufficed.

22. The following figures represent the calculated loss by evaporation and absorption from the Mukti Tank, after making deduc-. tion for leakage gauged below the dam :--

Kharif Season— April to June 1894—66 days		1.44 Feet.
Rabi Season— October 1894—19 days		·0127 "
November—December 1894 and Japuary 1 92 days		1.07 "
Hot Season— February and March 1895—59 days	•••	1.22 "
Total Average daily loss during the year	•••	3.74 Feet 0.0159 "

Plantations. 23. The number of trees on this work at the end of the year was 4,126.

290 full-grown babul trees and 4 tamarind trees were sold by auction, and 13 plants of sorts destroyed by white ants.

The expenditure on plantation during the year was Rs. 229, which raises the total expenditure to end of the year to Rs. 7,039.

#### (7).—KADVA RIVER SYSTEM.

The Wághad Tank has been for the last ten years in partial operation. As Replenishment, Wághad Tank. Kenter the waste weir has not been constructed as yet, the full supply level of the water rises from 15 to 18 feet

Tank. short of the designed full supply level. At the close of the monscon a temporary bank is thrown across the waste weir channel, and from 5 to 8 feet additional storage above the level of waste weir can be obtained from the rain which usually falls in October.

2. From April 1st to June 1st, 1894, a period of 61 days, the tank was continuously drawn upon to feed the canals. The expenditure of water from the tank was 81.18 millions cubic feet. The flow in the river was 4.60 millions cubic feet. Thus during this period 86 millions cubic feet were used in watering 442 acres (vide Irrigation Operations Statement). The duty calculated on these data is 27 acres per cubic feet per second.

3. Of the 86 millions cubic feet, only 72 millions cubic feet passed into the canal, showing a loss of 14 millions or 16 per cent. in 14 miles, *i.e.* 266 cubic feet per second, or 019 cubic feet. per second per mile.

4. In the canal itself, experiments made in March showed that 41 per cent. was lost by evaporation and percolation. Deducting the loss by evaporation and percolation and 15.61 millions cubic ft. for tail discharge from the Ojhar Támbat Distributary to the Ojhar Támbat Canal, we have 26.87 millions cubic feet actually irrigating 359 acres on the Pálkhed Canal. The duty thus arrived at is 70 acres per cubic foot per second.

5. At the head of the Wadáli Canal the quantity of water derived from springs Wadáli Canal. between the Pálkhed and Wadáli weirs was 24:31 millions cubic feet. Deducting 36 per cent. for loss by evaporation and percolation, or 8.75 millions cubic feet, the remainder, 15.56 millions cubic feet, is the quantity of water utilized on 60 acres (of which 41 acres is the *thal* irrigation); the duty therefore is 20 acres per cubic foot per second. This result is not so good as on the Pálkhed Canal.

6. In the Ojhar Támbat Canal the quantity at the head was 16.07 millions Ojhar Támbat Canal. mainder, 11.41 millions cubic feet, is the quantity used on 83 acres, which gives a duty of 38 acres per cubic foot per second.

7. The tail flow of the Pálkhed Canal was all utilized and no water was Pálkhed Canal. are no complaints of insufficiency, the management may be regarded as good. The balance of water left in the tank on 13th June, when the sluices were closed, was 65.82 millons cubic feet, or sufficient for irrigating 433 acres of sugarcane on the Pálkhed Canal.

8. There was no replenishment to the tank during the hot weather. On the 4th July, after 10.19 inches of rain had fallen at Wá-

Replenishment. ghad from the beginning of the monsoon, the tank began to overflow, and the waste weir water continued to run until the 6th of October, when the temporary bank was begun. The water begins to flow in the waste weir channel at R. L. 110.00, at which level the storage is 197.64 millions cubic feet. The temporary dam brought the water level to R. L. 113.13, giving a storage, at the beginning of the new season, of 247.34 millions cubic feet.

9. By February 21st, 1895, the natural supply had fallen so low that it was necessary to supplement it from the tank, the discharge from which was at first 5 cubic feet per second, increased to 14 cubic feet per second from the 25th of March.

10. The duty for the rabi season is worked out for the Pálkhed Canal as follows :--

в 1340—4

Millions cft.

From October 15th to February 28th supplied by the river... 198-51 do. do. do. tank... 300

Total supply	201.51

11. The quantity of water flowing at the head of the Pálkhed Canal amounted to 215 millions cubic feet, and that received from the river, including Wághad Tank discharge, was 202 millions cubic feet. The difference of 13 millions cubic feet may be due to springs or flow through the sand at the river gauging site.

12. From 215 millions cubic feet, deducting 40 per cent. or 86 millions cubic feet for loss by evaporation and percolation, and 30.40 millions cubic feet, as the tail discharge of Ojhar Támbat distributary let into Ojhar Támbat Canal, the net quantity of water utilized was 98.60 millions cubic feet, irrigating 1,587 acres, of which 285 acres were under perennial crops.

The duty for the rabi season (including the watering of hot weather crops) works out therefore to 189 acres per cubic feet per second.

Taking the perennial duty at 70 acres, arrived at for the hot weather, the duty for rabi crops alone, excluding perennial crops, works out to 228 acres.

13. On the Ojhar Támbat Canal the quantity by the

				3	Millions cft.		
River Banganga was. Pálkhed Canal	•••	•••	***	•••	17·18 30·40		
•••••••••••••••••••••••••••••••••••••••		To	otal supply	••••	47.58		
			AL #				

irrigating 543 acres, the duty being thus 134 acres per cubic foot per second.

14. The quantity of water flowing at the head of the Ojhar Támbat Canal amounted to 48.75 millions cubic feet. The excess of 1.17 millions cubic feet is probably due to springs.

15. From 48.75 millions cubic feet, deducting 25 per cent., or 12.19 millions cubic feet, for loss by evaporation and percolation, the quantity of water utilized was 36.56 millions cubic feet, irrigating 543 acres. The duty for the season thus arrived at is 175 acres per cubic foot per second.

16. On the Wadáli Canal the discharge at the head amounted to 65.89 millions cubic feet, during the rabi season. Deducting 33 per cent., or 21.74 millions cubic feet, for loss by evaporation and percolation, the remainder, 44.15 millions cubic feet, was used for irrigating 590 acres, including the area under perennial crops, giving a duty of 157 acres per cubic foot per second.

17. The rainfall in the tank basin was 62.61 inches against the average 52.72 inches. Over the irrigated area the total, 27.83 inches, is in excess of the average, 25.37 inches, for the last 21 years.

The distribution according to seasons was :--

	Locality of gauge.				Rabi.	Total.	
			•	Inches.	Inches.	Inches	
Pálkhed		•••	••••	20.68	4.70	<b>25</b> -38	
Niphád		•••	•••	<b>23</b> ·83	6•45	<b>30</b> ·28	

The monsoon season was characterised by insufficient fall at the beginning and favourable rainfall at the end. At Pálkhed there was no rain after the 27th October. 18. During the year water applications for 2,547 acres were received and the area actually irrigated was 2,767 acres, the discrepancy being due to the approximate character of

the areas as given in the water applications. 19. The following table shews the area and assessment by seasons of irri-

gated land, exclusive of permanent bágáyat:-

	i k i	Areas.		Assessment,			
Canals.	Kharif.	Rabi.	Total.	Kharif.	Rabi.	.Total.	
······		· Acres.	Acres.	Acres.	Rs.	Rs.	Rs.
Pálkhed Canal Wadáli Canal Ojhar Támbat Canal		688 72 222	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

18	9	<b>1</b> -	9	5.
----	---	------------	---	----

20. The following table shows the average of the previous four years:-

•		Areas.		As5essment.			
Canals.		Kharif.	Rabi.	Total.	Kharif.	Rabi.	Total.
	•	Acres.	Acres.	Acres.	Rs.	Rs.	Rs.
Pálkhed Canal Wadáli Canal Ojhar Támbat Canal	•••• ••••	713 139 122	1,316 228 244	2,029 367 366	3,725 574 621	3,396 593 637	7,121 1,167 1,258
· .	Total •	974	1,788	2,762	4,920	4,626	9,546

The areas being nearly the same, the increase in assessment, due to increase in crops assessed at higher rates, is satisfactory.

21. The following table shews the areas of principal crops for the year Principal crops irrigated. Principal crops irrigated.

Name	of crop	s.		For the year 1894-95.	Average of five preceding years.	Increase.	Decrease.
				Acres.	Acres.	Acres.	Acres.
Wheat Groundnuts Gram Sugarcane	•••	••• ••• •••	•••	723 846 118 352	926 774 176 258	 72  94	203 58

22. The total area irrigated shows a decrease of 9 per cent. as compared with that of the previous year, but is almost the same as the average of the preceding four years.

23. The most noticeable features of the year are that owing to the favourable rainfall at the beginning of the rabi season and the subsequent attack of red blight, the irrigated wheat crops on the three canals are much less than in the previous year. There was however no diminution of the wheat area cultivated. The same remark applies to gram also. The increase in sugarcane on the Pálkhed Canal is the result of an anticipated rise in the market price of coarse sugar. The increase of 20 acres in sugarcane on the Ojhar Támbat Canal may be attributed partly to the same cause and partly to the development of irrigation at the tail of the canal at Sukana.

Cost of measuring crops. 1 anna 8 pies per acre. 24. The measuring of crops was carried out at a cost of Rs. 291 for 2,767 acres, which gives a rate of

25. The duty of water in the canals has been worked out in the remarks Daty of water. The ordinary method, it varies from 58 to 75 for

the kharif season and from 72 to 80 for the rabi season.26. Special observations were taken of the quantities of water required

for irrigating two fields of groundnuts and one of methi, and the results are given in the following statement:---

·····							,, -					
Canal or Distributary.		Name of crop.		Date.	Number of waterings.		Time re- quired for irrigation in seconds.	quired Length for of weir irrigation boards in in feet.		• Area irrigated.	Total cubis feet.	Remarks.
				3			5	. 6	T	•	9	10
Rharif season.						_				A. 8.		
•							L I		Į.		6,789-40	The discharges
Pálkhed Canal	••	Groundnu	t.	26th June 1894.	let	, <b>*</b> •	\$1,195	1	2-10	0 29	10.651-00	bave been cale culated by the
· Do		Do.	•••	8th October 1894.	Źnd	••	10,918	. 1	<b>3</b> ·50	0 29	14.173-00	formula
Po,	•-	Do.	••	14th Novem-	\$rdi	••	11,507	1	5 90	0 29	14,110 00	$D = \frac{214}{60} \sqrt{H^3}$
· ·				ber 1894,	-	•						per accord exa pressed in sume fact.
Total cubic feet required for maturity of cro	ired			•			1				\$1.608-40	Reduced La
Rabi season.		••		• • • • •				••	**	"		cubic feet per
Pálkhed Canal	•••	Methi .		30th Novem-	155	•	5,315	1	1-70	07	1,009-85	acre 43,5¥4.
Do		Do.		ber 1894. 14th Decem-	2nd	•		1	1.60	. 0 7	. 966-00	
Do				ber 1894. Soth Decem-	Srd			1	1.25	0 1	637-00	
	••			ber 1694.		••		-			661-00	
,	••		••	14th January 1895,	4th	••	5,623	1	1-25	07		
Do	••	Do.	1	5th February 1895.	5th	••	5,192	. 1	<b>1-50</b>	0.7	615-00	
Total cubic feet requ for maturity of crop			1								4,038-85	Do. 23,365 oubio
Rabi season.										]		lect.
Dikshi distributary		Groundnu	ıt.	12th Novem-	lst	••	6,237	3	1-90	0 19	8,789-02	
Do		Do.		1895, 4th Decem	2nd '		8,127	ź	3-00	0 19	4,003-50	
Total cubic feet required for maturity of cro		n-		ber 1894.			•				7.652.53	Do. 16.532 cubis
	·			. ****				"		! "	}	108.

Statement showing results of crop experiments during the kharif and rabi season of the year 1894-95, Pálkhed Canal.

Of these the groundnuts on the Pálkhed Canal required three waterings and those on Dikshi distributary two waterings only, the latter being irrigated in the rabi season. The methi crop had to be watered five times. The result of these experiments showed that the quantity of water needed to bring one acre of crop to maturity was 23,365 cubic feet in the case of methi, and in the case of gram varied from 43,594 cubic feet on the Pálkhed Canal to 16,532 cubic feet on the Dikshi distributary.

Evaporation and percolation from canal. 27. Observations were made in September, January, and March for ascertaining the loss by evaporation and percolation. The results are :--

				BE LOSS I	N CUBIC PBR MILE.		INTAGE O			
Canals,			Kharif.	Rabi,	Hot weather,	Kharif.	Rabi.	Hot weather.	Remarks,	
Pálkhed Wadáli Ojhar Támbat	•••	•••• ••• •••	.15	-53 -27 -20	·65 ·24 ·29	32 25 22	40 33 25	41 36* 29	*Experiment made in April 1835.	

28. The Pálkhed Canal was closed six times, and the Wadáli Canal five times for periods aggregating 27 and 21 days respectively. The Ojhar Támbat Canal was not formally closed, but

the canal runs dry when water is shut off from the Pálkhed Canal.

Plantations.

Gross revenue.

29. The total number of trees standing on the canals at the close of the year was 12,175. Of these the principal were as under :---

Na	mes of		Number of trees.	
Bábul Mango Nimb Moho		• • • • • • • • •	•••	9,573 912 481 634

The expenditure during the year was Rs. 240 from the revenue account.

Maintenance and repairs. 30. The usual works of maintenance and repairs were carried out during the year. No important work was undertaken.

31. The total assessment and the amount realized during the year are accounted for as under :---

	Rs.	8.	p.
Assessment during the year		8	0
Unrealized rabi assessment for the year 1893-94.	5.062	13	0 6
Unrealized balance from previous year was	2,026	0	6
Do. do. on Miscellaneous Receipts	69	9	11
	17,981	15	5
Deduct-			
Total realizations during the year	11,292	8	5
Balance unrealized	6,689	7	0

The above figures include direct receipts as noted below:---

			•		Rs.
(1)	Sale of Water	•••			3
(2)	<b>Receipts from Plantation</b>		•••		26
(3)	Do. from other Canal				243
(4)	Alluvial Galper land above	Pálkhed	weir for 18	94-95	41
(5)	Rent of Buildings	••• ,	***	•	5
				-	
					318

32. The total maintenance charges on the three canals and the Wághad Tank during the year amounted to Rs. 16,534, divided as follows :---

				Rs.
I.	Maintenance and Re	pairs	•••	3,506
	Establishment	•••	***	10,811
	Tools and Plant	• •••		144
IV.	Share of Collection C	barges	•••	551
<u>v</u> .	Indirect Charges	4 q e	•••	1,514
۷1,	Refund of Revenue	•••	•••	8
			Total	16,534

As compared with the previous year the increase is chiefly in establishment charges, due to balance of establishment being distributed on this head in proportion to outlay, *vide* Government Resolution No. 222 A. I.—1312, dated 17th August 1895.

в 1340—5

The indirect charges also show an increase due to large establishment charges.

# (8).—PRAVARA RIVER WORKS—LAKH CANAL.

1. The area irrigated during the year was 310 acres, of which 138 were under kharif and 172 acres under rabi crops. The total Area irrigated.

shows a decrease of 33 acres on the area of the last year. The area of kharif was 62 acres greater and the area of rabi 95 acres less than in the previous year. The increase in kharif is due partly to deficient rainfall at sowing time and partly to the increase in the area of perennial and 8 months' crops. The decrease in the rabi area is due to the favourable and heavy rainfall in October.

2. The following statement compares the area Comparison of area applied for and irrigated. applied for and irrigated during the year :---

· .	KHARIF.		RABI,		T		DIFFEBENCE LESS INEL- GATED.				
Year,		Applied for,	Irrigat- ed.	Applied for.	Irrigat- ed,	Applied for.	Irrigat- ed.	Kharif.	Rabi.	Total.	
			Acrés.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1894-95	***	•••	230	138	251	172	481	310	92	79	171

The area applied for but not irrigated is 35.55 per cent. of the total area applied for. Endeavours were made to lessen the possibility of such difference by promptly returning the applications to the applicants after sanction and by requiring daily inspection reports from the canal karkúns, and it is hoped that an improvement will be apparent in the current year.

water-rate assessments amounted to 3. The Water rate assessments. Rs.1,065 against Rs. 1,078 in the previous year. The details were :

Kharif		***	•••		721
Rabi	•••	•••	***	•••	344
				-	
	•		Total	•••	1,065
				<b>6</b> -1	

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

4.

The area irrigated per mile of main canal was kharif 6.00 and rabi 7.48 acres, and of main canal and branches was kharif 4.26 acres and rabi 5.31 acres. The high cost of maintenance per acre is due to this very small duty per mile of canal.

Comparison of area irrigated and revenue.

The following table compares the area irrigat, ed and the revenue derived during the past three years with those of the year under report :-

	Year.			Area irrigated.	Revenue from water-rates.	Remarks,		
				Acres.	Rs.	Rainfall from 1st April to 31st March- Inches,		
1891-92				508	1,509	17.02		
1892-93			•.	158	532	32.41		
1893-94		•••		343	1,078	27.17		
1894-95		•••	•••	310	1,065	26.71		

Water-rate per acre.

6. The incidence of water-rate per acre was Rs. 3.44 against 3.14 in the previous year.

7. The capital expenditure during the year amounted to Rs. 513, and was incurred in payment of compensation for land taken Capital account. up for distributaries.

Working expenses.

The working expenses amounted to Rs. 13,319 8 . as detailed below, as compared with Rs. 3,426 in the previous year :---

10

				Rs.
Maintenance and repairs		·•••	•••	2,142
Share of establishment	•••	***	•••	9,634
Tools and plant	•••	***	•••	116
Share of collection charge	res	•••	•••	78
Indirect charges	•••	•••	•••	1,349
		Total	•••	13,319
				dimension of the local distance of the local

The rate of working expenses per mile of main canal open was Rs. 579, and per acre irrigated Rs. 42.96.

The excess was due partly to special silt clearance and partly to the fact that while in former years the balance of establishment charges after the usual shares had been debited to the works for which capital and revenue accounts are kept was debited to those for which only revenue accounts are kept; in the year under report no charge was made for establishment on works of the latter class on which there had been no expenditure, and thus the amount charged to works of the former class was largely increased.

The duty per cubic foot per second of water admitted into the canal 9. was 3.98 acres in the kharif and 5.89 acres in the Duty of water. rabi season. That of water actually utilized was 4.26 acres in the kharif and 6.76 acres in the rabi season. This exceedingly small duty is due to the great length of canal compared with the area irrigated, the loss by leakage and evaporation per mile being nearly constant, whether the area irrigated per mile is large or small.

The total cost of measuring 310 acres during the year was Rs. 32, or 10. one anna and eight pies per acre against one anna and Costof measurement. four pies per acre in the previous year. The high cost is due to the very small areas for which water is taken by each cultivator.

The rainfall gauged at Malunja was 21.40 inches in the kharif and 11. 4.24 inches in the rabi season, total 25.64 inches, or Rainfall . 3.86 inches more than the average of the last five years. The rainfall in January and February 1895, not included in the above figures, was 1.07 inches.

The supply of water in the Pravara River was sufficient to meet the 12. requirements of the irrigators. In January 1895 a

River supply. temporary earthen bund 2 feet high was constructed

on the weir as usual to increase the back water during the hot weather of 1895-96.

Canal closure.

Plantations.

The canal was closed six times (for 38 days 13. altogether) during the year for silt and weed clearance.

14. At the end of the year the number of trees on this canal was 22,932. The numbers of principal kinds

were :---

Bábul	•••		16,098	Mellingtonia	•••	32
Nimbhara	•••	•••	49	Divi-divi	•••	18
Nimb	•••		1,447	Moho	•••	3
Bore	•••		586	Jámbhul …	•••	* 869
Sandal			83	Siras	•••	31
Bakan			55	Mango		635
Tamarind	• • •		14	Bamboo	•••	198

Miscellaneous 2,814.

The total number in the previous year was 17,483.

#### (9).—MUTHA CANALS.

#### On the 1st April 1894 the water at Lake Fife was 17.90 feet above the sills of Lake Fife. the canal sluices; the minimum level was reached on the 12th June, when the depth was 9.17 feet. The

water began to rise on the 13th June and the lake filled to overflowing on the 18th of that month. The highest flood ever recorded occurred on 21st July 1894, when the water rose to R. L. 249.52 or 5.45 feet above finished crest level. The flood of July 1891 rose to R. L. 249.17. The highest recorded previous to 1891 was in July 1882, when the water rose to R. L. 248.87.

The standards and planks were fixed on the weir by the end of September, and water was stored to a depth of 4 feet above the finished crest of the weir.

The draw-off from the storage commenced from the 25th October, *i.e.* 10 days later than in the previous year. On the 31st March 1895 the level of the water was 21.40 feet above sills of the sluices, or 3.40 feet higher than on the same date in 1894.

Assessments of revenue. 2. The assessments amounted to Rs. 2,47,954 as detailed below :--

					Rs.
Water-rates		•••			1,89,252
Sales of water			•••		2,530
Water-supply of towns			•••	• •••	94,760
Plantations	•••	•••			38
Water-power	•••		•••		6,000
Receipts from other can	nal produce	•••			1,353
Rents of buildings	-				152
Miscellaneous	• • •		•••		3,827
Irrigation share of enh the Mutha Canals i	n the villa	ges of V	Warza, Shiwn	a, and	·
Kondvé Dhawdi, Tál	uka Haveli,	as fer	Canal Return	VIII,	42
					2,47,954
	-				~,#1,00±

3. The area irrigated during the year was 10,082 acres, of which 7,562 Area irrigated. were under kharif and 2,520 under rabi crops. The total shows an increase of 1,823 acres on the area irrigated in the previous year.

The increase is chiefly due to increase in the area of monsoon dry-crops and rice, and also to deficient seasonable rainfall. An effort was made to induce the cultivators to try the cultivation of superior rice. Applications were received for nearly 500 acres, but when the time came for preparing the land and sowing, many of the cultivators held back, with the result that only 284 acres were actually irrigated. This was chiefly due to the people being doubtful about the supply. The crops that were grown exceeded all expectations both as to outturn and quality of the grain. The value of the crops was also much greater than anticipated. The outturn was on the average 14 khandis per acre, which for a rice crop anywhere is very fair. Arrangements have been made by the Agricultural Department for the supply of good seed, and it is hoped that the area will increase next year. The cultivation of rice during the monsoon, when the supply is only limited by the carrying capacity of the canal, will be of the greatest value. The area this year was small, but it proved that the supply was sufficient and the results generally were encouraging.

It is now intended to use the whole of the storage at Lake Fife for perennial and 8 months' crops. The only other class of irrigation will be that obtained during the monsoon. In addition to the discharge required for perennial crops during the monsoon, the canal can carry an average of 100 cubic feet per second. As this will be utilized for rice and monsoon dry-crops, it is anticipated that the duty will not exceed 100 acres to the cubic foot per second. The irrigating capacity is therefore 6,800 (for perennial and 8 months) and 10,000 acres (monsoon)=16,800 acres as entered in Statement II—A.

4. The revenue derived from water-supply of towns amounted to Rs. 94,760,

Water-supply of Towns. showing an increase of Rs. 1,251 on that of the previous year. This is chiefly due to an increase in the supply to the Military Department. 5. The improvements to the Poona water-supply works referred to in last year's report were practically completed by the end of

New works. March. Two of the new filter beds were in working order; five new settling tanks, roofing in of the pure water tanks with the exception of a small portion, the alteration in the pumping machinery, were all completed during the year. The results of these improvements which have been carried out at a cost of Rs. 1,58,573 are in every way most satisfactory.

6. While the alterations above referred to were in progress, it was necesaverage consumption of sary to supply the greater portion of the Cantonment with water from the old north bank filter, from which it was not possible to measure the quantity supplied.

No accurate figures therefore of the quantity supplied can be given. During the coming year it will be possible to give the consumption by the new works, but until the supply to the Sudder Bazaar from the existing small filter bed from which the quantity cannot be measured is abandoned, and this section connected with the new works, the total quantity consumed cannot be ascertained with sufficient accuracy to be of any value. Estimates for increasing the size of the mains to enable the whole of the Cantonment and bazaars to be supplied from the new works were prepared and submitted for sanction during the year.

7. The working expenses of the year including Rs. 2,478 for refunds of revenue amounted to Rs. 82,187, as compared with Rs. 70,615 in the previous year.

Names of Works.	Mainten- ance and Repairs,	Establishment,	Tools and Plant,	Befunds of Revenge,	Leave and Pension Allowances.	Share of Collection Oharges.	Total.
1894-95.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Mutha Canals	19,930	D. 4,136	3,759	2,478	2,975	6,330	52,422
Poona water supply	13,806	C. 12,814 D. 2,172 C. 10,071	2,604	***	1,112	· •••	29,765
Total	33,736	29,193	6,363	2,478	4,087	6,330	82,187
1893-94.	•						
Mutha Canals	19,225	D. 3,879	1,668	3,404	<b>2,</b> 308	7,173	45,738
Poona water supply	11,822	C. 8,081 D. 2,385 C. 8,723	1,025	•••	922		24,877
Total	31,047	23,068	2,693	3,401	3,230	7,173	70,615

The following table shows the analysis of the charges.

On the Mutha Canals the cost as shown above represents a rate for maintenance, administration, &c. of Rs. 567.55 per mile (the total mileage in operation being 88 miles), and Rs. 4.95 per acre irrigated (the total acreage being 10,082.)

8. The excess in the working expenses as compared with the previous year due to increase in cost of maintenance of the Poona water-supply and to special is repairs to the water wheel, and to pumping by steam during alterations of mains. Excluding these special items the cost of maintenance was the same as in the previous year. The chief increase is, however, in the cost of establishment and tools and plant. The establishment charges were heavier owing to decrease in the capital outlay and to the revised rule ordering 18 per cent. instead of 20, as the charge to capital. The increase in tools and plant is due to cost of new meters and component parts of meters required for the Poona water-supply.

 9. Deducting the total net working expenses Rs. 79,709, plus Rs. 2,528, Net profits.
 b the amounts of remissions and refunds sanctioned during the year, from the total earnings of Rs. 2,47,954, the net profits from the work amount to Rs. 1,65,717, or Rs. 2.53 per cent. on . Rs. 65,56,489, the total entire capital outlay to the end of the year.

10. The areas irrigated were ascertained by actual measurements, the greater part of which were taken by measurers spe-Crop measurements.

Crop measurements. cially entertained for the purpose, and the remainder by an Inspector when time could be spared from his ordinary work, and from 9 to 12 per cent. of the area was checked by the Subordinate in charge. The cost of measurements amounted to Rs. 1,366 or at the rate of 2 annas and 2 pies per acre against 2 annas and 3 pies in the previous year.

11. The rainfall of the year along the canal varied considerably. The maximum was 28.66 inches at Hadapsar and the mini-Rainfall. mum 13.14 inches at Kasurdi, as under:

•		•		Kharif,	Rabi.	Total
Hadapsar	•••		•	25·05	<b>3</b> ·61	<b>28</b> .66
Kasurdi	•••	<b>18</b> • •	•••	11.84	<b>1</b> ·30	13-14

The characteristics of the rainfall were that the kharif and early rabi rainfall was favourable, and the late rabi on which the crops depended to bring them to maturity was scanty, resulting in an increase of the irrigation of rabi dry-crops.

Items capable of assessments for which the project does not obtain credit.

12. 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. From it, it will be seen that local institutions have received water during the year at

Rs. 5,830 less than the normal rates.

Area actually irrigated compared with area applied for.

The following is the comparison of 13. areas as applied for and those actually irrigated.

	Are	a applied	for,	Area irrigated.			• Mo	76.	Le	B8,
	Kharif.	Rabi.	Total.	Kharif.	Rabi.	Total.	Kharif.	Rabi .	Kharif.	Rabi,
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Âcres
Mutha Right Bank Canal Mutha Left Bank	7,832	2,622	10,454	6,658	2,367	9,025		•••	1,174	255
Canal	010	44	912	904	153	1,057	<b>3</b> 6	109	•••	•••
Total	8,700	2,666	11,366	7,562	2,520	10,082	<b>3</b> 6	109	1,174	255
			L.,,			•	1	let	1,138	146

In the case of the Right Bank Canal the area applied for was in excess of that actually irrigated. This is chiefly due to people applying for rice for which they were told water would be sufficient, but many of them being sceptical as to the water-supply abandoned the idea of trying the crop till they had seen the results of the undertakings of other more enterprising cultivators. On the Left Bank Canal, the excess of actuals over applications is probably due to over-estimating the areas entered in the form of application.

Remissions.

14. Remissions amounting to Rs. 49 were granted during the year on account of erroneous assessments.

15. Refunds amounting to Rs. 2,478 were sanctioned during the year, of Refunds. Conduit together with the leakage from the Mutha Canal in the village of Vadgaon Budruk, táluka Haveli, Rs. 6 for short supply of water, and Rs. 1,266 on account of rebate given to the Indian Paper Mills Company for 77 days, for 56 days the supply having been insufficient to yield 60 horse-power and for 21 days the canal having been closed.

16. The plantations and canal fences were maintained as usual but the Plantations. rees were not counted, as the establishment was fully employed on other duties.

17. Gaugings to ascertain evaporation and leakage were taken for broken Loss by evaporation and absorption. 17. Gaugings to ascertain evaporation and leakage were taken for broken periods in the months of April, May, June, and January, February and March 1895, or a total number of 156 days. During this period the loss amounted to

582,565,499 cubic feet or rather more than one-fifth of the total capacity of the lake above outlet level.

able :---

18. The following statetment shows the duty of water on the two canals for Duty of water. Duty of water.

	·			Discharge of Canal at	Canal at					
	Month.			head, cubic feet per second,	Perennial.	8 months.	4 months.	Total.	cubic foot, per second,	
									Acres.	
1894	{ April May	•••	•••	87·34 93·01	5,321 5,321	118 118	303 303	5,742 5,742	65·7 61·7	Mutha Bight Bank
1895	{ January March	•••	 •••	111·91 120·00	5,357 5,500	332 200	2,107 135	7,796 5,835	69 <sup>.</sup> 6 48 <sup>.</sup> 6	Canal.
1894	{April May			14 <sup>.</sup> 62 16 <sup>.</sup> 13	678 783		12 12	690 795	47•2 49•2	Mutha Left Bank
1895	{ January March	*** ····	•••	15 <i>-</i> 20 14-03	. 800 630	 1 <i>4</i>	4 	804 630	52•8 44•9	Canal.

It will be seen that the duty in the month of March 1895 (Right Bank Canal) is considerably lower than in the months of April and May 1894, although the area under irrigation is very nearly the same. This is chiefly due to the fact that during March the newly planted sugar-cane has to be given a large supply of water.

Experiment with sugarcane crop. 19. A careful record was kept of the quantity used for a crop of sugar-cane, by means of a gauge notch at the field. The following is a summary of results :--

Area irrigated =4.77 acres.

Quantity of water consumed =1,539,199 cubic feet.

Period of irrigation = 342 days.

Number of waterings = 26.

Quantity supplied=0.052 cubic feet per second.

Duty to base of 342 days=92 acres per cubic foot per second.

The quantity supplied was equivalent to a rainfall over the whole area of 89 inches.

#### POONA WATEB-SUPPLY.

To whom supplied.	Quantity supplied,	Amount paid.	Value at 6 annas per 1,000 gallons,	Difference between 4 and 5.	Bemarks.
1	3	8	6	5	6
		Rs. s. p.	Rs. a. p.	Rs. a. p.	
The Civil Surgeon, Sassoon Hospital Do. do Superintendent, Byramji Jijibhoy	1,001,916 632,670	187 1 <b>3 6</b> 118 9 9	375 11 0 237 3 6	187 18 6 118 9 9	
Medical School The Superintendent, Lunatic Asylum. Secretary, Cantonment Com-	620,670 715,922	116 5 8 134 3 3	$\begin{array}{c} 232 11 \\ 268 6 6 \end{array}$	116 5 8 134 3 3	
mittee :	<b>J</b> ,201,918 1,334,411 J,336,495	225 5 6 250 3 3 250 9 6	450 11 0 500 6 6 501 3 0	225 5 6 250 8 3 250 9 6	•
Do. (Mutton Market) Do. (Asurkhána) Do. (Butler Moholla)	1,321,488 1,414,910 1,425,330	247 J2 6 265 4 9 267 4 0	495 9 0 530 9 6 534 8 0	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	•
Convent School Jamsetji Fountain Houds in Booty Street Bazar Reservoir	375,840 1,201,800 4,380,000 1,460,000	70 7 8 40 0 9	140 14 6 450 10 9 1,642 8 0 547 8 0	410 10 0 1,642 8 0	• .
Malcolm Tank	2,920,000	•••••	1,095 0 0		

# Statement showing water supplies given gratuitously or at reduced rates during 1894-95.

#### (10),—EKRUK TANK.

The rainfall for the year under report was 20.18 inches (kharif 19.25 and rabi 0.93), against 24.22 inches of the previous year (kharif 15.16 and rabi 9.06), and was not seasonable for kharif crops. Owing to insufficiency of rain the tank did not fill during the year, the highest level reached being R. L. 1518.407, or 3.20 feet below the waste weir.

2. The area irrigated during the year was 3,292 acres, of which 1,830 were Area irrigated. under kharif and 1,462 under rabi crops, against 2,889 acres of the previous year (2,247 kharif and 642 rabi). The area applied for was 2,763 (kharif 1,620 and rabi 1,143), or 529 acres less than the area actually irrigated. The cause of the discrepancy is that the cultivators are unable to estimate properly the area they propose to irrigate.

3. The assessment of water-rates amounted to Rs. 13,463, against Assessed revenue. Rs. 14,364 of the previous year. The gross revenue from all sources was Rs. 29,551 against Rs. 24,357 of the previous year. The details of revenue other than water-rate are as under :--

,						Rs.
1. Plantation	•••	***	•••			208
2. Other canal produce			•••		•••	8,800
3. Sale of water to-						
(a) Sholápur Muni	cipality for	drinking pu	rposes			4,020
(b) G. I. P. Railwa	y Company	for engine			•••	1,313
(c) Spinning and V	Weaving M	ills for engin	e		•••	1,362
(d) Distillery for e	-	***				75
(e) Building purpo	805	***	••••		***	. 85
4. Miscellaneous					•••	<b>2</b> 25
	•	•				<b>.</b>
•				Total		16,088

4. The following table compares the figures of area, assessments and working expenses with those of the previous seven years :---

- (10) .- EKBUK TANK.

Years.			Kharif.	Rabi.	Total.	Water-rate Assessment.	Gross Revenue.	Working Expenses,		
		•		·	Acres.	Acres.	Acres.	Rs.	Rs.	Rs.
1887-88					1,357	757	· 2,114	6,651	13,784	15,953
1888-89					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
1892-93					2,425	613	3,038	14,760	23,830	27,043
1893-94					2,247	642	2,889	14,364	24,357	26,411
894-95		···			1,830	1,462	3,292	13,463	29,551	12,050

The falling off in kharif was due to a smaller area than usual of groundnut and rice having been irrigated, in consequence of a deficiency of rain in the early part of the year which checked the sowing of these crops, as the cultivators near Shelápur prefer rain to tank water at the time of sowing, though they take canal water for subsequent waterings. The increase in rabi was due partly to development of irrigation at the tail, and partly to unfavourable rainfall in this season. The incidence of water-rate was 4.09 per acre irrigated against 4.97 in the

previous year.

Area irrigated, water-rate, 6. The area irrigated by each canal and water-&c., cn cach canal. rate assessment thereon were as follows :---

				ABEL IR	RIGATED.			WATER	on 5th Se.	
Name of Canal.	Average dis- charge during	Кн	ARI <b>F.</b>	R	<b>▲</b> BI.	To	тац. •	B. L.	Height	Ru-
· · · · · · · · · · · · · · · · · · ·	the year.	Acres.	Amount of assess- ment.		Amount of assess- ment,	Acres,	Amount of assess- ment.	on 5th June 1894.	of water over sill in feet.	!
	-		Rs.		Rs,		Rs.			•
Left Bank Low Level Canal	22.67	1,460	7,353	1,100	2,618	2,560	9,971		28.65	
Left Bank High Level Canal .	2.53	240	1,965	119	358	359	. 2,323	40	3.82	
Right Bank High Level Canal .	<b></b> 6·88	130	595	243	574	373	1,169	] 🕯 [	<b>3</b> •88	
Total		1,830	9,913	1,462	3,550	3,292	13,463	•••		

7. The working expenses including indirect charges amounted to Rs. 12,050. Working expenses. The item "Maintenance and Repairs" amounted to Rs. 6,057, or Rs. 126 per mile of canal, the length of the canals being 48 miles.

Measuring charges. 8. The area irrigated was measured at a cost of Rs. 557, which gives a charge of 2 annas and 8 pies per acre.

9. The rainfall over 159 square miles of catchment area was gauged at Tank supply. Tank was estimated to be 0.204 of the rainfall.

10. Bábul trees grow plentifully on the tank margin and on the canals, and Plantations. demand for firewood at Sholápur. Fruit trees have not yet commenced to yield a good revenue. 'The expenditure on account of plantations during the year was Rs. 1,107, and the revenue was Rs. 9,008, inclusive of the proceeds from other canal produce.

The numbers of trees above and below 5 feet at the end of March 1895 were as under :---

в 1340-7

Bábul Nimb Mango Jámbul Tamarind Siras Chandan Bamboo Guava Moho Nimboni Sendi Miscellaneous	···· ···· ···· ···· ···· ····	 Above 5 feet. 53,071 1,204 641 84 172 135 36 79 212 26 5 101 45 627 56,438	Below 5 feet. 74,732 133 165 40 140 24 2 17 9 1 2 13 300 104 75,688
	Total	 	,126

11. The Right Bank Caral continues to be in an unsatisfactory condition. General remarks. There is no bank on its upper side, and the rain water quantity of silt which obstructs the free flow of water to the tail, and entails high maintenance charges. The revenue from this canal is not sufficient to justify a large expenditure upon its improvement.

12. Experiments were made during the year to ascertain accurately the quantity of water required to mature certain crops, and the results obtained were as under :---

Plot No.	Name of Ci	rop.	Quantity of water for one acre in cubic feet.
1 2 3	Wheat, 1st sort Do. ordinary Gram	··· ··	41,600

#### (11).-KRISHNA CANAL.

The construction estimate of the canal was closed on 31st March 1692, *ride* Government Resolution No. 75 W. I.—777, dated 14th May 1892, and the completion report was approved of in Government Resolution No. 12 W.I.—119, dated 22nd January 1894. The stop-gate on nála No. 21 referred to in the last year's report was completed during the year, Rs. 206 being spent on it and charged to open capital sanction. The total capital outlay direct and indirect to end of the year was Rs. 8,64,692.

By the completion last year of the Burli Branch Channel (see Administration Report), an additional area of 920 acres has been added to the cultivable area commanded.

2. The rainfall as gauged at Retre Budruk (16th mile of the canal) compares with the average of the previous ten years and with the fall of 1893-94 as under :--

#### (11).—KRISHNA CANAL.

-	•		Average of ten years.	1893-9 <b>4.</b>	1894-95,
•			Inches.	Inches.	Inches.
Kharif Rabi	•••	•••	17·20 8·17	14·50 5·59	20·82 4·63
	Total		25.37	20.09	25.45

Showing an increase of 6.32 inches for the kharif over last year, but a decrease of nearly an inch in the rabi. The total of the year was about equal to the average, but the rabi fall was rather deficient.

3. The hot weather flow of the river in 1894 (April and May) was about equal to the average. After that the supply was

River supply. ample for all requirements down to January, but owing to the deficient late rainfall, the river discharge fell to below the average in February and March. There was, however, no actual deficiency of supply until the hot weather of 1895.

Area irrigated and waterrate assessment.

4. The areas irrigated and water-rate assessments as compared with the four previous years were :--

<b>V</b>			BA IBBIGATE	D,	Asbebryerie.			
1 cart.		Kharif.	Rati.	Total.	Kharif.	Rabi,	Total.	
		Acres.	Acres.	Acres.	Ŗs.	Rs.	Rs.	
•••		1,736	2,214	3,950	23,630	9;077	32,707	
•••				5,374	32,962	<b>6,3</b> 00	39,262	
					28,669		36,579	
•••	•••	2,810	1,932	4,742	34,918	7,165	42,083	
•••	•••	2,389	2,076	4,465	30,045	7,610	37,658	
· •••	•••	2,689	1,982	4,671	36,957	7,420	44,377	
	•••• •••• •••	··· ·· ···	Yeare. Kharif. Acros. Acros. 1,736  1,736  1,736  2,810  2,389	Kharif.         Rabi.           Kharif.         Rabi.           Acros.         Acres.            1,736         2,214            3,259         2,115            1,751         2,045            2,810         1,932             2,389         2,076	Kharif.         Rabi.         Total.           Acros.         Acres.         Acres.            1,736         2,214         3,950             3,259         2,115         5,374             1,751         2,045         3,796             2,810         1,932         4,742             2,389         2,076         4,465	Kharif.         Rabi.         Total.         Kharif.           Acros.         Acres.         Acres.         Rs.            1,736         2,214         3,950         23,630             3,259         2,115         5,374         32,962             1,751         2,045         3,796         28,669             2,810         1,932         4,742         34,918             2,389         2,076         4,465         30,045	Kharif.         Rabi.         Total.         Kharif.         Rabi.           Kharif.         Rabi.         Total.         Kharif.         Rabi.           Acres.         Acres.         Acres.         Rs.         Rs.            1,736         2,214         3,950         23,630         9,077             3,259         2,115         5,374         32,962         6,300            1,751         2,045         3,796         28,669         7,910             2,810         1,932         4,742         34,918         7,165             2,389         2,076         4,465         30,045         7,610	

Area.—As compared with the average of the previous four years, there was an increase of 300 acres in the kharif irrigation and a decrease of 94 acres in the rabi. The kharif area was about the same as that of the previous year as is also the rabi. The total area shows a difference of 71 acres.

The area irrigated was 18 per cent. of the whole irrigable area and the measured area was 6 per cent. more than that applied for.

Ares of f	ugarcase.	Area of 8	lugarcane.
	Acres.		Acres.
1885-86 1886-87 1887-88 1888-89 1889-90	852 907 1,089 1,144 1,023	1890-91 1891-92 1892-93 1893-94 1894-95	1,036 1,219 1,319 1,449 1,566
			•

Assessments.—Kharif assessments show a substantial increase due to the steady progress of perennial irrigation on this canal, as will be seen from the marginal table. The figures in the statement show that the revenue from this canal is steadily rising. There were no remissions during the year.

5. The average water-rate per acre was Rs. 9.50, as compared with 8.87 Average water-rate per acre. of the previous year, the increase being due to the larger area of the higher classes of crops.

Realizations and outstandings.

6. The realizations of the year amounted to Rs. 56,050, against Rs. 36,836 of the previous year, and the outstandings were only Rs. 660.

7. The miscellaneous revenue amounted to Rs. 4,664 (Rs. 4,354 from plantations alone), against Rs. 1,419 of the previous year.

The plantation revenue is notable, being due to the thinning out of the babul trees on the banks of the canal.

<b>v</b>	8. The lirect char ars :—	working ges, compa	expenses, are as und	including d ler.for the	lirect and e last five
Particulars.	1890-91.	1891-92	1892- <b>93</b> .	1893-94.	1894-95,
	Rs.	Rs.	Rs.	Rs.	Rs.
Works Establishment Tools and Plant Refand of Revenue Collection	7,911 3,023 18 6 1,906	6,164 2,683 103  1,775	7,954 3,530 99 3,629	6,898 3,571 91 1 1,943	7,064 3,086 100  3,584
Leave and Pension Allowances. Total	423	376 11,101	494 15,706	500 . 13,004	432 14,266

The actual outlay on works was about the same as in the previous year, but there was a saving of Rs. 485 on establishment, of which Rs. 211 was due to diminished charge for revenue management. The excess of Rs. 1,641 on collection of revenue is rateably on the increased realizations of the year.

Cost of working per mile of canal and per acre irrigated.

9. The cost of working was :---

	Years.			Per mile of canal.	Per acre irrigated,	
				Rs.	Rs.	
1890-91				216	3.3	
1891-92				182	<b>2</b> ·0	
1892-93				255	4.1	
1893-94				211	2.7	
1894-95				223	3.0	

The higher figures for the year are due to rather higher working expenses and to a less total area of irrigation. A better comparison would be between the working expenses and the total revenue. The figures are :---

Years.	G	ross Revenue (assessed).	Working Expenses.	Per cent.	Surplus Revenus.
		Rs.	Rs.		Rs.
1890-91		34,591	13,287	38.4	21,304
1891-92		40,970	11,101	27.1	29,863
1892-93		40,057	15,706	39.2	24,351
1893-94		43,281	13,004	30.0	30,277
1894-95		49,041	14,266	29.1	34,775

Thus it will be seen that the percentage of working expenses to gross revenue for the year under report was the lowest of the series, except in the year 1891-92, when, however, little or no silt clearance was done.

The last column of the table above shows a steadily increasing net or surplus revenue, which is a very satisfactory feature in the working of the Krishna Canal during the last few years.

The sum at capital charge at end of the year was Rs. 8,64,892. The net revenue of the year amounted to Rs. 34,775, giving a return of 4.02 per cent. on the total capital outlay, direct and indirect, and rather more than covering the interest charge.

10. The cost of crop measurement was Rs. 767, equivalent to Re. 0-2-7 per acre irrigated, or practically the same as the figures of 1893-94.

11. The average duty of water obtained was only 47 acres in the kharif season and 22 acres in the rabi. The Executive

Duty of water. Engineer has not explained these extremely low duties, but it was previously reported that the cause was probably due to ample river

supply and the number of uncontrolled distributary outlets. 12. The number of trees of all classes on the canal at the beginning of the

Plantations. year was 23,616, and in addition 600 new sapplings were planted. The number of trees cut and sold during the year was 1,524. The balance at the close of the year was thus 22,692. The net revenue from plantation was Rs. 4,354. The principal varieties of trees

The net revenue from plantation was Rs. 4,354. The principal varieties of trees on the canal are:—bábul 19,715, mango 1,130, nimb 652, bamboo 508, and jámbul 286.

13. Enquiries are proceeding as to the feasibility of obtaining a moderate amount of storage, so as to secure the continuance of

General remarks. the progressive increase in the perennial irrigation. The limit of irrigation possibilities dependent on the natural flow of the Krishna river is fast being reached, and further development must follow in the direction of storage.

# MINOR WORKS AND NAVIGATION.

### (12).—KHA'RI CUT.

The rainfall during the year was 49.94 inches in the kharif and 1.39 inches Rainfall. of the last five years being as follows:--

5	U		•		In.	Cts,
Kharif		•••	•••		32	52
Rabi		•••	•••	•••	0	81

2. The rainfall was favourable, and the Chandola tank, the main storage Area irrigated. increase of about 300 acres in the area irrigated, as compared with that of the previous year, as shown below :---

						Kharif.	Rabi.	Total,
1893-94	•••		•••		•••	1,760	26	1,786
1894-95	•••	•••	•••	٠	•••	2,053	- 35	2,088

Assessment. 3. The assessments excluding remissions and free grants (the former being Rs. 6 and the latter Rs. 1,566) were as under:—

•			Kharif.	Rabi.	Total.
1893-94	•••	•••	9,789		9,917
1894-95	***		 12,089	172	12,261

4. The result is encouraging. The revenue seems to increase year by year, and is said to be capable of greater expansion with some further expenditure on improvements.

5. The working expenses of the year amounted to Rs. 6,107 against

Working expenses. Working expenses. Heavy floods in the Khári river. The incidence per acre was Rs. 2.92, or slightly more than that of the last year, which was 2.63.

6. The area under irrigation was measured by the establishment specially employed for the purpose at a total cost of Rs. 162, or nearly  $1\frac{1}{4}$  anna per acre.

7. The average water-rate during the year was Rs. 5.87 per acre, as compared with Rs. 5.55 during the previous year.

8. The supply drawn from the Khári river during the kharif season at the bead of the Khári Cut was at the rate of 8.49 cubic fort nor second and the area irrigated was 2.295 acres.

buty or water. feet per second, and the area irrigated was 2,295 acres. **B** 1349-8 including the area assessed on the Chandola Tank, viz., 242 acres; these figures prove a duty of 270 acres per cubic foot of discharge at head.

9. The discharge at the headworks during the rabi season was 5.91 cubic feet per second, and the area irrigated being 35 acres, the duty was 5.92 acres per cubic foot.

10. The year under report is the first year in which hot weather crops were sown by the cultivators, with the aid of water from the Khári Cut Canal. The cultivators of Vátva and a few more villages tried hot weather crops this year, and the result was satisfactory. An attempt was made by the Police Pátil of Sahijpur to grow rice crop during the hot weather, but the result was not satisfactory.

### (13).-HARTA'LA TANK.

1. This tank has been in operation for 22 years. It commands a gross Gross and irrigable area. Gross and irrigable area. It commands a gross area of 584 acres in the village of Hartála, of which the net irrigable area is 415 acres. The works are

complete and can deliver water to this acreage when the tank is full. But water is in fact never taken for the whole area, as most of the land is cropped with cotton.

2. The depth of water in the tank fell to 7.59 feet on 10th June 1894. On the following day the first replenishment was

Tank supply. On the following day the first replenishment was received and by 27th October 1894 the water was 13.68 feet deep, or 0.02 feet below the full supply level. At the end of the year the water in the tank was 10.10 feet deep above the outlet sill.

3. The rainfall gauged at the tank site amounted to 34.71 inches (29.20 inches during the kharif and 5.51 during the rabi

Rainian. season), against 29.85 inches of the previous year and 25.88 inches the average of the past 21 years. The rainfall was thus copious in both seasons.

Area irrigated. Kharif ... ... ... ... 12 Rabi ... ... ... ... ... 71 Total ... 83

which is 20 per cent. only of the irrigable area commanded by the tank, against 28.43 per cent. in the previous year. The falling off in the rabi area is due to favourable rainfall.

5. The kharif areas consist of 3 acres of fruit gardens, 5 acres of fodder, 1 acre groundnut, 1 acre chillies, and 2 acres of monsoon dry-crops. The rabi crops were wheat and gram. The total value of these crops is estimated at Rs. 1,664 against Rs. 2,841 in the previous year.

Gross revenue.	ć	6. luring	The the y	ear am	asse ounte	ssed d to	rev Rs,	7en , 63	ue fr 6-6-5	om , as	this tank under :—
						Rs.	8.	p.	Rs.	8.	D.
Water-rates-	•							•			•
Kharif			••			65	14	0			
Rabi	•	•••	•	•		65 142	0	0			
•									207	14	0
Miscellaneous											•
Protective	rato on irr	igable l	and .	•		414	2	5			
Fishery						414 13 1	0	0			
Grass and t	rees		-1	•		1	6	0			
						<b></b>		_	428	8	5
						Tot	al	•••	636	6	5

against Rs. 1,227-2-0 of the previous year. The decrease was in chief part due to the sale of babul trees not having been effected before the close of the year, owing to unavoidable delay in the selection and marking of the trees.

7. The incidence of water-rate per acre during the year under report was Rs. 2-8-1 against Rs. 2-4-1 of the previous year. The small increase, notwithstanding the fall in the assessed revenue, is accounted for by increase in the hot weather irrigation of the year.

8. The realization of revenue during the year amounted to :---

				Rs.	8,	p.	
Water-rates	•••	•••	•••	<b>282</b>	4	0	
Miscellaneous	•••	•••	•••	428	8	5	
	•	Total		710	12	5	

Excepting the rabi assessments of the year, Rs. 142, which were sent for realization after the close of the year, there is no outstanding of revenue.

9. The working expenses were Rs. 394 in excess of the revenue, and working expenses. amounted as shown below to Rs. 1,030 against Rs. 361 in the previous year :--

•			Rs.
In the Public Works Department	•••		995
In the Civil Department		• • •	35
	Total	•••	1,030

The increase in outlay was due to extensive repairs to the feed channel having been carried out.

10. The cost of measurement of the area irrigated was the same as last Cost of measurement of crops. year, viz., Rs. 2-5-4, which gives a rate of 5 pies against 4 pies of last year.

11. The area irrigated during the year was exactly the same as the area applied for, viz., 83 acres.

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

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

		Khar	if Seat	on.				Feet.
	ay and June gust and Se				•••		•••	2·32 Nil.
		Rab	i Season	n.				
October, days	November,	December,		and	January,	1895,	110	<b>1</b> ·91
-		Ho	t Seaso	n.				·
• February	and March	, 59 days	•		•••		.**#	1.22
						Total	•••	5.45
Average da	ily loss		•	•			••••	·0231

# (14).—MHASVA TANK.

This tank has been in operation for 18 years.

2. The following are the details of the gross area commanded by the Gross and irrigable areas, whole project and the area irrigable by the project as so far completed :--

Number.	Villag	Area under command.	Area irrigable by the project as completed.		
	West Ch	annel.	and a star star of a	Acres.	Acres.
1	Utrud			386	355
	Nhava	•••	•••	300	169
2 3	Shelava Budruk	•••	***	1 110	631
4	Ratna Pimpri		•••		{
5		***			
5	Chiklod	***	••4	1,046	•••
	East Ch	anne <b>l</b> .			
6	Hirápur			131	90
7	Dhába			100	837
8	Sheláva Khurd			105	118
			<b>m</b>		
			Total	. 4,647	1,700

No distributary has yet been constructed to irrigate the lands of Ratna Pimpri under the west channel, and very small areas are watered in the villages provided with distributaries, although the tank supply is available for larger area than is now irrigated. At Chiklod there is hardly ever any irrigation from the tank.

3. The depth of water in the tank at full supply level is 22 feet. At the Tank supply. 16.36 feet, which fell to 13.42 feet on the 9th June. The tank filled to overflowing on 10th September and by the end of the year the water was 18.65 feet deep. The supply was sufficient to meet the requirements of irrigation.

4. The year's rainfall amounted to 28.07 inches (23.48 inches in the kharif and 4.59 inches in the rabi season) against

Raintall. 19.86 inches in the previous year and 29.82 inches, the average of the past 17 years. The increase in the kharif rainfall did not cause any reduction in the kharif irrigation of the year compared with that of the previous year, as there was a larger area of perennial crops which could not do without the canal water. There was a decrease in rabi irrigation, however, owing to favourable rain.

Area irrigated. 5. The area irrigated during the year was as under :--

Acres. Kharif ... 21 Rabi ... 106 Total ... 127

against 229 acres of the previous year. The value of the crops grown is estimated to have been Rs. 215.

Gross revenue.

6. The assessed revenue of the year was 1-

				Rs.	8,	p.
Water rates Miscellaneous	•••	•••		394 641		
Difficentatieous	***	•••	***	041	0	
	•	Total		1,036	2	0

against Rs. 1,623-7-3 of the previous year. There was a falling off in miscellaneous receipts, partly owing to there being no cultivation in the tank area, and partly owing to the fact that the sale of the right of fishing, which realized an unusually high price last year in consequence of keen competition, fetched only ordinary prices this year. 7. The average incidence of water-rate assessment per acre was Rs. 3-1-8 against Rs. 2-6-4 last year. The rise in rate was due to an increase in the area under perennial crops.

8. The revenue realized amounted to :---

•			•	Rs.		
Water rates				601	4	0
Other sources	•		•••	641	6	0
		Total		1,242	10	
			•		-+	-

and there are no outstandings, excepting the rabi assessments of Rs. 222-3-0 which were demanded after the close of the year.

9. There were no refunds during the year.

Working expenses. 10. The working expenses of the year amounted to :--

		Department the Revenue D		 t.	Rs. 1,193 30
· •	• :	•	Total		1,223

against Rs. 2,024 of the previous year.

Cost of measurement.

11. The cost of measurement of crops irrigated amounted to Rs. 8-13-7, which gives a rate of 1 anna 1 pie per acre.

12. The area applied for was 13 acres less than that actually irrigated, the discrepancy being due to the areas in the applications having been slightly under-estimated.

13. 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 :---

Number.	Crops.			Area Irrigated.	Rate per Acre.	Assessment.
1 2 3	Perennial Eight months Four months		•••	6 101	Rs. 10 4 2	Rs. 163 22 205
4 5	Monsoon-dry Hot weather		• • •	2	14.	23
	•	Total	•••	127		395

There were also 2 acres of lift irrigation assessed at half the sanctioned rate.

Duty of water. 14. The duty of water used for irrigation was as follows :--

per cubic foot per second of discharge utilized, vide Statement I-E attached.

Evaporation and absorption. 15. The loss by evaporation and absorption was

в 1340—9

(15) .- JANDA CANALS.

TT 16.0		Feet.
Kharif Season.		
April, May and June, 65 days		2.39
Rabi Season.		
November, December and January 1895, 87	days	1.46
Hot Season.	•	
February and March 1895, 59 days	•••	1.18
	Total	5.03
Average daily loss	***	•0238
,		·

## (15).—JAMDA CANALS.

1. These canals have been in operation for 28 years. The gross area under command is 46,288 acres, of which the area irrigable by the works as completed is as under ;—

Left Bank Canal	•••	•••		Acres. 3,500
Right Bank Canal			•••	1,500
			Total	5,000

2. Though the discharge in the river was less than in the previous year River supply. 326 acres, the highest area recorded during the past 25 years.

3. The rainfall was much greater than that of the previous year, in both the kharif and the rabi seasons, as will be observed from the following table :---

			KHAR		BABI.		
Stations.			1893.	1894.	1893.	1894.	
At Canal h	ead.						
Jamda Bungalow			18.62	20.71	0.90	8.66	
About middle og	f Canals.						
Kolgaon Chowki			19.24	24.74	0.10	5.87	
At tail of C	anal.	[					
Bhadgaon Dispensary	•••	•••	<b>2</b> 3·35	29.47	1.12	<b>4</b> ·62	

The favourable rainfall led to a falling off in the irrigation of monsoon, wet rabi, and 8 months' crops.

Area irrigated.		4 gated	. The with t	e fo hose	llowing ta	ble compa evious year	res the areas irri-
	<u> </u>				. 1893-94.	1694-95.	
					Acres,	Acres.	
	Kharif Rabi	•••		•••	508 1,080	539 609	
			Total	•••	1,588	1,148	· .

- Gross revenue.		are contrasted with those of the previous year in the following table:							
				1893-94.	1894-95.	Іпстеако.	Decrease.		
				Rs.	Rs.	Rs.	Rs		
Water-rates Miscellaneous	, 	***	•••	6,630 3,937	7,744 2,734	1,114 	1,203		
		Total	•••	10,567	10,478	•••	89		

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

The increase in water-rates in spite of the reduction in the area irrigated is due to the satisfactory increase in the area of sugar-cane cultivation. The falling off in miscellaneous receipts was due to the sales of babul trees not having been completed by the end of the year.

6. There were no remissions during the year and the realizations amounted to-

Water-rates	•••			Rs. ••• 8,527
Other sources	•••	•••		2,734
		•	Total	11,261

or Rs. 903 in excess of the amount realized last year.

7. The unrealized balance of assessed water-rates is Rs. 1,191, besides the rabi assessment of Rs. 1,331 sent for realization after the close of the year under report. Legal measures are being adopted to effect the recovery of the sum of Rs. 1,191 remaining unrealised.

8. The average incidence of water-rate assessment per acre during the year under report was Rs. 6-11-11 against Rs. 4-2-10 in the previous year and Rs. 1-13-5 in 1892-93. The rapid rise in average rate is due to the increase in perennial cultivation encouraged by a continuous good supply of water in the river for two years.

Working expenses.

9. In the following table are contrasted the working expenses of the year with those of the previous vear :---

. ·

			1893-94.	1894-95.	Increase.	Decrease
Direct	Charges.	-	Rs.	Rs.	Rs.	Rs.
Original Works Repairs		•••	<u> </u>	3,071	53	 1,413
. Estab	lishment.		•			
Direction Construction Tools and Plant		•••	894 2,679 100	587 4,686 200	2,007 100	307 
		ſ	8,104	8,544	<b>2,1</b> 60	1,720
Indirec	t Charges.	·				
Leave and Pension a	llowance	••••	500	738	238	
Collection charges	• •••	•••	8,604 311	9,282 ·426	<b>2,3</b> 98 115	1,720
	•		8,915	9,708	793	

#### (16).—PARSUL TANK.

The total charges of the year are in the excess of those of the previous year by Rs. 793. The excess is due mostly to increase in the establishment charges and the consequent leave and pension allowance charge. This increase is now unavoidable, the lowest possible establishment having been kept on the Canals. Notwithstanding this increase in the working expenses and the falling off in the areas irrigated, the assessed revenue has exceeded the working expenses by Rs. 770, which is a small improvement, for previous to 1892-93 the canals worked at a loss every year.

Cost of measurement of crops. Loss of measurement of crops. during the year on the two canals separately is given below :--

			Area irri- gated.	Area mea- sured,	Cost of measure- ment.	Rate per ≜cre,
			Acres.	Acres.	Rs. a. p.	Rs. a. p.
Left Bank Canal	•••	•••	775	334	42 2 0	020
Right Bank Canal	•••		373	70	7 3 2	018

The rate per acre is greater than that of the last year as more accurate measurements had to be taken in the case of high-rated crops, of which larger areas were irrigated during the year under report. In the case of low-rated crops the areas are ascertained by measurements of lengths and breadths only for economy in cost; 35.1 per cent. of the area irrigated had to be measured, the remaining 64.9 per cent. of the area was in lands sub-divided for irrigation purposes or in whole fields.

Areas applied for and irrigated. 11. The total area applied for-1,139 acrescorresponds nearly with that assessed-1,148 acres.

12. Special observations were made in the village of Kolgaon during the Duty of water. with the following results:-

Survey Number.	Crop.	Number of waterings.	Area.	Quantity of water used.	Duty (123) days.
			A. G.	C. ft.	
81-Pot No. 1	Wheat	2	0 27	19,062	376

13. The expenditure on plantation amounted to Rs. 645 during the year and Rs. 16,369 to end of the year. The number of trees on the Canals is 15,344 against 15,974 of last

year, the decrease being due to the thinning out of babul trees.

#### (16).—PARSUL TANK.

1. This tank has been in operation for 6 years. It commands the lands Gross and irrigable areas. of the villages of Murana, Saundana and Nandgaon in the Málegaon Táluka of the Násik District. The accurate figures of the gross and irrigable areas in each of these villages have yet to be ascertained by a proper survey, for which an estimate has been sanctioned. Approximate figures only have been entered in Statement II—A.

2. The tank works with the distributaries have been completed, with the State of works. Exception of the extension of the Saundana Channel to irrigate the lands of Nandgaon. This was to have been done during the year under report, but as the question of formation of a new 'thal' at Umrana and the extension of the existing 'thal' at Saundana was

under consideration, it was thought advisable to defer the execution of the work for the present.

3. The tank supply during the year was sufficient to meet all demands.

Tank supply. Tank supply. Tank supply. Tank supply. The storage in the tank at the commencement of the year was 44.94 millions cubic feet, which fell to 13.06 millions cubic feet on the 10th July, when the tank received its first replenishment. The full storage of 118.70 million cubic feet was reached on the 8th August 1894, and the tank remained full till the 13th November 1894. At the close of the year the tank was more than half full, the contents being 78.86 millions cubic feet.

4. The rainfall of the year was 25.37 inches against 17.63 inches in the Rainfall. Previous year and 21.47 inches, the average of the past 12 years. By seasons the year's fall was as given below, in comparison with that of the previous year :---

	Seasons,		1894-95.	1893-94.
			Inches.	Inches.
Kharif	•••		21.95	13.69
Rabi	•••	•••	3.42	1.65
	Total		25.37	15.34

Although the kharif fall was greater than that of the previous year, there was a long break in the month of August, when only 0.06 inches of rain fell and this necessitated the watering of monsoon dry-crops from the tank. The rabi rain, though very favourable, did not cause any remarkable decrease in the rabi irrigation.

5. The areas irrigated during the year amounted to 363 acres, distributed Area irrigated. as under by seasons and the villages commanded in comparison with those of the previous years :---

Villages,			Kh	arif.	Ra	ıbi.	Total.		
	illages,	•	,	1893-94.	1894-95.	1893-94.	1894-95,	1893-94.	1894-95.
			·	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Umrana Sauidana Nandgaon	•••	•••• •••	••••	44 25 	77 39 	177 111 2	102 117 28	221 136 2	179 156 28
		Total	•••	69	116	290	247	359	363

The increase in the kharif irrigation was due to an increase in the area under sugarcane, and also in that under fodder crops in the hot weather. The long break in August necessitated the use of the canal water for 25 acres of bájri crop, which would have otherwise withered and failed. The details of the kinds of crops watered with their valuation are given in Statement III—E. The value of the crops was Rs. 3,758.

6. In the village of Saundana, before the Parsul Tank was constructed, Permanent irrigation under revenue survey. bit between about 98 acres of land entitled under the Survey Settlement. to water from the Parsul river, which generally lasted till February, and for the right

to use which a charge of Rs. 2-6-0 per acre was levied. After the completion of the tank the owners of these fields were required to pay the rates for irrigation from the tank, in addition to those previously levied. Government, however,

в 1340--10

have now, after careful consideration of the facts of the case, decided that during the currency of the present lease the crop rate is not to be charged in addition to the consolidated rate, unless the irrigators prefer to surrender the guarantee. Should they prefer to adhere to the terms of the settlement, the water-supply is to cease after February, and if water is required after February the difference between the Parsul Tank crop-rate and the water share of the survey settlement rate already paid is to be charged.

The total assessments of the year amounted 7. Gross revenue. to Rs. a. p. Water-rates 1.694 4 0 ... .... .... Miscellaneous • • • 9 15 0 ... Total ... 1,704 3 Û

against Rs. 1,426-3-0 of the previous year. The increase was chiefly in the kharif assessments which amounted to Rs. 707-11-0, the highest amount yet reached since the opening of the tank. It is due to larger areas of sugarcane and fodder, both high-rated crops.

8. The realizations amounted to—

			*	1	Rs.	а.	p.	
Water-rates	•••	•••	•••		1,881 9	4	0	
Other sources	•••	***			9	15	0	
			•	•	1,891	3	0	

This is inclusive of the amount of over-collection of Rs. 8-6-0 twice received by mistake from one irrigator. The amount will be refunded. Omitting this sum, the actual revenue receipts of the year were Rs. 1,882-13-0.

10. The outstandings of revenue to end of the year are Rs. 986-9-0, which is the amount of the rabi assessments sent for realization after the close of the year.

11. The working expenses amounted to Rs. 1,359 against Rs. 970 of the Working expenses. The increase was due to the increase in the establishment charges brought about by the ruling promulgated in Government Resolution No. 280, A.I.—1903 of 14th December 1894, according to which a percentage is debited to capital expenditure and the balance of the outlay on establishment is distributed in proportion to the outlay on works and repairs in the case of the 1st and 2nd class revenue works. This mode has reduced the establishment charge on the old irrigation works in this district and enhanced the working expenses of the new irrigation works. The least establishment is maintained for this and other similar works, and there is no margin now to effect any reduction.

Water-rates. 12. The previous scale of water-rates, viz:

for kharif crops Re. 1 per acre, rabi crops, Rs. 4 per acre and hot weather Rs. 6 per acre, was sanctioned for the year under report also. There was no separate rate sanctioned for perennial crops. Water was allowed to these according to the rate for the season in which they were watered. A considerable area of land received water all the year round and was assessed at Rs. 11 per acre.

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

Crops.		Ar	ea in acres,	Assessment,
				Rs.
Kharif		•••	25	21
Rabi (including 8 months' crops)		•••	240	962
Hot weather (including perennial)	• • •		98	708
•				
	Total	•••	363	1,694

Measurement of crops.

14. There has been no separate charge for measurements of irrigated crops, which were done by the canal kárkún. Area applied for and irrigated. 15. The area applied for compared as below with actual irrigation :--

_		•			Kharif. Acres.	Rabi. Acres.
٠	Area applied for	•••	•••	•••	96	· 131
	Do. actually irrigated	***	•••	***	116	247
			Difference		20	116
	,		Dimetence	***	20	110

The differences were due partly to under-estimates in water applications, but mostly to the káyam bágáyat land of Saundana having been irrigated without water applications.

Evaporation and absorption. 16. The calculated loss by evaporation and absorption was as under :--

Khan	if Season.		··· ···	
	- -			Feet.
April, May and June, 66 days	•••	***	• • •	5.26
	i Season.			0.57
November 1894 to January 1898	· •	•••	•••	2.57
	l Season.		•	
February and March, 59 days	••• 、	•••	•••	<b>2</b> ∙00
		Total		9.83
	Average	daily loss	•••	··048
· ·			•	

# (17).—OJHAR CANAL.

1. The area irrigated during the year was 1,544 acres, of which 593 were under kharif, and 951 under rabi crops. The total shows a decrease of 699 acres on the area of the previous year. There was an increase in kharif due to untimely rainfall, and a considerable decrease in rabi, owing to heavy rain in October.

Comparison of area applied for and irrigated. 2. The following statement compares the area applied for and irrigated during the year :--

•	Kharif.		Rabi,		Total.		Difference, less Irrigated.		
Year.	Applied for.	Irri- gated. '	Applied for.	Irri- gated.	Applied for.	Irri- gated.	Kharif.	Rabi,	Total.
	Acres.	Acres.	A.cres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1894-95	. 855	- 593	1,015	951	1,870	1,544	• 262	64	326

The area not irrigated is 17:43 per cent. of the area applied for. The decrease is reported to have been due to timely and favourable rain after receipt of applications, which rendered canal water unnecessary.

3. Owing to the falling off in rabi irrigation, the water-rate assessments amounted to only Rs. 4,678 as detailed below, against Rs. 6,030 in the previous year.

			•				٠			Rs.	
Kharif						•••		•••	•••	2,617	
Rabi	•	•••		•••		••			•••	2,061	
				•	~ x			Total	•••	4,678	
								•	•		

Area irrigated per mile of main canal and of main canal and branches. 4. The area irrigated per mile of main canal was kharif 31.21 and rabi 50.05 acres, and that of main canal and branches was kharif 14.82 acres and rabi 23.77 acres.

Comparison of area irrigated and revenue. 5. 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.		Remarks	•	
		Acres.	Rs.	From 1st	April to	31st	March.
1891-92		2,621	6,490	Rainfall			15·44
1892-93		1,100	3,471	Do.			37.72
1893-94		2,243	6,030	Do.			25.09
1894-95		1,544	4,678	Do.			25.46

6. The incidence of water-rate per acre was 3.03 against 2.69 in the previous year, which was due to an increase in the area of perennial and hot weather crops.

Capital account.

7. The capital account is closed. Rs. 51 were paid during the year on account of masonry outlets.

Working expenses.

8. The working expenses amounted to Rs. 28,766 as detailed below, against Rs. 6,808 in the previous year :---

Re

					100.
Maintenance and repairs	•••		•••		4,582
Share of establishment	•••	•••		•••	20,781
Tools and plant		•••	•••		122
Share of collection charg	res		•••		372
Indirect charges	•••		•••	•••	2,909
			Tota	1	28,766
					······

The incidence of total charges per mile of main canal open was Rs. 1,514, and per acre irrigated Rs. 18.63.

The increase under maintenance and repairs is Rs. 1,211, and is due to special silt clearance. There is also an increase under Establishment charges, which is due to no charges on account of establishment being charged to works for which only revenue accounts are kept, and on which there was no expenditure. The increase under Tools and Plant is due to the increase in the amounts for repairs and new supply during the year necessitated by additional clearance work. That in collection charges is due to the increase in the amounts to be collected during the year.

The increase in indirect charges is due to the increase in establishment charges.

<sup>9</sup>. The duty per cubic foot per second of water admitted into the canal Duty of Water. Was 18:36 acres in the kharif and 29:06 acres in the rabi season. That of water actually utilized was 25:29 acres in the kharif and 37:90 acres in the rabi season.

10. The water-rates were the same as those in force since 1889-90, but revised rates are to be introduced from 1st April Water-rates. 1895.

11. The total cost of measurement of 1,090 acres (excluding 454 acres sub-divided) during the year was Rs. 118, or 1 anna and 9 pies per acre against Rs. 202, or 1 anna and 9 pies per acre last year.

12. The rainfall as gauged at Ashvi was kharif 20.29, rabi 4.00, total 24.29 inches, or 2.25 inches more than the average of Rainfall. the last five years. The rainfall in February 1895, not included in the above figures, was 1.17 inches.

13. The supply of water in the Pravara River was sufficient to meet all requirements. In January a temporary earthen River supply. bund 2 feet high was thrown on the weir as usual to increase the back water during the hot weather of 1895-96.

Plantatio	<b>ns.</b>		14. At end of the year the number of trees on this canal was 13,105. The numbers of principal kinds were:—								
Bábul	•••		•••	10,151	Bakan ·		•••	•••	28		
Mango			•••	839	Jámbhul		•••		209		
Do. graft	8			52	Sandal	••••			89		
Orange				29	Nimb	•••	•••		1,490		
Bor				112	Bamboo		•••		53		
Moho	• • • •	•••	•••	2	Kyene		•••	•••	2		

11 Miscellaneous trees ... Siras .... ...

The total number last year was 11,805.

Canal closures.

The canal was closed eight times during the 15. year for silt and weed clearance for periods aggregating 54 days in all.

### (18).—BHATODI TANK.

The area irrigated during the year was 1,698 acres, of which 517 were 1. under kharif and 1,181 under rabi crops. The total Area irrigated. shows an increase of 85 acres on the area of the last year. The increase in area is undoubtedly due to increased vigilance on the part at the canal establishment, who discovered many cases of surreptitious waterings of night time.

- 2. The following statement compares the Comparison of areas applied areas applied for and irrigated during the year :for and irrigated.

	KRA	KRABIF.		RABI.		TOTAL.		DIFFBRENCE.			
Year.	Applied for	Irrigat- ed.	Ap plied for.	Irrigat- ed.	Applied for.	Irrigat- ed.	Kharif.	<b>R</b> ábi,	Total.		
	{	1		Acres.	1	}	Acres.	Acres.	Acres.		
1894-95	487	517	1,609	1,181	2,096	1,698	+ 0	-428			

The cultivators on all three irrigation works in the Ahmednagar District appear to make applications for water before deciding whether they will make use of the permission when received, thus causing much unnecessary office and field work to the canal establishment. Endeavours are being made to check this practice by returning the applications sanctioned as early as possible.

3. During the year the water-rate assessments Water-rate assessments. amounted to Rs. 5,467 detailed as below, against Rs. 5,173 in the previous year :---

				Rs.
Kharif	•••	•••	•••	2,572
Rabi	•••			2,895
			Total	5,467

в 1340-11

#### (18),—BHATODI TANK.

4. The following table compares the areas irrigated and revenue derived during the previous three years with the figures of the year under report :---

Year,			• Area irrigated.	Revenue from water-rates.	Remarks.
	*	·	Acres.	Rs.	From 1st April to 31st March Rainfall.
1891-92	•••		1,576	4,818	20 30
1892-93	•••		1,337	4,038	46.63
1893-94	•••		1,613	5,173	81.20
1894-95	•••		1,698	5,467	28.55

Water-rate per acre.

5. The incidence of water-rate per acre was Rs. 3.22 against 3.21 in the previous year.

Working expenses.

6. The working expenses amounted to Rs. 12,281 detailed as below, against Rs. 4,148 in the previous year:—

•	:		Rs.
Maintenance and repairs		•••	1,963
Share of establishment .	•••	•••	8,796
Tools and plant	•		11
Share of collection charges		•••	280
Indirect charges	•••		1,231
•			
	Total		12,281
			-

The rate of working expenses per mile of main canal open was Rs. 2,729 and per acre irrigated Rs. 7.23.

The increase in maintenance and [repairs was trifling and calls for no explanation.

The increase in establishment is due to no charges on account of establishment being debited to works for which only revenue accounts are kept, on which there was no expenditure. Previously charges were made proportionately, and the remaining amount was debited to works for which only revenue accounts are kept.

The increase in indirect charges was due to the increase in establishment charges.

7. The duty per cubic foot per second of water actually utilized was Daty of water. 122.22 acres in the kharif and 134.66 acres in the rabi season.

8. The water-rates are the same as those in force since 1889-90. Revised water-rates. as sanctioned in Government Resolution No. 154 A. I.—898, dated 7th June 1895, are to be introduced

from 15th October 1895.

9. The cost of measurement amounted to Rs. 30 or Re. 0-3-10 against Cost of measurement. Rs. 19 or Re. 0-1-10 per acre irrigated last year. Out of the irrigated area of 1,698 acres, 1,573 acres had

Cost of measurement. of the irrigated area of 1,698 acres, 1,573 acres had merely to be inspected and checked with the registers of Pot numbers, and 125 acres had to be actually measured. The excess rate is due to the fields being at a distance from each other, and the incompetence as a measurer of the canal Inspector. In future measurements will be made by a special measurer as usual.

10. The rainfall as gauged at Bhatodi was kharif 22.34, rabi 2.61, total Rainfall. 24.95 inches, or 0.56 inches less than the average of the previous five years. The rainfall in May 1894 and February 1895, not included in the above figures, was 3.60 inches.

11. The water-supply of the tank was sufficient to meet the requirements Tank supply. of the cultivators. On 1st April 1894, the water in the tank stood at 18.10 feet above sill of outlet sluice, that is, at R. L. 88.10 against R. L. 91.87 on the same date in the previous year. The tank received its first replenishment on 22nd May 1894, and the R. L. of surface of water rose from R. L. 85.00 to 85.50. The highest level of water in the tank was 94.75 on 14th September 1894, that is, 2.25 feet above the crest of waste weir. The R. L. of surface of water on 31st March 1895 was 81.90.

12. At the end of the year the number of trees on the canal was 7,681 Plantations. as compared with 7,662 in the previous year. The numbers of principal kinds were :---

Mango	• • •	•	993	Nimb	317
Do. grafts	•••	•••	17	Sandal	161
Tamarind			45	Siras	49
Bor	•••		147	Bábul	5,189
Orange	•••		29	Miscellaneous	595
Jámbul			139		

## (19).—MÁTOBA TANK.

The water in the tank stood at 17.42 feet above sill of outlet on 1st April Tank supply. 1894. The draw-off for irrigation reduced the level until 22nd June when it stood at 0.50, and the tank ran dry on the 23rd June. From the 24th June it commenced to be replenished and filled to overflowing on the 26th August. On the 31st March 1895, the level was 17.94 above sill of outlet, or 0.44 foot higher than on the same date in the previous year.

2. The area irrigated from the tank during the year was 1,420 acres, of which 828 acres were under kharif and 592 acres under

Area irrigated and assessments. rabi crops. The total shews an increase of 278 acres as compared with that of the r vious year, due to increase in the area of monsoon dry-crops and rice.

The assessments of water-rates amounted to Rs. 9,936, and the miscellaneous revenue to Rs. 143, making a total of Rs. 10,079 against Rs. 10,792 in the previous year. The incidence of water-rates was Rs. 7.00 per acre irrigated against Rs. 9.45 in the previous year.

3. The area irrigated was ascertained by actual measurements, most of which were taken by measurers, specially entertained for

Crop measurements. intervals of his regular work. The total cost of measurements was Rs. 81, or 11 pies per acre, as compared with 9 pies in the previous year.

4. The working expenses amounted to Rs. 4,257, which represents a rate per mile of canal in operation of Rs. 250.41 or 2.99 per

Working expenses. acre irrigated. The expenditure on maintenance and

repairs during the year was greater than in 1893-94 due to the puddling work done on portions of embankments. The charge for establishment was also proportionately greater on the above account.

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.	
		•	•		· · · · ·	Acres.	•	
834	$ \begin{cases} April \\ May \end{cases}$				8.41	363	<b>4</b> 3·16	
004	··· ( May	•••	•••	]	6.48	360	55.55	
895	January	***			7.83	350	44.63	
000	… ( March	•••	•••		9.69	445	45.92	

#### (21) .- SHIRSUPHAL TANK.

Area irrigated and applied for.

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

År	BA APPLIND	FOR,	AREA IBBIGATED.			Мо	B <b>E.</b>	LESS.	
Kharif.	Rabi.	Total,	Kharif.	Rabi.	Total.	Kharif.	Rabi.	Kharif.	Rabi.
1,218	730	1,948	828	592	1,420	•••	•	• 390	138

The decrease is due to the cultivators over-estimating the areas of their fields.

### (20).-KASURDI TANK.

The depth of water above sill of outlet in this tank on 1st April 1894 was Tank supply. So feet. On the 2nd May the tank ran dry. On the 23rd July it received a slight replenishment and on 4th August became dry again. From 8th September the tank received gradual replenishments and filled to a height of 10.70 feet above sill on 10th September 1894. The water was drawn off for irrigation, and on 25th November 1894, it ran dry and remained so to the end of the year.

2. The area irrigated was 1 acre of kharif only. The small area irrigated was due to the failure of supply. During the hot Area irrigated and assessweather the bed was utilized as usual for the cultiva-

ment.

weather the bed was utilized as usual for the cultivation of melons, and a sum of Rs. 180 was obtained as rent.

The assessments amounted to Rs. 309, of which Rs. 8 were on account of water-rates and Rs. 301 for miscellaneous revenue.

Working expenses.

3. The working expenses amounted to Rs. 369.

Area applied for and irrigated.

4. The following table shows comparison of area applied for and irrigated :---

AREA APPLIED FOR			AREA IRRIGATED.			Mo	BE.	LE38.	
Kharif,	Rabi.	Total.	Kharif.	Rabi,	Total.	Kharif,	Rabi.	Kharif.	Rabi.
3	<b>0</b> 6 6	3	1	•••	1	•••	<b>***</b>	2	

The difference is due to failure of supply.

# (21).-SHIRSUPHAL TANK.

On the 1st April 1894 the water in the tank stood at 14.74 feet above sill of Tank supply. The previous year. The tank ran dry on 3rd September and remained so till the 7th of that month. It commenced to be replenished from the 8th September and water rose to 11.30 feet above outlet sill on 23rd October 1894. At the close of the year the tank again ran dry.

Area irrigated and assessment. The area irrigated was 177 acres of kharif, as compared with 913 acres in the previous year. The decrease was due to failure of supply.

The net assessments amounted to Rs. 1,304, of which Rs. 1,079 were on account of water-rates and Rs. 225 for miscellaneous revenue.

2. The areas irrigated were measured by measurers specially entertained for the purpose, and partly by an Inspector when time

Cost of measurement. could be spared from his ordinary work, and the measurements were checked as usual by the subordinate in charge. The cost was Rs. 16, or 1 anna and 5 pies per acre against 10 pies in the previous year.

3. The working expenses amounted to Rs. 3,196, which represents a rate for maintenance per mile of canal in operation of

Working expenses. Rs. 255.68 and Rs. 18.06 per acre irrigated. The expenditure on maintenance and repairs during the year was greater than in the previous year due to the renewal of regulating bars.

4. Owing to failure of supply, no information of Duty of water. any value can be given, regarding the duty of water.

Area applied for and irrigated.

again on the 31st March 1895.

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

Are	A APPLIED	FOR	ABEA IRRIGATED.			MORE.		Less.	
Kharif.	Rabi.	Total	Kharif,	Rabi.	Total.	Kharif.	Rabi.	Kharif.	Rabi.
Acres.		Acres.	Acres.		Acres.			Acres.	
209	•••	209	177	•••	177		•••	32	•••

The decrease is due to the cultivators over-estimating the areas of their fields.

6. Remissions amounting to Rs. 557 have been granted during the year on account of short supply of water due to failure of supply in the tank.

7. To ascertain the loss by evaporation and leakage from the tank during Evaporation and leakage. the year, gaugings were taken for broken periods during the months of April 1894 to March 1895 inclusive, or a total number of 300 days. During this period the loss amounted to 35,882,337 cubic feet, or nearly one-eleventh of the total capacity of the tank above outlet level. The tank was emptied in September 1894 for five days and

# (22).—BHÁDALVÁDI TANK.

At the beginning of the year the water level stood at 10.90 feet above Tank supply. Tank supply. The outlet sill, or 20.35 feet lower than on the same date in the previous year. The tank received gradual replenishments during the year, and on 22nd October water rose to a height of 25.80 feet above sill of outlet, and on 31st March 1895 the water in the tank stood at 20.17 feet above the sill of outlet.

2. The areas irrigated were 6 acres of kharif and 293 acres of rabi Areas irrigated and assessments The decrease was due to failure of supply.

The assessments of water-rates amounted to Rs. 674, and the miscellaneous revenue to Rs. 72, making a total of Rs. 746 against Rs. 4,403 in the previous year.

3. The areas irrigated were measured partly by a measurer specially cost of measurement. Cost of measurement.

The total cost of measurements was Rs. 19, or 1 anna per acre against 10 pies in the previous year.

в 1340—12

4. The working expenses amounted to Rs. 1,687, which represents a rate Working expenses. of Rs. 173.02 per mile of canal in operation and Rs. 5.64 per acre irrigated.

Duty of water. 5. No information regarding duty of water that would be of any value can be given, owing to failure of supply.

Area applied for and irrigated.

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

	Ав	SA APPLIKD	FOR,	ÅRBA IBRIGATED,			Mora.		Leas,	
4	Kharif.	Babi,	Total,	Kharif.	Rabi.	Total.	Kharif.	Rabi.	Kharif.	Rabi,
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.				Acres.
	6	528	534	6	293	299	•••	•••		235

The difference is due to the cultivators over-estimating the areas of their fields.

7. 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, May, June, July, August and October to March 1895, or a total number of 294 days. During this period the loss amounted to 41,942,364 cubic feet or nearly ; of the total capacity of the tank above outlet level.

## (23).-KOREGAON TANK.

The rainfall for the year under report was 23.10 inches (kharif 21.20 and<br/>rabi 1.90) against 18.80 inches (karif 14.50 and rabi<br/>4.30) of the previous year.

2. The area irrigated during the year was 391 acres (kharif 85 and rabi Area irrigated. 306) against 352 acres of the previous year (kharif 94 and rabi 258). The area irrigated was nearly the same as applied for.

3. The assessment on account of water-rates amounted to Rs. 1,150 against Assessed revenue. Rs. 1,006 of the previous year. The gross revenue from all sources amounted to Rs. 1,175 against Rs. 1,015 of last year.

Ye	Years.		Kharif.	Rabi.	Total,	Water- rates.	Gross Eevenue.	Working expenses.	Remarks.
		,							•
888-89			151	79	230	714	1,289	757	٠
889-90			13	323	336	743	746	895	
890-91			121	99	220	590	599	773	
891-92			· 66	<b>363</b>	429	1,061	1,073	886	
892-93			47	255	302	769	779	1,087	
893-94			94.	258	352	1,006	1,015	822	
894-95	•••	•••	85	306	391	1,150	1,175 ·	730	

The decrease of 9 acres in kharif area in 1894-95, as compared with the figures for the previous year, was small. The increase of 48 acres in rabiwas due to the unfavourable rainfall in 1894-95.

5. The working expenses, including indirect charges, were Rs. 730, of which Rs. 312 were for maintenance and repairs, representing Rs. 83 per mile of canal (the length of the canal being 3<sup>3</sup>/<sub>4</sub> miles) against Rs. 94 of last year.

Measuring charges. 6. The area irrigated was measured at a cost of Rs. 40, or Re. 0-1-8 per acre against Re. 0-5-4 in the previous year.

7. The rainfall over the catchment area, which is 4.4 square miles, was 22.60 inches against 18.50 inches of the previous year,

Tank supply. and the run-off is calculated to have been 0.639 of the rainfall from June to October 1894, and 0.496 up to 13th September 1894, the date on which the waste weir began to overflow.

Evaporation and absorption. 8. The following figures show the storage and evaporation and absorption :----

•		C. ft.
Quantity of water in Tank	•••	207,958,010
Quantity of water discharged through canal over waste weir Quantity in the Tank on 31st March 1895	and	119,311,136 57,161,600
• •	-	176,472,736
Quantity lost by evaporation and absorption	***	31,485,274

Duty of water. result was as under :-9. Special experiments were made to determine the duty of water required for certain crops, and the

' Plot Number.	Name of crop.	Cubic feet of water required per acre to bring the crop to maturity.	Remarks,
1. 2 3	Sugarcane Groundnut Jowári	499,606 115,689 59,740	

10. At the end of the year the numbers of trees above and below 5 feet on this work were as given

below :--

Plantations.

		•		Above 5 feet.	Below 5 feet
Bábul	4	***		1,550	725
Nimb				5	5
Mango	•••	•••		1 2	•••
Jámbul		***	•••		1
Tamarind	•••		***	13	
Bori	•••		•••	20	_ 15
Miscellaneo	u9	**•	•••	107	87
•				1,698	833
		Tota	1	2,5	31

There was no expenditure incurred on plantations during the year.

#### (24) .- ASHTI TANK.

#### (24).—ASHTI TANK.

1. The rainfall for the year under report was 21.70 inches (kharif 19.30 Rainfall. Rainfall. Rainfall. Rainfall.

2. The area irrigated was 1,459 acres (kharif 645 and rabi 814) against 1,198 acres of the previous year (kharif 711 and rabi

Area irrigated. 487). The area actually irrigated was nearly the same as that applied for. The land under command having been sub-divided into small irrigation numbers, the cultivators know the exact area of land to be irrigated.

3. The assessment on account of water-rates was Rs. 4,717, against Rs. 3,860 of the previous year. The gross revenue

Rs. 4,207 of the previous year.

Comparison with irrigation 4. The following statement compares the results and revenue of previous years. of the year with those of the previous .six years:—

Y	Years,		Kharif.	Rabi.	Total.	Water rate,	Gross Revenue.	Working expenses.	- Remarks.
			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.			576	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	
		•••				_,,	-,	0,000	

5. There was an increase of 327 acres in rabi, and a decrease of 66 acres in kharif, as compared with the previous year. The former was due to unfavourable rainfall in the rabi season. The revenue from sources other than water-rates was Rs. 399, and was on account of land let out for cultivation, and grazing, and sales of babul trees, branches and aloe leaves, &c. The incidence of water-rate per acre was Rs. 3.23, against Rs. 3.22 of the previous year.

6. The working expenses, including indirect charges, were Rs. 3,953, of Working expenses. which Rs. 2,079 were for maintenance and repairs, representing Rs. 70 per mile of canal against Rs. 81 in the previous year, the length of canals and distributaries being  $29\frac{1}{2}$  miles.

7. No measuring charges were incurred, as the lands under command have been sub-divided into smaller numbers for irrigation purposes.

8. The rainfall over 92 square miles of catchment area of the tank was gauged at two stations, Ashti and Modlimb, and the average was 21:62 inches against 21:47 inches of the

Tank supply. average was 21.62 inches, against 21.47 inches of the previous year. The run-off into the tank is calculated to have been 118 of the rainfall from 1st June to 31st October 1894. The tank did not fill to over-flowing.

Evaporation and absorption. 9. The following shows the storage of water and loss by evaporation and absorption during the year.

Total quantity of water in the Tank Quantity of water discharged through canals	12,85,281,116-95
and waste weir	3,57,752,888·0 <b>0</b>
Quantity in Tank on 31st March 1895	4,96,573,716·00
-	8,54,326,604-00
Quantity lost by evaporation and absorption .	4,30,954,512-95

10. The trees on the tank contour and canals, under and above 5 feet in height on 31st March 1895, were 24,320 and 12,809

Plantations.

height on 31st March 1895, were 24,320 and 12,809 repectively, and the expenditure on plantations during

the year was Rs. 236. The revenue from plantations during the year was Rs. 96 realized by sale of trees. This amount has been credited under head "other canal produce."

Daty water.

11. Special experiments were made to determine the duty of water, and the result was as under :---

Plot Number.	Name of C	rop.	Quantity of water per acre required to bring the crop to maturity.	Rema bus.		
12.3	Sugarcane Chillies Inferior rice	•••	 Cubic feet. 3,70,492 1,17,730 70,991			

## (25).—REVA'RI CANAL.

• The construction estimate of this canal was closed on 31st March 1893. Closure of construction estimate. Closure of construction on account of land taken up for the extension of the 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 headworks, is shown in the following table :--

Year.	 Kha	rif.	Rabi.		Total.	
	In.	cents.	In.	cents.	In.	cents.
1894-95	 27	91	3	85	31	76
1893-94	 21	95	4	78	26	73
Average 1890-93	 21	07	6	58	27	65

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

Years,	Kharif.		Ra	Rabi.		Total.		Working expenses,
	Acres.	Rs.	Acres.	Rs.	Acres.	Rs,	Rs.	Rs.
1894-95 Average 1890-93		3,035 2,184	1,199 871	3,549 2,896	1,541 1,056	6,584 5,080	4·27 4·85	1,938 1,837
Increase	157	851	328	653	485	1,504	••••	101
Decrease		•••		•••			0.28	

As compared with the average of the previous four years, there is an increase of 157 acres in the kharif and 328 acres in the rabi seasons.

в 1340—13

#### (25).-REVA'RI CANAL

• The latter large increase was due to crops, such as groundnuts, &c., for which water was applied for in the kharif season, having been watered in the rabi season on account of favourable rainfall in the former and insufficient rainfall in the latter season. The net increase in the water-rate assessment is Rs. 1,504 over the average of previous four years. This increase is due to the popularity and natural growth of irrigation on the canal. Remissions of Rs. 24 and 26 were granted in the kharif and rabi seasons respectively, vide Government Resolution No. 3610, dated 23rd August 1865. Revenue from other sources was Rs. 126, bringing the gross revenue up to Rs. 6,710.

Principal crops.

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

		Area irrigated in 1894-95.	Average of the previous four years.
		Acres.	Acres.
Sugarcane	 	94	87
Wheat	 	187	128
Groundnut	 	652	518
Jowári	 •••	470	23 <b>2</b>

Area applied for and irrigated. 5. The area irrigated was 43 per cent. of that irrigable and 4 per cent. in excess of that applied for.

6. • The working expenses, including direct and indirect charges, amounted Working expenses. mile of canal was Rs. 387, and the rate per acre irrigated was Rs. 1.296, as compared with Rs. 350 and Rs. 1.29 for the previous year.

Net profit.

7. The operations of the year show a net profit of Rs. 4,772, or 8 per cent. on the direct capital outlay of Rs. 56,582.

Cost of measurement.

8. 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 Measubement and Bevenue Establishment.						
				Area irngated		per Acre,			Total Cost.	Per Acre.	
					Acres.	Rs.	Rs.	Rs. a. p.			
1891-92	•••	•••	•••		. 837	5.76	160	030			
1892-93			•••	!	1,011	4.15	- 181	029			
1893-94					1,348	4.64	217	027			
1894-95					1,541	4.27	271	029			

Excluding the charge for revenue establishment, the cost of crop measurement alone was Rs. 187 or Re. 0-1-11 per acre against Rs. 140 and Re. 0-1-8 per acre for 1893-94.

9. The average duty of water obtained was for the kharif season 72 acres Duty of water. per cubic foot per second and for the rabi, 121 acres.

10. The number of trees of all classes on the canal at the beginning of the year was 1,828 and at the end 1,729. The net revenue from plantation was Rs. 105.

The principal varieties are babul 1,188, jambul 129, and bamboo 124.

#### (26).—UPPER MAN RIVER WORKS.

The construction estimate of this project was closed on 31st March 1892. Closure of construction No expenditure was incurred on capital account during estimate. the year under report.

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

Years.			Kha	rif.	Ra	bi,	Total.	
			In.	cents.	In.	cents.	In.	cents.
1894-95	•••		15	28	4	90	20	18
1893-94	•••		12	53	- 5	43	17	96
Average 18	890 <b>-9</b> 3	•••	11	90	7	95	. 19	85

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

<b>Үеаг</b> е.	Kharif.		Bal	Babi.		Total.		Working expenses.
	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Rs.	Rs.
1894-95 Average 1890-93		4,264 3,454	680 481	<b>2,4</b> 11 <b>1,</b> 608	1,294 1,322	6,67 <b>5</b> 5,062	5·16 3·75	4,239 4,831
Increase		810	199	803		1,613	1.41	•••
Decrease	227	•••		•••	28	. •••		592

As compared with the average of the previous four years, there was a decrease of 227 acres in the kharif season and an increase of 199 acres in the rabi season. The year's assessment is Rs. 1,613 more than the average of four years, but is less by Rs. 396 than that of 1893-94. This decrease is due to the fact that there were no replenishments to the Pingli Tank up to 19th July 1894, and on this account it became necessary to refuse some applications for water on the lower sections of the canal.

4. The principal crops irrigated during the year were as follows, compared Principal crops. with the previous four years :---

Crop	-		Area irrigated in 1894-95,	Average of the previous four years.
Wheat Jowári	•••	••	372 218	199 218
Groundnut Sugarcane	<b>.</b>	•••	170 112	281 57

5. The area irrigated was 17 per cent. of the irrigable area and 5 per cent. Area applied for. in excess of that applied for.

6. The revenue from all other sources amounted to Rs. 100, bringing the Miscellaneous revenue. gross revenue of the year to Rs. 6,775.

7. The working expenses, including direct and indirect charges, amounted to Rs. 4,239 against Rs. 5,119 for 1893-94. The rate per mile of canal was Rs. 301 and per acre irrigated Rs. 328. The expenses amount to Rs. 62 per cent. on the gross revenue.

8. After deducting working expenses from the gross revenue there was a net profit of Rs. 2,536, equal to a rate of 0.62 per cent. Net profit, on the outlay of Rs. 4,07,421 for direct charges.

Cost of measurement,

9. The average water-rate and cost of measurement as compared with the previous four years were

as under :---

	Yes			Total area	Average incidence of water-	Cost of Measurement and Revenue Establishment.			
:	T 04			irrigated,		Total Cost.	Per Acre.		
				Acres.		Rs.	Řs. a. p.		
1891-92				1,391	3.09	109	013		
1892-93	•••	•••	•••	1,039	2.90	303	04*8		
1893-94	•••	•••		. 1,490	4.75	474	051		
1894-95	•••		•••	1,294	5.16	414	051		

Excluding the charge for revenue establishment, the cost of crop measurement alone is Rs. 175 and Re, 0-2-2 per acre against Rs. 254 and Re, 0-2-9 per acre for 1893-94.

Duty of water.

10. The average duty of water obtained was for kharif 162 acres per cubic foot per second and for rabi, 116.

11. The following table shows the principal levels of the Pingli Tank which serves this system of Storage. annola

Date.	Date.		Date.			Remarks,		
31st March 1894          19th July 1894          22nd October 1894       26th         26th       Do         31st March 1895          Outlet sill          Full supply level	•••	   	2,362·19 2,347·99 2,371·84 2,371·19 2,363·58 2,342·09 2,371·09	Lowest pre-monsoon level. Highest monsoon level. Level at end of monsoon.				

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

12. The number of trees of all classes on the canals at the beginning of the year was 5,245, and at its close 5,003.

The principal varieties are, bábul 4,824, jámbul 28, saundad 20, mango 17. The net revenue from plantation was Rs. 57.

(27).-YERLA RIVER IRRIGATION WORKS.

The works of (1) reconstructing a portion of Nehr Tank Dam, (2) Nehr Works in progress. (4) Dam drainage works and canal bed-stones, (5) Nehr Tank Service road, (3) Special Repairs to Nehr Store, (4) Dam drainage works and canal bed-stones, (5)

Famine memorial pillar, Nehr Tank, and (6) Replacing new sluice rods, Nehr Tank, were in progress. The expenditure incurred during the year was Rs. 5,772 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.		Total.		
•		In.	ct.	In.	ct.	In.	ct.
1894-95	•••	23	49 98	5	91 50	29 25	40 48
1893-94 Average 1890-93	•••	18 19	98 92	6 7	97	23	48 89

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

Years.	Kharif.		• Rabi.		• To	tal.	Average water- rate.	Working expenses.
	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.		
1894-95 Average 1890-93	147 700	1,694 3,889	2,238 1,263	70 3,936	2,385 1,963	8,728 • 7,825	3∙66 3∙98	23,752 6,233
Increase		••••	975	3,098	422	903	•••	17,519
Decrease	553	2,195	•••	•••	•••	:	0:32	••••

As compared with the average of the previous four years, there was a decrease of 553 acres in the kharif and an increase of 975 acres in the rabi season. This was due to the favourable rainfall in the kharif and to scanty rainfall in the rabi season, a portion of the area applied for in the former season having been watered in the latter. The replenishment to the Nehr Tank during the monsoon was good, and the supply would have lasted throughout the hot season, but water was let out to lower the level in the tank for replacing new rods to the sluices, causing a decrease in the perennial and hot weather irrigation. Owing to the present state of the Nehr Tank Dam and the uncertainty of a sufficient supply for perennial crops, the cultivators irrigated dufing the year a larger area of rabi crops, the net result being an increase of 422 acres in area and of Rs. 903 in assessment over the average results of the previous four years, and of 427 acres in area and of Rs. 1,742 in assessment over those for 1893-94. Compared, however, with 1891-92, the year before the accident to the Nehr Tank Dam occurred, the figures are as follows :--

			Kb	arif.	Ra	bi.	Total,	
	Years, -		Area.	Assess- ment,	Area.	Assess- ment.	Area.	Assess ment.
			Acres.	Rs. ·	Acres,	Rs.	Acres.	Rs,
1891-92	•••		915	5,624	1,332	<b>3</b> ,832	2,247	9,456
1894-95		•••	. 147	1,694	2,238	7,034	2,385	8,728

It may, from these figures, be fairly assumed that when the reconstruction of the dam has been completed, and a sufficient supply for perennial crops has been secured, the irrigation of the higher rated crops will be resumed and a corresponding increase in revenue obtained.

Remissions to the extent of Rs. 6 were granted in the rabi season, vide Government Resolution No. 107 W. I.—327 of 22nd August 1877. The revenue from other sources was Rs. 963 and the gross revenue Rs. 9,691.

в 1340—14

#### (27)-YERLA RIVER IRRIGATION WORKS.

Principal crops.

· years :---

4. The principal crops irrigated during the year were as follows, compared with the previous four

Croj	)8 <b>.</b> .	Area irrigated in 1094-95.	Average of the previous four years.	
Groundnut Jowári Wheat Sugarcane	0 1	•••	859 703 294 68	789 436 284 60

5. The area irrigated was 22 per cent. of that irrigable, and 11 per cent. in excess of that for which applications were received.

6. The revenue account of the year is a little complicated by the special charges for reconstruction of the Nehr Dam ordered by Government to be made against revenue, under
 Code II, IX, 13. These special charges and the revenue charges proper of the year are shown below :--

•	Special charges.	Working expenses proper.	Total.
· · ·	Rs.	Rs	Rs.
Works Establishment Tools and Plant Collection	13,647 3,829 112 	3,866 1,255  331	17,513 5,084 112 331
Leave and Pension Allowauces	536	176	712
Total	18,124 .	5,628	23,752

Thus the working expenses proper amounted to Rs. 5,628, as against Rs. 5,964 for the previous year, showing a reduction of Rs. 336. •

As the gross assessed revenue amounted to Rs. 9,691, there would, but for the exceptional and special outlay on the reconstruction of the Nehr Tank Dam, have been a net surplus revenue of Rs. 4,063.

Cost of measurement. 7. The average water-rate and cost of the measurement, as compared with the previous three years, were :---

	Years.			Total area irrigated	Average incidence of	· Cont of Measurement and Revenue Establishment.		
•		•		пивачел	water-rate por acre.	Total cost.	Per scre	
				Acres.		Rs.	Rs. a. p.	
1891-92		• •	• •••	2,247	4.21	303	022	
1892-93	•••	· • • •	•••	1,831	<b>3</b> ·48	466	0'4 1	
1893-94		•••	•••	1,958	3·57	527	044	
1894-95				2,385	3.66	. 556	0 3 8	

Excluding the charge for the revenue establishment, the cost of crop measurement alone was Rs. 216 and Re. 0-1-5 per acre against Rs. 212 and Re. 0-1-9 per acre, for 1893-94.

Duty of water.

8. The average duty of water obtained was for kharif 21 acres per cubic foot per second, and for rabi 107.

Storage.

9. The following table shows the principal levels of Nehr Tank :--

Date			M. S. L.	Remarks.	
31st March 1894 1st June 1894 24th October 1894 25th Do. 31st March 1895 Outlet sill Full supply level	···· •·· •·· •··	····	2,650.98 2,640.24 2,660.12 2,659.72 2,648.51 2,634.02 2,666.02	Lowest pre-monsoon level. Highest monsoon level. Level at end of monsoon.	

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

10. The number of trees of all classes on the Plantations. canal at the beginning of the year was 22,167, and that at its close 30,715.

The principal varieties are babul 24,476, mango 3,212, karanj 539, and bamboo 332. The net revenue from plantation was Rs. 784.

### (28).—CHIKHLI CANAL.

Closure of contruction estimate.

The construction estimate of this canal was closed on 31st March 1883.

Rainfall.

The rainfall, as gauged at Chikhli near the 2. head of the irrigated area, is shown in the following

table :-

Year			Kha	orif.	R	abi.	Tot	tal.	
1894-95 1893-94 Average 1890-93	•••	*		Inches. 15 15 15	Cents. 09 64 76	Inches. 4 5 7	Cents. 93 60 73	Inches. 20 21 23	• Cents. 02 24 49

3. The area irrigated, assessments, working expenses and average waterrate, as compared with the averages of the previous Area irrigated and assessment. four years, were as follows :---

Year.	• Kharif.		Rabi.		Total.		Average water-rate,	Working expenses.
	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Rs.	Rs.
1894-95 Average 1890-93 .	147 295	1,061 1,425	258 65	916 261	405 360	1,977 1,686	4·88 4·69	874 829
Increase		•••	193	• 655	45	291	0.19	45
Decrease	148	364		***	•••	***	•••	. ***

There was a decrease, as compared with the average in kharif revenue of Rs. 364, and in area irrigated of 148 acres. In rabi, there was an increase of Rs. 655 in revenue and 193 acres in area irrigated. The reason for this is that on account of favourable rainfall in the kharif season, some of the principal crops, such as groundunts, &c., did not require water in that season, but were afterwards watered in the rabi season on account of insufficient rainfall in that season. The net increase in the water-rate assessment is Rs. 291 over the average of previous four years.

Principal crops.

4. The principal crops irrigated during the year were as follows, compared with the previous four

	·			·····		
Names	• 1 of Crops.			Area irri- gated in 1894-95.	Average . of the previous four years.	
•		<b>.</b>		Acres.	Acres.	_
Groundnut Wheat Jowári Sugarcane	  	•	•••	191 36 51 34	181 27 37 24	•
			}		l	

5. The area irrigated was 27 per cent. of the irrigable area and 18 per cent. Area applied for. more than that for which applications were received.

Miscellaneous revenue.

6. Revenue from other sources was Rs. 63 and the gross revenue amounted to Rs. 2,040.

7. The working expenses, including direct and indirect charges, were Rs. 874. The expenses amounted to 43 per cent. on the gross revenue an to Rs. 134 per mile of canal open and Rs. 2.16 per acre irrigated.

8. The operations of the year show a net profit of Rs. 1,166, or 2 per cent. Net profit. on the direct capital outlay of Rs. 53,803.

Cost of measurement.

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

<b>Хеата</b> .		Total Area	Average. incidence of water-	COST OF MEASUBBRENT AND BEVENUE ESTABLISH- MENT.			
÷.		-	irrigated. •	rate per Acre.	Total Cost.	Fer Acre,	
			Acres.		Rs.	Rs. a. p.	
1891-92		•••	375	4.10	No char	zo this year.	
1892-93	•		269	· 4·65	62	038	
1893-94			370	5.43	113	0 4 10	
1894-95	•		405	4.88	120	049	

Excluding the charge of revenue establishment, the cost of the measurement alone was Rs. 36 and Rs. 0-1-7 per acre against Rs. 36 and 0-1-7 per acre for 1893-94.

10. The average duty of water obtained was for the kharif season, 33 acres. Duty of water. per cubic foot per second and for the rabi 43 acres.

11. The number of all classes of trees on the canal at the beginning of the Plantation. year was 2,685 and at its close 2,763.

The principal varieties are Lábul 2,519, mango 140, nimb 34.

The net revenue from plantation was Rs. 63.

56

. years :-

#### (29),-MAINI TANK CANAL.

## (29).—MAINI TANK CANAL.

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

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

Year.	Kh	Kharif.		Rabi.		otal.
1894-95 1893-94 Average 1892-93	Inch. 12 11 16	cents. 31 54 84	Inch. 2 4 7	cents. 12 02 56	Inch. 14 15 24	cents. 43 56 40

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

Year.		Kha	rif.	Rabi.		Total.		Average water- rate.	Working expen- ses.
		Acres.	Rs.	Acres.	, Rs.	Acres.	Ŕs.	Acres.	Rs.
1894-95 Average 1890-93		272 1,003	1,760 5,091		3,331 1,726		5,091 6,817	3∙98 4∙64	3,827 8,602
Increase	•••	•••	•••	543	1,605			•••	•••
Decrease		731	3,331	•••		188	<b>1,72</b> 6	<sup>-</sup> 66	4,775

The kharif area irrigated during the year was less by 731 acres and the rabi greater by 543 acres than the average irrigated during the previous four years. The assessment during the year is less than that of the average of the past four years by Rs. 1,726. The reason for this decrease is the same as was reported in the revenue report for 1893-94, that is insufficient rainfall and the accumulation of silt in the tank, now 14 feet higher than the outlet sill. Unless the contents of the tank are increased there will be no growth of irrigation on this canal. Enquiries are proceeding as to whether anything can be done.

4. The principal crops irrigated during the year were as follows, compared Principal crops, with the previous four years :---

· •			Area irrigated in 1894-95.	Average of the previous 4 years.	
	·		· .		
Sugarcane		•••	40	.74	
Sug <b>arcane</b> Wheat	•••	•••	132	173	
Groundnut		•••	566	525	

5. The area irrigated was 27 per cent. of the irrigable area under command Area applied for. of the canal and 11 per cent. in excess of that applied for.

6, The revenue from other sources amounted to Rs. 515 and the gross Miscellaneous revenue. revenue to Rs. 5,606.

7. The working expenses, including direct and indirect charges, amounted Working expenses, Rs. 2.99 per acre irrigated and about 68 per cent. of

the gross revenue. p 1340-15

8. The operations of the year show a net profit Net profit. of Rs. 1,779.

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

Vere			Avera Total inciden						
Ye	: <b>at</b> e,		area irrigated.	of water rate per acre,	Total Cost.	Per Acre.			
**************************************			Acres.		Rs.	Rs. a. p.			
<b>1</b> 891-92	•••		1,687	4.74	237	023			
1892 93	•••		1,101	<b>4</b> ·46	419	0 6 1			
1893-94	•••	••••	1,359	4.81	532	0 6 3			
1894-95	•••	•••	1,280	3.98	440	0 5 6			

Excluding the charge for revenue establishment, the cost of crop measurement alone was Rs. 224 and Re. 0-2-9 per acre against Rs. 334 and and Re. 0-3-11 per acre for 1893-94.

10. The average duty of water obtained for the kharif season was S2 acres per cubic foot per second and for the rabi season, 139. Duty of water.

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

Date.	Above M. S. L.	REWARES.			
31st March 18943rd June 189430th September 189425th October 189431st March 1895Outlet sillFall supply level	2,289·94 2,287·14 2,300·57 2,300·08 2,291·02 2,269·32 2,300·52	Lowest pre-monsoon level. Highest monsoon level. Level at end of monsoon.			

The average depth of sill above the outlet sluice is 14 feet. 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 9,681 and at its close 8,800. The net Plantation. revenue from plantation was Rs. 493.

## (30).-MUCHKUNDI TANK.

The rainfall of the year compares with that of the previous year and with 1. the average of the 10 previous years as under :--Rainfall.

-	Ebsrif	Rabi,	Total.
Average of 10 years	12·38	8·38	20.76
1893-94 1894-95	10.68 13.22	10.88 4.65	21-56 17-87

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Area irrigated and assessmonts. 2. The areas irrigated and assessed revenues of the past 3 years are shown below:--

Years.			Ars	AS IRRIGA	TED.	Assessments,			
i çarə.		Kharif.	Rabi.	Total.	Kharif.	Rabi.	Total.		
			Acres.	Ac res.	Acres.	Rs.	Rs.	Rs.	
1892-93 1893-94 1894-95	••••	•••	3 10 16	 2 3	3 12 19	25 54 82	 6 7	25 60 89	

In 1891-92, when the rain almost entirely failed during the rabi season, there were 200 acres irrigated, but that was an exceptional year. Since then the tank irrigation has very slowly been increasing as seen from the above figures.

3. Besides water-rates, the sum of Rs. 200 was realized under miscellaneous Miscellaneous revenue. revenue from the sale of grass within the tank limits.

4. Working expenses amounted to Rs. 566 as against Rs. 387 last year Working expenses. the increase being due to a small survey during the year for enlarging the catchment area of the tank.

5. There was ample supply in the tank throughout the year for the small Storage. At the end of the monsoon the tank held 14.64 feet of water. The run-off during the

year into the tank amounted to 0.165, or almost exactly one-sixth of the rainfall.6. The total number of trees and plants on the main and branch canals was

Plantation.

753, consisting of bábul 722, nimb 28 and tamarind 3. The bábul are mostly fair-sized trees, the others are

, \*g

only small plants.

(31).—NILGUND TANK.

An expenditure of Rs. 20 was incurred on this work only for clearing prickly pear on the dam. No other work has been carried out. There is no irrigation under this tank, as in accordance with Government Resolution No.  $\frac{98 \text{ W} \cdot \text{L}}{1,141}$  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 under the control of the Revenue Department
  - 2. The rainfall of the year was 28.53 inches, almost exactly the average Rainfall. (28.63) for the last 27 years, gauged at Sampgaon six miles from the tank.

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

4. The working expenses, direct and indirect, amounted to Rs. 236 against 'Working expenses. Rs. 304 of the previous year.

5. After deducting working expenses the net revenue amounted to Net revenue. Rs. 1,751, which represents a return of 18.87 per cent.

This small work was carried out for the relief of famine in 1876-77, and has financially been most successful.

#### (33).—DA'MBAL TANK.

The rainfall of the year was considerably less than that of the last year. ItRainfall.Rainfall.rabi 4.76) against 20.37 inches of the previous year.The average total fall of the previous 10 years was 20.73 inches.

2. At the beginning of the year there was a depth of 6 feet of water in the tank. It fell to 4.38 on the 26th April 1894, when the

Storage. first replenishment occurred. On the 26th October the greatest storage was reached, namely 965 feet above the bed of the tank. The tank ran dry on the 31st March 1895.

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

Years,		Kharif,		Rabi.		Total.		Average water-rate.	Working expenses.
	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.		Rs.	
1892-93		261	272	54	115	815	387	1.23	571
1893-94		110	629	17	50	127	679	5.35	560
1894-95		98	624	74	261	172	885	5.15	918

The increase of 45 acres in the area irrigated, as compared with that of the previous year, was due to the scanty later rainfall of the year under report. 143 acres were irrigated under consolidated rates bearing assessment (irrigation revenue) of Rs. 982. The total revenue from both these sources, amounted to Rs. 1,867, giving an incidence of Rs. 5.15 and Rs. 6.87 per acre for new and old irrigation, respectively.

4. In addition to the above revenue a sum of Rs. 204 was derived from Miscellaneous revenue. produce, making a total of Rs. 525 under this miscellaneous head.

5. The tank revenue from all sources thus amounted to Rs. 2,193, and Net profit. equal to 2.10 per cent. on the direct capital outlay of Rs. 60,844.

6. The average water duty per cubic foot per second was during the kharif Duty of water. season 143 acres and during the rabi season 54 acres.

(34).—MEDLERI TANK.

Rainfall.

The rainfall of	the year
Kharif 2.64	
Rabi 6.65	
Total 9.29	

17

was-

as compared with 14.98 inches of the previous year, the average fall of the previous 10 years being 21.39 inches.

2. At the commencement of the year the water level was 8.52 above the outlet sluices. The highest level reached was 10.25 feet on the 31st May 1894, after which date it fell steadily, and the tank became dry on 18th February 1895.

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

Years,		Kharif.		Rabi.		Total.		Average water-rate.	Working expenses.
	1.	Acres.	Rs.	Acres.	Rs. 🔺	Acres.	Rs.		Rs,
1892-93 1893-94 1894-95	•••	75	269 283 361	19 21 37	68 127 116	95 96 137	337 410 477	3·55 4·27 3·48	600 527 835

4. It will be seen from the above figures that there was an increase in the area irrigated and the revenue assessed, as compared with the previous year. The increase was due to the failure of rainfall of the year.

Miscellaneous revenue.

Duty of water.

The total revenue from all sources was, therefore, Rs. 493.

6. The average duty of water per cubic foot per second during the kharif was 238 acres and during the rabi 119 acres.

# (35).—MADAG TANK.

The rainfall of the year (during kharif 11.72 inches and rabi 8.02 inches) Rainfall. Rainfall. Rainfall. Rainfall.

was 28.99 inches.

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

Усагя,	Kharif.		Ra	bì.	. Tot	al,	Average water-rate,	Working expenses.
1802-93 1803-94 1894-95	. 318	Rs. 1,081 796 1,274	Acres. 382 374 335	Rs. 1,134 1,096 965	Acres. 741 692 924	Rs. 2,215 1,892 2,239	2·99 2·73 . 2·42	Rs. 1,050 920 1,687

The increase of 232 acres in the area irrigated, as compared with that of the previous year, was due to the insufficient rainfall of year.

3. In addition to the above revenue Rs, 308 were realized on account Miscellaneous revenue. of sale of grass, trees, &c., making a total revenue of Rs. 2,547 or Rs. 386 in excess of that of the previous year.

Plantation. 4. The total number of trees on the canals is 3,052, consisting chiefly of mango, babul nimb, sandal

5. Deducting Rs. 1,687, the amount of working expenses, direct and in-Net profit. equal to about  $\frac{1}{2}$  per cent. on the direct capital outlay of Rs. 1,61,243.

6. The average water duty per cubic foot per second was during the . Duty of water. Law that is season 120 acres and during the rabi season 48 acres.

## (36),—ASUNDI TANK.

The rainfall of the year was during kharif 7.07 inches and rabi 6.42 inches, Rainfall. 24.44 was inches. The average fall for the previous 10 years was

 The tank received replenishments in the last week of April, and it filled Storage. on the 19th of May and water flowed over the weir crest till 21st idem. The water level then gradually
 fell, but the tank again filled on 5th and 6th of June. After that the water level stood between 10 and 7.88 above the outlet sluices till 22nd of October, B 1340-16

62 (37) - MÁVINKOP TANK ; (38). - GOKA'K CANAL, 1ST SECTION, AND STORAGE WORKS.

and then fell steadily owing to the demand for canal water for irrigation purposes on account of scanty rainfall, and there was no water in the tank on 31st March 1895.

Area irrigated and assess-

ment.

3. The area irrigated, assessment, working ex-

penses and average water-rate, as compared with the

	two previous years, were :										
Years.		. Kharif.		Rabi.		Tota	<b>.</b>	Average water-rate.	Working expenses.		
		Acres.	Rs.	Acres.	Rs.	Acres.	Rs.		Rs.		
1892-03 1893-94 1894-95	•••	$\begin{array}{c} 46\\ 60\\ 112 \end{array}$	196 175 476	18 25 99	120 116 303	64 85 211	316 291 779	4·19 3·42 3·69	1,162 791 909		

The above figures show a considerable increase in the area irrigated, and the water-rates assessed over those of the previous year or any other year since 1884-85. The increase was due to scanty rainfall.

4. In addition to the above, 185 acres, with an irrigation revenue of Rs. 632, Miscellaneous revenue. Miscellaneous revenue. 1 as miscellaneous receipts.

5. The total amount of revenue was Rs. 1,412, and the working expenses Net profit. direct and indirect amounted to Rs. 909, leaving a net profit of Rs. 503 on the operations of the year, or equal to 0.83 per cent. on the direct capital outlay of Rs. 60,741.

Duty of water. Tabi season 149 acres. 6. The average water duty per cubic foot per second was during kharif season 62 acres, and during

# (37).—MA'VINKOP TANK.

Water distribution, &c., under this tank is managed by the cultivators concerned under the control of the Revenue Department.

2. The area irrigated, all kharif, was 492 acres with a consolidated assessment of Rs. 1,265, which is the same as that of the previous year. Four-fifths or Rs. 1,012 were credited for water share. Rs. 5 were realized on account of miscellaneous receipts, the total revenue from the tank, therefore, amounted to Rs. 1,017.

3. The Collector of Kánara, in his No. 3104 of 18th June 1895, stated that new rates have been assessed on the lands irrigated by the tank water, which are to come into force in 1895-96. They are as follows :----

			Dry.crop.			Rice.					
			Are	à.	Assess	nent.	Ana	8,	Assessi	ent,	Tota!,
			A.	g.	Rs,	а.	А.	g.	Rs.	a.	R.,
New Akarband	•••	•••	520	15	225	G	616	23	2,395	. 10	2,621
Old do.	•••	•••	647	26	302	15	488	10	1,275	2	1,578
						i I I			Incre	a×e	1,043

This is additional revenue due to the improvement of the tank.

# (35) .- GOKA'K CANAL, 1st SECTION, AND STORAGE WORKS,

The capital expenditure, including direct and indirect charges, during the Capital outlay per was Rs. 18,395, and the total outlay up to the end of the year was Rs. 11,94,576 against the estimated amount of Rs. 12,33,013. The principal items of the year's outlay on works only were Land Compensation (Rs. 471), Extension of Gokák Canal, 1st Section, (Rs. 1,857), and Improving Konur Ford (Rs. 1,222).

# (39),-GOKÁK CANAL, 1ST SECTION, AND STORAGE WORKS.

The short extension of the canal sanctioned in Government Resolution No. 151 W.I.—1940, dated 21st December 1894, was finished soon after the close of the year. It will add 1,030 acres to the present irrigable command of 6,170 acres.

Rainfall. 2. The rainfall gauged at the head of the canal compares with the average of the last ten years and with fall of 1893-94, as under :--

•	5 .		Average of ten years.	1893-94.	1894-95.	
			Inches.	Inches.	Inches.	
Kharìf Rabi		•••	12·62 9·16	10·61 13·50	8·25 5·65	
	Total	•••	21.78	24.11	13.90	

It will be seen that there was a decrease of 2.36 inches in the kharif and 7.85 inches in the rabi, as compared with last year. The total fall was less by 7.85 inches than the average, and not much more than half the fall of the previous year.

3. The lowest level of storage in the hot weather of 1894 was on 21st River supply. March when the tank level was 17.50 feet above the

sill of the canal sluice. On the 19th May the tank was again at about the same level, but it then quickly filled to overflowing. The late rain failed, and storage began to be drawn upon on the unusually early date of 19th December. There was some anxiety, whether the supply to the mills and to the canal would last out through the season, but happily a freshet in the river gave relief on the 11th April 1895, on which date there was only a depth of  $15\frac{3}{4}$  feet in the tank, equal to about 25 days' supply. After the replenishment, there was no further cause for anxiety.

The maximum flood occurred on the 20th July, rising 3.70 feet above the weir crest, representing a volume of 73,000 cubic feet per second and a run-off of 0.10 inches from the catchment area of the river of 1,080 square miles.

Area irrighted and waterrate assessments. completed in the hot weather of 1891:--

		AREA IRRIGATED.			Assessment.			
	Years,		Kharif.	Rabi.	Total.	Kharif,	Rabi,	Total.
	<u> </u>		Acres;	Acres.	Acres.	Rs.	Rs.	Rs.
1891-92 1892-93 1893-94	. <b></b>	•••	3,629 2,821 3,014	2,371 1,027 1,223	6,000 3,848 4,237	6,160 7,139 8,509	5,281 2,218 3,120	11,441 9,357 11,629
•	Average	••••	3,155	1,540	4,695	7,269	3,540	10,809
1894-95	• • •	•••	3,038	1,325	4,363	8,507	3,408	11,915

Area.—The kharif area was about equal to that of last year. In the rabi season there was an increase of 102 acres over that of the previous year due to short rainfall.

The area irrigated during the hot weather was 34 acres against 43 in the previous year.

No applications for perennial crops were refused during the year. The irrigated area (4,363 acres) amounted to 71 per cent. of the entire irrigable area (6,170) acres of the canal, so far as it was then constructed. In 1895-96 the

irrigable area under command will have been increased to 7,200 acres by the completion of the short extension of canal alluded to in the first para. ante.

Assessment.—The kharif assessments were the same as last year, but show a substantial increase over the average of the three previous years. The increase of Rs. 288 in the rabi over that of last year was mostly due to the 102 acres additional area.

No remissions were granted during the year.

5. The average water-rate per acre irrigated was 2.73, or practically the same as that of last year.

Realizations and outstandings. 6. The realizations of the year amounted to Rs. 16,780, including Rs. 4,920 paid by the Mill Company. There were no outstandings.

Miscellaneous revenue.

7. In addition to water-rates the following miscellaneous revenue was derived by the canal :--

Water supply to the Mills Sale of canal produce	***	•••	Rs. 4,920 232
. 4	Total	•••	5,152

The assessment for the continuous supply of 47 cubic feet per second to the mills was Rs. 9,840, but half of this sum had been paid in advance last year (see para. 9, page 62 of the printed Irrigation Revenue Report for 1893-94), so that the actual realization of the year for water power was Rs. 4,920 only.

Total assessed revenue. 8. The total assessed revenue of the year was therefore :--

			Rs.
Water-rates	**-	•••	11,915
Water power			9,840
Canal produce	••	***	232
			**************************************
		Total	21.987

9. The working expenses, including direct and Working expenses. indirect charges, compare as under for the last four vears, being the period in which the present works have been in operation :---

Particulars.			1891-92.	1892-93.	1893-94. 	1894-95.
Works Establishment Tools and Plant Refund of Revenue Collection Leave and Pension Allowances		• • • • • • • • • •	2,626 1,501 199 10 837 210	2,654 1,650 302 14 867 231	2,439 1,587 282  1,522 222	2,416 1,859 300 24 827 260
	Total		5,383	5,718	6,052	5,686

The outlay on works was the same as last year, Establishment cost Rs. 272 more in consequence of the new rules directing a debit of share of Subordinate Establishment to revenue management. Collection charges were less by Rs. 295 than last year, and the whole cost of working was Rs. 366 less.

Cost of working per mile of canal and 10. The cost of working was :--

Years,		Per mile of Canal,		Per scre frrigated.	
1891-92			2,051	•89	
1892-93			2,178	1.43	
1893-94			2,306	1.43	
1894-95			2,166	1.30	

The high cost per mile is misleading as in consequence of the falls (200 feet high) just below the main weir, the canal in a length of only  $2\frac{5}{9}$  miles attains its present command of 7,200 acres irrigable land. At  $2\frac{1}{2}$  miles the canal gives off its first and at present its only great branch to Wadarhatti. With the canal only constructed for the 1st section, this Wadarhatti Branch is virtually the main Canal, and if its length, 12 miles, be added, to the  $2\frac{5}{9}$  miles of canal proper, the working expenses per mile of canal become  $\frac{5.896}{146} = \text{Rs}$ . 390.

The cost of working per acre irrigated is seen to be rather less than in the two previous years.

11. The following table compares the gross assessed revenue with the working expenses for the last four years :---

	Years	<b>.</b>	Gross assessed revenue.	Working expenses,	Per cent.	Surplus revenue,	
1891-92	- - - • •••	·	19,317 19,340	5,383 6,718	27'9 29:6	13,934 13,622	
1892-93 1893-94 1894-95	••• •••	•••	*21,665 21,987	6,052 5,686	25·8 25·9	15,613	

\* Excludes' Rs. 4,920 paid in advance for 1894-95.

The working expenses as seen from this table compare very favourably with those of any of the previous years, the percentage to assessed revenue being only 25.9, as compared with 27.9, the lowest on record since the completion of the works.

After deducting working expenses from the assessed revenue of the year, there remains a surplus of Rs. 16,301, which represents a net return of nearly  $1\frac{1}{2}$ per cent. on the whole capital outlay (Rs. 11,94,876) to end of the year, direct and indirect. In the case of so young a canal, this is a very favourable and promising result. The current water-rates last till 1897-98 inclusive, when they will be again considered, and there is little doubt that the rates can then be substantially increased without in any way prejudicially affecting the popularity of this canal. Moreover, the increased command of 1,030 acres (irrigable) secured by the extension of the canal (see para. I) will in a year or two add sensibly to the favourable results already attained.

12. The quantity of water given out during the year to the Mills Company Water supply to the mills. remained as before at 47 cubic feet per second continuous supply night and day. During 1895-96 the company have applied for an increased supply up to 58 cubic feet per second continuous flow.

 13. The area irrigated was measured by a special establishment consist- Cost of measurement. ing of one measurer and the required number of khalá- sis. The cost of measurement was Rs. 749 equal to Re. 0-2-9 per acre irrigated against Rs. 772 equal to Re. 0-2-10 of the previous year.

14. The duty of water was 238 acres in the kharif and 144 acres in the Duty of water. Tainfall was below the average, the periods during which the rain fell were so timely and convenient for the crops, that the ordinary discharge from the canal was not required. The same reason influenced the duty of rabi, but to a less extent.

15. The number of existing trees during the year was 7,134, consisting Plantations. chiefly of bábul 6,500, nimb 147, shemi 133, tamarind 80, banian 76, pimpri 64 and mango 54. Of the total number about half are over 6 feet in height, and the remainder are seedlings from 2 feet high upwards,

в 1340—17

# PARTI

## 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 Gujarát and the consolidated revenue Areas irrigated and revenue. assessed during the year :---

	Number of	Area irri-		REVENUE.			
Collectorates.	works.	gated,	Irrigation share,	Land share.	Total.	REMARES.	
1	2	3	4	5	6	7	
·		Acres.	Rs.	Rs.	Rs.		
Ahmedabad Kaira	<b>a</b> a	10,802 •7,992	21,948 <b>*27,</b> 916	29,128 •11,361	51,076 *39,277	•Figures of 1893-94. In- formation for 1894-95 not available on the	
Sarat	. 28	12,365 905	49,391 3,027	1,17 154 4,739	1,66,545 7,766	records of the Collector of Kaira,	
Khándesh Násik	( 191	9,188 17,817 10,631	58,782 80,804 80,620	12,670 26,002 11,771	71,452 1,06,806 92,391		
Ahmednagar Poona	2	147 515	353	11,771 132 1,015	485 3,872	+In charge of the Khán- desh Irrigation District.	
Sátára Belgaum	67	100 9,910	623 33,049	415 8,255	1,038 41,304		
Dhárwár: Bijápur Ratnágiri	. 17	60,746 1,440 1,349	1,72,894 5,924 3,664	43,221 1,474 2,798	2,16,115 7,398 6,462		
Tộtal	1,308	1,43,907	5,41,852	2,70,135	<b>‡8,11,987</b>	Net consolidated assess ment for the Revenue year 1894-95.	

The following table shows the actual expenditure and receipts for the year 1894-95 on all the irrigation works in the Deccan 2. Expenditure and receipts. and Gujarát for which only Revenue Accounts are kept :--

				Expend	ITUBR.		•			٨c	TULL RB	CHIPTS.			
			Direct	Charges.			Indirect charges.					Indirect Receipte.	Grand	aue.	an refau
Collectorate.	Exten-	Mainte-	Establi	shment.	Tools		Share	Grand Total	Water		Total	Share of	Total Direct and	of Revenue.	eipte b
	sions and Improve- ments.	nance and Repairs.	Direc- tion.	Execu- tive.	and Plant.	Total Direct Charges.	collec- tion Char- ger-1		Rates from Irriga- tion.	Miscel- lancous.	Direct Re- ceipte,	Consoli- dated Revenue,	Indirect Receipts.	Refunda n	Gross Roveipla less relands.
1	2	8	6	5	6	7	8	9	10	n	12	13	16	36	16
	R.	Rs.	Re.	Rs.	Re.	Rø,	Bs.	Ra.	Ro.	Es.	B.a.	B.a.	Re.		Ba.
Ahmedabad	72 13,781 648 6,315 (13,117 13,097 27 		272 1,359 1,254 6,023  48  178 2,641 47 8	1,216 5,509 16,556 26,534 129 641 50,445 177 29	115 408 194 805   300 1,309 14 2	7,046 (36,060 24,696 64,671 	( 4,947 3/3 8,095 8,191 5,878 85 8-0 62 5,305 17,431 692	9,342 41,360 22,764 78,940 85 813 62 8,010 1,05,318 1,769 2,63	{ ··· 9  74 { 1,290  690  524 	427 578 4 129 200  1,638 62	438 678 78 1,2:00 129 940  2,0:00 62 	21,948 §27,948 §27,941 8,027 80,044 50,430 81,752 81,857 623 83,040 1,72,446 5,924 8,046	21,948 56,813 40,049 8,427 90,442 61,910 65,911 65,911 65,911 813 813 813 813 813 813 813 813 813 8		21,948 25,853 49,969 8,027 81,910 65,911 8:58 3,717 613 3,717 613 3,717 613 3,717 613 3,717 613 3,717 613 3,717 613 3,717 613 3,717 613 3,717 613 3,717 613 3,717 613 3,717 613 3,717 613 3,717 613 614 615 615 615 615 615 615 615 615 615 615
Total -	. 65,948	64,971	11,840	\$1,276	3,147	12.27,062	51,624	2,78,1416	8,677	2,996	5,578	5,41,862	8,47,425		6,47,4:25

Expenditure and revenue on account of the works in charge of the Khinderh Irrigation District.
 Excluding—Rs, 25 on account of "Nurperne,"
 Represent charges in the Civil Department not adjusted in the Finance Accounts.
 Figures for 1593-94 ; there for 1595-96 not available.

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8. The total amount of revenue realized from and the working expenses of this class of works during the past three years were as follows :---

	•		1892-93.	1893-94,	1894-95.
•	•		. Rs.	Rs.	Rs.
Revenue realized Working expenses	• ••• •••	•••	5,44,910 1,97,976	5,46,333 2,80,571	5,47,425 2,78,906
	Net Revenue	•••	3,46,934	2,65,762	2,68,519
Percentage of Work	ing expenses to Reven	ue	36.33	51.35	50.94

4. The expenditure from contributions and Pátphála funds on all irrigation works for which only revenue accounts are kept for the year 1894-95 is as shown in table below:---

	* Collectorate			Expenditure				
Collec	Collectorate.		Contributions.	Pátphála Fund,	Total.	REMARKS.		
• 1			2	3	4	5 .		
	-		Rs.	Rs.	Rs.			
Ahmedabad Kaira Surat Broach Násik Kbándesh Ahmednagar Poona Sátára Belgaum Dhárwár Bijápur Ratnágiri	    Total		159 3,060 95 670 148  971 5,617  10,720	 2,759 2,013    4,772	159 3,060 95 3,429 2,161  971 5,617  *15,492	<ul> <li>Accounted for in the Finance Accounts under "Works for which neither Capital nor Revenue Accounts are kept."</li> </ul>		

### AHMEDABAD DISTRICT.

5. The only new work which was in progress during the year was the Khári Irrigation Sluices. improvement and extension of the Naika Channel

estimated to cost Rs. 16,274 and sanctioned in Government Resolution No. 24-W.I.—262 of 13th February 1891. On this an expenditure of Rs. 72 was incurred, leaving an unexpended balance of Rs. 1,203, which will be utilized in making certain improvements lately sanctioned.

6. The working expenses during the year, exclusive of charges for revenue collection, amounted to Rs. 1,133.

Old works. to add thereto. 7. The old works in this district were fully described in the report for 1892-93 and there is nothing

8. During the year under report five tanks were repaired at a total cost of Rs. 2,411 of which Rs. 1,806 were spent on repairs and Rs. 605, including Rs. 261 contributed by the villagers concerned, on improvements.

9. The revenue derived and areas irrigated from tanks in this district are as under :---

Number of tanks Areas irrigated	•••	•••	1	66 0,802 Acres	•
Revenue { Irrigation share	*** ~ **	•••	•••	Rs. 21,948 29,128	
•		Tota	al Rs.	51,076	

### SURAT AND BROACH.

10. During the year under report 38 tanks were repaired at a total cost Tanks. of Rs. 31,360, of which Rs. 15,200 were spent on repairs, and Rs. 16,160 on improvements. Of the above a sum of Rs. 3,083 was contributed by the villagers interested in the irrigation of lands under the different tanks, and Rs. 75 by the Táluka Local Board, Chikhli, in aid of water-supply privileges.

11. Of the 38 tanks, 2 belong to the Broach District, the total cost of repairs and improvements carried out to them amounting to Rs. 1,869.

12. A sum of Rs. 496 was expended in surveying tanks for preparation of estimates for repairs and improvements.

13. The total area irrigated and the consolidated revenue assessed on Area irrigated and revenue. Area irrigated and revenue. Area irrigated and revenue.

•	District.			Area.	Net consolidated assessment.	Irrigation share,	Land share,
			·	Acres.	Rs.	· Rs.	Rs.
Surat	•••		•••	12,865	1,66,545	49,391	1,17,154
Broach	•••		•••	952	7,766	3,027	4,739

# NA'SIK DISTRICT.

15. The area under permanent bágáyat is 17,817 acres, paying Rs. 1,06,806 Area irriagted. assessment, of which the Irrigation share is Rs. 80,804: that is about Rs. 4½ per acre.

16. The expenditure on maintaining the works has been Rs. 6,846 on extension and improvements, and Rs. 452 on repairs, These amounts include contributions. by the rayats of Rs. 585 for improvements and Rs. 85 for repairs.

17. Rs. 4,856 is the estimated cost of works in progress for the improvement of the Dátáli bandhára in the Sinnar táluka, and an increase of Rs. 30 in the Revenue is anticipated when the works are completed. Similarly for the Rs. 1,952 expended on Gulkhadi Nála, an increase of Rs. 104 in the revenue is expected. The other works are all small and unimportant. They consist chiefly of diversions in bad places where the channels run near the river.

# Dotails of expenditure.

	an di Washa	1	894-95.	- Bemarks.
No. •	Names of Works.	Allotment.	Outla <b>y</b> .	DEMARES.
	. REPAIRS.	Rs.	Rs. a. p	).
	TÁLUKA DINDOBI.			
1	Maintenance and repairs to old Wadali	102	101 0	0 Completed.
2	Canal. Repairs to bandhára No. 26 near village at Khedgaon.	108	105 12	6 Do.
	TÁLUEA SINNAE.			
3	Repairs to bandhára at Khopdi Budruk, Sháhápur, and repairs to escape No. 1, and	87	86 4	2 Do.
4	breaches at 3,500, 3,900, and 4,100 feet. Bandhára repair surveys in the Godávari basin, Násik Collectorate.	232	159 0	5 Do.
	Total, Repairs	529	452 1	1
	EXTENSIONS AND IMPROVEMENTS.			
1	TÁLUKA SINNAR.			
1	Improvements to Datali bandhara and Irri- gation Channel.	1		9 In progress.
23	Improvements to Thángaon bandhára Improvements to bandhára No. 39, Khopdi Budruk.	1,175 871	1,095 14 1 870 8	
	Táluka Chándoe.			
4	Constructing a new Gulkhadi Nála ban- dhára at Borala.	500	508 0	6 Do.
	Táluka Dindori.			
5	Improvements to bandhára No. 26 near village at Khedgaon.	581	496 4	6 In progress.
	Táluka Niphád.			
6	Improvements to bandhára No. 27 at Gondegaon, Táluka Dindori, and No. 7 at	150	139 0	6 Do.
7	Niphád. Bandhára extensions and improvements surveys in the Godávari basin, Násik Collectorate.		67 5	7 Completed.
	· · · ·	·		
	Total, Improvements	7,119	6,845 8	5
	Total, Repairs and Improvements	7,648	7,297 9	6

19. The following statement shows the areas irrigated and the consoli-Revenue. dated revenue assessed on second class revenue works during the year :--

в 1340—18

••		• • • • • •				Area	REVENCE.			
No.	· :	Tálu	<b>ka.</b> :			Area irrigation,	Irrigated share.	Land share.	Total	
•~ •		Násik Col	lectora	te.	•	Acres.	Rs.	Rs.	Rş.	
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 28,45\$ 20,229 28,233 16,539 504	
				Total		17,817	80,804	26,002	1,06,806	

# KHAMDESH IRRIGATION DISTRICT.

Area irrigated and revenue.

20. The following table gives a summary of the area irrigated and the revenue derived from old irrigation works :--

·		Khándesh,	Násik.	Total.
Area irrigated at consolidated rates Do. at separate water-rates		9,246	10,631 406	19,877 406
Total	•••	9,246	11,037	20,283
Consolidated revenue		71,682	92,391	1,64,073
Irrigation share of consolidated revenue Separate water-rates		58,9 <b>37</b>	80,620 1,290	1,39,557 1,290
		58,937	81,910	1,40,847

These figures are exclusive of the old irrigation under the Lower Pánjhra system. The miscellaneous revenue amounts to Rs. 129, which being added to the above, the gross revenue from these works amounts to Rs. 1,40,976.

21. A sum of Rs. 800 is outstanding from the separate water-rates due from works improved by the State.

22. The cost of the maintenance and improvement of these old irrigation works is exhibited in the following table in contrast with the outlay of the previous year :--

` 		· ·		1893-94.	1894-95,
Improvements Repairs Establishment Tools and Plant	••• ••• •••	 	• • • • • • • • • •	15,846 3,711 88,480 946	25,204 6,305 82,557 805
,				58,983	64,871

The year's operations have been described in the annual Administration Report of the year. Despite the increase in expenditure on improvements and repairs, the establishment charges have decreased by Rs. 5,923, as these charges are now distributed equally on all works in proportion to the outlay, and the undue debit of charges to these works has disappeared.

23. In the foregoing table the Government share in the maintenance of these works is represented, but that alone is not all that is required to keep up these works. The irriga-

tors also have an obligation to perform in the matter of silt clearance and petty earth-works, and the construction of works of local interest, such as small road bridges, minor diversions, escapes, &c. The latter are carried out from the "Pátphála Fund" a voluntary cess contributed by the irrigators, and from partial grants from local funds, and the former are supposed to be done by the people themselves, Government stepping in to help when the works are beyond the capability of the people. The "Pátphála Fund" money spent during the year amounts to :--

Improvements Repairs	•••	***	Rs. 2,039 2,733
		Total	4,772

against Rs. 1,522 in the previous year, and endeavours are being made to keep the unspent balance of the people's contribution at as low an amount as practicable. The Local Fund expenditure has been on—

			•	Rs.
Works		448		959
Repairs	•••		•••	21
Establishment	*** '	•••	•••	91
Tools and Plant	•••			11
. •			-	فوسود فقاطات
•		Total		1.082

24. The work of silt clearances and petty earthworks is not satisfactorily done by the irrigators, and the question formed the subject of deliberations of a special committee at Poona during the year under report.

#### AHMEDNAGAR DISTRICT.

25. The only two works of this class are situated in the Akola Táluka-

1. Sávargaon bandhára. 2. Gardani do.

26. The following table shows the area irrigated and the consolidated Area irrigated and revenue. revenue assessed during the year.

						REVENUE.	
· .	Name of Band	h <b>árs.</b>		Area Irrigated.	Irrigation share.	Land share.	Total
				Acres,	Rs.	Rs.	Rs
Sávargaon	•••	•••		76	200	61	261
Gardani	•••	•••	•••	71	153	71	224
			Fotal	147	353	132	485

### POONA DISTRICT.

27. The following are the works in this Collectorate, for which only revevenue accounts are kept .:-Old works.

Dam at Kasur. 1.

4. Dam at Náráyengaon.

2. Dam at Vadaj. 3. Dam at Agur.

5. Dam at Pátue. 6. Tank at Wadhana.

The description of these works has been given in the Revenue Report for 1881-82.

28. During the year 1894-95, a sum of Rs. 228 has been expended on maintenance and repairs of the dam at Náráyengaon as Expenditure. under :---

	Strengthening the banks of the existing channel	 •••	Rs. 146 ·	
2.	Diverting the rála close to the bandhára headworks	•••	82	

29. Rs. 27 were expended during the year for gauging the heights of water in Supa, Wadhána and new Pátus Tanks.

#### BELGAUM DISTRICT.

**30**. Total number of second class tanks irrigating over 50 acres each in this district 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 these only one tank was repaired and improved during the year at a total cost of Rs. 4,532. Rs. 24 were paid during the year for land compensation on account of repairs to Hirekeri at Bechinkeri carried out in the previous year.

#### DHA'RWA'R DISTRICT.

The total number of tanks of this class is 3,220, of which 471 irrigate 31. above 50 acres.

Nature of Tanks,	Commenced in previous year.		Commenced and completed due- ing the year.		Commenced, but not completed during the year,		TOTAL	
	Number of Tanks.		Number of Tanks.		Number of Tanks.	Cost of Work.	Number of Tanks.	Cost of Work,
		Rs.		Rs.		Rs,	· ·	Rs,
Irrigating over 50 Acres	19	7,595	14	13,296	18	23,735	51	44,626
Do. less than do	22	818	. 79	9,302	10	4,243	111	14,363
· Total	41	8,413	93	22,598	28	27,978	162	58,989

The following table shows the progress made in repairing and im-32. Expenditure. proving these tanks during the year :-

giving a total of 51 of the larger tanks attended to at a cost Rs. 44,626 and of 111 of the smaller tanks at a cost of Rs. 14,363. The rayats' contribution towards this expenditure was Rs. 5,371.

The area irrigated and the assessment on lands below the tanks irrigat-33. Area irrigated and revenue. ing over 50 acres are as under :---

		Revenue.					
Number of Tanks.	Arca irrigated.	Irrigation share.	Land share.	Total.			
474	Acres. 60,746	Rs. 1,72,894	Rs. 43,221	Rs. 2,16,115			

In addition to the above the following direct receipts were realized during the year:-

•			Rs.
From direct water-rates		•••	524
Do, miscellaneous sources	•••		· 1,536
,		Total	2,060

As in former years no portion of the revenue from land irrigated under the smaller tanks has been credited to the Public Works Department.

#### BIJA'PUR DISTRICT.

34. The fifteen old irrigation works in this district in charge of the Public Works Department shown in the revised list of tanks approved and published during 1893-94 have been reduced during the year by one, the Nandikeshvar Tank in Bádámi Táluka having been struck off the list, vide Government Resolution No. 129 W.-I—1607 of 2nd October 1894. The area irrigated was 1,440 acres and the irrigation revenue under the 14 tanks was Rs. 5,924.

35. During the year Rs. 882 were expended on repairs to 7 tanks and Rs. 67 on improvements to 2 tanks.

### RATNA'GIRI DISTRICT.

36. There are three tanks in this district with an irrigated area of 1,105 acres and an irrigation revenue of Rs. 4,988.

37. Annual ordinary repairs to two of them, *viz.*, the Pat and Warad, were executed during the year at a cost of Rs. 72 and 86, respectively.

# AGRICULTURAL WORKS.

38. The following table shows the financial results of the several Drainage channels in drainage channels constructed in the Broach Collec-Broach.

• Names of Channels.	Expenditure dur- ing year.	Total cost up to date.	Receipts from sale of occupancy rights.	Balance against Ca- pital.	Area assessed under Settlement.	Land taken up for cultivation.	Assessment of land taken up for cul- tivation.	Irrigation share.	Percentage of Rev- enue on Capital.
Jambusar Táluka,	Rs.	Rs.	Rs.	Rs.	Acres,	Acres.	Rs.	Rs.	Rs.
<ol> <li>Kora-Madafar Channel in- cluding Jantram Branch</li> <li>Amanpur-Nadiád Channel</li> <li>Sindhav Channel</li> <li>Vágra Táluka.</li> </ol>	 1,238	16,003 14,302 1,238	2,376 2,104 	13,627 12,198 1,238	2,750 980 63	J,478 748 	5,405 3,093 		39·66 25·35 
<ol> <li>Samadpor-Kadodra-Paniádra Channel,</li></ol>		7,072 23,917	3,800 8,242	3,272 15,675	495 1,251	477 573	1,006 1,429	••••	20·74 9·12
6, Adol-Hajat-Piludra Chan- nel	7	12,296	3,408	8,888	653	490	1,967		22·13
Total	17,739	74,828	<b>19</b> ,930	54,898	6,192	3,766	12,900	•••	23·49

39. The amounts realized from sales of occupancy right during the year 1894-95 were as follows :---

...

...

Rs.

Pakhajan-Ambhel Channel B 1340-19

40. The Pakhajan-Ambhel Channel which was commenced in 1893-94 was all but completed during the year, and has already given a return of over 9 per cent. on the net outlay.

41. The Sindhav drainage channel was completed during the year at a cost of Rs. 1,238, but no land has been taken up owing to the past two seasons being unfavourable. If the present season proves favourable, most of the assessed waste land on the channel is likely to be taken up.

42. The total revenue from all the drainage channels amounts to 23.49 per cent. of the total net outlay.

43. 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. 35.

### No. 9 W. I.-123 of 1896.

Public Works Department.

### Bombay Castle, 28th January 1896.

Letter from the Chief Engineer, Northern Division, No. 4649, dated 14th September 1895.

Forwards the Irrigation Revenue Report for 1894-95, Part I.

Letter from the Chief Engineer, Northern Division, No. 5056, dated 25th September 1895.

Forwards the Irrigation Revenue Report for 1894-95, Part II.

Letter from the Superintending Engineer, Central Division, No. 5581, dated 30th September 1895.

Forwards the Irrigation Revenue Report for 1894.95, Parts I and II.

Letter from the Examiner of Public Works Accounts, No. B.-3—1322, dated 11th October 1895.

Submits the statements and tables required in connection with the Revenue Report of Irrigation Works in the Deccan and Gujarát for 1894-95.

Memorandum from the Superintending Engineer, Southern Division, No. 4341, dated 14th October 1895.

Forwards the Irrigation Revenue Report, 1894-95, Parts I and II.

Memorandum from the Chief Engineer, Northern Division, No. 5299, dated 8th October 1895.

Forwards a letter from the Executive Engineer, Ahmedabad District, together with a revised statement IV. E in accordance with Government Resolution No, 129 W. I.—1460, dated 17th September 1895.

Memorandum from the Chief Engineer, Northern Division, No. 5572, dated 22nd October 1895.

Letter from the Superintending Engineer, Central Division, No. 5977, dated 23rd October 1895.

Memorandum from the Superintending Engineer, Central Division, No. 6109, dated 30th October 1895.

Memorandum from the Superintending Engineer, Southern Division, No. 4566, dated 1st November 1895.

Memorandum from the Superintending Engineer, Southern Division, No. 4902, dated 18th November 1895.

Forwards revised Statement IV, E.

Letter from the Superintending Engineer, Central Division, No. 6560, dated November 1895.

Furnishes the additional information required to complete Statement IV. E.

Memorandam from the Superintending Engineer, Southern Division, No. D.-1317, dated 7th December 1895.

Advises certain corrections in his general remarks accompanying the Irrigation Revenue Report.

Memorandum from the Superintending Engineer, Southern Division, No. D.-13057 dated 6th December 1895.

Forwards amended Statement III. E.

Letter from the Superintending Engineer, Southern Division, No. D.-1377, dated 9th December 1895.

Meinorandum from the Superintending Engineer. Southern Division. No. D.-1399. dated 10th December 1895.

Forwards revised Statement I. E. B 1961-1

Memorandum from the Superintending Engineer, Southern Division, No. D.-1467, dated 14th December 1895.

Submits an amended Statement IV. E to be subsituted for the revised statement previously sent.

Memorandum from the Superintending Engineer, Central Division, No. 6923, dated 13th December 1895. •

RESOLUTION .- The salient features of the year's operations are, as usual, detailed in the general remarks embodied in the report.

.2. The number of works in operation, for which Capital and Revenue Accounts are kept, is the same as in the previous year, Part I.-Number of Works. viz. 36,

3. The Capital expenditure amounted to Rs. 3,74,724, distributed as Capital outlay. follows :--

			~ <b>1</b>			Rs.	
Imperial { Major Works {	Protecti	ive	***	2	•••	2,46,716	
Imperial { major works }	Product	ive	•••			84,390	
/ Minor Works ·					•••	25,223	
Provincial-Minor Works	•••	•••	•••	•••	•••	18,395	
	•				Rs,	3,74,724	
•						~	

Of the total sum of Rs. 3,74,724, Rs. 1,66,888 were on account of Indirect charges, of which, Rs. 1,33,312, were on account of Capitalization of assessment on land taken up for the Nira Canal. The Direct charges amounted to Rs. 2,07,836 and were incurred almost wholly on the Major works, Nira and Mutha Canals. On the Nira Canal the expenditure was, as in the previous year, chiefly on the Bhatghar reservoir, but some work was also carried out at Vir. On the Mutha Canals the expenditure was in connection with the water supply. . works in progress in the foregoing year.

The entire Capital outlay at the end of the year under all heads was Rs. 2,61,17,514, of which Rs. 1,85,81,514 represents expenditure on Major works.

The Interest charges on Productive and Protective Works to the end. 4. of the year were Rs. 1,21,86,874, and deducting the · Interest charges. total net revenue realized, riz. Rs. 19,38,317, the deficit

at the end of 1894-95 amounted to Rs. 1,02,48,557. 5.

The total length of main canals completed was 642 miles and of dis-tributaries 562 miles. When the report for 1893-94 Length of canals. was reviewed, discrepancies were noticed between the figures showing the length of ' Main Canals', ' Branch Canals' and ' Distributaries,' as given in Statements I. A and II. A accompanying the Revenue Reports and Table No. I of the statements of Financial results of Irrigation Works annually prepared for submission to the Secretary of State for India, and orders were issued in Government Resolution No. 73 W. I.—773, dated 14th May 1895, with a view to correct these discrepancies.

In reviewing the report for the previous year it was observed that there 6. were grounds for suspicion that the terms - indicating Irrigable area.

- the areas ' commanded' and ' irrigable ' as used in Statements I. A, II. A and IV. E, were not uniformly interpreted, and the orders of the Government of India were requested for the guidance of the officers concerned.
- These orders were received and communicated to the officers concerned in Government Resolution No. 81 W. I.-953, dated 30th May 1895. The figures entered in the statements accompanying the report under review have been · determined in the light of the interpretation placed by the Government of India on the terms in question, and any comparison with the figures appearing in the report for the previous year will therefore be misleading. For the year under report the gross area under command and the area irrigable at present were 885,342 and 315,694 acres respectively.

The Government of India were further addressed in June last on the subject of the headings of columns 3 and 4 of Statement IV. E, and it was suggested that the figures in those columns, as also the corresponding figures in the annual

comparative statement of irrigation and rainfall, should respectively represent the area irrigable by the complete project concerned and the area irrigable by it at the date of the report. The Government of India, however, replied that. the object of Statement IV. E is to show how the area (1) cultivated and (2) irrigated out of the total area of each district is affected by the rainfall of the year, that the headings in Statement IV. E were correct, and explanation was given as to how the columns should be filled up, and the addition of three new columns was ordered. The Statement IV. E, accompanying this report, has been prepared in the revised form. From the explanation given by the Government of India it appears that they desire that this statement should furnish the necessary information by Districts. This however cannot be done consistently with the maintenance of the form accompanying the Government of India letter No. 166 I, dated 11th July 1885, which requires that the works should be arranged according to their classification as 'Protective,' 'Productive' or 'Minor.' In these circumstances the memorandum, forwarded by the Government of India, which explains the objects of Statement IV. E and the correct method of filling in that statement, has been taken as a guide, and the form has been recast to admit of works appearing by districts. The Government of India should be requested to favour this Government with an expression of opinion as to whether the statement as now prepared satisfies all requirements.

7. The total area irrigated was 84,237 acres as compared with 79,950 Area irrigated. compared with 22.74 in 1893-94.

8. The principal crops irrigated were jowari (19,955 acres), sugarcane Principal crops irrigated. (14,624 acres), groundnut (9,084 acres), wheat (8,833 acres), bajri (6,722 acres) and rice (6,187 acres). All

these crops, except wheat and groundnut, show increases, the most noticeable being that under jowari (8,351 acres). The Nira Canal shows an increase under this crop of 4,577 acres. The area under groundnut shows a considerable falling off, the works chiefly responsible for it being the Nira Canal, the Mhasvad Tank and the works in the Satara District. Under sugarcane the increase was only 1,561 acres. Last year it was noticed that the area of sugarcane on the Nira Canal had risen from 1,639 to 3,436 acres. This year it has further increased to 4,329 acres, but the development has not been equal to what was anticipated. It is stated that perennial irrigation received a severe check owing to the poor outturn obtained and the low market rate for molasses. In several cases unsuitable soil irrigated for the first time kept the cane stunted, and in others the cultivators were new to the sort of irrigation required. . On the Krishna Canal the area of sugarcane has been steadily increasing, and has nearly doubled during the last five years. On the Mutha Canals an effort was made to induce the cultivators to try the cultivation of superior rice. The crops that were grown are reported to have exceeded all expectations both as to outturn and quality of the grain. The area was however small, but it proved that the water-supply was sufficient and the results were generally encouraging. It is now intended to use the whole of the storage at Lake Fife for perennial and eight months' crops, and the only other class of irrigation will be that obtained during the monsoon.

9. The assessed revenue amounted to Rs. 5,93,737 against Rs. 5,91,487 Assessed Revenue. of the previous year. The assessments show a small increase under all heads except plantations and waterpower. The decrease under plantations was mainly on the Hartala Tank and Jamda Canals, while that under water-power was on the Gokák Canal, 1st Section. The average water-rate per acre was 5.10 as compared with 5.37 of the previous year.

10. The gross actual revenue realized from all sources, after deducting Gross actual Revenue. and Revenue. after deducting Rs. \*2,12,556 as compared with Rs. 2,86,328. The outstandings amounted to Rs. 40,417, the greater portion of which has since been realized. 11. The working expenses during the year amounted to Rs. 3,50,926 as Working expenses. Compared with Rs. 2,87,418, showing an increase of Rs. 63,509. The causes of the increase and the variations in the figures for the several works are commented upon in paragraph.13 of the general remarks. The actual increase in expenditure on works and repairs was about Rs. 14,000, the balance being mainly due to a difference in the mode of distributing the charges for establishment.

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Net Revenue. . Working expenses, was-

			Rs.
(a) On the basis of assessment	k 5. 5.*	•••	2,42,811
(b) On the basis of realizations.	434		2,12,556

as compared with Rs. 3,04,069 and Rs. 2,86,328. There is a decrease under both heads for which the increased working expenses are principally responsible.

Financial results. 13. The financial results are unfavourable under all heads.

14. Under Protective Works the Nira Canal shows an increase under net revenue of Rs. 12,760, which is more than counter-

Protective Works. balanced by a falling off of Rs. 18,709 under the Mhasvad Tank, due to heavy charges for unavoidable special repairs to the tank embankment, the result being a decrease of Rs. 5,949. On the Nira Canal the receipts have been more and the working expenses less, while the opposite is the case with the Mhasvad Tank.

15. The Productive Works show a profit of Rs. 2,10,824 against Rs. 2,19,618 Productive Works. of the previous year. The decrease is the total of decreases under the Lower Panjhra, Kadva and Pravara River Works and the Mutha Canals, and is principally due to heavy working expenses, but partly also to a considerable falling off in the revenue on the Mutha Canals. The decrease would have been very heavy but for the favourable returns on the Ekruk Tank and the Krishna Canal, on the former of which the, net revenue rose from Rs. -2,609 to Rs. 16,821, and on the latter from Rs. 23,833

to Rs. 41,783, 16. The Imperial Minor Works show a deficit of Rs. 21,862 against a profit of Rs. 23,667 of the previous year, the works showing the greatest deficit being the Ojhar Canal and Yerla River Works. The question of handing over some of these works to the Revenue Department has now been fully considered and the Government of India will shortly be addressed separately on the subject. The only Provincial Minor Work (Gokák Canal) shows a net revenue of Rs. 11,094 against Rs. 24,594 of 1893-94, the decrease being however apparent only and not real, as is shown in

the body of the report. 17. Under Works for which only Revenue Accounts are kept the area irri:

**Fart II. revenue an increase of 3,486 acres. and gross revenue an increase of Rs. 1,092.** The expenditure **on Extensions and Improvements and Maintenance and Repairs continues to increase, showing that the necessity for the efficient maintenance and im provement of these works is fully recognised.** - Orders have been issued on the **reports of the committees appointed to report on tanks in the Northern and** 

18. The issue of the report under review has been delayed this year partly on account of the preparation of revised Statement IV. E, and partly on account of the number of corrections found necessary. Instructions have been issued which will, it is hoped, reduce these delays in future.

Southern Divisions, and have been communicated to the Government of India.

19. The record for the year under review, as already stated, shows unsatisfactory results, and the conditions are unfortunately Concluding remarks, such as to make this unavoidable. The reasons why the results for the Deccan and Gujarát compare so unfavourably with irrigation

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in many other parts of India, including the Province of-Sind in this Presidency. have been fully explained to the Government of India, and the possibility of improving the existing conditions has long been under consideration and is still engaging the attention of this Government. Measured by direct financial results, the experience of the past is very disappointing; but it is some consolation to find that although many of the projects have failed to give any adequate return on their capital outlay, the total value of the produce under the irrigated area amounts to more than half a crore of rupees, a large share of this being due to irrigation. The singuine anticipations of the past have unfortunately proved unreliable in many instances, and all that can now be done is (1) to endeavour to keep down working charges, including establishment; (2) to endeavour to obtain a reasonable price for the water according to its value to the cultivators and to encourage its use; (3) to limit further capital expenditure to works of development of a clearly remunerative character. While admitting that the figures for the year are not satisfactory, it is necessary to point out that a considerable share of the unfavourable results, as compared to the preceding year, is due to modifications in the method of charging establishment, and much of the loss debitable to this cause is counterbalanced by gain under other heads. Further it is hoped that certain items of special repairs will not recur, and as far as can be foreseen at present, it appears probable that many of the works will show a healthy improvement in the future owing to an increase in revenue; and it is also possible that charges under establishment may be reduced when certain modifications now under consideration are carried out,

20. Copies of the report and of this Resolution should, as usual, be forwarded to the Government of India and the Secretary of State.

### T. D. LITTLE,

Secretary to Government.

<ul> <li>The Revenue Department, Secretariat.</li> <li>The Financial Department, Secretariat.</li> <li>The Commissioner N. D.</li> <li>The Commissioner C. D.</li> <li>The Commissioner S. D.</li> <li>The Commissioner S. D.</li> <li>The Survey Commissioner and Director of Land Records and Agriculture.</li> <li>The Chief Engineer C. D.</li> <li>The Superintending Engineer N. D.</li> <li>The Superintending Engineer S. D.</li> <li>The Superintending Engineer Indus Right Bank Division.</li> <li>The Superintending Engineer Indus Left Bank Division.</li> </ul>	With copies of report.
The Government of India. The Secretary of State for India.	By letter.

The Editors' Table.

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