4044

Public Works (1898) Department.

G.O., No. 413-43

DATED 21st Mar 1898

[Despatch Abstract.]

(IV E)

Comparative Statement of Irigation & Rainfall.

Directing that the details and alteration ~~xxx~~ alterations reported by the Board of Revenue in the — for 1896-97 in the Cuddapah Dt be made and that a Copy of the Proceedings be forwarded to the Govt of India.

Comparative Statement (IV E) of Irigation and Rainfall: Forwarding Copy of Proc: directing the ~~xxx~~ details alterations reported by the Board of Revenue in the — for 1896-97 in the Cuddapah Dt to be made.

Indexed

BACK PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

IRRIGATION.

Government {1898} of Madras.

PUBLIC WORKS.

Recd. } 1898. *Enclosures*

Regd. } *Spare copies*

G.O., Nos. 413, 414 I., 21st May 1898.

MAY.

Comparative Statement (IV-E) of Irrigation and Rainfall

Forwarding copy of Proceedings directing the alterations reported by the Board of Revenue in the — for 1896-97 in the Cuddapah district to be made.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.

READ—the following papers:—

Proceedings of the Board of Revenue (Revenue Settlement, Land Records and Agriculture), No. 137, dated 29th March 1898.

Read—again Proceedings of the Board of Revenue (Revenue Settlement, Land Records and Agriculture), No. 98, dated 1st March 1898.

ABSTRACT.—Forwarding to the Chief Engineer for Irrigation the comparative statement of irrigation and rainfall for the official year 1895–97.

Read—also statement from the Collector of Cuddapah, dated 15th March 1898, No. 89-Rev. B. and G.

Resolution—No. 137, dated 29th March 1898.

In continuation of its Proceedings, No. 98, dated 1st March 1898, the Board resolves to forward to the Chief Engineer for Irrigation the accompanying statement showing details of the figures furnished by the Collector of Cuddapah for columns 12 to 14 of the statement IV-E against petty works in charge of the Public Works Department and those in charge of the Revenue Department and the revised figures furnished by him for columns 7 and 8. The statement also includes revised figures to be substituted for those entered against "Total" against the district and against "Grand Total" in the statement forwarded with the Board's Proceedings quoted above.

(True Extract.)

(Signed) R. V. SRINIVASIAR,
Secretary.

APPENDIX.

IV-E.—COMPARATIVE statement of irrigation and rainfall for the year 1896–97 in the Cuddapah District.

Civil district.	Of the Civil district.			Works supplying irrigation.		Culturable area commanded by the irrigation works in column 6 in acres.	Area at present estimated as annually irrigable by the works specified in column 6.	Area irrigated in acres.						Rainfall in inches.	
								1895–96.			1896–97.				
	Total area in acres.	Culturable area in acres.	Cultivated area in acres.	Number.	Name.			Kharif, first crop.	Rabi, second crop.	Total.	Kharif, first crop.	Rabi, second crop.	Total.	1895–96.	1896–97.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	ACS.	ACS.	ACS.			ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	INCHES.	INCHES.
Cuddapah ..	5,582,760	2,427,810	1,505,211	1	Kurnool-Cuddapah canal	37,309	19,505	13,102	4,240	17,342	17,348	4,040	21,388	31·48	18·16
				2 (*a*)	Petty works in charge of Public Works Department ..	60,038	54,560	* 144,835	* 57,713	* 202,548	37,709	12,231	49,940		
				(*b*)	Petty works in charge of Revenue Department	135,415	114,717				92,884	35,587	128,471		
Total ..	5,582,760	2,427,810	1,505,211		Total ..	232,762	188,782	157,937	61,953	219,890	147,941	51,858	199,799	31·48	18·16
Grand Total ..	84,669,353	33,459,696	22,863,954	..	Total of 1st and 2nd class works ..	3,368,193	3,177,970	2,467,338	393,450	2,860,788	2,691,319	442,508	3,033,827	39·83	32·91
				..	Total of 3rd and 4th class works ..	2,555,691	2,465,989	2,391,639	745,001	3,136,640	2,163,799	587,351	2,751,150		
					Total ..	5,923,884	5,643,959	4,858,977	1,138,451	5,997,428	4,755,118	1,029,859	5,784,977	39·83	32·91

* Details not available.

No. 153 I.

Submitted to Government in continuation of this office-note No. 109 I., dated 24th March 1898.

2. The necessary alterations may be made in the revised statistical statement IV-E printed in Proceedings of Madras Government, No. 317 I., dated 18th April 1898, and in the revised pages 117 and 119 of the Administration Report of the Irrigation Branch, Public Works Department, for 1896–97.

(Signed) W. HUGHES,
Chief Engineer for Irrigation.

4th May 1898.

ORDER—No. 413 I., dated 21st May 1898.

Ordered that the alterations referred to be made and a copy of these Proceedings be forwarded to the Government of India in continuation of endorsement No. 318 I., dated 18th April 1898.

[Here enter No. 414 I., dated 21st May 1898.]

(True Extract.)

(Signed) W. HUGHES,
Joint Secy. to Government,
Irrigation Branch.

To the Chief Engineer for Irrigation.
„ the „ „ Tank Restoration Scheme.
„ the Chief Engineer, Public Works Department.
„ the Consulting Engineer for Railways.
„ Superintending Engineers.
„ the Examiner, Public Works Accounts.
„ the Revenue Department.
„ the Public Department.

ENDORSEMENT—No. 414 I., dated 21st May 1898.

Forwarded.

(By order.)

(Signed) W. HUGHES,
Joint Secy. to Government,
Irrigation Branch.

Exd. C. Parthasarathy.

Public Works (1898) Department.

CURRENT No. 4044

From the Chief Engr for Irrgn

Order

No. 153 I

Dated 4-5-98

Received
Registered } 5-5-98

Enclosures 1

Spare copies

SUBJECT.

Revised Statistical statement IV E submitted by Engr Proc suggesting certain necessary alterations in the printed in PDn G. No 317 I of 18-4-98.

BACK PAPERS.

No.	Date.

FURTHER PAPERS.

No.	Date.

PUBLIC WORKS DEPARTMENT,

IRRIGATION BRANCH.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the

READ the following

Proceedings Board of Revenue, Rev. Settt, Land records & Agriculture } (R. No. 137 dated 29 March 1898) R 15-3-98 & 4-5-98

Submitted to Government in continuation of this Office Note No. 109-I dated 24-3-98.

2. The necessary alterations may be made in the revised Statistical Statement IV-E printed in P.Rs. G. No. 317-I, dated 18 April 1898 and in the revised pages 117 and 119 of the Administration Report of the Irrigation branch, P.W.D., for 1896-97.

(Illegible) No-413 dt 21-5-98

Order thereon.

Ordered that the alterations referred to be made and a copy of these Proceedings be forwarded to the Govt of India in continuation of endorsement No. 318-I dated 18 April 1898.

Endorsement

Endorsement No 414 dt 21.5.98

Forwarded.

To The Chief Engr. for Irrigation. V/
" do do T.R.V
" Chief Engineer, P.W.D.
" Consulting Engineer for Rys.
" Supt. Engineers.
" Examiner, Pr. Accts.
" Revenue Dept.
" Public Dept.

Issue.

4/5/98

4/5/98

E. I. Form No. 1—500—1-11-97

CHIEF ENGINEER FOR IRRIGATION. 15 APR. 1898 No. 1571

1898.

Board of Revenue

(Revenue Settlement, Land Records and Agriculture),

MADRAS.

Recd. } 1898. *Enclosures*

Regd. *Spare copies*

Printed April th.

Proceedings, No. 137, 29th March 1898.

MARCH.

Petty works.—Forwarding to the Chief Engineer for Irrigation, in continuation of B.P., No. 98, dated 1st March 1898, certain information regarding — in charge of Public Works and Revenue Departments furnished by the Collector of Cuddapah.

PROCEEDINGS OF THE BOARD OF REVENUE

(Revenue Settlement, Land Records and Agriculture).

Read—again Proceedings of the Board of Revenue (R.S., L.R. and Agri.), No. 98, dated 1st March 1898.

Abstract.—Forwarding to the Chief Engineer for Irrigation the comparative statement of irrigation and rainfall for the official year 1896–97.

Read—also statement from the Collector of Cuddapah, dated 15th March 1898, No. 89-Rev. B. and G.

Resolution—No. 137, dated 29th March 1898.

In continuation of its Proceedings, No. 98, dated 1st March 1898, the Board resolves to forward to the Chief Engineer for Irrigation the accompanying statement showing details of the figures furnished by the Collector of Cuddapah for columns 12 to 14 of the statement IV-E against petty works in charge of the Public Works Department and those in charge of the Revenue Department and the revised figures furnished by him for columns 7 and 8. The statement also includes revised figures to be substituted for those entered against "Total" against the district and against "Grand Total" in the statement forwarded with the Board's Proceedings quoted above.

(True Extract.)

A. C. Srinivasa Ayyar
Secretary.

To the Chief Engineer for Irrigation.
Copy to the Collector of Cuddapah.

Ed. W. D'Mosa.

APPENDIX.

IV-E.—Comparative statement of irrigation and rainfall for the year 1896–97 in the Cuddapah district.

Civil district.	Of the civil district.		Works supplying irrigation.		Name.	Cultivable area commanded by the irrigation works in column 6 in acres.	Area at present estimated as annually irrigable by the works specified in column 6.	Area irrigated in acres.						Rainfall in inches.	
								1896–96.			1896–97.			1895–96.	1896–97.
	Total area in acres.	Cultivable area in acres.	Cultivated area in acres.	Number.				Kharif, first crop.	Rabi, second crop.	Total.	Kharif, first crop.	Rabi, second crop.	Total.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	Acs.	Acs.	Acs.			Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Inches.	Inches.
Cuddapah ..	5,582,760	2,427,810	1,505,211	1	Kurnool-Cuddapah canal	37,300	19,505	13,102	4,240	17,342	17,342	4,040	21,388	31·48	18·16
				2 (a)	Petty works in charge of Public Works Department	60,038	54,560	*144,835	*57,713	*202,548	87,709	12,231	49,940		
				(b)	Petty works in charge of Revenue Department	135,415	114,717	157,937	61,953	219,890	147,941	51,858	199,799	31·48	18·16
					Total ..	232,762	188,782								
	5,582,760	2,427,810	1,505,211	..	Total of 1st and 2nd class works	3,368,193	3,177,970	2,467,338	393,450	2,860,788	2,591,319	442,508	3,033,827	39·83	32·91
Grand Total ..	84,669,853	33,459,696	22,863,964	..	Total of 3rd and 4th class works	2,555,691	2,465,989	2,391,639	745,001	3,136,640	2,163,799	587,361	2,751,160	39·83	32·91
					Total ..	5,923,884	5,643,959	4,858,977	1,138,451	5,997,428	4,755,118	1,029,869	6,784,977	39·83	32·91

* Details not available.

IRRIGATION.
ACCOUNT.

Government {1898} of Madras.

PUBLIC WORKS.

Recd. } 1898. *Enclosures*

Regd. } *Spare copies*

G.O., Nos. 317, 318 I., 18th April 1898.

APRIL.

Administration Report of the Public Works Department, Irrigation Branch, for 1896-97

Forwarding a copy of proceedings ordering certain revised statements submitted by the Board of Revenue to be substituted for statements III-E and IV-E printed in the —.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

Read—the following papers:—

Proceedings of the Board of Revenue (Revenue Settlement, Land Records and Agriculture), No. 98, dated 1st March 1898.

Read—again the following Proceedings of the Board of Revenue (R.S., L.R. and Agri.), Mis. No. 9519, dated 25th November 1897:—

Read—the following papers:—

From the Collector	of	Arcot, North,	dated	27th Oct.	1897, Ref. on B. and G. No. 95-Ver.
„	„	of Bellary	„	7th „	„ Dis No. 6405.
„	„	of „	„	19th Nov.	„ Dis. No. 7342.
„	„	of Chingleput	„	20th Oct.	„ Ref. on No. 1965-Gl.
„	„	of „	„	20th Nov.	„ Dis. No. 3445.
„	„	of Coimbatore	„	16th Oct.	„ Dis. No. 3485-Rev.
„	„	of Cuddapah	„	28th „	„ Dis. No. 6093-Rev.
„	„	of Ganjám	„	8th „	„ Dis. No. 1926-Ver.
„	„	of „	„	28th „	„ Dis. No. 2159-Ver.
„	„	of Godavari	„	30th Sept.	„ Ref. on G. B. No. 339-Ver.
„	„	of „	„	3rd Nov.	„ Dis. No. 3836-Ver.
„	„	of Kistna	„	20th Oct.	„ Dis. No. 1272-Gl.
„	„	of Kurnool	„	1st Nov.	„ Dis. No. 3465-Gl.
„	„	of „	„	15th „	„ Telegram.
„	„	of Madura	„	22nd Sept.	„ Dis. No. 3568.
„	„	of Nellore	„	22nd „	„ No. 3174-Ver.
„	„	of „	„	19th Nov.	„ No. 3813-Ver.
„	„	of Salem	„	11th Sept.	„ No. 4671.
„	„	of „	„	21st Oct.	„ No. 5549-R.
„	„	of Tanjore	„	5th „	„ No. 4821-Rev.
„	„	of Tinnevelly	„	22nd „	„ Dis. No. 2076-Gl.
„	„	of Trichinopoly	„	11th „	„ Dis. No. 1842-Rev.
„	„	of „	„	19th Nov.	„ R. P. No. 4360.
„	„	of Vizagapatam	„	22nd Oct.	„
„	„	of „	„	12th Nov.	„ Dis. No. 4152.

Resolution—Mis. No. 9519, dated 25th November 1897.

The Board resolves to forward to the Chief Engineer for Irrigation with reference to G.O., No. 589 I., dated 29th June 1897, the accompanying statistical statements III-E and IV-E for 1896–97. The former statement does not include statistics relating to Kurnool-Cuddapah canal; nor the latter, those relating to Anantapur and South Arcot districts, as the necessary returns have not yet been received from the Collectors concerned. Explanation of discrepancies in the figures furnished by certain Collectors in statement IV-E has been called for from some districts. Supplemental statements in regard to III-E and IV-E and revised statement, if necessary, in regard to the latter will be forwarded on receipt of complete information and explanation from the Collectors concerned.

(True Copy and Extract.)

(Signed) R. V. SRINIVASIAR,
Secretary.

To the Chief Engineer for Irrigation with two statements.

Read—again the following Proceedings of the Board of Revenue (R.S., L.R. and Agri.), Mis. No. 9708, dated 3rd December 1897:—

Read—the following papers:—

From the Collector	of	Cuddapah,	dated	30th Sept.	1897, Dis. No. 5602-Rev.
„	„	„	„	1st Oct.	„ Dis. No. 5626-Rev.
„	„	of Kurnool,	„	26th Nov.	„ Dis. No. 3595-Gl.
„	„	of Arcot, South,	„	28th „	„ No. 2436-Ver.

Resolution—Mis. No. 9708, dated 3rd December 1897.

Adverting to the concluding sentence of B.P., No. 9519, dated 25th November 1897, the Board resolves to forward to the Chief Engineer for Irrigation the accompanying supplemental statements for 1896–97 in regard to III-E and IV-E. The former statement shows the figures relating to the Kurnool-Cuddapah canal and the latter those relating to the South Arcot district. The IV-E return from Anantapur is still due.

(True Copy and Extract.)

(Signed) R. V. SRINIVASIAR,
Secretary.

To the Chief Engineer for Irrigation with two statements.

Read—again the following Proceedings of the Board of Revenue (R.S., L.R. and Agri.), Mis. No. 9753, dated 6th December 1897:—

Read—the following letter from W. HUGHES, Esq., Chief Engineer for Irrigation, to the Secretary to the Commissioner of Revenue Settlement and Director of the Department of Land Records and Agriculture, dated Madras, 29th November 1897, No. 409-M.:—

With reference to B.P., Mis. No. 9414, dated 22nd November 1897, I have the honour to furnish on the margin, the figures showing the cultivable area commanded by the Cauvery delta, Lower Coleroon Anikat and Nandyar channel systems and to state that similar information for "petty works in charge of the Public Works Department," and "petty works in charge of the Revenue Department" are not available in this office.

	ACS.
Cauvery delta system in the Tanjore and Trichinopoly districts ...	919,539
Lower Coleroon anikat system in the Tanjore district	134,815
Nandyar channel system in the Trichinopoly district	9,480

Resolution—Mis. No. 9753, dated 6th December 1897.

The Chief Engineer for Irrigation will be requested to be so good as to insert the figures furnished by him in his letter read above, in column 7 of the statement IV-E forwarded to him with B.P., No. 9519, dated 25th November 1897, against the respective works.

2. It is observed that the figures furnished by the Chief Engineer for Irrigation in respect of the Cauvery delta and the Lower Coleroon anikat, relate, in the case of the former work, to the Tanjore and Trichinopoly districts, and in the case of the latter to the Tanjore and South Arcot districts and are the same as those adopted in column 5 of statement IV-E, printed as appendix to the Administration report of the Public Works Department, Irrigation Branch, for 1895–96. In the return received from the South Arcot district, the culturable area commanded by the Lower Coleroon anikat is given as 78,846 acres. The corresponding area for the same anikat in the Tanjore district may, if the Chief Engineer for Irrigation has no objection, be taken at

(134,815—78,846) 55,969 acres. As regards the Cauvery delta, if the areas relating to the two districts are not separately known, the total area may be entered against Tanjore with a note stating that the area relating to Trichinopoly is included therein.

(True Copy and Extract.)

(Signed) R. V. SRINIVASIAR,
Secretary.

To the Chief Enginer for Irrigation.

READ—also letter from the Collector of Anantapur, dated 10th February 1898.

Resolution—No. 98, dated 1st March 1898.

In continuation of its Proceedings read above, the Board resolves to forward to the Chief Engineer for Irrigation the accompanying revised statements Nos. IV-E and III-E.

2. The season was generally favourable for agricultural operations, except in the Deccan Districts and in parts of Ganjám, Vizagapatam, North Arcot and Salem. The average rainfall for the whole Presidency excluding Madras, where the lands are charged with fixed quit-rents and the two west coast districts and the Nilgiris where there are no irrigation works, was 32·91 inches against 39·83 inches in 1895–96 and 34·58 inches, the average of five years ending 1895–96. The average rainfall of the South-West monsoon was 16·35 inches against 23·62 inches in 1895–96 and it was also very unevenly distributed. The North-East monsoon commenced late, but the rainfall was copious over the whole of the southern half of the Presidency. The Gódávari began to rise on the 19th June 1896 attaining a maximum height of 14 feet over the crest of the anikat on the 2nd August. There were heavy floods in the river during August 1896, which caused damage to the embankments of several irrigation works and to crops in several villages. The Kistna was in fresh about the first week of June 1896, and in the latter part of the same month, it was 8·05 feet over the crest of the anikat and attained the height of 18·30 feet over the anikat on the 6th August 1896, owing to which the banks of the river breached in several places and crops were damaged in portions of two taluks. At the end of July 1896, the Cauvery rose suddenly; and in consequence, the Coleroon, the Palavar, the Manniar and the Arasilár breached in several places, causing damage to portions of Kumbakónam, Máyavaram and Shiyali taluks. The heavy freshes in the Cauvery caused damage to young crops and seedlings in the Trichinopoly and Udaiyárpalaiyam taluks also. The freshes in the Pennér in the Nellore district were unusually deferred and scanty and remissions had to be granted.

Statements showing the rainfall in each district during each monsoon of the year under report compared with the previous year and the average of five years ending 1895–96, as also the details for each month are appended.

3. The following abstract shows the area actually irrigated from Government sources in 1896–97 as compared with 1895–96 :—

—	Anikat and other important works, classes I and II.		Other works, classes III and IV.		Total.		Difference.
	1895–96.	1896–97.	1895–96.	1896–97.	1895–96.	1896–97.	
	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.
Total	*2,860,788	3,033,827	* 3,136,640	2,751,150	* 5,997,428	5,784,977	— 212,451
Difference	..	+ 173,039	..	— 385,490	..	— 212,451	..

* Revised figures.

4. As compared with the previous year, there was an increase of 173,039 acres under classes I and II works and a decrease of 385,490 acres under other works (classes III and IV), resulting in a net decrease of 212,451 acres. The bulk of the increase under classes I and II works occurred under the Gódávari anikat, Kurnool-Cuddapah canal, the Periyár project, the Rushikulya project and Ganjám minor rivers system. The increase under the Rushikulya project was due to extension of irrigation during the year under report to 109 villages in the Berhampur and 65 villages in the Goomsur taluk. The increase under the Kurnool-Cuddapah canal was due to the adverse character of the season in the year and to the ryots having consequently taken canal water for large extents of dry crops, especially in the Kurnool district. The increase under the Periyár project was only nominal, the irrigation in the Periyár affected villages having been shown in the previous year under class IV works. Under classes III and IV works, there was a decrease in all the districts except Nellore.

5. In paragraph 2 of its letter, No. 212-I., dated 13th August 1897, communicated with G.O., No. 795-I., dated 31st August 1897, the Government of India has directed that "at the bottom of statement No. IV-E, a grand total of irrigated area may be struck, which should agree with the corresponding grand total in statement No. III-E." With reference to this, the Board stated in paragraph 2 of its Proceedings, No. 664, dated 12th October 1897, that as statement No. IV-E relates to all irrigation works, while statement No. III-E gives information in respect only of classes I and II works, the grand total of the latter statement should be compared with the total of works of classes I and II in the former statement; and that for purposes of this comparison, the statistics relating to classes I and II works would be shown separately from those relating to classes III and IV in statement No. IV-E. The statements have been prepared accordingly. It will be seen that the total area shown in statement No. III-E, viz., 3,021,269 acres, is less than that shown in statement No. IV-E, viz., 3,033,827 acres by 12,558 acres. This difference is due partly as observed in paragraph 3 of B.P., No. 664, dated 12th October 1897, to the fact that statement No. IV-E relates to the official, while statement No. III-E relates to the Fasli, year and partly to the circumstance that the former statement shows the actual area irrigated, while the latter excludes the extents on which crops withered.

(True Copies and Extract.)

(Signed) R. V. SRINIVASIAR,
Secretary.

(True Copy.)

(Signed) P. GOVINDA MENON,
Ag. First Assistant.

To the Chief Engineer for Irrigation.

Copy to the, Collectors of all districts except Madras,
South Canara, Nilgiris and Malabar.

APPENDIX I.

COMPARATIVE statement of rainfall in each district.

Districts.	Average of five years ending 1895–96.		1895–96.		1896–97.	
	South-west monsoon.	North-east monsoon.	South-west monsoon.	North-east monsoon.	South-west monsoon.	North-east monsoon.
	INCHES.	INCHES.	INCHES.	INCHES.	INCHES.	INCHES.
Ganjám	37·48	11·13	44·91	9·93	32·71	8·58
Vizagapatam	38·95	11·30	44·91	8·56	34·11	3·07
Gódávari	29·05	14·74	36·83	10·86	22·70	4·32
Kistna	24·97	11·06	34·03	8·39	21·65	5·53
Nellore	13·19	18·53	14·39	16·55	16·75	21·97
Cuddapah	13·14	10·24	20·08	11·40	11·71	6·43
Anantapur	15·42	6·83	17·17	7·88	11·47	3·14
Bellary	16·48	6·93	19·75	7·23	11·70	2·16
Kurnool	19·44	8·33	18·44	7·68	13·37	2·59
Chingleput	18·95	22·14	19·62	28·24	13·77	42·24
North Arcot	19·51	15·34	21·86	17·98	17·60	17·26
South Arcot	19·45	23·67	24·88	33·22	12·93	30·45
Tanjore	16·69	28·44	20·28	34·31	8·78	40·75
Trichinopoly	15·97	16·96	22·28	18·92	13·47	24·54
Madura	11·77	19·63	14·83	21·25	11·26	31·87
Tinnevelly	6·25	18·97	7·90	24·09	8·41	30·36
Coimbatore	12·90	12·44	17·33	12·68	13·99	15·19
Salem	20·65	11·13	25·71	12·79	19·04	12·73
Average ..	19·70	14·88	23·62	16·21	16·35	16·66

—

APPENDIX II.

COMPARATIVE statement of rainfall in each month of the year 1896–97.

Months.	Rainfall.		
	Average of five years ending 1895–96.	1895–96.	1896–97.
	INCHES.	INCHES.	INCHES.
April	1·25	1·84	0·25
May	1·64	1·92	1·65
June	2·90	2·84	2·54
July	3·90	4·22	2·78
August	5·13	5·63	4·15
September	4·89	7·17	4·98
Total, south-west monsoon ..	19·70	23·62	16·35
October	7·69	9·41	2·60
November	4·31	2·93	7·91
December	1·79	3·48	4·00
January	0·19	0·18	0·16
February	0·29		1·37
March	0·61	0·21	0·52
Total, north-east monsoon ..	14·88	16·21	16·56
Total for the year ..	34·58	39·83	32·91

APPENDIX III.

IV-E.—COMPARATIVE statement of irrigation and rainfall for the year 1896–97 in the Madras Presidency.

Civil District.	Of the Civil District.			Works supplying irrigation.		Culturable area commanded by the irrigation works in column 6 in acres.	Area at present estimated as annually irrigable by the works specified in column 6.	Area irrigated in acres.						Rainfall in inches.	
								1895–96.			1896–97.				
	Total area in acres.	Culturable area in acres.	Cultivated area in acres.	No.	Name.			Kharif, 1st crop.	Rabi, 2nd crop.	Total.	Kharif, 1st crop.	Rabi, 2nd crop.	Total.	1895–96.	1896–97.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	ACS.	ACS.	ACS.			ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	INCHES.	INCHES.
Ganjám ..	5,356,160	575,160	473,682	1	Rushikulya project	61,502	61,502	35,387	40	35,427	60,721	473	61,194	54·84	36·29
				2	Ganjám minor rivers system	52,849	52,849	39,760	4,987	44,747	52,113	11,036	63,149		
				3 (a)	Petty works in charge of Public Works Department	44,623	44,623	42,712	1,370	44,082	41,941	995	42,936		
				(b)	Petty works in charge of Revenue Department	116,508	116,508	108,635	5,764	114,399	78,868	3,157	82,025		
Total ..	5,356,160	575,160	473,682		Total ..	275,482	275,482	226,494	12,161	238,655	233,643	15,661	249,304	54·84	36·29
Vizagapatam	11,035,181	344,950	175,096	1 (a)	Petty works in charge of Public Works Department	54,346	53,579	49,107	20,436	69,543	28,107	12,606	40,713	53·47	37·18
				(b)	Petty works in charge of Revenue Department	44,948	43,693	32,946	13,417	46,363	28,948	8,405	37,353		
Total ..	11,035,181	344,950	175,096		Total ..	99,294	97,272	82,053	33,853	115,906	57,055	21,011	78,066	53·47	37·18
Gódávari ..	5,028,480	1,657,371	971,804	1	Gódávari anikat	642,420	637,112	566,679	118,102	684,781	615,618	130,836	746,454	47·69	27·02
				2	Kistna anikat	39,276	39,276	20,257	347	20,604	13,911	37	13,948		
				3 (a)	Petty works in charge of Public Works Department	49,254	44,870	37,740	848	38,588	34,625	331	34,956		
				(b)	Petty works in charge of Revenue Department	50,895	46,947	45,281	2,359	47,640	30,299	1,726	32,025		
Total ..	5,028,480	1,657,371	971,804		Total ..	781,845	768,205	669,957	121,656	791,613	694,453	132,930	827,383	47·69	27·02
Kistna ..	5,438,720	3,055,427	2,126,083	1	Kistna anikat	820,000	475,000	412,987	56,275	469,262	366,972	88,175	455,147	42·42	27·18
				2	Gódávari anikat	5,670	5,670	5,625	..	5,625	5,670	..	5,670		
				3 (a)	Petty works in charge of Public Works Department	103,178	23,732	23,493	447	23,940	14,084	467	14,551		
				(b)	Petty works in charge of Revenue Department	23,037	21,699	21,106	2,123	23,229	16,931	765	17,696		
Total ..	5,438,720	3,055,427	2,126,083		Total ..	951,885	526,101	463,211	58,845	522,056	403,657	89,407	493,064	42·42	27·18
Nellore ..	5,609,600	1,954,536	1,152,300	1	Pennér anikat	140,769	106,146	64,796	2,443	67,239	57,560	3,288	60,848	30·94	37·72
				2	Sangam anikat	81,704	71,359	70,783	3,793	74,576	68,778	7,238	76,016		
				3	Kistna anikat	1,000	1,000	981	..	981	945	..	945		
				4 (a)	Petty works in charge of Public Works Department	100,810	88,634	78,008	6,291	84,299	87,405	9,068	96,473		
				(b)	Petty works in charge of Revenue Department	36,138	32,157	29,144	3,754	32,898	32,212	6,170	38,382		
Total ..	5,609,600	1,954,536	1,152,300		Total ..	360,421	299,296	243,712	16,281	259,993	246,900	25,764	272,664	30·94	37·72

IV-E.—Comparative statement of irrigation and rainfall for the year 1896–97 in the Madras Presidency—*cont.*

Civil District.	Of the Civil District.			Works supplying irrigation.		Culturable area commanded by the irrigation works in column 6 in acres.	Area at present estimated as annually irrigable by the works specified in column 6.	Area irrigated, in acres.						Rainfall in inches	
								1895–96.			1896–97.			1895–96.	1896–97.
	Total area in acres.	Culturable area in acres.	Cultivated area in acres.	No.	Name.			Kharif, 1st crop.	Rabi, 2nd crop.	Total.	Kharif, 1st crop.	Rabi, 2nd crop.	Total.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	ACS.	ACS.	ACS.			ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	INCHES.	INCHES.
Cuddapah ..	5,582,760	2,427,810	1,505,211	1	Kurnool-Cuddapah canal	37,309	19,505	13,102	4,240	17,342	17,348	4,040	21,388	31·48	18·16
				2(a)	Petty works in charge of Public Works Department	* 172,096	148,581	144,835	57,713	202,548	130,593	47,818	178,411		
				(b)	Petty works in charge of Revenue Department										
Total ..	5,582,760	2,427,810	1,505,211		Total ..	209,405	168,086	157,937	61,953	219,890	147,941	51,858	199,799	31·48	18·16
Anantapur ..	3,515,307	2,637,884	1,368,078	1(a)	Petty works in charge of Public Works Department	51,922	51,032	45,315	9,307	54,622	31,205	5,811	37,016	25·05	14·61
				(b)	Petty works in charge of Revenue Department	94,798	90,185	62,332	26,644	88,976	52,835	19,423	72,258		
Total ..	3,515,307	2,637,884	1,368,078		Total ..	146,720	141,217	1,07,647	35,951	143,598	84,040	25,234	109,274	25·05	14·61
Bellary ..	3,762,095	2,821,531	1,820,652	1(a)	Petty works in charge of Public Works Department	30,674	31,322	24,956	2,542	27,498	22,009	3,055	25,064	26·98	13·86
				(b)	Petty works in charge of Revenue Department	28,504	26,852	25,449	5,053	30,502	26,619	6,415	33,034		
Total ..	3,762,095	2,821,531	1,820,652		Total ..	59,178	58,174	50,405	7,595	58,000	48,628	9,470	58,098	26·98	13·86
Kurnool ..	4,972,160	2,508,515	1,797,385	1	Kurnool-Cuddapah canal	50,000	30,000	12,828	2,082	14,910	61 508	4,110	65,618	26·12	15·96
				2	Cumbum tank	6,111	6,111	5,636	4,471	10,107	5,482	2,587	8,069		
				3(a)	Petty works in charge of Public Works Department	20,572	20,572	23,382	4,671	28,053	16,442	3,698	20,140		
				(b)	Petty works in charge of Revenue Department	28,366	27,220	25,031	11,633	36,664	20,228	3,256	23,484		
Total ..	4,972,160	2,508,515	1,797,385		Total ..	105,049	83,903	66,877	22,857	89,734	103,660	13,651	117,311	26·12	15·96
Chingleput ..	1,978,965	952,274	651,853	1	Pálár anikat	23,243	23,120	18,587	4,161	22,748	18,117	3,309	21,426	47·76	55·01
				2	Chembrambakkam tank	13,127	13,127	11,583	2,996	14,579	12,002	4,466	16,468		
				3	Madras water-supply and irrigation extension project	7,367	7,069	7,120	2,087	9,207	8,463	2,613	11,076		
				4	Vallur anikat	5,495	5,199	4,053	553	4,606	4,230	469	4,699		
				5(a)	Petty works in charge of Public Works Department	252,412	236,362	226,771	50,287	277,058	226,742	40,177	266,919		
				(b)	Petty works in charge of Revenue Department	133,942	126,941	123,713	24,960	148,673	119,841	21.850	141,691		
Total ..	1,978,965	952,274	651,853		Total ..	435,586	411,818	391,827	85,044	476,871	389,395	72,884	462,279	47·76	55·01

* Details for (a) and (b) not available. The Collector states that they will be reported on receipt of information called for from Tahsildars.

IV-E.—Comparative statement of irrigation and rainfall for 1896–97 in the Madras Presidency—*cont.*

Civil District.	Of the Civil District.			Works supplying irrigation.		Culturable area commanded by the irrigation works in column 6 in acres.	Area at present estimated as annually irrigable by the works specified in column 6.	Area irrigated in acres.						Rainfall in inches.	
								1895–96.			1896–97.			1895–96.	1896–97.
	Total area in acres.	Culturable area in acres.	Cultivated area in acres.	No.	Name.			Kharif, 1st crop.	Rabi, 2nd crop.	Total.	Kharif, 1st crop.	Rabi, 2nd crop.	Total.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	ACS.	ACS.	ACS.			ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	INCHES.	INCHES.
North Arcot ..	4,713,871	1,371,468	982,512	1	Pálár anikat	46,041	44,401	42,952	20,339	63,291	40,234	12,883	53,117	39·84	34·76
				2	Cheyaru anikat	19,900	19,855	19,127	9,879	29,006	19,020	8,161	27,181		
				3	Poiney anikat	18,281	18,281	15,890	8,150	24,040	15,969	5,444	21,413		
				4 (a)	Petty works in charge of Public Works Department	73,605	69,830	*	*	*	54,390	20,926	75,316		
				(b)	Petty works in charge of Revenue Department	178,507	164,472	231,572	125,456	357,028	149,361	71,514	220,875		
Total ..	4,713,871	1,371,468	982,512		Total ..	336,334	316,839	309,541	163,824	473,365	278,974	118,928	397,902	39·84	34·76
South Arcot ..	3,338,230	2,009,529	1,413,235	1	Pelandurai anikat	6,936	6,746	8,633	146	8,779	8,880	170	9,050	58·10	43·38
				2	Lower Coleroon anikat	78,846	77,735	82,654	2,465	85,119	81,909	1,123	83,032		
				3	Shatiatope anikat	26,497	24,415	28,310	3,658	31,968	28,167	2,980	31,147		
				4	Vriddhachalam anikat	5,747	5,530	6,346	178	6,524	6,599	213	6,812		
				5	Mehmattur anikat	3,620	3,610	3,339	29	3,368	3,542	68	3,610		
				6	Tirukkóyilúr anikat	19,882	19,234	20,258	1,782	22,040	20,256	2,081	22,337		
				7 (a)	Petty works in charge of Public Works Department	97,996	92,581	93,655	18,890	112,545	90,135	17,939	108,074		
				(b)	Petty works in charge of Revenue Department	217,773	186,760	210,843	62,545	273,388	205,102	47,065	252,167		
Total ..	3,338,230	2,009,529	1,413,235		Total ..	457,297	416,611	454,038	89,693	543,731	444,590	71,639	516,229	58·10	43·38
Tanjore ..	2,371,724	1,669,017	1,278,727	1	Cauvery upper anikat	919,539	1,193,145	811,466	85,623	897,089	809,703	72,032	881,735	54·59	49·48
				2	Lower Coleroon anikat	55,969	24,644	22,022	1,860	23,882	19,956	1,020	20,976		
				3 (a)	Petty works in charge of Public Works Department	Not available.	21,799	*	*	*	15,914	1,527	17,441		
				(b)	Petty works in charge of Revenue Department	Do.	38,199	45,091	8,432	53,523	29,494	2,111	31,605		
Total ..	2,371,724	1,669,017	1,278,727		Total ..	975,508	1,280,787	878,579	95,915	974,494	875,067	76,690	951,757	54·59	49·48
Trichinopoly .	3,028,480	1,434,149	953,947	1	Cauvery upper anikat	† ..	42,802	45,284	19,552	64,836	42,802	17,523	60,325	41·20	38·01
				2	Nandyar channel	9,480	4,297	3,882	1,460	5,342	4,205	1,729	5,934		
				3 (a)	Petty works in charge of Public Works Department	Not available.	51,706	68,664	24,797	93,461	71,782	26,298	98,080		
				(b)	Petty works in charge of Revenue Department	Do.	31,901	41,000	12,925	53,925	32,066	13,890	45,956		
Total ..	3,028,480	1,434,149	953,947		Total ..	9,480	130,706	158,830	58,734	217,564	150,855	59,440	210,295	41·20	38·01

* Details not reported by the Collector.

† Included under the same anikat in the Tanjore district.

IV-E.—Comparative statement of irrigation and rainfall for the year 1896-97 in the Madras Presidency—*cont.*

Civil District.	Of the Civil District		Works supplying irrigation.		Area irrigated in acres.				Culturable area ACRES commanded by the irrigation works in column 6 in acres.	Rainfall in inches.	
					1895-96.	1896-97.				1895-96.	1896-97
	Total area in acres.	Culturable area in acres.	Cultivated area in acres.	No.	Name.	Kharif, 1st crop.	Rabi, 2nd crop.	Total.	Kharif, 1st crop.	Rabi, 2nd crop.	Total.		
1	2	3	4	5	6	8	9	10	11	12	13	14	15	16	7
	ACS.	ACS.	ACS.			ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	ACS.	INCHES.	INCHES.	ACS.
Madura ..	5,640,462	1,441,714	1,026,731	1	Periyár project	61,499	..	..	53,337	13,447	66,784	36·08	43·13		96,257
				2 (a)	Petty works in charge of Public Works Department	46,477	60,946	236,380	43,658	12,210	55,868				47,075
				(b)	Petty works in charge of Revenue Department	89,125			85,026	19,248	104,274				90,817
Total ..	5,640,462	1,441,714	1,026,731		Total ..	197,101	60,946	236,380	182,021	44,905	226,926	36·08	43·13		234,149
				1	Srivaikuntam anikat	20,362	7,447	26,906	18,812	15,433	34,245				20,362
				2	Marudur anikat	17,715	12,040	29,224	16,973	15,020	31,996				17,715
Tinnevelly ..	3,448,859	1,759,011	1,258,408	3 (a)	Petty works in charge of Public Works Department	102,087	58,104	163,275	95,010	63,792	158,802	31·99	38·77		102,255
				(b)	Petty works in charge of Revenue Department	89,292	66,408	148,959	83,667	41,509	125,176				89,292
Total ..	3,448,859	1,759,011	1,258,408		Total ..	229,456	143,999	358,364	214,464	135,754	350,218	31·99	38·77		229,624
				1	Thadapalli channel	13,821	1,135	14,041	13,821	167	13,988				13,738
				2	Arkankottai chatinel	4,050	398	4,023	4,050	19	4,069				4,118
				3	Kalingarayen anikat	11,85	9,772	21,184	11,185	9,259	20,444				9,926
Coimbatore ..	5,030,420	3,043,814	2,477,372	4 (a)	Petty works in charge of Public Works Department	58,255	57,368	76,981	67,464	18,312	75,776	29·91	29·18		59,035
				(b)	Petty works in charge of Revenue Department	11,430	10,200	13,851	10,821	3,191	14,012				12,411
Total ..	5,030,420	3,043,814	2,477,372		Total ..	98,781	95,520	130,080	97,341	30,948	128,289	29·91	29·18		98,328
				1	Barur tank project	7,598	2,425	3,386	2,459	1,059	3,518				8,397
				2 (a)	Petty works in charge of Public Works Department	28,572	24,324	34,279	22,782	9,492	32,274	38·50	31·77		29,575
Salem ..	4,818,379	1,795,536	1,431,878	(b)	Petty works in charge of Revenue Department	87,258	85,801	109,470	77,193	23,134	100,327				96,970
Total ..	4,818,379	1,795,536	1,431,878		Total ..	123,428	112,550	147,134	102,434	33,685	136,119	38·50	31·77		134,942
Grand Total.	84,669,838	33,459,636	22,993,954		{ Total of 1st and 2nd class works ..	6,177,970	2,467,338	2,800,788	2,591,319	442,508	3,033,827	39·83	32·91		3,368,193
					{ Total of 3rd and 4th class works ..	2,445,293	2,291,639	3,136,640	2,165,799	587,361	2,751,160				2,532,334
					Total ..	4,858,977	1,138,451	5,937,428	4,755,118	1,029,859	5,784,977	39·83	32·91		5,900,527

* Details not reported by the Collector.

APPENDIX IV.

III-E.—STATEMENT of quantity and value of crops irrigated in the Madras Presidency during the fasli year 1896-97 under Major (Productive) works and Minor works for which Capital and Revenue Accounts are kept.

Name of system.	Description.						Total.	
	Paddy.		Ragi.		Other crops.			
	Area irrigated.	Estimated value.	Area irrigated.	Estimated value.	Area irrigated.	Estimated value.	Area irrigated.	Estimated value.
1	2	3	4	5	6	7	8	9
CLASS I—WORKS.	ACS.	RS.	ACS.	RS.	ACS.	RS.	ACS.	RS.
1. Gódávari delta	588,962	1,57,56,267	4,272	57,865	135,368	24,72,569	728,602	1,82,86,201
2. Kistna do.	464,183	1,19,18,872	4,131	33,964	6,529	1,39,167	474,843	1,20,92,003
3. Cauvery do.	896,448	2,28,04,242	15,273	1,39,076	27,726	3,73,474	939,447	2,33,16,792
4. Pennér anikat	60,668	10,93,287	823	4,571	2,715	9,185	64,206	11,07,043
5. Sangam do.	67,991	12,90,299	1,290	8,749	5,482	42,604	74,763	13,41,652
6. Srivaikuntam anikat ..	32,077	4,14,653	213	907	2,457	16,570	34,747	4,32,130
7. Barur tank project ..	3,352	85,987	123	944	278	2,460	3,753	89,391
8. Rushikulya do. ..	62,978	10,28,596	256	1,173	889	27,820	64,123	10,57,589
9. Kurnool-Cuddapah canal ..	20,244	5,91,141	3,563	28,090	58,099	8,27,041	81,906	14,46,272
10. Periyár project	51,784	8,37,073	3,333	22,499	5,333	86,393	60,450	9,45,965
CLASS II—WORKS.								
11. Pálár anikat	72,922	12,71,367	7,286	32,992	4,999	27,400	85,207	13,31,759
12. Pelandorai anikat ..	8,871	1,42,735	42	306	266	10,359	9,179	1,53,400
13. Chembrambakkam tank ..	12,839	1,77,714	593	3,014	1,157	37,504	14,589	2,18,232
14. Madras water-supply and irrigation extension project	7,932	98,341	558	2,958	734	5,002	9,224	1,06,301
15. Cumbum tank	4,253	1,14,672	482	4,909	2,030	35,596	6,765	1,55,177
16. Thadapalli channel ..	13,926	4,62,588	149	741	764	29,189	14,839	4,92,518
17. Arkankottai do. ..	4,034	1,60,813	16	93	64	1,889	4,114	1,62,795
18. Kalingarayen do. ..	16,324	5,71,628	2,048	15,281	2,008	83,539	20,380	6,70,448
19. Vallur anikat	3,912	41,877	130	446	389	2,481	4,431	44,804
20. Cheyaru do.	28,219	5,08,308	2,790	14,446	951	4,665	31,960	5,27,419
21. Poiney do.	17,246	3,12,518	3,609	15,729	1,743	16,913	22,598	3,45,160
22. Lower Coleroon anikat ..	105,032	25,13,767	394	3,473	1,185	13,774	106,612	25,31,014
23. Shatiatope do. ..	29,794	5,84,425	1,577	12,980	836	13,855	32,207	6,11,260
24. Vriddhachalam do. ..	6,022	1,27,602	139	787	125	8,196	6,286	1,36,585
25. Mehmattur do. ..	3,393	94,318	94	1,136	52	3,516	3,539	98,970
26. Marudur do. ..	27,091	4,66,457	810	5,441	2,609	22,516	30,510	4,94,414
27. Tirukkóyilur do. ..	21,649	3,53,179	1,459	11,276	1,039	31,811	24,147	3,96,266
28. Ganjám minor rivers system	52,985	10,32,195	1,093	4,878	8,047	36,385	62,125	10,73,458
29. Nandyar channel	4,018	61,048	924	5,081	775	21,750	5,717	87,879
Total ..	2,689,149	6,49,15,969	57,470	4,33,305	274,650	44,63,623	3,021,269	6,97,52,897

No. 109 I.

Note by the Chief Engineer for Irrigation.

The revised statements III-E and IV-E forwarded by the Board of Revenue may be substituted for the statements printed at pages 115 and 116 to 119 of the administration report of the Irrigation branch, Public Works Department, for 1896-97 submitted to the Government of India with endorsement No. 162 I., dated 3rd March 1898.

2. The figures in columns 7 and 8 of the statement IV-E appertaining to classes I and II works, do not agree with the corresponding figures furnished by Superintending Engineers and entered in statements I-A and II-A printed at pages 96 to 98 of the Administration report for 1896-97. The Superintending Engineers concerned should take the necessary steps, in communication with the Collectors of the districts, to reconcile the differences, so that there may be uniformity in the figures entered in the statistical statements to be appended to the Administration report for 1897-98.

(Signed) W. HUGHES,
Chief Engineer for Irrigation.

24th March 1898.

Order—No. 317 I., dated 18th April 1898.

The revised statements referred to will be substituted for statements III-E and IV-E printed in the Administration report of the Irrigation branch, Public Works Department, for 1896–97.

2. The attention of Superintending Engineers is directed to paragraph 2 of the foregoing note of the Chief Engineer for Irrigation.

3. Ordered that a copy of these Proceedings be forwarded to the Government of India, with reference to endorsement, No. 162 I., dated 3rd March 1898.

[Here enter No. 318 I., dated 18th April 1898.]

(True Extract.)

(Signed) W. HUGHES,
Joint Secy. to Government,
Irrigation Branch.

To the Chief Engineer for Irrigation.
„ the Chief Engineer, Tank Restoration Scheme.
„ all Superintending Engineers
„ the Consulting Engineer for Railways.
„ the Chief Engineer, Public Works Department.
„ the Examiner, Public Works Accounts.
„ the Revenue Department.
„ the Public Department.

Endorsement—No. 318 I., dated 18th April 1898.

Forwarded.

(By order.)

(Signed) W. HUGHES,
Joint Secy. to Government,
Irrigation Branch.

Ed. A. F. Eccleston.