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MADRAS RECORD OFFICE

GOVERNMENT OF MADRAS

Revenue DEPARTMENT

G.O. No.

2022

Press

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Dated

28. 8. 1876

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2022

*Proceedings of the Madras Government, Public Works Department,
26th July 1876. No. 1,901.*

Read the following papers :—

No. 451. From Lieutenant D. McN. CAMPBELL, R.E., Executive Engineer in charge, Godavery District, to Lieutenant-Colonel J. MULLINS, R.E., Chief Engineer for Irrigation and Joint Secretary to Government, Public Works Department, dated Dowlaishweram, 1st June 1876, No. 592.

I HAVE the honor to forward herewith an abstract of the Irrigation Registers for Fasli 1284 (1874-75).

2. The Collector states that the differences in area between the Revenue and Public Works Department Registers appear to have arisen from the area *actually irrigated* having alone been included in the Public Works Department Registers, while *lands occupied and charged for as irrigated* were shown in the Revenue Registers.

3. The large decrease* in the Eastern Delta on the previous Fasli (1283) is

* Acres 6,463.

made up of 1,334 acres of the 1st crop and
of 5,129 on the 2nd crop. The greatest

portion of the decrease in the 1st crop was under the Bank canal, which the divisional officer considers to be owing to the ryots having cultivated dry crops upon those lands which were better suited for that cultivation than for paddy. The late Mr. Sage also believed that there was much land of this character under the Bank canal; but it seems possible that when the ryots find the supply certain and given early, they may take up all the land that is commanded by that canal. The decrease of 5,129 acres in the 2nd crop in Fasli 1284 was owing to no 2nd crop having been allowed in that Fasli.

4. The decrease in the Central Delta compared with the previous year is stated not to be due either to insufficient supply or to excess of water, but simply to the ryots relinquishing wet cultivation for dry for some reason not explained. Probably when the means of distribution and drainage are improved, all lands that can be irrigated will be taken up for wet cultivation.

GODAVERY DISTRICT.

Abstract of Irrigation Registers for Fasli 1284 or 1874-75.

Canals.	Area of Villages.	Probable uli- mate area to be irrigated.	Area irrigated in Fasli 1284 as per Department of Public Works Registers.	AREA IRRIGATED IN FASLI 1284 AS PER COL- LECTOR'S STATEMENT.			
				Area.	Assessment.	Water-tax.	Total.
<i>Eastern Delta.</i>				Acres.	RS.	RS.	RS.
Cocanada Canal... ..	279,207	39,527	37,975	38,903	65,672	1,11,002	1,76,674
Coringa Canal		33,232	24,159	24,820	44,457	81,165	1,25,622
Mundapetta Canal		32,155	25,117	26,686	57,283	1,04,198	1,61,431
Injeram Canal		16,897	13,087	13,638	16,852	43,295	60,148
Bank Canal		40,899	9,092	9,939	14,219	31,859	46,078
Samulcottah Canal		27,973	23,024	23,259	28,376	52,401	80,777
Total	279,207	190,133	132,454	137,254	2,26,859	4,33,922	6,50,781
Dry crops as per Revenue Ac- counts			2,965				
			135,419				

Proceedings of the Madras Government, Public Works Department,
26th July 1876. No. 1,901.

Abstract of Irrigation Registers for Fasli 1284 or 1874-75.—(Concluded.)

Canals.	Area of Villages	Probable ultimate area to be irrigated.	Area irrigated in Fasli 1284 as per Department of Public Works Registers.	AREA IRRIGATED IN FASLI 1284 AS PER COLLECTOR'S STATEMENT.			
				Area.	Assessment.	Water-tax.	Total.
Central Delta.							
Nagaram Main Canal	84,766	34,364	33,559	17,820	72,652	1,30,537	2,63,189
Bendiamurienka Canal	31,487	10,535	10,093	10,203	16,538	31,000	47,933
East Bank Canal... ..	57,532	22,393	21,517	22,476	32,844	73,127	1,05,971
Amalapur Canal	65,843	28,553	22,747	24,140	30,869	72,173	1,03,041
Gunnarum Canal... ..	18,413	6,350	3,338	3,198	5,467	12,069	18,155
Ballee or Main Canal	11,765	330	2	1	...	1	1
Total	269,806	102,929	91,756	97,833	1,58,770	3,19,506	4,78,276
Dry crops irrigated as per Revenue Accounts			1,776				
			93,332				
Western Delta.							
Nursapur Canal	542,600	62,500	53,223	58,253	86,837	1,89,510	2,76,347
Velpur Canal		30,200	9,656	35,466	58,109	1,00,507	1,58,706
Gostanaddy Canal		24,444	2,553	11,481	30,850	45,521	76,371
Mukkamala Canal		22,800	16,389	7,187	16,265	29,161	45,426
Bank Canal		34,300	23,150	24,023	82,152	75,110	1,07,262
Attili Canal		32,500	44,745	49,458	22,062	60,851	82,916
Venkiah and Weyern		58,900	40,181	44,042	54,971	93,936	1,48,907
Undi High Level Canal		...	89	2,974	4,459	11,333	17,793
Yenamadurra Drainage		...	42,397	44,716	35,901	1,42,027	1,77,938
Ellore Canal		48,200	724	470	31	704	735
Main Canal							
Total	542,600	206,300	287,439	278,950	3,41,627	7,48,663	10,90,200
Grand Total	1,091,613	689,412	481,649	613,142	7,37,256	14,92,091	22,19,347
Dry crops irrigated as per Revenue Accounts			4,541				
			486,190				
				Water-tax paid by the Zemindaris of Nidathavole and Baharavalli on contract			
							40,000
							22,59,347

DOWLAISHWERAM,
1st June 1876.

(Signed) D. McNEIL CAMPBELL, Lieut., R.E.,
Executive Engineer in charge of Godavery District.

No. 64-G.D.
MEMORANDUM.

THE undersigned has the honor to acknowledge the receipt of the letter, No. 592, of the 1st instant, from the District Engineer, Godavery, and to make the following observations on the abstract of irrigation registers therewith forwarded.

2. The areas of villages in the Eastern and Central Deltas for 1874-75 agree with those of 1873-74, but in the Western Delta the following difference is shown and should be explained:—

	ACRES.
1873-74...	550,121
1874-75...	542,600
Difference ...	7,521

3. In Column 3 the entries for the Western Delta for the two years differ in numerous cases, but no information has been given as to the reasons for altering the probable ultimate areas of irrigation under the several canals. If the alterations have been made on the results of a special investigation it should be explained what has been done. Again, in the abstract for 1873-74 areas

Proceedings of the Madras Government, Public Works Department,
26th July 1876. No. 1,901.

were exhibited separately opposite each canal, while in that for 1874-75 in three cases, the areas for canals have been bracketed. It is desirable that the areas for individual canals should be shown separately. In the case of the Main and Ellore canals the areas in this column are for—

1873-74	{ Ellore ...	59,486
	{ Main ...	800
	Total ...	60,286
1874-75	{ Ellore ...	48,200
	{ Main ...	...
	Difference ...	12,086

or a decrease of more than one-fifth.

4. The decrease in revenue in 1874-75 in the Eastern Delta requires very careful consideration. It amounts to Rupees 38,295, and it will be necessary to go fully into the subject, especially as regards water-supply. Taking the Collector's statement of areas and revenue in each year the results shown are—

	1873-74.		1874-75.		DECREASE.		INCREASE.	
	Area.	Revenue.	Area.	Revenue.	Area.	Revenue.	Area.	Revenue.
		RS.		RS.		RS.		RS.
Cocanada Canal ...	38,806	1,76,807	38,903	1,76,674	...	133	97	...
Coringa do. ...	26,370	1,33,692	24,829	1,25,623	1,541	8,069	...	...
Mundapetta do. ...	29,078	1,74,067	26,686	1,61,481	2,392	12,586	...	...
Ingeram do. ...	13,851	64,453	13,638	60,148	213	4,305	...	...
Yanam or Bank do. ...	11,755	64,807	9,939	46,078	1,816	8,729	...	...
Samulcottah do. ...	24,094	85,250	23,259	80,777	835	4,473	...	...
					6,797	38,295		
					97	...		
Deduct increase ...	...	...	...	...	6,700			

The general impression derivable from these figures is that the falling off in area and revenue is due to an inefficient water-supply. There is for the Cocanada canal an increase of area and a decrease of revenue, and with respect to this canal it may be said that the results shown are unsatisfactory because there ought to be a steady even if small increase of both area and revenue until the ultimate area is reached, and the fluctuations should then be very small.

The Coringa and Bank or Yanam canals have one head. For the former the decrease is over 1 per cent. in area, and the revenue decrease is closely proportional. For the latter the decrease of area is nearly 15½ per cent., and of revenue about 16 per cent.

The Mundapetta canal shows a decrease of 8.22 per cent. in area, and 7.23 in revenue.

The Ingeram canal shows a decrease of 1.54 per cent. in area, and 6.63 in revenue.

Lastly, the Samulcottah canal has a falling off of 3.46 per cent. in area, and of 5.25 in revenue.

It is necessary that a very careful analysis should be made of the water reports, which will show clearly what differences of supply there were in each week of the irrigation season in the two years, and of course rainfall in these weeks can likewise be contrasted. The District Engineer should also take immediate steps for preventing a recurrence this year of any mismanagement which may become apparent on an examination of the water-supply in each reach of each canal and at the head of every considerable distributary.

*Proceedings of the Madras Government, Public Works Department,
26th July 1876. No. 1,901.*

5. The Central Delta general results are—

1873-74	Acres.	99,810	Rs.	4,81,851
1874-75	"	97,822	"	4,78,276
Decrease	"	1,972	"	3,575

The difference is not great, but a considerable part of it is on one line, *viz.*, the Gunnaram or West Bank and the Nagaram canal. It should be seen what the state of the water-supply throughout the two seasons was.

6. The Western Delta presents a marked contrast to the Eastern.

1873-74	Acres.	270,884	Rs.	10,57,351
1874-75	"	278,050	"	10,90,290
Increase	"	7,166	"	32,939

This is satisfactory beyond the mere difference in acreage and revenue, because the average revenue per acre of both years is under 4 Rupees, and the increase of revenue is more than 4½ Rupees on the extra area, indicating that the water was not only supplied to a larger area, but also that a better supply was afforded.

The particulars by canals are—

Canals.	1873-74.		1874-75.		DECREASE.		INCREASE.	
	Area.	Revenue.	Area.	Revenue.	Area.	Revenue.	Area.	Revenue.
		RS.		RS.		RS.		RS.
Nursapur Canal ...	57,379	2,68,220	58,253	2,76,347	...	...	874	8,127
Volpur do. ...	10,399	46,832	...	...	...	...	139	798
Gostanaddy do. ...	21,928	1,11,076	35,466	1,58,706	...	...	...	...
Mukkamala do. ...	11,224	74,807	11,481	76,371	...	...	257	1,564
Bank do. ...	10,614	64,612	7,167	45,426	3,447	19,186	...	...
Attili do. ...	23,324	1,08,223	24,023	1,07,262	...	961	699	...
Venkiah and Weyairu...	48,443	87,756	49,458	82,916	...	4,840	1,015	...
Undi Canal ...	39,428	1,20,437	44,042	1,48,807	...	...	4,614	28,370
Yenamadura Drainage.	...	...	2,974	15,792	...	...	2,974	15,792
Ellore Canal ...	43,723	1,74,615	44,716	1,77,928	...	...	993	3,313
Main do. ...	1,422	773	470	735	952	38	...	...
					4,399	25,025	11,565	57,964
							4,399	25,025
							7,166	32,939

In this Delta, though the net results are not by any means unsatisfactory, the details indicate that they probably might have been much more satisfactory. Had the irrigation of 1874-75 under the Bank canal been as good as in the earlier year, and had, instead of the decrease of revenue under the Venkiah and Weyairu, there been an increase in proportion to the extension of area, there would have been an eminently satisfactory general result. The falling off under the Bank canal should be specially investigated, and it should be ascertained whether the work in progress on this canal interfered with the water-supply, and if so, whether such interference was unavoidable. The results for the Undi canal are very good, showing not only extension of area, but a much improved water-supply, and every endeavor should be made to bring the Attili and Bank canals to the same standard of efficiency.

7. The general results for the whole Delta are—

1873-74	Acres	514,648	Rupees	22,28,278
1874-75	"	513,142	"	22,19,347
Decrease		1,506		8,931

*Proceedings of the Madras Government, Public Works Department,
26th July 1876. No. 1,901.*

exclusive of 40,000 Rupees in each year for contract water-supply to Zemindaries, so that the fair results in the Western Delta have unfortunately been more than counter-balanced by the decreases in the Eastern and Central Deltas.

8. The undersigned would, in conclusion, point out that this abstract for 1874-75 is dated eight or nine months later than is desirable. The importance of getting information as early as possible and of comparing the Public Works Department area registers for successive years at intervals during each season's irrigation, and of inquiring at once into falling off in cultivation, also of comparing the water-supply and seeing that the intended water-levels are maintained in the several reaches of all the canals, and that a fully sufficient supply is carefully maintained in distributaries, will it is hoped have been evidenced by this review of the abstracts of 1873-74 and 1874-75. It seems indeed to be by no means improbable that had as good management prevailed everywhere as at the Undi canal, 50,000 Rupees more revenue would have been obtained. Such management may not, under the circumstances, have been every where practicable, but at any rate the Delta officers and the District Engineer should be always quite aware of the state of the irrigation in each season, and should do all that may be possible to make it as satisfactory as practicable. Now one and a half years or more afterwards there is no room for anything but regret that the opportunity for removing such hindrances to effective irrigation and to its extension as were removable was lost, and, of course, the obvious deduction is that means should be taken to find out whatever is wrong at the time when the knowledge can be turned to immediate account.

(Signed) JOHN MULLINS, Lieut.-Col., R.E.,
OOTACAMUND,
21st June 1876.

No. 76-W.
MEMORANDUM.
Irrigation.

THE statement from the Board of Revenue of the irrigation in the Godavery Delta for the year 1874-75 has not yet been received from the Board, but information in an abstract form has been sent up by the District Engineer, and that officer's

No. 592, 1st June 1876.

better, together with this office memorandum, containing a review of the results and instructions to the District Engineer, is submitted for the information of Government in anticipation of the more complete account of the circumstances of the irrigation which it is hoped will be ready before long. It will be seen that there is much need for a very full and careful investigation by the District Engineer of the facts and circumstances which had an influence in the results exhibited for many of the canals.

2. Subjoined is an abstract of the cultivation and revenue in each section of the Delta for as many years as there is information available.

	1871-72.		1872-73.		1873-74.		1874-75.	
	ACRES.	RS.	ACRES.	RS.	ACRES.	RS.	ACRES.	RS.
Eastern Delta ...	144,040	4,55,137	140,543	4,41,177	143,955	4,52,551	137,254	4,23,922
Central do. ...	85,273	2,86,536	99,294	3,23,074	99,810	3,20,109	97,888	3,19,506
Western do. ...	227,119	6,59,324	276,846	7,20,033	270,885	7,22,700	278,050	7,48,663
Total ...	456,432	14,00,997	516,683	14,84,284	514,650	14,95,360	513,142	14,92,091
Water-tax Nida-thavole and Baharzalli Estates ...	...	28,488	...	28,488	...	40,000	...	40,000

(Signed) J. MULLINS, Lieut.-Col., R.E.,
OOTACAMUND,
21st June 1876.
To the Secretary to Government, Public Works Department.

Proceedings of the Madras Government, Public Works Department,
26th July 1876. No. 1,901.

No. 451-A. From Major J. BEATTY, R.E., District Engineer, Godavery District, to Major J. O. HASTED, R.E., Officiating Chief Engineer for Irrigation and Joint Secretary to Government, dated Dowlaishweram, 9th July 1875, No. 1,109.

Abstract.

I HAVE the honor to forward herewith an abstract of the Irrigation Registers for Fasli 1283 (1873-74).

2. The Collector states that the differences in area between the Revenue and Public Works Department Registers appears to have arisen from the area actually irrigated alone being shown in the Public Works Department Registers, while the land occupied and charged for as irrigated is shown in the Revenue Registers.

GODAVERY.

Abstract of Irrigation Registers for Fasli 1283 or 1873-74.

Canals.	Area of Villages.	Probable ultimate area, to be irrigated.	Area irrigated in Fasli 1283 as per Public Works Department Accounts.	AREA IRRIGATED IN FASLI 1283 AS PER COLLECTOR'S STATEMENT.			
				Area.	Assessment.	Water-tax.	Total.
Eastern Delta.					RS.	RS.	RS.
Cocanada Canal	279,207	39,527	37,732	38,806	64,027	1,12,780	1,76,807
Coringa Canal		33,332	24,972	26,370	47,476	86,216	1,33,692
Mundapetta Canal		32,155	27,765	29,078	60,780	1,13,287	1,74,067
Ingeram Canal		16,897	13,659	13,851	17,794	46,659	64,453
Yanam Canal		40,899	11,115	11,735	18,186	36,621	54,907
Samulootiah Canal		27,973	23,674	24,094	28,263	56,987	85,250
Total	279,207	190,183	138,917	143,954	2,36,526	4,52,550	6,89,076
Dry crops irrigated as per Revenue Accounts			4,414				
			143,331				
Central Delta.							
Nagaram Main Canal		84,766	54,968	33,814	38,457	74,562	1,32,587
Bendamurlunka Canal		31,487	10,555	10,462	10,463	17,536	30,765
East Bank Canal		57,532	22,393	22,293	22,393	32,632	68,370
Amalapur Canal		65,843	28,553	23,776	23,776	30,488	70,637
Gunnaram Canal		18,413	6,250	4,813	4,813	6,517	17,703
Kallee Canal		11,765	320	9	9	7	18
Total	269,806	102,929	95,167	99,810	1,61,743	3,20,109	4,81,851
Dry crops irrigated as per Revenue Account			4,303				
			99,470				
Western Delta.							
Nursapur Canal	550,121	59,288	51,914	57,379	85,320	1,83,900	2,68,220
Velpur Canal		14,145	10,495	10,309	13,743	39,090	46,332
Gostanaddy Canal		28,917	23,274	24,928	44,635	66,381	1,11,076
Mukkamala Canal		2,330	2,481	11,234	30,132	44,675	74,807
Bank Canal		20,475	15,419	10,614	23,089	41,573	64,612
Attili Canal		25,663	22,294	23,324	33,390	74,833	1,08,223
Venkiab and Weyairu		52,123	42,100	43,443	23,773	63,983	87,756
Undi High Level Canal			34,567	39,428	44,998	75,439	1,20,437

Proceedings of the Madras Government, Public Works Department,
26th July 1876. No. 1,901.

Abstract of Irrigation Registers for Fasli 1283 or 1873-74.—(Concluded.)

Abstract of Irrigation Statistics.

Canals.	Area of Villages.	Probable ultimate area to be irrigated.	Area irrigated in Fasli 1283 as per Public Works Department Accounts.	AREA IRRIGATED IN FASLI 1283 as per COLLECTOR'S STATEMENT.			
				Area.	Assessment.	Water-tax.	Total.
Western Delta.—(Conclud.)							
Yanamadurru Drainage ...	550,121	2,401	268	...	Rs. ...	Rs. ...	Rs. ...
Ellore Canal ...		59,486	41,349	43,723	25,501	1,39,114	1,74,515
Main Canal ...		800	584	1,422	60	713	778
Total ...	550,121	313,825	244,745	270,884	3,34,650	7,22,701	10,57,351
Dry crops irrigated as per Revenue Accounts...	...	...	2,150	...	...	...	...
			246,895				
Grand Total ...	1,099,134	606,927	478,829	514,648	7,32,918	14,95,360	22,28,278
Dry crops irrigated as per Revenue Accounts...	...	...	10,867	Water-tax paid by the Zemindarials of Nidathavole and Baharazuli on contract			
			489,696				40,000
							22,68,278

(Signed) J. BEATTY, Major, R.E.,
District Engineer, Godavery District.

DOWLAISHWERAM,
9th July 1875.

No. 452.

ORDER THEREON, 26th July 1876, No. 1,901.

IRRIGATION, No. 50-A.

RECORDED, pending the submission of the explanations which the District Engineer has been called upon to furnish.

2. The District Engineer will be careful in future to watch very closely the progress of irrigation during each season, and to exercise an effective supervision over the water-supply, and the Government will expect him and the officers in immediate charge of the several sections of the Delta to possess at all times a complete knowledge of the state and condition of the irrigation, which knowledge, it is to be observed, can be readily obtained from the information furnished to them from their registers and from the water reports which are, it is understood, sent to them daily.

3. His Grace the Governor in Council is further of opinion that, although a complete abstract of irrigation in the form in use cannot be prepared annually until after the Collector's accounts have been closed, the first four columns of the statement can be completed within a month after the close of the season, if for the requisite final entries in the fourth column an abstract sheet be kept in which the monthly areas can be regularly posted up. The fourth column, with a fifth added for the areas*

* Collector's areas.

of the preceding year, will afford valuable approximate information regarding each season's irrigation, which the Government desire to have placed before them at the earliest practicable date. The District Engineer will report on what date he considers this information can be furnished to the Chief Engineer for Irrigation, and the latter officer will then take care that it is duly submitted to Government.

*Proceedings of the Madras Government, Public Works Department,
26th July 1876. No. 1,901.*

4. The approximate abstract for 1875-76 should be prepared and submitted at once.

5. The complete statement with areas, &c., obtained from the Collector will be subsequently submitted, and as soon after the annual settlement as possible.

(True Extract.)

W. H. French

Colonel,

Offg. Under Secy. to Govt., P.W.D.

To the Chief Engineer for Irrigation.

„ District Engineer, Godavery.

„ Superintending Engineer, Kistna.

„ Revenue Department.

„ Examiner of Public Works Accounts.

Exd. W. H. French.

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1. 3495
Dec. 1876. Dept

Govt. of 1876 Madras.

PUBLIC WORKS.

To

THE CHIEF ENGINEER FOR IRRIGATION,

&c., &c., &c.

Dated July 26th.

Issued

Recd.

Aug. 25th Encl.

G. O., 26th July 1876, No. 1,901.

JULY.

Nos. 451-452.

Irrigation Registers for Fash 1234. — Pass-
ing orders on Memorandum by the Chief
Engineer for Irrigation submitting, with
remarks, letter from the District Engineer,
Godavery, forwarding abstracts of —

Can communicate to the
of the

28 August 1876

MADRAS RECORD OFFICE

GOVERNMENT OF MADRAS