3,000—5-3-98.

Revenue (1898) Department.

MISCELLANEOUS SERIES.

G.O., No. 2514

DATED 14th June

[Despatch Abstract.]

16th Bd. of Rev.

Comms. Pros. of the P.W.D. approving the final issue of the Irrigation Budget Estimates for 1898-99, as drawn up by the Ch. Engr. for Irrigation &c.

BACK PAPERS.

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

FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.
Cus	2586/89						
Cus	3574/89						

Revenue 1898 Department

Current No 1112.

IRRIGATION.
ACCOUNT.

Government {1898} of Madras.

PUBLIC WORKS.

MADRAS
10 JUN 98
SECRETARIAT DEPARTMENT

Recd. 9 June } 1898. *Enclosures*

Regd. 11 " *Spare copies*

G.O., No. 346 I., 27th April 1898.

G.O. Mis No. 2514 d/14th June 98.
Communicated
to the Board of Revenue.
Lit
To the Board of Rev & R. } Desp
Ro. L.R. # 3 17.6.98

APRIL.

SAV 13/6/98.
BMM 13.6.98.

Irrigation Budget Estimates

The final issue of the — for 1898–99, as drawn up by the Chief Engineer for Irrigation, approved and copies thereof ordered to be forwarded to the Government of India.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

READ—the following paper:—

No. 141 I.

Note by the Chief Engineer for Irrigation.

The accompanying final issue of the budget estimates of the Irrigation branch for 1898–99, which has been prepared to work up to the following grants, approved by the Government of India in its orders, No. $\frac{7}{B.O.}$ A-I., dated 22nd March 1898, printed in Proceedings of Madras Government, No. 276 I., dated 31st March 1898, is submitted to Government:—

		RS.
35.	Construction of Protective Works, Irrigation—Imperial ...	99,000
42.	Major Works (Working Expenses)—Imperial	15,00,000
43.	Minor Works and Navigation—	
	Provincial	29,80,000
	Incorporated Local	5,000
49.	Capital Expenditure not charged to Revenue—Imperial ...	5,00,000

Imperial.

2. The distribution of the grants under "35. Protective Works, Irrigation," "42. Major Works (Working Expenses)," and "49. Capital Expenditure not charged to Revenue," shown in the preliminary budget estimate, has been adhered to.

Provincial.

3. In the preliminary issue of the budget estimate, Rs. 6,150 were provided for works of the Buckingham canal on Capital Account. In his letter No. 45 E.I., dated 14th February 1898, the Superintending Engineer, V Circle, represented that this provision was quite inadequate to carry out works urgently required to complete the canal and requested that the grant for *works* might be raised to Rs. 55,000. In this office memo. No. V/3-B.C., dated 18th February 1898, he was informed that no provision could be made in the final issue of the budget estimates for works for which the designs and estimates have not been sanctioned, but that, if the estimates for the works considered emergent are submitted before its issue, the funds required will be provided therein as far as may be possible. In this office Note No. 140 I., dated 7th April 1898, an estimate, amounting to Rs. 11,450, for providing new gates for the Musi, Mudigundy, Pyderu south and Covelong north locks, having been recommended for the sanction of Government under open Capital Account, the preliminary grant for the canal has been increased to Rs. 17,990 by reducing the reserve.

4. In his endorsement No. 120 E.I., dated 24th March 1898, the Superintending Engineer, V Circle, reported the necessity for augmenting the grant assigned for the South Arcot division under "Minor Original Works for which neither Capital nor Revenue Accounts are kept—Public Works Department," from Rs. 10,000 to Rs. 20,000. The increased amount has now been provided, as suggested by the Superintending Engineer, by reducing the preliminary grant of Rs. 70,169 for the Chingleput division for "Tank Restoration Repairs" by Rs. 10,000.

18th April 1898.

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

ORDER—No. 346 I., dated 27th April 1898.

The final issue of the Irrigation budget estimates for 1898–99, as drawn up by the Chief Engineer for Irrigation, is approved and fifty * printed copies thereof will be forwarded to the Government of India.

* Fifteen copies to Simla and the remainder to Calcutta.

[Here enter No. 347 I., dated 27th April 1898.]

(True Extract.)

Under Secretary to Government,
Irrigation Branch.

To the Chief Engineer for Irrigation.
„ the „ „ Tank Restoration Scheme.
„ Superintending Engineers.
„ the Superintending Engineer on Special duty,
Cauvery Completion Estimates, Tanjore.
„ the Examiner, Public Works Accounts.
„ the Revenue Department.
„ the Financial Department.

20 copies

Exd. T. Lutchmiah Naidu.

IMPERIAL—MAJOR WORKS. MADRAS PRESIDENCY.

FINAL ISSUE.

Public Works Department.

BUDGET ESTIMATE

OF

REVENUE AND EXPENDITURE

UNDER

IRRIGATION-MAJOR WORKS

IN THE

MADRAS PRESIDENCY

FOR THE YEAR

1898-99.

MADRAS,
27th April 1898.

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

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GOVERNMENT OF MADRAS.

REVENUE.

Abstract Budget Estimate of Revenue expected from Irrigation—Major Works in the Madras Presidency for the year from 1st April 1898 to 31st March 1899.

	Actual Realizations, 1896-97.	Budget Estimate, 1897-98.	Revised Estimate, 1897-98.	Budget Estimate, 1898-99.
	Rs.	Rs.	Rs.	Rs.
IRRIGATION.				
IMPERIAL.				
MAJOR WORKS (DIRECT RECEIPTS). (PRODUCTIVE.)				
Gódávari Delta System, Collections in the Public Works Department.	1,01,598	1,11,000	1,09,000	1,12,000
Kistna Delta System do. do.	49,587	53,600	44,700	45,600
Pennéru Anicut System do. do.	438	700	400	400
Sangam Anicut System do. do.	588	600	600	600
Cauvery Delta System do. do.	3,204	2,500	3,100	3,100
Srivaikuntam Anicut System do. do.	1,421	1,200	1,200	1,300
Kurnool-Cuddapah Canal. Collections in the Revenue Department ...	1,26,979	1,18,000	1,20,000	1,20,000
Kurnool-Cuddapah Canal. *Deduct* Collection Charges	6,349	5,900	6,000	6,000
Kurnool-Cuddapah Canal. Net Collections in the Revenue Department ...	1,20,630	1,12,100	1,14,000	1,14,000
Kurnool-Cuddapah Canal. Collections in the Public Works Department...	8,968	9,800	9,500	9,500
Total ...	1,29,598	1,21,900	1,23,500	1,23,500
(PROTECTIVE.)				
Rushikulya Project, Collections in the Public Works Department...	831	1,500	1,500	1,500
Total ...	2,87,265	2,93,000	2,84,000	2,88,000

GOVERNMENT OF MADRAS.

REVENUE.

Memorandum of the Amounts to be credited to each Project on account of Share of Enhanced Land Revenue due to, or dependent on, the Works.

	Actual Realizations, 1896-97.	Budget Estimate, 1897-98.	Revised Estimate, 1897-98.	Budget Estimate, 1898-99.
	Rs.	Rs.	Rs.	Rs.
IRRIGATION.				
XXIX. MAJOR WORKS—PORTION OF LAND REVENUE DUE TO IRRIGATION.				
Gódávari Delta—				
Irrigation Revenue	26,79,408	28,29,000	28,25,000	30,25,000
Deduct Revenue due to old Irrigation	1,24,000	1,24,000	1,24,000	1,24,000
Revenue due to the System	25,55,408	27,05,000	27,01,000	29,01,000
Share of enhanced Land Revenue	1,47,443	1,54,400	1,54,000	1,54,000
Total ...	27,02,851	28,59,400	28,55,000	30,55,000
Deduct Collection Charges in the Civil Department	1,35,142	1,43,400	1,42,570	1,52,570
Net Revenue ...	25,67,709	27,16,000	27,12,430	29,02,430
Four per cent. on sale-proceeds of tank-bed and other waste lands less 5 per cent. for collection charges	...	1,000	570	570
Total ...	25,67,709	27,17,000	27,13,000	29,03,000
Kistna Delta—				
Irrigation Revenue	20,59,375	25,85,000	22,25,000	22,29,000
Deduct Revenue due to old Irrigation	71,000	71,000	71,000	71,000
Revenue due to the System	19,88,375	25,14,000	21,54,000	21,58,000
Share of enhanced Land Revenue	1,47,106	2,00,000	1,39,400	1,39,500
Total ...	21,35,481	27,14,000	22,93,400	22,97,500
Deduct Collection Charges in the Civil Department	1,06,774	1,36,000	1,14,400	1,14,500
Net Revenue ...	20,28,707	25,78,000	21,79,000	21,83,000
Four per cent. on sale-proceeds of tank-bed and other waste lands less 5 per cent. for collection charges	...	10,000	1,000	1,000
Total ...	20,28,707	25,88,000	21,80,000	21,84,000
Pennéru Anicut—				
Irrigation Revenue	2,50,665	2,64,000	2,64,000	2,64,000
Deduct Revenue due to old Irrigation	1,17,000	1,17,000	1,17,000	1,17,000
Revenue due to the System	1,33,665	1,47,000	1,47,000	1,47,000
Share of enhanced Land Revenue	21,072	21,000	21,000	21,000
Total ...	1,54,737	1,68,000	1,68,000	1,68,000
Deduct Collection Charges in the Civil Department	7,737	8,400	8,550	8,550
Net Revenue ...	1,47,000	1,59,600	1,59,450	1,59,450
Four per cent. on sale-proceeds of tank-bed and other waste lands less 5 per cent. for collection charges	...	400	550	550
Total ...	1,47,000	1,60,000	1,60,000	1,60,000

GOVERNMENT OF MADRAS.

REVENUE—continued.

Memorandum of the Amounts to be credited to each Project on account of Share of Enhanced Land Revenue due to, or dependent on, the Works—continued.

IRRIGATION—*continued.* XXIX. MAJOR WORKS—PORTION OF LAND REVENUE DUE TO IRRIGATION—continued.	Actual Realizations, 1896-97.	Budget Estimate, 1897-98.	Revised Estimate, 1897-98.	Budget Estimate, 1898-99.
	Rs.	Rs.	Rs.	Rs.
Sangam Anicut—				
Irrigation Revenue	3,11,805	3,09,000	3,09,000	3,17,000
Deduct Revenue due to old Irrigation	1,39,000	1,39,000	1,39,000	1,39,000
Revenue due to the System	1,72,805	1,70,000	1,70,000	1,78,000
Share of enhanced Land Revenue	23,055	16,500	16,500	15,593
Total ...	1,95,860	1,86,500	1,86,500	1,93,593
Deduct Collection Charges in the Civil Department	9,793	9,200	9,200	9,293
Net Revenue ...	1,86,067	1,77,300	1,77,300	1,84,300
Four per cent. on sale-proceeds of tank-bed and other waste lands less 5 per cent. for collection charges	...	6,700	6,700	6,700
Total ...	1,86,067	1,84,000	1,84,000	1,91,000
Cauvery Delta—				
Irrigation Revenue	41,77,693	42,54,000	42,03,000	42,21,000
Deduct Revenue due to old Irrigation	33,39,128	33,97,900	33,59,000	33,74,200
Revenue due to the System	8,38,565	8,56,100	8,44,000	8,46,800
Share of enhanced Land Revenue	1,11,331	1,12,000	1,12,400	1,13,420
Total ...	9,49,896	9,68,100	9,56,400	9,60,220
Deduct Collection Charges in the Civil Department	47,495	48,100	47,400	48,220
Net Revenue ...	9,02,401	9,20,000	9,09,000	9,12,000
Srívaikuntam Anicut—				
Irrigation Revenue	1,84,114	1,85,000	1,85,000	1,85,000
Deduct Revenue due to old Irrigation	79,000	79,000	79,000	79,000
Revenue due to the System	1,05,114	1,06,000	1,06,000	1,06,000
Share of enhanced Land Revenue	1,780	2,000	2,000	2,000
Total ...	1,06,894	1,08,000	1,08,000	1,08,000
Deduct Collection Charges in the Civil Department	5,345	5,000	5,000	5,000
Net Revenue ...	1,01,549	1,03,000	1,03,000	1,03,000
Barur Tank—				
Irrigation Revenue	11,533	14,000	12,000	13,000
Deduct Revenue due to old Irrigation	2,000	2,000	2,000	2,000
Revenue due to the System	9,533	12,000	10,000	11,000
Share of enhanced Land Revenue	3	...	...	...
Total ...	9,536	12,000	10,000	11,000
Deduct Collection Charges in the Civil Department	477	1,000	500	1,000
Net Revenue ...	9,059	11,000	9,500	10,000
Four per cent. on sale-proceeds of tank-bed and other waste lands less 5 per cent. for collection charges	...	...	500	...
Total ...	9,059	11,000	10,000	10,000

GOVERNMENT OF MADRAS.

REVENUE—continued.

Memorandum of the Amounts to be credited to each Project on account of Share of Enhanced Land Revenue due to, or dependent on, the Works—continued.

IRRIGATION—*continued.* XXIX. MAJOR WORKS—PORTION OF LAND REVENUE DUE TO IRRIGATION—continued.	Actual Realizations, 1896-97.	Budget Estimate, 1897-98.	Revised Estimate, 1897-98.	Budget Estimate, 1898-99.
	Rs.	Rs.	Rs.	Rs.
Kurnool-Cuddapah Canal—				
Share of enhanced Land Revenue under tanks owing to supply of canal water	7,375	6,300	5,350	7,350
Deduct Collection Charges in the Civil Department	369	300	350	350
Net Revenue ...	7,006	6,000	5,000	7,000
Rushikulya Project—				
Irrigation Revenue	1,08,106	1,10,000	1,10,000	1,10,000
Deduct Revenue due to old Irrigation	45,308	33,000	45,000	45,000
Revenue due to the System	62,798	77,000	65,000	65,000
Share of enhanced Land Revenue	143	200	200	200
Total ...	62,941	77,200	65,200	65,200
Deduct Collection Charges in the Civil Department	3,147	4,200	3,150	3,150
Net Revenue ...	59,794	73,000	62,050	62,050
Four per cent. on sale-proceeds of tank-bed and other waste lands less 5 per cent. for collection charges	...	1,000	950	950
Total ...	59,794	74,000	63,000	63,000
Periyár Project—				
Irrigation Revenue	2,66,480	...	3,90,050	4,51,550
Deduct Revenue due to old Irrigation	2,31,348	...	2,25,840	2,39,340
Revenue due to the System	35,132	...	1,64,210	2,12,210
Share of enhanced Land Revenue	419	...	2,000	20,000
Total ...	35,551	...	1,66,210	2,32,210
Deduct Collection Charges in the Civil Department	1,777	...	8,030	11,823
Net Revenue ...	33,774	...	1,58,180	2,20,387
Four per cent. on sale-proceeds of tank-bed and other waste lands less 5 per cent. for collection charges	...	...	14,820	40,613
Total ...	33,774	1,38,000	1,73,000	2,61,000
Total—				
Irrigation Revenue	1,00,49,179	1,05,50,000	1,05,23,050	1,08,15,550
Deduct Revenue due to old Irrigation	41,47,784	39,62,900	41,61,840	41,90,540
Revenue due to the System	59,01,395	65,87,100	63,61,210	66,25,010
Share of enhanced Land Revenue	4,59,727	5,12,400	4,52,850	4,73,063
Total ...	63,61,122	70,99,500	68,14,060	70,98,073
Deduct Collection Charges in the Civil Department	3,18,056	3,55,600	3,39,150	3,54,456
Net Revenue ...	60,43,066	67,43,900	64,74,910	67,43,617
Four per cent. on sale-proceeds of tank-bed and other waste lands less 5 per cent. for collection charges	...	19,100	25,090	50,383
Total ...	60,43,066	* 69,01,000	65,00,000	67,94,000

* Includes Rs. 1,38,000 the estimate for the Periyár project which was not reported in time by the Board of Revenue to admit of its inclusion in the budget estimate for 1897-98.

GOVERNMENT OF MADRAS.

CHARGES.

Abstract Budget Estimate of Expenditure on Irrigation—Major Works in the Madras Presidency for the year from 1st April 1898 to 31st March 1899.

	Reference to Detailed Estimate.	Actual Outlay, 1896–97.	Budget Estimate, 1897–98.	Revised Estimate, 1897–98.	Budget Estimate, 1898–99.
	Pages.	Rs.	Rs.	Rs.	Rs.
IMPERIAL.					
Major (Protective) Works.					
Famine Relief and Insurance.					
35. CONSTRUCTION OF PROTECTIVE IRRIGATION WORKS.					
1. Works ... ... In progress ... Rs. 77,000	8 & 9	1,67,744	1,38,618	1,13,618	80,000
Not commenced. . 3,000					
2. Establishment	36	37,317	30,732	24,982	18,400
3. Tools and plant	37	— 90	150	400	600
5. Receipts on capital account		— 913	...	...	...
Total ...		2,04,058	1,69,500	1,39,000	99,000
42. WORKING EXPENSES.					
1. Extensions and improvements. In progress ... ... Rs. Not commenced ... 89,996	8 to 11	66,884	69,481	56,886	89,996
2. Maintenance and repairs	29 to 33	8,01,096	5,98,183	6,21,756	6,63,364
3. Compensation *		40,000	40,000	40,000	40,000
4. Establishment	36	5,67,071	5,68,610	5,57,332	5,88,398
5. Tools and plant	37 to 39	93,557	93,726	95,026	1,18,242
6. Refunds of revenue		359	...	...	...
Total, Working Expenses ...		15,68,967	13,70,000	13,71,000	15,00,000
Capital Expenditure not charged to Revenue.					
49. IRRIGATION.					
1. Works ... ... In progress ... Rs. 2,10,844	11 to 28	6,73,546	7,32,543	5,99,412	3,91,414
Not commenced ... 1,80,570					
2. Establishment	36	1,36,714	1,59,357	1,21,487	85,426
3. Tools and plant	39	—46,174	58,100	60,101	23,160
5. Receipts on capital account		— 331	...	...	...
Total, Capital Expenditure ...		7,63,755	9,50,000	7,81,000	5,00,000

* Annual rent payable to the Travancore Durbar under the Periyár lease.

GOVERNMENT OF MADRAS.

CHARGES.

Part I.

Details of the Budget Estimate of Expenditure on Irrigation—Major Works in the Madras Presidency for the year 1898–99, arranged by Projects and Objects of Work.

	Amount of Sanctioned Estimate.	Actual Outlay to end of 1896–97.	Budget Estimate, 1897–98.	Probable Outlay during 1897–98 (Revised Estimate).	Budget Estimate, 1898–99.	Remarks and References.
IMPERIAL.						
Major (Protective) Works.	Rs.	Rs.	Rs.	Rs.	Rs.	
Famine Relief and Insurance.						
35. CONSTRUCTION OF PROTECTIVE IRRIGATION WORKS.						
Capital Account.						
Rushikulya Project	43,68,000	41,11,212	1,69,500	1,39,000	99,000	Government of India register No. 7 I. of 1894–95. Proceedings of Madras Govt. No. 846 I. of 7th November 1894.
42. MAJOR WORKS (WORKING EXPENSES).						
Gódávari Delta	...	...	4,80,000	4,85,715	5,10,000	
Kistna do.	...	...	5,75,000	5,69,297	6,21,000	
Pennéru Anicut	...	...	20,000	21,508	22,000	
Sangam do.	...	...	37,000	24,700	33,000	
Kurnool-Cuddapah Canal ...	...	...	94,200	87,328	90,000	
Barur Tank Project	...	...	2,500	3,192	2,000	
Cauvery Delta	...	...	25,000	16,088	60,000	
Srívaikuntam Anicut ...	...	...	27,000	26,877	25,000	
Periyár Project	...	...	71,000	1,03,715	92,000	
Rushikulya Project	...	...	38,300	32,580	45,000	
Total ...	...	...	13,70,000	13,71,000	15,00,000	
Capital Expenditure not charged to Revenue.						
49. IRRIGATION.						
Works in Progress.						
Gódávari Delta System ...	1,11,96,871	1,09,96,977	55,000	87,193	1,11,000	P.M.G. No. 696 I., dated 28th July 1897; No. 732 I., dated 9th August 1897; No. 790 I., dated 30th August 1897; and No. 969 I., dated 29th October 1897.
Kistna Delta do. ...	1,39,19,784	1,19,61,702	4,50,000	3,64,725	1,98,000	Government of India register No. 8 I. of 1884–85. P.M.G. No. 862 I., dated 22nd Sept. 1884. Government of India letter No. 10 I. of 22nd Jan. 1889. P.M.G. No. 62 I. of 11th Feb. 1889, No. 857 I. of 11th Oct. 1893, and No. 34 I. of 17th Jan. 1894. Construction estimate closed on 31st March 1898.
Cauvery Delta	25,82,583	17,29,908	1,93,000	1,40,344	33,000	P.M.G. No. 443 I., dated 11th May 1897; No. 454 I., dated 14th May 1897; No. 500 I., dated 28th May 1897; No. 644 I., dated 12th July 1897; No. 730 I., dated 9th August 1897; No. 755 I., dated 17th August 1897; No. 790 I., dated 30th August 1897; No. 844 I., dated 20th September 1897; No. 990 I., dated 10th November 1897; No. 1102 I., dated 9th December 1897; and No. 43 I., dated 18th January 1898.
Periyár Project	82,55,977	81,30,017	2,50,000	1,64,283	1,58,000	Construction estimate closed on 31st March 1897. Schedule of works remaining to be completed under preparation. P.M.G. No. 361 I., dated 13th April 1897; No. 397 I., dated 27th April 1897; No. 572 I., dated 23rd June 1897; No. 587 I., dated 29th June 1897; No. 788 I., dated 26th August 1897; No. 796 I., dated 1st September 1897; No. 842 I., dated 20th September 1897; No 887 I., dated 7th October 1897; No. 900 I., dated 9th October 1897; No. 942 I., dated 21st October 1897; No. 994 I., dated 10th November 1897; No. 1001 I., dated 12th November 1897; No. 1003 I., dated 12th November 1897; No. 1013 I., dated 13th November 1897 and Nos. 1104 I. and 1141 I., dated 9th and 22nd December 1897.
Total ...	...	...	...	...	5,00,000	

GOVERNMENT

OF MADRAS.

CHARGES.

Part II.

Details of the Budget Estimate for Original Works under Irrigation Major Works in the Madras Presidency for the year 1898–99.

Division.	Locality.	Sub-division of expenditure.	Item No.	Detail of works.	Amount of estimate.	Outlay: To end of 1896–97.	Outlay: Probable during 1897–98.	Grant for 1898–99.	Item No.	Remarks and references.
					Rs.	Rs.	Rs.	Rs.		
				IMPERIAL.						
				MAJOR (PROTECTIVE) WORKS.						
				Famine Relief and Insurance.						
				35. CONSTRUCTION OF PROTECTIVE IRRIGATION WORKS.						
				Capital Account.						
				RUSHIKULYA PROJECT.						
				(1) HEAD WORKS.						
				Rushikulya Section.						
Ganjám ...	...	3. Works ...	1	Suradá reservoir dam	2,75,000	2,58,488	30,000	60,000	1	
			2	Channel to take the Pathama river into Suradá reservoir.	41,160	23 876	10,000	10,000	2	
			3	Waste weir channel, Suradá reservoir	21,800	14,561	5,000	4,000	3	
				(3) Distributaries.						
			4	Irrigation sluices	16,148	...	2,000	1,000	4	
			5	Masonry works	61,602	...	18,000	2,000	5	
			6	Irrigation channels	1,50,000	...	48,618	3,000	6	
				Total, Rushikulya Project ...	...	...	...	80,000		
				IRRIGATION.						
				42. MAJOR WORKS (WORKING EXPENSES).						
				EXTENSIONS AND IMPROVEMENTS.						
				Gódávari Delta System.						
Gódávari Eastern	...	.....	7	Extensions and improvements	...	...	1,000	13,000	7	
Gódávari Central.	...	.....	8	Do. do.	...	...	5,000	5,000	8	
Gódávari Western Division.	...	.....	9	Do. do.	...	...	8,000	10,000	9	
				Total ...	...	...	14,000	28,000		
				Kistna Delta System.						
Kistna Eastern ...	...	.....	10	Extensions and improvements	...	...	13,124	16,000	10	
Kistna Western.	...	.....	11	Do. do.	...	...	3,000	5,000	11	
				Total ...	...	...	16,124	21,000		
				Pennéru Anicut System.						
Nellore ...	...	.....	12	Extensions and improvements	...	...	2,461	5,000	12	
			13	Deduct old maintenance charges	...	...	* 3,564	* 3,564	13	
				Net grant ...	...	...	1,103	1,436		

* These sums are provided in the budget estimates for Minor Works and Navigation for 1898–99.

GOVERNMENT OF MADRAS.

CHARGES—cont.

Part II—cont.

Details of the Budget Estimate for Original Works under Irrigation

Major Works in the Madras Presidency for the year 1898–99—continued.

Division.	Locality.	Sub-division of expenditure.	Item No.	Detail of works.	Amount of estimate.	Outlay: To end of 1896–97.	Outlay: Probable during 1897–98.	Grant for 1898–99.	Item No.	Remarks and references.
				EXTENSIONS AND IMPROVEMENTS—*cont.*	Rs.	Rs.	Rs.	Rs.		
				Sangam Anicut System.						
Nellore—*cont.* ...	...	.....	14	Extensions and improvements	...	...	3,975	5,332	14	
			15	Deduct old maintenance charges	...	...	* 345	* 345	15	
				Net grant ...	...	...	3,630	4,987		
				Kurnool-Cuddapah Canal.						
Kurnool ...	...	.....	16	Extensions and improvements	...	...	8,325	8,000	16	
				Cauvery Delta System.						
Tanjore ...	...	.....	17	Extensions and improvements						
Negapatam ...	...	.....	18	Do. do.	...	...	9,200	15,000	17	
Trichinopoly ...	...	.....	19	Do. do.	...	...	4,800	6,000	18	
				Total ...	...	...	96	1,000	19	
					...	...	14,096	22,000		
				Srivaikuntam Anicut System.						
Tinnevelly ...	...	.....	20	Extensions and improvements						
			21	Deduct old maintenance charges	...	...	1,506	2,000	20	
				Net grant ...	...	...	* 352	* 352	21	
				Periyár Project.	...	...	1,154	1,648		
Madura ...	...	.....	22	Extensions and improvements	...	...	...	2,925	22	
				Total, Extensions and Improvements ...	...	...	...	89,993		
				CAPITAL EXPENDITURE NOT CHARGED TO REVENUE.						
				49. IRRIGATION.						
				GODAVARI DELTA SYSTEM.						
				OPEN CAPITAL ACCOUNT.						
				Eastern Section.						
				(1) Head Works.						
Gódávari Eastern.	...	3. Works	23	Fitting falling shutters on the crest of the Gódávari anicut.	1,75,500	26,493	82,961	80,000	23	P.M.G., No. 696 I., dated 28th July 1897.
				Western Section.						
				(2) Main Canals and Branches.						
				Ellore Canal.						
Gódávari Western.	...	5. River and hill torrent works.	24	Constructing cross drainage works	19,200	...	...	10,000	24	Estimate submitted to the Government of India for sanction in P.M.G., No. 186 I., dated 9th March 1898.
				Total, Gódávari Delta System ...	...	...	...	90,000		
				KISTNA DELTA SYSTEM.						
				(1) Head Works.						
Kistna Eastern ...	...	3. Works	25	Fitting falling shutters on the crest of the Kistna anicut.	47,200	...	34,000	12,000	25	P.M.G., No. 45 I., dated 18th January 1898.

* These sums are provided in the budget estimates for Minor Works and Navigation for 1898–99.

Details of the Budget Estimate for Original Works under Irrigation

Major Works in the Madras Presidency for the year 1898-99—continued.

Division.	Locality.	Sub-division of expenditure.	Item No.	Detail of works.	Amount of estimate.	Outlay: To end of 1896-97.	Outlay: Probable during 1897-98.	Grant for 1898-99.	Item No.	Remarks and references.
				Kistna Delta System—*cont.*	Rs.	Rs.	Rs.	Rs.		
				Ellore Canal.						
				(2) Main Canals and Branches.						
Kistna Eastern—*cont.*	...	12. Earthwork ...	26	Removing banks of Ellore canal in 6th mile ...	4,450	...	950	3,500	26	
		6. Other cross drainage works.	27	Minor works	2,530	...	...	2,530	27	
		9. Escape ...	28	Do.	1,600	...	...	1,600	28	
				(3) Distributaries.						
		4. Earthwork ...	29	Excavating Wungutur main channel	4,560	4,055	...	505	29	
		3. Works ...	30	Minor works	2,460	1,405	223	832	30	
		4. Earthwork ...	31	Do.	4,910	2,575	18	2,317	31	
		5. Miscellaneous ...	32	Do.	2,075	571	514	990	32	
				(4) Drainage and Protective Works.						
		4. Earthwork ...	33	Excavating Pedapad escape drain	4,665	13	1,152	3,500	33	
				Ryves' Canal.						
				(2) Main Canals and Branches.						
		8. Escape ...	34	Constructing surplus escape at 12/0 miles of Ryves' canal.	8,100	...	...	5,000	34	
				Masulipatam Canal.						
				(2) Main Canals and Branches.						
		9. Navigation ...	35	Alterations to Nidumolu lock and weir ...	500	...	...	500	35	
				(3) Distributaries.						
		4. Earthwork ...	36	Excavating Bheemacodu channel	10,300	10,050	...	1,780	36	
		3. Works ...	37	Minor works	9,275	5,765	624	2,887	37	
		4. Earthwork ...	38	Do.	10,210	7,300	19	2,891	38	
		5. Miscellaneous ...	39	Do.	755	432	— 44	367	39	
				(4) Drainage and Protective Works.						
		5. Do. ...	40	Minor works	60	34	...	26	40	
				Pedalanka Channel.						
				(3) Distributaries.						
		4. Earthwork ...	41	Excavating Tummacodu branch of Pedalanka channel.	3,000	2,490	300	210	41	
		5. Miscellaneous ...	42	Constructing 100 pipe sluices on Pedalanka channel.	7,500	3,321	4,007	172	42	
				(4) Drainage and Protective Works.						
		4. Earthwork ...	43	Excavating Kalidindi drain	3,450	2,792	400	258	43	

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CHARGES—cont.

Part II—cont.

Details of the Budget Estimate for Original Works under Irrigation Major Works in the Madras Presidency for the year 1898-99—continued.

Division.	Locality.	Sub-division of expenditure.	Item No.	Detail of works.	Amount of estimate.	Outlay: To end of 1896-97.	Outlay: Probable during 1897-98.	Grant for 1898-99.	Item No.	Remarks and references.
				Kistna Delta System—cont.	Rs.	Rs.	Rs.	Rs.		
				Pulleru Canal.						
				(3) Distributaries.						
Kistna Eastern —*cont.*	...	4. Earthwork ...	44	Minor works	1,878	120	868	890	44	
		5. Miscellaneous.	45	Do.	1,774	547	795	430	45	
				Bantumalli Canal.						
				(3) Distributaries.						
		5. Miscellaneous.	46	Minor works	1,863	351	12	1,500	46	
			47	Reserve	...	...	...	3,730	47	
			48	Land compensation	...	...	...	16,270	48	
				Total, Kistna Eastern division ...	...	...	...	64,685		
				Bank Canal.						
				(2) Main Canals and Branches.						
Kistna Western.	...	11. Earthwork ...	49	Improving the head-sluice channel of Bank canal.	6,600	2,869	2,000	1,000	49	
		15. Miscellaneous.	50	Fixing demarcation stones on both sides of Bank canal.	2,200	1,551	300	300	50	
				(3) Distributaries.						
		2. Land ...	51	Compensation for land for Iskapalli channel ...	1,000	194	500	200	51	
		Do. ...	52	Compensation for land for Allaparru branch channel.	800	...	200	600	52	
		Do. ...	53	Compensation for land for Kuchipudi branch channel.	350	...	200	150	53	
		Do. ...	54	Compensation for land for diversion of Raza channel at 573 from head of proposed surplus channel at 45 miles 6 furlongs of Bank canal.	840	...	300	500	54	
		Do. ...	55	Compensation for land for proposed surplus channel at 45 miles 6 furlongs of Bank canal.	370	...	200	170	55	
		Do. ...	56	Compensation for land for proposed surplus channel at 44 miles 4½ furlongs of Bank canal.	420	...	200	220	56	
		Do. ...	57	Compensation for land for Venkannah's channel.	260	...	100	160	57	
		Do. ...	58	Compensation for proposed channel at 45 miles 2 furlongs 310 feet	330	...	100	230	58	
		3. Works ...	59	Combined bridge and drop at 4 miles 5 furlongs of Varahapuram channel.	1,120	859	200	100	59	
		Do. ...	60	Tail escape and bridge at 4 miles 5 furlongs of Varahapuram channel.	1,200	...	700	500	60	
		Do. ...	61	Earthenware pipe sluices at 4 miles 5 furlongs of Varahapuram channel.	1,000	127	500	400	61	
		Do. ...	62	Drop at 3 miles 4 furlongs	440	21	140	280	62	
		Do. ...	63	Tail escape	220	...	100	120	63	
		Do. ...	64	Ullipalam channel tail escape	240	...	140	100	64	
		Do. ...	65	Allapuram branch channel tail escape	230	...	130	100	65	
		Do. ...	66	Tail dam	100	...	...	100	66	
		Do. ...	67	Earthenware pipe sluices at head of channel 44 miles 4 furlongs 330 feet.	290	...	...	290	67	
		Do. ...	68	Earthenware pipe sluices at head of Venkannah's channel 44 miles ½ furlong Bank canal.	200	...	...	200	68	
		Do. ...	69	Tail dam	70	...	...	70	69	
		Do. ...	70	Earthenware pipe sluices at head of proposed channel at 45 miles 2 furlongs and 310 feet.	290	...	...	290	70	

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Details of the Budget Estimate for Original Works under Irrigation

Major Works in the Madras Presidency for the year 1898-99—continued.

Division.	Locality.	Sub-division of expenditure.	Item No.	Detail of works.	Amount of estimate.	Outlay: To end of 1896-97.	Outlay: Probable during 1897-98.	Grant for 1898-99.	Item No.	Remarks and references.
				Bank Canal—*cont.*						
				(3) Distributaries—*cont.*						
Kistna Western —*cont.*	...	3. Works ...	71	Tail dam	Rs. 70	Rs. ...	Rs. ...	Rs. 70	71	
		Do. ...	72	Fixing cement concrete pipes to Aravapally branch of Iskapalle channel.	790	...	...	350	72	
		4. Earthwork ...	73	Vellatur channel	...	..	1,000	2,000	73	
		Do. ...	74	Improvements to Iskapalle channel	11,400	13,048	500	1,000	74	
		Do. ...	75	Excavating Aravapally channel	2,360	329	1,100	930	75	
		Do. ...	76	Do. Allaparu branch channel ...	5,860	2,968	2,160	730	76	
		5. Miscellaneous...	77	Fixing demarcation stones along Iskapalle channel.	720	256	100	360	77	
		Do. ...	78	Fixing demarcation stones on both sides of Potumarka channel.	460	210	...	200	78	
		Do. ...	79	Cattle-crossings No. 5 at 5 miles 4 furlongs of Varahapuram channel.	675	...	375	300	79	
		Do. ...	80	Cattle-crossings No. 6 at 6 miles 7 furlongs and 220 feet of Varahapuram channel.	705	...	400	300	80	
		Do. ..	81	Cattle-crossings No. 7 at 8 miles 1 furlong of Varahapuram channel.	725	...	425	300	81	
		Do. ...	82	Fixing demarcation stones for Aravapally branch channel.	420	...	320	100	82	
		Do. ...	83	Fixing demarcation stones for Ullipalam branch channel.	370	...	270	50	83	
		Do. ...	84	Fixing demarcation stones for Allaparru branch channel.	420	...	320	100	84	
		Do. ...	85	Fixing demarcation stones for Nallur channel ...	160	31	...	120	85	
		Do. ...	86	Do. for No. 2 branch ...	50	9	...	40	86	
		Do. ...	87	Fixing demarcation stones for diversion of Raza channel.	80	38	...	40	87	
		Do. ...	88	Fixing demarcation stones for proposed surplus channel, 45 miles 6 furlongs.	40	18	...	20	88	
		Do. ...	89	Fixing demarcation stones on both sides of channel at 44 miles 4½ furlongs of Bank canal.	45	19	...	20	89	
		Do. ...	90	Fixing demarcation stones for Venkannah's channel.	120	61	...	60	90	
		Do. ...	91	Fixing demarcation stones for proposed channel at 45 miles 2 furlongs 310 feet.	40	18	...	20	91	
		Do. ...	92	B.M. demarcation stones for Répalle main drain.	340	173	140	50	92	
		Do. ...	93	Demarcation stones to Allaparru drain.	200	45	100	50	93	
				(4) Drainage and Protective Works.						
		2. Land ...	94	Compensation for land required for Répalle main drain straight cut.	12,400	5,383	3,000	200	94	
		4. Earthwork ...	95	Excavating the proposed straight cut	39,760	22,678	7,000	9,000	95	
		5. Miscellaneous.	96	Fixing demarcation stones for Bhattiprolu drain.	170	41	...	130	96	
				Commamur Canal.						
				(3) Distributaries.						
		3. Works ...	97	Reconstructing a culvert near Yerraeslva on Bapatla-Guntur road over the Karlapalam channel.	5,000	...	3,000	2,000	97	
		Do. ...	98	Under-tunnel at about 0/2 of Tungabhadra side channel.	3,620	...	1,000	2,500	98	
		Do. ...	99	Road and culvert and under-tunnel at 1 mile 5 furlongs of Tungabhadra side channel.	8,000	...	2,000	6,000	99	

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CHARGES—cont.

Part II—cont.

Details of the Budget Estimate for Original Works under Irrigation Major Works in the Madras Presidency for the year 1898-99—continued.

Division.	Locality.	Sub-division of expenditure.	Item No.	Detail of works.	Amount of estimate.	Outlay: To end of 1896-97.	Outlay: Probable during 1897-98.	Grant for 1898-99.	Item No.	Remarks and references.
					Rs.	Rs.	Rs.	Rs.		
				Commamúr Canal—cont.						
				(3) Distributaries—*cont.*						
Kistna Western Division—*cont.*	...	3. Works ...	100	Regulator for Aremanda and Alva channel at 11 miles 7 furlongs of Tungabhadra side channel.	2,850	...	1,000	1,850	100	
		Do. ...	101	Constructing head sluice to Cherukur channel ...	620	...	400	200	101	
		Do. ...	102	Bridge at 0 mile 6 furlongs 330 feet	1,270	...	850	400	102	
		Do. ...	103	Do. at 1 mile 3 furlongs and 580 feet ...	1,170	...	700	400	103	
		Do. ...	104	Pipe sluices No. 3 at 1 mile 4½ furlongs ...	95	33	20	40	104	
		Do. ...	105	Bridge at 1 mile 6 furlongs and 220 feet ...	1,210	...	700	500	105	
		Do. ...	106	Tail drop	200	...	100	100	106	
		Do. ...	107	Pipe sluices No. 2 at 1 mile	80	...	20	50	107	
		Do. ...	108	Bridge at 0 mile 4½ furlongs	1,130	...	700	400	108	
		Do. ...	119	Do. at 1 mile 0 furlong and 290 feet ...	1,100	...	700	400	109	
		Do. ...	110	Do. at 1 mile 5 furlongs 20 feet	1,070	...	600	400	110	
		Do. ...	111	Pipe sluice No. 6 at 2 miles 7 furlongs	95	...	50	40	111	
		Do. ...	112	Head sluice to Tungabhadra side channel ...	1,950	...	1,000	950	112	
		4. Earthwork ...	113	Excavating Bápatla tank East branch channel ...	7,400	164	6,400	1,050	113	
		Do. ...	114	Do. West do. ...	3,900	101	3,000	900	114	
		Do. ...	115	Constructing an iron trough aqueduct over drainage on Bápatla tank to carry Mallapalam Branch channel.	3,217	...	2,500	600	115	
		Do. ...	116	Excavating Tungabhadra side channel ...	22,460	...	5,000	5,000	116	
				(4) Drainage and Protective Works.						
		2. Land	117	Compensation for land required for Perali drain.	6,160	...	2,000	1,000	117	
		3. Works ...	118	Extending the bridge at 7 miles 15 chains of Nallamada drain.	25,000	5,297	20,000	20,000	118	
		4. Earthwork ...	119	Excavating Tungabhadra drain	2,01,111	1,81,070	16,000	12,000	119	
		6. Maintenance ...	120	Maintenance of Perali drain during construction.	5,000	...	...	1,000	120	
				Nizampatam Canal.						
				(2) Main Canals and Branches.						
		2. Land	121	Compensation for land for improvements to west side channel.	600	...	200	200	121	
		9. Navigation ...	122	Constructing sheds for lock superintendent and three lascars at Intur lock.	2,060	1,482	220	300	122	
		Do. ...	123	Do. do. at Nallavada lock ...	1,970	1,016	400	500	123	
		Do. ...	124	Do. do. at Nizampatam tidal lock.	2,000	1,323	500	200	124	
				(3) Distributaries.						
		2. Land	125	Compensation for land for improvements to branch channel of west side channel.	400	89	200	100	125	
		3. Works ...	126	Tail drop to Rambolipalem channel branch of west side channel.	305	20	100	200	126	
				Total, Kistna Western Division ...	...	...	...	81,900		
				Total, Kistna Delta System ...	...	...	...	1,46,585		

Details of the Budget Estimate for Original Works under Irrigation

Major Works in the Madras Presidency for the year 1898-99—continued.

Division.	Locality.	Sub-division of expenditure.	Item No.	Detail of works.	Amount of estimate.	Outlay: To end of 1896-97.	Outlay: Probable during 1897-98.	Grant for 1898-99.	Item No.	Remarks and references.
				CAUVERY DELTA SYSTEM.						
				OPEN CAPITAL ACCOUNT.						
				(1) Head Works.						
Tanjore	...	3. Works ...	127	Fitting lift shutters to the Grand anicut ...	Rs. 1,05,000	Rs. 6,188	Rs. 60,255	Rs. 21,045	127	P.M.G., No. 443 I., dated 11th May 1897.
				(2) Main Canals and Branches.						
		11. Buildings ...	128	Constructing a rest-house at Peralam	2,500	...	1,000	1,500	128	,, ,, 730 I., ,, 9th August 1897.
				(3) Distributaries.						
		3. Works ...	129	Improving Maraneri, Iyanar tank	4,470	520	2,667	735	129	,, ,, 644 I., ,, 12th July 1897.
		Do. ...	130	Improving the Kali voikal, an offtake of the Vickramanar.	2,610	...	1,200	1,410	130	,, ,, 1086 I., ,, 23rd December 1896.
		4. Earthwork ...								
				(4) Drainage and Protective Works.						
		3. Works ...	131	Constructing a masonry regulating dam across Porai voikal.	2,350	...	1,000	1,175	131	,, ,, 454 I., ,, 14th May 1897.
				Total, Tanjore Division ...	...	...	...	25,865		
				(3) Distributaries.						
Trichinopoly ...	...	3. Works ..	132	Improving the Murukarai dam across Punguny channel.	3,300	...	...	964	132	,, ,, 312 I., ,, 23rd March 1897.
				Total, Cauvery Delta System ...	...	...	...	26,829		
				Periyár Project.						
				(2) Main Canals and Branches.						
Madura	...	5. Miscellaneous.	133	Demarcating the line of main and branch channels.	6,300	5,433	474	393	133	
		Do. ...	134	Planting Athalay along Periyár main channel...	917	556	303	58	134	
				I. Reach.						
		4. Earthwork ...	135	Constructing a distributary and field channel from the irrigation sluice at 2 miles 2 furlongs 300 feet, main canal.	1,550	608	677	265	135	
		Do. ...	136	Excavating a distributary channel from Natchekulam weir.	2,170	1,330	688	152	136	
		3. Works ...	137	Bridge at 5 miles 4 furlongs, I reach	...	...	680	200	137	
				II. Reach.						
		3. Works ...	138	Bridge across Periyár main channel at 8 miles 7 furlongs 560 feet, near Thathampatty, II reach.	1,540 ...	...	291	1,249	138	
				III. Reach.						
		4. Earthwork ...	139	Distributary and field channel from the irrigation sluice at 15 miles.	2,300	415	1,452	433	139	
		Do. ...	140	Distributary channel from the irrigation sluice at 16 miles 6 furlongs, main canal..	870	126	240	504	140	
		Do. ...	141	Excavating a supply channel to Inam Sembaikulam tank from Ellakuttai odai at 14 miles 2 furlongs.	740	96	391	253	141	

Details of the Budget Estimate for Original Works under Irrigation Major Works in the Madras Presidency for the year 1898-99—continued.

Division.	Locality.	Sub-division of expenditure.	Item No.	Detail of works.	Amount of estimate.	Outlay: To end of 1896-97.	Outlay: Probable during 1897-98.	Grant for 1898-99.	Item No.	Remarks and references.
				Periyár Project—cont.						
				(2) Main Canals and Branches—*cont.*						
				VI. Reach.						
Madura—*cont.*	...	4. Earthwork ...	142	Distributary and field channel from sluice at 22 miles, main canal.	Rs. 3,000	Rs. 50	Rs. 1,432	Rs. 1,518	142	
				VIII. Reach.						
		3. Works ...	143	Constructing lascars' shed at Kallandry ...	450	...	...	450	143	
		Do. ...	144	Repairing Kallandry rest-house	44	...	17	27	144	
				X. Reach.						
		Do. ...	145	Pipe culvert at 32 miles 6 furlongs 400 feet ...	470	...	280	190	145	
				XI. Reach.						
		Do. ...	146	Constructing a sluice and excavating a distributary channel at 30 miles 6 furlongs 100 feet.	5,850	...	518	5,332	146	
				(3) Distributaries.						
				Branch Channel.						
		5. Miscellaneous ...	147	Fixing enamelled iron gauges in Periyár Branch channels.	1,300	...	397	903	147	
				I. Branch Channel.						
		4. Earthwork ...	148	Excavating field channel from drop No. 4 in the I. Branch channel to Nedungulam tank.	65	...	9	56	148	
				II. Branch Channel.						
		3. Works ...	149	Constructing earthenware pipe sluice at A and B and excavating field channel in the II. Branch channel.	430	174	105	155	149	
				III. Branch Channel.						
		Do. ...	150	Cross drainage work in the III. Branch channel.	2,430	...	756	1,674	150	
		Do. ...	151	Improvements to Athalay tank	1,800	...	1,958	500	151	
				IV. Branch Channel.						
				Estimates to be submitted.						
		4. Earthwork ...	152	Constructing the tail end of IV. Branch channel.	2,000	...	...	2,000	152	
		Do. ...	153	Constructing the tail end of Koilpapagudy tank.	2,640	...	...	2,640	153	
				V. Branch Channel.						
		3. Works ...	154	No. 11th fall at 3 miles 2 furlongs	610	248	...	362	154	
		Do. ...	155	Sluices attached to 13th fall at 3 miles 7 furlongs.	330	83	...	247	155	
		Do. ...	156	No. 14th fall	610	61	...	549	156	
		4. Earthwork ...	157	Excavation of V. Branch channel	10,665	8,479	345	1,841	157	
		Do. ...	158	Diversion of surplus channel at 4 miles 3 furlongs V. Branch channel.	110	...	79	31	158	
		3. Works ...	159	Re-grading the V. Branch channel works and constructing masonry cross drainage works.	6,240	...	1,938	4,302	159	
				VI. Branch Channel.						
		4. Earthwork ...	160	Excavating main and branch field channels from the right and left sluices above the drop at 2 miles 1 furlong.	380	138	82	160	160	
		Do. ...								

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Details of the Budget Estimate for Original Works under Irrigation

Major Works in the Madras Presidency for the year 1898–99—continued.

Division.	Locality.	Sub-division of expenditure.	Item No.	Detail of works.	Amount of estimate.	Outlay: To end of 1896–97.	Outlay: Probable during 1897–98.	Grant for 1898–99.	Item No.	Remarks and references.
				Periyár Project—cont.						
				(3) Distributaries—*cont.*						
				VI. Branch Channel—*cont.*	Rs.	Rs.	Rs.	Rs.		
Madura—*cont.* ...	...	4. Earthwork ...	161	Excavating distributary and field channel from right and left sluices of drop No. 1.	1,980	303	1,293	384	161	
		Do. ...	162	Excavating main and field channels above drop at 1 mile 4 furlongs, VI. Branch channel.	410	127	78	205	162	
		Do. ...	163	Distributary channel from drop at 1 mile 2 furlongs, VI. Branch channel.	1,100	...	407	693	163	
				VIII. Branch Channel.						
		4. Earthwork ...	164	Excavation of VIII. Branch channel	7,090	6,051	2	1,000	164	
		Do. ...	165	Excavating a field channel from the left sluice of drop No. 1, VIII. Branch channel.	340	...	...	340	165	
		3. Works ...	166	Re-grading the VIII. Branch channel and constructing cross drainage works.	4,710	...	3,232	1,478	166	
				IX. Branch Channel.						
		4. Earthwork ...	167	Excavating field channels from sluices in drop No. 1.	500	239	66	195	167	
		Do. ...	168	Excavating field channels from sluices in drop No. 5.	170	50	41	79	168	
		Do. ...	169	Distributary and field channel from sluices, 5th mile, IX. Branch channel.	3,480	1,461	1,740	400	169	
		Do. ...	170	Excavating distributary and field channel from left sluice of drop No. 14 in IX. Branch channel and constructing masonry works.	3,840	56	3,010	774	170	
		Do. ...	171	Excavating distributary and field channels from the right sluice of drop No. 14.	1,670	203	1,262	205	171	
				Chittampatty Offtake.						
		4. Earthwork ...	172	Excavating distributary and field channel from right sluice of drop No. 9, Chittampatty offtake.	850	433	288	129	172	
				Estimates submitted.						
		4. Earthwork ...	173	Excavating tail end of Chittampatty offtake ...	1,040	...	376	664	173	
				Kunnathur Offtake.						
		3. Works ...	174	No. 6 fall and road bridge at 7 furlongs 500 feet, Kunnathur.	600	363	...	249	174	
		4. Earthwork ...	175	Excavating a distributary channel from the left sluice of drop No. 8, Kunnathur offtake, IX. Branch channel.	1,860	...	...	1,860	175	
		Do. ...	176	Field channels in the Kunnathur offtake ...	1,200	...	102	1,098	176	
				Papagudy Offtake.						
		4. Earthwork ...	177	Excavating tail end of Papagudy offtake and constructing masonry works in the same.	8,750	...	...	3,861	177	
				X. Branch Channel.						
		4. Earthwork ...	178	Excavation of X. Branch channel	95,890	87,266	6,802	1,822	178	
				Tiruvadur Offtake, X Branch channel.						
		3. Works ...	179	Providing covering slabs over fall Nos. 6 and 7 in Tiruvadur offtake, X. Branch channel.	56	...	20	36	179	
		Do. ...	180	Constructing a masonry culvert at 3 miles 400 feet.	230	...	...	230	180	

GOVERNMENT OF MADRAS.

CHARGES—cont.

Part II—cont.

Details of the Budget Estimate for Original Works under Irrigation Major Works in the Madras Presidency for the year 1898–99—continued.

Division.	Locality.	Sub-division of expenditure.	Item No.	Detail of works.	Amount of estimate.	Outlay: To end of 1896–97.	Outlay: Probable during 1897–98.	Grant for 1898–99.	Item No.	Remarks and references.
				Periyár Project—cont.	Rs.	Rs.	Rs.	Rs.		
				(3) Distributaries—*cont.*						
				X. Branch Channel, Chunnambur Offtake.						
				Estimates to be submitted.						
Madura—*cont.*	...	3. Works ...	181	Cross drainage works in Chunnambur offtake ...	3,380	...	...	3,380	181	
				XI Branch Channel.						
		3. Works ...	182	Bridge regulator combined at the head of XI. and XII. Branch channels.	3,040	1	2,183	856	182	
		4. Earthwork ...	183	Excavation XI. Branch channel	24,630	914	10,295	13,721	183	
				XII. Branch Channel.						
		4. Earthwork ...	184	Excavation XII. Branch Channel	70,500	9,563	51,745	9,192	184	
		Do. ...	185	No. 1 Distributary, 0 mile 4,700 feet, XII. Branch channel.	2,080	...	7	2,073	185	
		Do. ...	186	No. 2 Distributary, 1 mile 1,620 feet, XII. Branch channel.	280	...	...	280	186	
		Do. ...	187	No. 3 Distributary from the left sluice of drop No. 5 at 1 mile 1,620 feet, XII. Branch channel.	2,950	...	12	2,938	187	
		Do. ...	188	No. 6 Distributary, XII. Branch channel ...	27,400	...	1,926	25,228	188	
		Do. ...	189	No. 7 Distributary from the proposed head sluice at 5 miles 4,100 feet, XII. Branch channel.	3,220	...	158	3,062	189	
		Do. ...	190	No. 8 Distributary, taking off at 7 miles 3,440 feet on the left bank, XII. Branch channel	7,600	...	120	7,480	190	
		Do. ...	191	No. 9 Distributary do. ...	20,000	...	2,110	17,644	191	
				Total, Periyár Project ...	...	...	...	1,28,000		

GOVERNMENT OF MADRAS.

CHARGES—continued.

Part II—continued.

General Abstract of the Grants provided for above.

—	In India.	In England.	Total.
	Rs.	Rs.	Rs.
FAMINE RELIEF AND INSURANCE.			
35. Construction of Protective Irrigation Works.			
Rushikulya Project	80,000	...	80,000
IRRIGATION.			
42. MAJOR WORKS (WORKING EXPENSES).			
Gódávari Delta System	28,000	...	28,000
Kistna do.	21,000	...	21,000
Pennéru Anicut System	1,436	...	1,436
Sangam do.	4,987	...	4,987
Kurnool-Cuddapah Canal	8,000	...	8,000
Cauvery Delta System	22,000	...	22,000
Srívaikuntam Anicut System	1,648	...	1,648
Periyár Project	2,925	...	2,925
Total ...	89,996	...	89,996
CAPITAL EXPENDITURE NOT CHARGED TO REVENUE.			
49. Irrigation.			
Gódávari Delta System	90,000	...	90,000
Kistna do.	1,46,585	...	1,46,585
Cauvery Delta System	26,829	...	26,829
Periyár Project	1,28,000	...	1,28,000
Total ...	3,91,414	...	3,91,414

GOVERNMENT OF MADRAS.

CHARGES.

Part III.

Detail of the Budget Estimate for Maintenance and Repairs of Irrigation Major Works in the Madras Presidency for the year 1898–99.

Executive division.	—	Estimate, 1898–99.		Estimate, 1897–98.	
		Amount.	Total.	Amount.	Total.
		Rs.	Rs.	Rs.	Rs.
	IRRIGATION.				
	42. MAJOR WORKS (WORKING EXPENSES).				
	Rushikulya Project.				
	Head Works.				
Ganjám ...	Mahánadi section	7,000		5,000	
	Rushikulya do.	2,000		1,000	
	Do. canal	18,000		16,000	
	Mahánadi do.	8,447		8,000	
	TOTAL, RUSHIKULYA PROJECT ...	...	35,447	...	30,000
	Gódávari Delta System.				
Eastern Division.	Head works	17,600		20,000	
	Main canal	2,000		500	
	Bank do.	9,000		9,000	
	Cocanada canal	8,000		8,000	
	Sámalkót do.	7,000		7,000	
	Mundapetta do.	5,000		5,000	
	Coringa do.	5,000		5,000	
	Kovur-Manjair junction canal	...		500	
	Injeram canal	3,000		3,500	
	Tooliabhaga drain, 31 miles	2,000		500	
	Takee drain, 27 do.	1,500		500	
	Biccavole drain, 17 do.	9,900		500	
			70,000		60,000
Central Division.	Main canal	3,000		6,000	
	Gunnaram canal	8,000		10,000	
	Bank canal	8,000		12,000	
	Amalápuram canal	12,000		7,000	
	Bendamurlanka canal	2,000		4,000	
	Billakurru canal	2,000		1,000	
	Drainages	10,000		15,000	
	Compensation	10,000		...	
			55,000		55,000
Western Division.	Main canal	5,000		5,000	
	Kakaraparu canal	2,000		2,000	
	Gostanadi and Velpur canal	9,000		9,000	
	Bank canal	6,000		6,000	
	Narsápur do.	10,000		10,000	
	Ellore do.	10,000		10,000	
	Attili do.	4,000		6,000	
	Junction do.	1,000		1,000	
	Venkiah and Weyeru canal	5,000		5,000	
	Undi canal	8,000		8,000	
	Nakkala drain, 25 miles				
	Kaza do. 16 do.				
	Mogultur do.	20,000		19,435	
	Gonter do.				
	Gostanadi do.				
	Yannamadurru drain, 32 miles				
	Compensation	2,000		...	
			82,000		81,435
	TOTAL, GODAVARI DELTA SYSTEM ...		2,07,000		1,96,435

GOVERNMENT OF MADRAS.

CHARGES—continued.

Part III—continued.

Detail of the Budget Estimate for Maintenance and Repairs of Irrigation Major Works in the Madras Presidency for the year 1898–99—continued.

Executive division.	—	Estimate, 1898–99. Amount.	Estimate, 1898–99. Total.	Estimate, 1897–98. Amount.	Estimate, 1897–98. Total.
	IRRIGATION—continued. **42. MAJOR WORKS (WORKING EXPENSES)—continued.**	Rs.	Rs.	Rs.	Rs.
	Kistna Delta System.				
	Eastern Section.				
Kistna Eastern Division.	Ellore canal	38,700		20,000	
	Masulipatam canal	31,600		24,000	
	Ryves' canal	31,500		16,500	
	Pulleru do.	28,500		28,500	
	Polraz do.	15,000		15,000	
	Bantumilli canal	15,000		15,000	
	Pamarru junction canal	1,000		1,000	
	Pedalanka channel	12,000		12,000	
	Head works	21,000		...	
	Main canal	7,200		...	
	Other miscellaneous works	10,000		...	
			2,11,500		1,32,000
Kistna Northern Division.	Head works	...		13,000	
	Main canal	...		6,000	
	Ellore do.	...		4,000	
	Masulipatam canal	...		7,000	
	Ryves' canal	...		5,000	
			...		35,000
	Western Section.				
Kistna Western Division.	Main canal	10,000		5,000	
	Bank do.	25,000		40,000	
	Commamur canal	35,000		40,000	
	Nizampatam do.	20,000		29,024	
	Drains	10,000		...	
			1,00,000		1,14,024
	TOTAL, KISTNA DELTA SYSTEM ...		3,11,500		2,81,024
	Pennéru Anicut System.				
Nellore Division.	Head works	5,000		5,000	
	Main canal	2,000		2,000	
	Jaffer Sahib's canal	2,500		2,500	
	Sarvapalle do.	1,500		1,500	
	Kistnapatam do.	3,000		3,000	
	Delta tanks and reservoirs	9,111		10,000	
	Total ...	23,111		24,000	
	Deduct old maintenance charges ...	* 13,860		* 13,860	
			9,251		10,140
	NET TOTAL, PENNERU ANICUT SYSTEM ...	...	9,251	...	10,140

* These sums are provided in the budget estimates for Minor Works and Navigation for 1898–99.

GOVERNMENT OF MADRAS.

CHARGES—continued.

Part III—continued.

Detail of the Budget Estimate for Maintenance and Repairs of Irrigation Major Works in the Madras Presidency for the year 1898–99—cont.

Executive division.	—	Estimate, 1898–99. Amount.	Estimate, 1898–99. Total.	Estimate, 1897–98. Amount.	Estimate, 1897–98. Total.
	IRRIGATION—continued. **42. MAJOR WORKS (WORKING EXPENSES)—continued.**	Rs.	Rs.	Rs.	Rs.
	Sangam Anicut System.				
Nellore Division—*cont.*	Head works	3,000		4,000	
	Kanigiri canal	20,000		23,000	
	Duvur do.	2,000		3,000	
	Total ...	25,000		30,000	
	Deduct old maintenance charges ...	* 11,884		* 11,884	
			13,116		18,116
	NET TOTAL, SANGAM ANICUT SYSTEM ...	...	13,116	...	18,116
	Kurnool-Cuddapah Canal.				
Kurnool Division.	Annual maintenance—				
	Head works	1,200		1,200	
	First section	5,800		5,800	
	Second do.	2,900		2,900	
	Third do.	5,500		5,500	
	Fourth do.	6,400		6,400	
	Fifth do.	5,300		5,300	
	Sixth do.	11,300		11,300	
	Distributaries	11,700		11,700	
	Drainages and Protective Works	900		900	
	Special Repairs	5,244		8,732	
	Reserve	1,000		1,000	
			57,244		60,732
	TOTAL, KURNOOL-CUDDAPAH CANAL ...	...	57,244	...	60,732
Salem Division.	Barur Tank Project	1,090	1,090	1,447	1,447
	Cauvery Delta System.				
Tanjore Division.	Upper Coleroon anicut	2,500		2,000	
	Grand anicut	3,500		3,000	
	Cauvery	6,300		5,631	
	Kodumurti and Puthaur	1,300		1,000	
	Arasillár	1,450		1,250	
	Trimulrajen	2,000		1,700	
	Mudicondanar	1,700		1,500	
	Nattar	500		300	
	Keerthemanar	200		200	
	Veerasholen	900		600	
	Solasudamaniar	700		700	
	Munjalaur	910		910	
	Vellapar	800		800	
	Vanjeaur	300		300	
	South Puthar	200		200	
	Vennár	2,500		2,000	
	Vettár	2,590		2,090	
	Odemboghy	100		100	
	Nundalar	1,500		1,200	

* These sums are provided in the budget estimates for Minor Works and Navigation for 1898–99.

GOVERNMENT OF MADRAS.

CHARGES—continued.

Part III—continued.

Detail of the Budget Estimate for Maintenance and Repairs of Irrigation Major Works in the Madras Presidency for the year 1898–99—cont.

Executive division.		Estimate, 1898-99. Amount.	Estimate, 1898-99. Total.	Estimate, 1897-98. Amount.	Estimate, 1897-98. Total.
	IRRIGATION—continued.	Rs.	Rs.	Rs.	Rs.
	42. MAJOR WORKS (WORKING EXPENSES)—continued.				
	Cauvery Delta System—continued.				
Tanjore Division—*cont.*	Vicramanar	1,050		1,050	
	Kona voikal	600		600	
	Pudumaniar	1,700		1,500	
	Ooppanaur	1,000		800	
	Vadavaur	500		500	
	Munneyar	2,300		2,000	
	Noolar	1,000		1,000	
	Shollanar	200		200	
	Palavar	2,500		2,000	
	Iyavianar	1,600		1,600	
	Mainkarainar	1,400		1,200	
	Thirunagari channel	200		200	
	Ambanar	200		200	
	Kadalayar	900		600	
	Chittar	400		400	
	Thenkorayar	200		200	
	Pravadynar	100		100	
	Puthaur	200		200	
	Perambur tank	4,000		...	
			50,000		39,831
Negapatam Division.	Vennáur	1,000		1,000	
	Vettáur	1,000		1,000	
	Odemboghyar	1,500		1,500	
	Corayaur	2,000		2,000	
	Pamanayaur	2,500		2,500	
	Pandavyaur	1,000		1,000	
	Vellayaur	1,500		1,500	
	Athiveeraramanar	1,500		1,500	
	Harichendranady	800		800	
	Mullayaur	2,000		2,000	
	Iyanar	200		200	
	Drainage and protective works	2,500		2,500	
	Unforeseen and incomplete works	15,886		...	
			33,386		17,500
Trichinopoly Division.	Annual maintenance—				
	Punguni channel	900		900	
	Peruvalai do.	1,150		1,150	
	Iyen do.	1,200		1,200	
	Special Repairs—				
	Punguni channel	1,030		1,030	
	Peruvalai do.	1,750		1,750	
	Iyen do.	2,100		2,100	
	Compensation	370		670	
			8,500		8,800
	Total ...	...	91,886	...	66,131
	Deduct old maintenance charges ...	...	*1,05,634	...	*1,05,634
	NET TOTAL, CAUVERY DELTA SYSTEM ..	...	— 13,748	...	— 39,503

*These sums are provided in the budget estimates for Minor Works and Navigation for 1898–99.

GOVERNMENT OF MADRAS.

CHARGES—continued.

Part III—continued.

Detail of the Budget Estimate for Maintenance and Repairs of Irrigation Major Works in the Madras Presidency for the year 1898–99—continued.

Executive division.		Estimate, 1898–99. Amount.	Estimate, 1898–99. Total.	Estimate, 1897–98. Amount.	Estimate, 1897–98. Total.
	IRRIGATION—continued.	Rs.	Rs.	Rs.	Rs.
	42. MAJOR WORKS (WORKING EXPENSES)—continued.				
Tinnevelly Division.	*Srivaikuntam Anicut System.*				
	Head works	1,000		1,000	
	North main channel	2,500		3,000	
	Tanks fed by the above channel	6,672		7,000	
	South main channel	1,500		2,500	
	Tanks fed by the above channel	7,000		6,500	
			18,672		20,000
	Deduct old maintenance charges ...	...	*5,208	...	*5,208
	NET TOTAL, SRIVAIKUNTAM ANICUT SYSTEM ...	...	13,464	...	14,792
Madura Division.	*Periyár Project.*				
	Main canal	12,000		15,000	
	Branch channels	17,000		10,000	
			29,000		25,000

*These sums are provided in the budget estimates for Minor Works and Navigation for 1898–99.

General Abstract of the Grants provided for above.

	In India.	In England.	Total.
	Rs.	Rs.	Rs.
IMPERIAL.			
Major Works.			
42. IRRIGATION (WORKING EXPENSES).			
Rushikulya Project	35,447	...	35,447
Gódávari Delta System	2,07,000	...	2,07,000
Kistna do. do.	3,11,500	...	3,11,500
Pennéru Anicut do.	9,251	...	9,251
Sangam Anicut Project	13,116	...	13,116
Kurnool-Cuddapah Canal	57,244	...	57,244
Barur Tank Project	1,090	...	1,090
Cauvery Delta System	— 13,748	...	— 13,748
Srívaikuntam Anicut System	13,464	...	13,464
Periyár Project	29,000	...	29,000
Total ...	6,63,364	...	6,63,364

GOVERNMENT OF MADRAS.

CHARGES.

Part IV.

Detail of the Budget Estimate for Establishment of the Irrigation Branch in the Madras Presidency for the year 1898–99.

	Budget Estimate, 1898–99.	Revised Estimate, 1897–98.
	Rs.	Rs.
IMPERIAL.		
FAMINE RELIEF AND INSURANCE.		
35. Construction of Protective Irrigation Works.		
Grant for Works	80,000	1,13,618
Deduct item for which no charge for Establishment is admissible.		
Compensation for land	...	5,000
Net Grant ...	80,000	1,08,618
Contribution to Provincial Funds at 23 per cent. on the Net Grant ...	18,400	24,982
IRRIGATION.		
42. Major Works (Working Expenses).		
Grant for Works and Repairs	7,53,360	6,78,642
Deduct items for which no charge for Establishment is admissible.		
Compensation for land, Gódávari Delta System	12,000	1,500
Do. do. Kistna do.	1,000	1,000
Do. do. Cauvery do.	370	670
Total ...	13,370	3,170
Net Grant ...	7,39,990	6,75,472
A. 23 per cent. on the Net Grant	1,70,197	1,55,359
Direct Revenue	2,88,000	2,84,000
Deduct estimated collections in the Revenue Department of water-rates levied on lands irrigated under the Kurnool-Cuddapah Canal	1,14,000	1,14,000
Net Direct Revenue ...	1,74,000	1,70,000
B. 10 per cent. on Net Direct Revenue	17,400	17,000
Irrigation Revenue from Major (Productive) Works exclusive of enhanced share of Land Revenue	65,60,010	62,96,210
Add estimated collections in the Revenue Department of water-rates levied on lands irrigated under the Kurnool-Cuddapah Canal	1,20,000	1,20,000
Total ...	66,80,010	64,16,210

GOVERNMENT OF MADRAS.

CHARGES—continued.

Part IV—continued.

Detail of the Budget Estimate for Establishment of the Irrigation Branch in the Madras Presidency for the year 1898–99—continued.

	Budget Estimate, 1898–99.	Revised Estimate, 1897–98.
	Rs.	Rs.
C. 17 per cent. on Irrigation Revenue	4,00,801	3,84,973
Total, A + B + C ...	5,88,398	5,57,332
CAPITAL EXPENDITURE NOT CHARGED TO REVENUE.		
49. Irrigation.		
Total Grant for Works	3,91,414	5,99,412
Deduct item for which no charge for Establishment is admissible.		
Land compensation	20,000	71,207
Net Grant ...	3,71,414	5,28,205
Contribution to Provincial Funds at 23 per cent. on Net Grant ...	85,426	1,21,487

GOVERNMENT OF MADRAS.

CHARGES.

Part IV-A.

Distribution of the Provision for Establishment by System of Canals for the year 1898–99.

—	Establishment Charges.						Total.
	23 per cent. on the Grant for Works and Repairs, exclusive of Land Compensation.		10 per cent. on Direct Revenue.		6 per cent. on Indirect Revenue.		
	Grant.	Per-centage.	Estimated Revenue.	Per-centage.	Estimated Revenue.	Per-centage.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
IMPERIAL.							
FAMINE RELIEF AND INSURANCE.							
35. Construction of Protective Irrigation Works.							
Rushikulya Project	80,000	18,400	...	...	...	...	18,400
IRRIGATION.							
42. MAJOR WORKS (WORKING EXPENSES).							
Gódávari Delta System	2,23,000	51,290	1,12,000	11,200	29,01,000	1,74,060	2,36,550
Kistna do.	3,31,500	76,245	45,600	4,560	21,58,000	1,29,480	2,10,285
Pennéru Anicut System	10,687	2,458	400	40	1,47,000	8,820	11,318
Sangam Anicut Project	18,103	4,164	600	60	1,78,000	10,680	14,904
Kurnool-Cuddapah Canal	65,244	15,006	9,500	950	1,20,000	7,200	23,156
Barur Tank Project	1,090	250	...	...	11,000	660	910
Cauvery Delta System	7,882	1,813	3,100	310	8,46,800	50,808	52,931
Srivaikuntam Anicut System ...	15,112	3,476	1,300	130	1,06,000	6,360	9,966
Periyár Project	31,925	7,342	...	...	2,12,210	12,733	20,075
Rushikulya Project	35,447	8,153	1,500	150	...	...	8,303
Total ..	7,39,990	1,70,197	1,74,000	17,400	66,80,010	4,00,801	5,88,398
CAPITAL EXPENDITURE NOT CHARGED TO REVENUE.							
49. IRRIGATION.							
Gódávari Delta System	90,000	20,700	...	...	...	...	20,700
Kistna Delta System	1,26,585	29,115	...	...	...	...	29,115
Cauvery Delta System	26,829	6,171	...	...	...	...	6,171
Periyár Project	1,28,000	29,440	...	...	...	...	29,440
Total ..	3,71,414	85,426	...	...	...	...	85,426
GRAND TOTAL ..	11,91,404	2,74,023	1,74,000	17,400	66,80,010	4,00,801	6,92,224

GOVERNMENT OF MADRAS.

CHARGES.

Part V.

Detail of the Budget Estimate for Tools and Plant under Irrigation Major Works in the Madras Presidency for the year 1898–99.

—	Budget Estimate, 1898–99.	Budget Estimate, 1897–98.
IMPERIAL.	Rs.	Rs.
FAMINE RELIEF AND INSURANCE.		
35. Construction of Protective Irrigation Works.		
Tools and Plant required for the Rushikulya Project	600	150
IRRIGATION.		
42. MAJOR WORKS (WORKING EXPENSES).		
Godavari Delta System.		
Eastern Division.		
8. Repairs and carriage—		
Maintenance of floating plant including existing ferries	18,450	20,000
Special repairs to do. do. do.	5,000	5,000
Charges on account of steamers used by Public Works officers on duty ...	5,000	4,500
Machinery	2,000	2,000
Total ..	30,450	31,500
Central Division.		
8. Repairs and carriage, repairs to floating plant, tools and machinery	3,000	3,000
Western Division.		
2. Plant and machinery	2,000	2,000
3. Tools	...	...
8. Repairs and carriage—		
Repairs to floating plant	3,000	3,000
Tools		
Machinery		
Total ..	5,000	5,000
TOTAL, GODAVARI DELTA SYSTEM ..	38,450	39,500
Kistna Delta System.		
Eastern Division.		
8. Repairs and carriage—		
Annual maintenance of ferry boats	6,000	4,000
Special repairs to ferry boats	1,000	1,000
Repairs and conveyance of tools, &c.	500	500
1. Scientific instruments	300	...
2. Tools—New supply	1,000	...
Navigation Plant—		
2. Punts for maintaining two Cockburn's dredgers	23,815	...
8. Repairs and carriage—		
Annual repairs of floating plant	29,900	...
Special repairs of do.	8,600	...
Repairs to machinery	1,000	...
Charges on account of steamer used by Public Works officers	600	...
Repairs and carriage of tools and plant	500	...
Total ..	73,215	5,500
Northern Division.		
1. Scientific instruments	...	500
2. Tools—New supply	...	500
Navigation Plant—		
2. Punts for maintaining two Cockburn's dredgers	...	3,500

GOVERNMENT OF MADRAS.

CHARGES—continued.

Part V—continued.

Detail of the Budget Estimate for Tools and Plant under Irrigation Major Works in the Madras Presidency for the year 1898–99—cont.

	Budget Estimate, 1898–99.	Budget Estimate, 1897–98.
	Rs.	Rs.
IRRIGATION—continued.		
42. MAJOR WORKS (WORKING EXPENSES)—continued.		
KISTNA DELTA SYSTEM—continued.		
Northern Division—continued.		
8. Repairs and carriage—		
Annual repairs of floating plant	...	25,000
Special repairs of do.	...	9,000
Repairs to machinery	...	700
Charges on account of steamer used by Public Works officers	...	800
Repairs and carriage of tools and plant	...	500
Total ..	...	40,500
Western Division.		
Repairs and carriage—		
Annual maintenance of floating plant	5,000	4,000
Repairs and conveyance of tools, &c.		
Total ..	5,000	4,000
TOTAL, KISTNA DELTA SYSTEM ..	78,215	50,000
Penneru Anicut System.		
8. Repairs and carriage	...	...
Deduct old maintenance charges	* 5	* 5
NET TOTAL, PENNERU ANICUT SYSTEM ..	— 5	— 5
Sangam Anicut System.		
8. Repairs and carriage	50	49
Deduct old maintenance charges	* 57	* 57
NET TOTAL, SANGAM ANICUT SYSTEM ..	— 7	— 8
Kurnool-Cuddapah Canal.		
1. Scientific and mathematical instruments	300	300
8. Repairs and carriage—		
Annual maintenance of floating plant	1,000	1,000
Miscellaneous and sundries	300	300
TOTAL, KURNOOL CANAL ..	1,600	1,600
Cauvery Delta.		
Tanjore division—		
3. Tools—		
New supplies	...	2,300
8. Repairs and carriage	200	200
Total ..	200	2,500
Negapatam division—		
3. Tools—		
New supplies	100	200
8. Repairs and carriage	100	100
Total ...	200	300
Trichinopoly—		
8. Repairs and carriage ...	20	20
TOTAL, CAUVERY DELTA SYSTEM ..	420	2,820
Deduct old maintenance charges ...	* 1,603	* 1,603
NET TOTAL, CAUVERY DELTA SYSTEM ..	— 1,183	1,217

* These sums are provided in the budget estimates for Minor Works and Navigation for 1898–99.

GOVERNMENT OF MADRAS.

CHARGES—continued.

Part V—continued.

Detail of the Budget Estimate for Tools and Plant under Irrigation Major Works in the Madras Presidency for the year 1898–99—cont.

	Budget Estimate, 1898–99.	Budget Estimate, 1897–98.
	Rs.	Rs.
IRRIGATION—continued.		
42. MAJOR WORKS (WORKING EXPENSES)—continued.		
Srivaikuntam Anicut System—		
8. Repairs and carriage	...	...
Deduct old maintenance charges	* 78	* 78
NET TOTAL, SRIVAIKUNTAM ANICUT SYSTEM ..	— 78	— 78
Periyár project—		
8. Repairs and carriage	...	250
Rushikulya project system—		
8. Repairs and carriage	1,250	1,250
TOTAL, 42. MAJOR WORKS (WORKING EXPENSES) ..	1,18,242	93,726
CAPITAL EXPENDITURE NOT CHARGED TO REVENUE.		
49. Irrigation.		
Góddvari Delta System.		
Eastern division—		
3. Tools	300	...
Kistna Delta System.		
Eastern division—		
4. Navigation plant—		
Ferry ballacuts	2,000	5,000
Two double trap punts	...	...
Constructing No. 1 stern wheel steamer	...	...
Do. „ 2 do.	...	...
16. Subordinate staff boats	11,200	...
A new staff boat for officers	3,000	...
12. Dinghies	4,100	...
Western division—		
4. Navigation plant—		
Ferry ballacuts	2,000	...
Northern division—		
4. Navigation plant—		
Two double trap punts	...	...
Constructing No. 1 stern wheel steamer	...	31,200
Do. „ 2 do.	...	11,600
16. Subordinate staff boats	...	3,000
A new staff boats for officers	...	4,800
12. Dinghies	...	
TOTAL, KISTNA DELTA SYSTEM ..	22,300	55,600
Cauvery Delta System.		
3. Tools—Tanjore division	...	1,500
Periyár Project.		
3. Tools—Madura division	560	1,000
TOTAL, CAPITAL ACCOUNT ..	23,160	58,100

* These sums are provided in the budget estimates for Minor Works and Navigation for 1898–99.

GOVERNMENT OF MADRAS.

CHARGES.

Part VI.

Abstract of the Probable Increase or Decrease in the Suspense Accounts of Irrigation Major Works in the Madras Presidency for the year 1898-99—Nil.

All Suspense Accounts are included under Provincial, 45. Civil Works.

MINOR WORKS AND NAVIGATION. **MADRAS PRESIDENCY.**

FINAL ISSUE.

Public Works Department.

BUDGET ESTIMATE

OF

REVENUE AND EXPENDITURE

UNDER

IRRIGATION MINOR WORKS AND NAVIGATION

IN THE

MADRAS PRESIDENCY

FOR THE YEAR

1898-99.

MADRAS,
27th April 1898.

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

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GOVERNMENT OF MADRAS.

REVENUE.

Abstract Budget Estimate of Revenue expected from Irrigation Minor Works and Navigation in the Madras Presidency for the year from 1st April 1898 to 31st March 1899.

	Actual Realizations, 1896-97.	Budget Estimate, 1897-98.	Revised Estimate, 1897-98.	Budget Estimate, 1898-99.
	Rs.	Rs.	Rs.	Rs.
PROVINCIAL.				
IRRIGATION AND NAVIGATION WORKS.				
Works for which Capital and Revenue Accounts are kept.				
Ganjám Minor Rivers System	340	...	...	300
Thadapalli Channel System	75	80	80	80
Arkenkotta Channel System	23	...	20	20
Kalingaroyen Channel System	...	120	...	...
Pálár Anicut System	2,614	1,300	1,700	1,600
Poiney Anicut System	281	500	300	300
Cheyáru Anicut System	394	200	200	300
Chembrambakam Tank System	144	140	140	100
Madras Water-supply and Irrigation Extension	19,845	12,500	18,400	18,400
Valluru Anicut System	40	20	40	40
Tirukkóyilúr Anicut System	420	570	420	420
Mehamattur Anicut System	48	50	50	50
Vriddhachalam Anicut System	78	50	50	50
Shatiatope Anicut System	232	300	300	300
Pelandorai Anicut System	214	250	250	250
Lower Coleroon Anicut System	1,655	1,030	1,660	1,630
Nandyar Channel Extension	...	...	100	100
Maradur Anicut System	45	290	290	60
Buckingham Canal	1,14,788	1,11,400	1,14,000	1,14,000
Védáranniyam Canal	917	1,200	1,000	1,000
Total ...	1,42,153	1,30,000	1,39,000	1,39,000
Works for which neither Capital nor Revenue Accounts are kept, P.W.D.	9,043	10,000	9,000	9,000
AGRICULTURAL WORKS.				
Works for which neither Capital nor Revenue Accounts are kept ...	23,863	25,000	24,000	24,000
TOTAL ...	1,75,059	1,65,000	1,72,000	1,72,000

GOVERNMENT OF MADRAS.

CHARGES.

Abstract Budget Estimate of Expenditure on Irrigation Minor Works and Navigation in the Madras Presidency for the year from 1st April 1898 to 31st March 1899.

	Reference to Detailed Estimate.	Actual Outlay, 1896-97.	Budget Estimate, 1897-98.	Revised Estimate, 1897-98.	Budget Estimate, 1898-99.
PROVINCIAL.	Pages.	Rs.	Rs.	Rs.	Rs.
MINOR WORKS FOR WHICH CAPITAL AND REVENUE ACCOUNTS ARE KEPT.					
CAPITAL.					
1. Works ... { In progress ... ... Rs. 2,06,309; Not commenced ... Rs. 1,48,967 }	8 to 17	5,51,906	3,25,598	3,63,795	3,55,276
2. Establishment	27	1,17,319	73,656	82,626	78,724
3. Tools and Plant	29	49,056	4,406	— 2,198	1,000
Receipts on capital account		— 2,298	...	...	...
Total, Capital ...		7,15,983	4,03,660	4,44,223	4,35,000
REVENUE.					
1. Extensions and Improvements. { In progress ... ... Not commenced Rs. 29,241 }	16 to 19	31,839	24,913	19,683	29,241
2. Maintenance and Repairs	24 & 25	2,28,190	1,89,823	1,92,642	2,08,430
3. Establishment	27	72,186	62,389	62,735	68,564
4. Tools and Plant	29	6,694	2,875	1,675	1,875
Refunds of Revenue		16	...	...	...
Total, Revenue ...		3,38,925	2,80,000	2,76,735	3,08,110
Total, Minor Works for which Capital and Revenue Accounts are kept		10,54,908	6,83,660	7,20,958	7,43,110
MINOR WORKS FOR WHICH NEITHER CAPITAL NOR REVENUE ACCOUNTS ARE KEPT.					
1. Works— Major ... { In progress ... ... Rs. 50,180; Not commenced ... Rs. 32,300 }	18 to 21	1,67,270	59,542	1,33,146	82,480
Minor	20 & 21	1,29,625	1,67,789	1,56,819	1,65,788
2. Repairs	25	10,03,840	9,04,818	7,55,702	8,60,719
3. Establishment	28	5,45,140	4,97,189	4,87,724	5,04,699
4. Tools and Plant	29	19,086	16,552	15,208	16,204
Refunds of Revenue		28	...	...	...
Total, Minor Works for which neither Capital nor Revenue Accounts are kept		18,64,989	16,45,890	15,48,599	16,29,890
AGRICULTURAL WORKS.					
Works for which neither Capital nor Revenue Accounts are kept.					
1. Works— Major ... { In progress ... Rs. 40,842; Not commenced ... Rs. 30,730 }	20 & 21	1,24,855	59,420	80,411	71,572
Minor	20 & 21	12,357	17,700	14,600	10,300
2. Repairs	25	5,99,692	3,77,213	3,89,493	4,05,225
3. Establishment	28	1,63,303	1,04,467	1,09,926	1,12,615
4. Tools and Plant	29	11,018	6,650	7,013	7,188
Refunds of Revenue		640	...	...	...
Total, Agricultural Works ...		9,11,865	5,65,450	6,01,443	6,07,000
Total, Provincial ...		38,31,762	28,95,000	28,71,000	29,80,000

GOVERNMENT OF MADRAS.

CHARGES—continued.

Abstract Budget Estimate of Expenditure on Irrigation Minor Works and Navigation in the Madras Presidency for the year from 1st April 1898 to 31st March 1899—continued.

	Reference to Detailed Estimate.	Actual Outlay, 1896-97.	Budget Estimate, 1897-98.	Revised Estimate, 1897-98.	Budget Estimate, 1898-99.
	Pages.	Rs.	Rs.	Rs.	Rs.
GRAND TOTAL, PROVINCIAL 43. MINOR WORKS AND NAVIGATION.					
Works ... In progress ... ... Rs. 2,97,331	8 to 23	10,17,852	6,54,962	7,68,454	7,14,657
Works ... Not commenced 4,17,326					
Repairs	24 & 25	18,31,722	14,71,854	13,37,837	14,74,474
Establishment	26 to 28	8,97,948	7,37,701	7,43,011	7,64,602
Tools and Plant	29	85,854	30,483	21,698	26,267
Refunds of Revenue		684	...	...	...
Receipts on capital account		— 2,298	...	...	...
Total, Provincial ...		38,31,762	28,95,000	28,71,000	29,80,000
LOCAL IRRIGATION CESS FUND.					
43. Minor Works and Navigation.					
Minor Works for which neither Capital nor Revenue Accounts are kept, P.W.D.					
I. Original Works	20 & 21	6,007	7,000	5,110	3,000
II. Repairs	25	4,354	2,000	2,890	2,000
Total ...		10,361	9,000	8,000	5,000

GOVERNMENT OF MADRAS.

CHARGES.

Part I.

Details of the Budget Estimate of Expenditure on Irrigation Minor Works and Navigation in the Madras Presidency for the year 1898-99, arranged by Projects and Objects of Work.

	Amount of Sanctioned Estimate.	Actual Outlay to end of 1896-97.	Budget Estimate, 1897-98.	Probable Outlay during 1897-98 (Revised Estimate).	Budget Estimate, 1898-99.	Remarks and References.
PROVINCIAL.	Rs.	Rs.	Rs.	Rs.	Rs.	
43. Minor Works and Navigation.						
Minor Works for which Capital and Revenue Accounts are kept.						
Capital.						
Works in Progress.						
Sangam Anicut System ...	2,08,000	...	...	11,070	85,000	P.M.G., No. 407 I., dated 9th May 1896. Estimates for minor channels under preparation.
Kurnool-Cuddapah Canal ...	16,500	12,160	3,490	4,597	3,500	P.M.G., No. 1098 I., dated 19th December 1895.
Ganjám Minor Rivers System ...	...	...	...	12,915	22,000	Estimate under preparation.
Munnyeru Project	3,69,410	3,02,302	90,030	1,50,958	1,11,700	P.M.G., No. 1089 I., dated 17th December 1893, and No. 497 I., dated 12th June 1896. Revised estimate will shortly be sanctioned.
Chopaud Project	3,65,000	...	...	...	41,160	P.M.G., No. 344 I., dated 8th April 1897, and No. 1064 I., dated 29th November 1897.
Pálár Anicut System	19,74,008	19,59,968	14,840	6,600	9,700	P.M.G., No. 917 I., dated 15th October 1897. Estimate for other works under preparation.
Valluru Anicut System ...	6,400	...	...	738	3,410	P.M.G., No. 169 I., dated 18th February 1897.
Shatiatope Anicut System ...	64,000	...	...	28,505	36,900	P.M.G., No. 983 I., dated 5th November 1897.
Pelandorai Anicut System ...	5,00,563	4,57,708	52,830	53,398	6,150	P.M.G., No. 378 I., dated 9th May 1894; No. 1088 I., dated 18th December 1895; and No. 551 I., dated 2nd July 1896.
Lower Coleroon Anicut System.	9,47,884	6,95,997	1,10,340	88,554	87,000	P.M.G., No. 835 I., dated 8th October 1892; No. 960 I., dated 6th November 1893; No. 372 I., dated 5th May 1894; No. 181 I., dated 25th Feb. 1895; No. 273 I., dated 21st March 1896; No. 535 I., dated 25th June 1896; No. 555 I., dated 3rd July 1896; No. 338 I., dated 5th April 1897; No. 383 I., dated 21st April 1897; No. 557 I., dated 15th June 1897; No. 720 I., dated 3rd August 1897; and No. 799 I., dated 1st September 1897.
Buckingham Canal	...	...	89,950	17,466	17,990	Construction estimate closed on 31st March 1897. Schedule of works remaining to be completed under preparation.
Works not commenced.						
Cheyáru Anicut System ...	...	...	...	...	6,800	Estimate under preparation.
Maradur do. ...	...	...	...	...	3,690	Estimate under preparation.
Other Projects	...	...	...	69,422	...	
Total, Capital ..	...	...	...	4,44,223	4,35,000	

GOVERNMENT OF MADRAS.

CHARGES.

Part I—continued.

Details of the Budget Estimate of Expenditure on Irrigation Minor Works and Navigation in the Madras Presidency for the year 1898–99, *arranged by Projects and Objects of Work*—continued.

	Amount of Sanctioned Estimate.	Actual Outlay to end of 1896–97.	Budget Estimate, 1897–98.	Probable Outlay during 1897–98 (Revised Estimate).	Budget Estimate, 1898–99.	Remarks and References.
PROVINCIAL—*continued.*	Rs.	Rs.	Rs.	Rs.	Rs.	
43. MINOR WORKS AND NAVIGATION—*continued.*						
Minor Works for which Capital and Revenue Accounts are kept—continued.						
REVENUE.						
Ganjám Minor Rivers System ...	...	...	12,300	25,215	30,780	
Dondapad Tank System ...	...	...	...	784	860	
Sagiléru Project	...	...	...	...	7,380	
Cumbum Tank System ...	...	...	2,460	615	2,460	
Thadapalli Channel System ...	...	...	6,030	6,209	7,150	
Arkenkotta do. do. ...	...	...	2,340	4,923	3,690	
Kalingaroyen do. do. ...	...	...	2,350	7,503	4,680	
Pálár Anicut System	...	...	40,220	34,873	38,200	
Poiney do. do.	...	...	12,350	8,025	13,560	
Cheyáru do. do.	...	...	18,470	14,165	18,480	
Chembrambakam Tank System.	...	...	— 2,770	— 1,362	— 3,000	
Madras Water-supply and Irrigation Extension.						
Valluru Anicut System ...	...	...	— 360	2,445	850	
Tirukkóyilúr Anicut System ...	...	...	3,940	866	1,220	
Mehamattur Anicut System ...	...	...	13,590	13,575	16,000	
Vriddhachalam Anicut System...	...	...	1,850	2,096	3,920	
Shatiatope Anicut System ...	...	...	3,690	2,932	6,380	
Pelandorai do. ...	...	...	14,790	12,330	13,000	
Lower Coleroon Anicut System.	...	...	4,180	13,225	10,350	
Nandyar Channel System ...	...	...	27,780	25,858	23,700	
Maradur Anicut System ...	...	...	9,360	4,192	6,160	
Chilka Lake Canal	...	...	17,240	11,336	17,230	
Buckingham Canal	...	...	370	279	610	
Védáranniyam Canal	...	...	83,470	80,321	81,050	
	...	...	6,350	6,330	3,400	
Total, Revenue ..	...	...	2,80,000	2,76,735	3,08,110	
Total, Minor Works for which Capital and Revenue Accounts are kept.	...	...	6,83,660	7,20,958	7,43,110	
Minor Works for which neither Capital nor Revenue Accounts are kept, P.W.D.						
Old maintenance charges ...	...	...	4,26,136	4,37,352	4,39,074	
Ordinary Minor Works ...	...	...	6,96,754	7,70,223	7,42,266	
Tank Restoration Works—Execution	...	...	4,88,000	3,00,627	4,13,550	
Minor Works, Revenue Department.	...	...	35,000	40,397	35,000	
Total ...	...	...	16,45,890	15,48,599	16,29,890	
Total, Irrigation and Navigation Works.	...	...	23,29,550	22,69,557	23,73,000	

GOVERNMENT OF MADRAS.

CHARGES.

Part I—continued.

Details of the Budget Estimate of Expenditure on Irrigation Minor Works and Navigation in the Madras Presidency for the year 1898–99, *arranged by Projects and Objects of Work*—continued.

	Amount of Sanctioned Estimate.	Actual Outlay to end of 1896–97.	Budget Estimate, 1897–98.	Probable Outlay during 1897–98 (Revised Estimate).	Budget Estimate, 1898–99.	Remarks and References.
PROVINCIAL—*continued.*	Rs.	Rs.	Rs.	Rs.	Rs.	
AGRICULTURAL WORKS.						
Works for which neither Capital nor Revenue Accounts are kept.						
MAJOR ORIGINAL WORKS.						
In Progress.						
Constructing left bank for the Nagavalli river between Annavaram and Ampilli villages.	6,620	4,090	...	...	1,640	P.M.G., No. 747 I., dated 4th September 1896.
Raising the Vasista Gódávari right bank from head to Chinchinada.	72,800	50,012	21,378	15,378	4,602	P.M.G., No. 56 I., dated 19th January 1893.
Raising the Kistna river left bank below the anicut.	78,300	42,886	35,892	13,414	22,000	P.M.G., No. 278 I., dated 28th March 1893.
Raising the flood bank of the Kistna river on right side from 44 to 52½ miles.	33,000	26,044	...	300	4,000	P.M.G., No. 248 I., dated 13th March 1895.
Raising and strengthening the right bank of the Cauvery from the Cauvery bridge down to old Vennar head.	9,600	...	...	2,000	8,600	P.M.G., No. 349 I., dated 9th April 1897.
Works not commenced.						
Straight-cutting the Mudikondanar at 59/1 and 59/6 miles.	3,930	...	...	...	3,930	P.M.G., No. 403 I., dated 27th April 1897.
Raising the Agunda Cauvery left bank from 5th to 8th B.M.	...	...	...	...	11,800	Estimate under preparation.
Authur diversion Tambraparni right bank below Srivaikuntam anicut.	...	...	...	...	15,000	Do. do.
Total, Major Original Works ...	...	...	...	...	71,572	
Minor Original Works	...	...	...	...	10,300	
Repairs	...	...	...	...	4,05,325	
Establishment	...	...	...	...	1,12,615	
Tools and Plant	...	...	...	...	7,188	
Total, Agricultural Works ...	...	...	...	...	6,07,000	
Total, Provincial ...	...	...	...	...	29,80,000	
LOCAL IRRIGATION CESS FUND.						
43. MINOR WORKS AND NAVIGATION.						
Minor Works for which neither Capital nor Revenue Accounts are kept, P.W.D.	...	...	9,000	8,000	5,000	
Total ...	...	...	9,000	8,000	5,000	

CHARGES.

Part II.

Detail of the Budget Estimate for Original Works under Irrigation in the Madras Presidency for the year 1898–99.

Executive division.	Locality.	Sub-division of expenditure.	Item No.	Detail of works.	Amount of estimate.	Outlay: To end of 1896–97.	Outlay: Probable during 1897–98.	Grant, 1898–99.	Item No.	Remarks and references.
					Rs. C.	Rs.	Rs.	Rs.		
				SANGAM ANICUT SYSTEM.						
				OPEN CAPITAL ACCOUNT.						
				4. *Drainage and Protective Works.*						
Nellore	...	4. Earthwork ...	1	Diversion of the surplus of the Kanigiri reservoir into the Pyderu.				65,041	1	G.O., No. 407 I., dated 9th May 1896.
		2. Land	2	Land	1,68,900	...	...	5,000	2	
				Total ...	...	...	...	70,041		
				KURNOOL-CUDDAPAH CANAL.						
				OPEN CAPITAL ACCOUNT.						
Kurnool ...	...	14. Miscellaneous.	3	Demarcating land under the canal	13,360	9,886	3,738	2,846	3	G.O., No. 1098 I., dated 19th December 1895.
				GANJAM MINOR RIVERS SYSTEM.						
				OPEN CAPITAL ACCOUNT.						
				2. *Main Canals and Branches.*						
				Wadada Channel.						
Ganjám	...	3. Regulators ...	4	Providing screw-gearing shutters to the head sluice.	...	...	...	500	4	
		Do. ...	5	Constructing masonry regulators at Vanjangi, Bavajipett, Thotada, Balaga and Siddipett across the main channel.	...	...	...	2,000	5	
		8. Escapes ...	6	Constructing surplus weir near the seven vents aqueduct.	...	...	...	700	6	
		14. Tanks and reservoirs.	7	Constructing a surplus weir to Kallepalli tank ...	...	...	...	1,300	7	
				Bhairi Channel.						
		3. Regulators ...	8	Providing screw-gearing shutters to the head sluice.	...	...	...	500	8	
		Do. ...	9	Providing screw-gearing shutters to several regulators on the channel.	...	...	...	1,000	9	
		Do. ...	10	Providing a masonry regulator across the main channel at Ronanki.	...	...	...	500	10	
		8. Escapes ...	11	Providing a scouring surplus sluice, 2nd mile ...	...	...	...	1,000	11	Estimate under preparation.
				Purushottapur Channel.						
		3. Regulators ...	12	Providing screw-gearing shutters to the head sluice.	...	...	...	500	12	
		8. Escapes ...	13	Constructing a surplus weir at Iskakulam ...	...	...	...	1,000	13	
		14. Tanks and reservoirs.	14	Providing screw shutters to the sluices of Avadhanula tank.	...	...	...	500	14	
				Nagarikatakan Channel.						
		3. Regulators ...	15	Providing screw-gearing shutters to the head sluice.	...	...	...	400	15	
		Do. ...	16	Constructing a surplus weir to Ayyanna ...	...	...	...	1,200	16	
				Jalamur Channel.						
		3. Regulators ...	17	Providing screw-gearing shutters to the head sluice.	...	...	...	500	17	

GOVERNMENT OF MADRAS.

CHARGES—cont.

Part II—cont.

Detail of the Budget Estimate for Original Works under Irrigation Minor Works in the Madras Presidency for the year 1898-99—continued.

Executive division.	Locality.	Sub-division of expenditure.	Item No.	Detail of works.	Amount of estimate.	Outlay: To end of 1896-97.	Outlay: Probable during 1897-98.	Grant, 1898-99.	Item No.	Remarks and references.
				GANJAM MINOR RIVERS SYSTEM—*cont.*	Rs.	Rs.	Rs.	Rs.		
				OPEN CAPITAL ACCOUNT—*cont.*						
				2. *Main Canals and Branches*—cont.						
				Polaki Channel.						
Ganjám—*cont.*	...	3. Regulators ...	18	Providing screw-gearing shutters to the head sluice.	...	...	...	700	18	
		8. Escapes ...	19	Constructing a scouring surplus sluice near Andhavaram.	...	...	...	800	19	
				Garibulagedda Channel.						
		3. Regulators ...	20	Providing screw-gearing shutters to the head sluice.	...	...	...	700	20	
		14. Tanks and reservoirs.	21	Providing screw-gearing regulators to the open headed channels of Malabanda, &c., tanks.	...	...	...	1,000	21	
		Do. ...	22	Constructing drops Nos. 1 and 2 in Malabanda, &c., tanks.	...	...	...	600	22	Estimate under preparation.
				3. *Distributaries.*						
				Wadada Channel.						
		3. Works ...	23	Constructing a regulator at the head of Kallepalli channel.	...	...	...	500	23	
		Do.	24	Constructing masonry dams in place of mamul earthern dams in the branch channels.	...	...	...	1,000	24	
		Do.	25	Reserve	...	...	...	986	25	
				Total, Ganjám Minor Rivers System ...	...	...	...	17,886		
				MUNNYERU PROJECT.						
				CAPITAL ACCOUNT.						
				(1) *Head Works.*						
Kistna Northern.	...	3. Works	26	Anicut and under sluices	39,780	44,582	...	500	26	
		Do. ...	27	Extending anicut	...	...	...	8,000	27	
		4. Buildings ...	28	Store-shed, &c.	...	...	...	50	28	
		6. Maintenance ...	29	Forming sand bank across spills, right side anicut.	...	...	...	1,000	29	
				2. *Main Canals and Branches.*						
		3. Regulators ...	30	Head sluice	10,700	9,439	...	400	30	G.O., No. 1089 I., dated 12th December 1893.
		Do. ...	31	Regulator 11th mile	...	...	...	200	31	
		5. River and hill torrent works.	32	Inlets and outlets	2,940	...	...	1,000	32	
		6. Other cross drainage works.	33	Petty works to under tunnel up to 22/4 ...	...	...	...	1,000	33	
		Do. ...	34	Under tunnel 23/3¼	...	...	...	2,880	34	
		Do. ...	35	Do. 25/3	...	...	...	3,080	35	
		7. Bridges ...	36	Bridges	23,430	7,578	...	2,000	36	

Detail of the Budget Estimate for Original Works under Irrigation

Minor Works in the Madras Presidency for the year 1898–99—continued.

Executive division.	Locality.	Sub-division of expenditure.	Item No.	Detail of works.	Amount of estimate.	Outlay: To end of 1896–97.	Outlay: Probable during 1897–98.	Grant, 1898–99.	Item No.	Remarks and references.
					Rs.	Rs.	Rs.	Rs.		
				MUNNYERU PROJECT—*cont.*						
				CAPITAL ACCOUNT—*cont.*						
				2. *Main Canals and Branches*—cont.						
Kistna Northern —*cont.*	...	11. Buildings ...	37	Buildings	...	...	...	100	37	G.O., No. 1089 I., dated 12th December 1893. Revised estimate is now under the consideration of the Chief Engineer for Irrigation.
		12. Earthwork ...	38	Earthwork	1,13,400	1,11,665	...	19,000	38	
		14. Tanks and reservoirs.	39	Reservoirs	...	4,902	...	180	39	
		15. Miscellaneous.	40	Miscellaneous	2,000	1,247	...	800	40	
				3. *Distributaries.*						
		3. Works	41	Sluices, drops and masonry work	...	...	...	8,000	41	
		4. Earthwork ...	42	Excavation branch channel	11,000	2,533	...	12,000	42	
		5. Miscellaneous	43	Miscellaneous	1,000	...	...	500	43	
			44	Other works	...	...	...	29,310	44	
				Total ...	...	...	...	90,000		
				CHOPAUD PROJECT.						
				2. *Main Canals and Branches.*						
Cuddapah ...	...	2. Land ...	45	Compensation for land	...	...	...	8,000	45	G.Os., No. 344 I., dated 8th April 1897 and No. 1064 I., dated 29th November 1897.
		3. Regulators ...	46	Head sluice	...	...	...	1,000	46	
		Do. ...	47	Under-sluices	...	...	...	2,000	47	
		6. Other cross drainage works.	48	Big syphons	...	...	...	4,000	48	
		Do. ...	49	Small syphons	...	...	...	1,000	49	
		7. Bridges ...	50	Bridges	...	...	...	2,000	50	
		12. Earthwork ...	51	Excavation	...	...	...	16,959	51	
				Total, Chopaud Project ...	...	...	...	34,959		
				PALAR ANICUT SYSTEM.						
				OPEN CAPITAL ACCOUNT.						
				3. *Distributaries.*						
North Arcot ...	...	3. Works ...	52	Constructing an under-tunnel in the proposed channel from Tennel to Nelvoy tank.	1,390	...	...	1,390	52	G.O., No. 917 I., dated 15th October 1897.
				Kolathur Branch.						
		3. Works ...	53	Proposed drop at 5,000 feet below head in Karivedu and Kolathur channels.	280	6	...	280	53	
		4. Earthwork ...	54	Cutting Karivedu-Kolathur proposed extension from a point 700 feet below the existing head sluice in Govindavadi channel.	1,430	...	...	1,430	54	

Detail of the Budget Estimate for Original Works under Irrigation Minor Works in the Madras Presidency for the year 1898-99—continued.

Executive division.	Locality.	Sub-division of expenditure.	Item No.	Detail of works.	Amount of estimate.	Outlay: To end of 1896-97.	Outlay: Probable during 1897-98.	Grant for 1898-99.	Item No.	Remarks and references.
				PALAR ANICUT SYSTEM—*cont.*	Rs.	Rs.	Rs.	Rs.		
				OPEN CAPITAL ACCOUNT—*cont.*						
				3. *Distributaries*—cont.						
				Puduputti Surplus Channel.						
North Arcot—*cont.*	...	3. Works ...	55	Constructing an outlet	265	...	...	265	55	Estimate under preparation.
		Do. ...	56	Do. an irrigation sluice	80	...	...	80	56	
		Do. ...	57	Do. a drop	170	...	...	170	57	
		4. Earthwork ...	58	Cutting and embanking	1,090	...	...	1,090	58	
				Attiyanur Small Tank.						
		4. Earthwork ...	59	Cutting and embanking	1,300	...	...	1,300	59	
			60	Reserve	...	...	...	1,881	60	
				Total, Pálár Anicut System ...	...	...	...	7,886		
				CHEYARU ANICUT SYSTEM.						
				OPEN CAPITAL ACCOUNT.						
				2. *Main Canals and Branches.*						
				Iyalavadi Channel.						
		12. Works ...	61	Improvements to the channel	7,000	...	...	2,000	61	Estimate under preparation.
				Seyyathuvanam Project.						
		4. Earthwork ...	62	Cutting and embanking channel from Cheyar main channel to Seyyathuvanam tank.	13,000	...	...	3,528	62	
				Total, Cheyaru Anicut System ...	...	...	...	5,528		
				VALLURU ANICUT SYSTEM.						
				OPEN CAPITAL ACCOUNT.						
				3. *Distributaries.*						
Chingleput ...	...	3. Works and 4. Earthwork.	63	Extension of Munjur branch channel	5,290	...	2,501	2,772	63	G.O., No. 169 I., dated 18th February 1897.
				BUCKINGHAM CANAL.						
				OPEN CAPITAL ACCOUNT.						
				2. *Main Canals and Branches.*						
		9. Navigation ...	64	Providing new gates for the Musi, Mudigindy, Pyderu south and Covelong north locks.	9,300	...	...	9,300	64	Estimate will shortly be sanctioned.
			65	Reserve	...	...	...	5,326	65	
				Total ...	...	...	...	14,626		
				SHATIATOPE ANICUT SYSTEM.						
				OPEN CAPITAL ACCOUNT.						
				1. *Head Works.*						
South Arcot ...	...	3. Works ...	66	Improving the Shatiatope anicut	52,000	...	...	30,000	66	G.O., No. 983 I., dated 5th November 1897.

GOVERNMENT OF MADRAS.

CHARGES—cont.

Part II—cont.

Detail of the Budget Estimate for Original Works under Irrigation — *Minor Works in the Madras Presidency for the year* 1898-99—continued.

Executive division.	Locality.	Sub-division of expenditure.	Item No.	Detail of works.	Amount of estimate.	Outlay: To end of 1896-97.	Outlay: Probable during 1897-98.	Grant, 1898-99.	Item No.	Remarks and references.
					Rs.	Rs.	Rs.	Rs.		
				PELANDORAI ANICUT SYSTEM.						
				OPEN CAPITAL ACCOUNT.						
				1. *Head Works.*						
South Arcot ...	...	3. Works ...	67	Lowering the anicut crest and fitting it with 6-feet shutters counterweighted and with suitable gearing.	60,800	33,928	37,600	5,000	67	G.O., No. 551 I., dated 2nd July 1896.
				LOWER COLEROON ANICUT SYSTEM.						
				CAPITAL ACCOUNT.						
				1. *Head Works.*						
Tanjore	...	3. Works ...	68	Improvements to the Lower Coleroon anicut ...	1,01,400	17,657	40,207	40,370	68	G.O., No. 273 I., dated 21st March 1896.
				4. *Drainage and Protective Works.*						
				Old Coleroon Drain.						
South Arcot ...	...	3. Works ...	69	Aqueduct and bridge extension	41,000	15,368	4,000	10,362	69	G.O., No. 383 I., dated 21st April 1897.
		4. Earthwork ...	70	Clearing, widening and forming banks	89,600	10,975	40,000	20,000	70	G.O., No. 835 I., dated 8th October 1892.
				Total, Lower Coleroon Anicut System ...	...	...	...	70,732		
				MARADUR ANICUT SYSTEM.						
				(2) *Main Canals and Branches.*						
Tinnevelly ...	...	3. Works ...	71	Improvements to Maradur-Melakal channel ...	...	...	...	3,000	71	Estimate under preparation.
				REVENUE ACCOUNT.						
				Extensions and Improvements.						
Kurnool	...	...	72	Cumbum tank system	...	...	...	500	72	
Coimbatore ...	...	...	73	Thadapalli channel system	...	...	516	2,007	73	
			74	Arkenkota do.	...	...	1,000	998	74	
			75	Kalingaroyen channel system	...	...	100	1,000	75	
North Arcot ...	...	...	76	Poiney anicut system	...	...	2,500	2,000	76	
			77	Cheyaru do.	...	...	2,000	3,000	77	
			78	Pálár do.	...	...	2,500	4,000	78	
				Deduct old maintenance charges ...	...	...	178	178		
				Net ...	...	...	2,322	3,822		
Chingleput ...	...	...	79	Pálár anicut system	...	...	5,000	789	79	
				Total, Pálár Anicut System ...	...	...	7,322	4,611		
			80	Chembrambakam tank system	...	...	200	...	80	
				Deduct old maintenance charges ...	...	...	2,283	2,283		
				Net ...	...	...	— 2,083	— 2,283		

GOVERNMENT OF MADRAS.

CHARG—cont.

Part II—cont.

Detail of the Budget Estimate for Original Works under Irrigation—*Minor Works in the Madras Presidency for the year* 1898-99—continued.

Executive division.	Locality.	Sub-division of expenditure.	Item No.	Detail of works.	Amount of estimate.	Outlay: To end of 1896-97.	Outlay: Probable during 1897-98.	Grant, 1898-99.	Item No.	Remarks and references.
					Rs.	Rs.	Rs.	Rs.		
				REVENUE ACCOUNT—*cont.*						
Chingleput—*cont.*	...	.....		*Extensions and Improvements*—cont.						
			81	Madras water-supply and irrigation extension ...	...	...	...	...	81	
				Deduct old maintenance charges ...	...	...	3,600	3,600		
				Net ...	...	...	— 3,600	— 3,600		
South Arcot ...	...	.....	82	Tirukkoyilúr anicut system	...	...	3,002	5,610	82	
			83	Mehamattur do.	...	...	100	1,093	83	
			84	Vriddhachalam do.	...	...	180	3,533	84	
			85	Shatiatope do.	...	...	1,000	1,545	85	
			86	Pelandorai do.	...	...	2,850	3,783	86	
				Deduct old maintenance charges ...	...	...	59	59		
				Net ...	...	...	2,791	3,724		
			87	Lower Coleroon anicut system	...	...	2,900	3,000	87	
Tanjore ...	...	.....	88	Do. do.	...	...	692	500	88	
				Total, Lower Coleroon Anicut System ...	...	...	3,592	3,500		
Tinnevelly ...	...	.....	89	Maradur anicut system	...	...	193	1,003	89	
Chingleput ...	...	.....	90	Buckingham Canal	...	...	570	1,000	90	
				Total, Extensions and Improvements ...	...	...	...	29,241		
				Minor Works for which neither Capital nor Revenue Accounts are kept, P.W.D.						
				Ordinary Major Original Works.						
Gódávari Eastern.	...	.....	91	Reconstructing Pattamamidi-Doddi anicut ...	...	...	...	5,000	91	Estimate under preparation.
Gódavari Western.	...	.....	92	Diversion of Yerracalva and construction of masonry dams across it and Gudapalli channel.	9,450	6,069	6,000	1,000	92	G.O., No. 405 I., dated 28th April 1897. Revised estimate under preparation.
Kistna Northern.	...	.....	93	Ipur tank	...	...	...	10,200	93	G.O., No. 1031 I., dated 23rd November 1893.
Nellore	...	.....	94	Jonapad tank	31,000	8,869	5,061	12,800	94	„ „ 148 I. „ 16th February 1895.
			95	Mopaud tank improvements	26,630	9,089	3,871	2,500	95	„ „ 57 I. „ 18th January 1896.
			96	Tallapallem do.	23,800	17,334	4,895	5,500	96	Estimate under preparation.
			97	Sayipet do.	...	...	...	4,000	97	Do.
Bellary	...	.....	98	Timmasamudram do.	...	...	...	3,000	98	Do.
Cuddapah ...	...	.....	99	Yepral and Kollical tanks	...	...	600	5,000	99	G.O., No. 194 I., dated 24th February 1897.
Coimbatore ...	...	.....	100	Chintagunta tank	11,800	397	...	10,000	100	„ „ 721 I. „ 3rd August „
			101	Constructing an aqueduct and bridge in lieu of Pungaliyur outlet on the Chitrachavady channel.	35,000	...	2,870	3,130	101	„ „ 1119 I. „ 13th December „
Salem	...	.....	102	Improving supply channel to Pennagundapuram tank.	6,150	...	...	5,000	102	„ „ 229 I. „ 6th March „
South Arcot ...	...	.....	103	Improving Nedunathan-Kumarai anicut across Karamangudi channel.	13,000	...	...	2,800	103	Estimate under preparation.
			104	Alathur anicut across the Cheyar river.—Reconstructing dam and improvements to tanks and channels under the —.	...	...	...	5,000	104	Do.

Detail of the Budget Estimate for Original Works under Irrigation and Minor Works in the Madras Presidency for the year 1898-99—continued.

Executive division.	Locality.	Sub-division of expenditure.	Item No.	Detail of works.	Amount of estimate.	Outlay: To end of 1896-97.	Outlay: Probable during 1897-98.	Grant, 1898-99.	Item No.	Remarks and references.
				Minor Works for which neither Capital nor Revenue Accounts are kept, P. W. D.—cont.						
				Ordinary Major Original Works—*cont.*	Rs.	Rs.	Rs.	Rs.		
Trichinopoly ...	...	.....	105	Improvements to Kothamangalam and Periyakulam.	4,060	...	1,000	2,060	105	G.O., No. 996 I., dated 25th November 1896.
		.....	106	Improvements to Thuvagudi, Periayeri and Chittari.	3,500	10	1,500	1,490	106	,, ,, 534 I. ,, 25th June 1896.
			107	Reconstructing Chintamani odai weir on the right bank of Penneri channel.	...	...	...	2,000	107	Estimate under preparation.
Madura	...	.....	108	Constructing an under-tunnel at 3,200 feet from the head of Seeliampatty channel.	2,710	19	710	2,000	108	G.O., No. 50 I., dated 17th January 1896.
				Total ...				82,480		
			109	Minor original works	...	...	...	1,27,295	109	
					...	...	...			
			110	Old maintenance charges for works for which Capital and Revenue Accounts are kept.	...	...	...	10,381	110	
				Total, Ordinary Works ...	...	...	...	2,20,156		
			111	Minor Works, Revenue Department, Minor original work.	...	...	...	28,112	111	
				Agricultural Works.						
				Major Original Works.						
Vizagapatam ...	...	.....	112	Constructing left flood bank for the Nagavalli river between Annaveram and Ampilli villages.	6,620	4,090	...	1,640	112	G.O., No. 747 I, dated 4th September 1896.
Gódávari Western.	...	.....	113	Raising the Vasista Gódávari right bank from head to Chinchinada.	72,800	50,012	15,378	4,602	113	,, ,, 56 I. ,, 19th January 1893.
Kistna Eastern ...	...	.....	114	Raising the Kistna river left bank below the anicut.	78,300	42,886	13,414	22,000	114	,, ,, 278 I. ,, 28th March 1893.
Kistna Western...	...	.....	115	Raising the flood bank of the Kistna river on right side from 44 to 52½ miles.	33,000	26,044	300	4,000	115	,, ,, 248 I. ,, 13th ,, 1895.
Tanjore	...	.....	116	Straight cutting the Mudikondanar at 59/1 and 59/6 miles.	3,930	...	...	3930	116	,, ,, 403 I. ,, 27th April 1897.
Trichinopoly ...	...	.....	117	Raising and strengthening the right bank of the Cauvery from the Cauvery bridge down to old Vennar head.	9,600	...	2,000	8,600	117	,, ,, 349 I. ,, 9th ,, ,,
			118	Raising the Agunda Cauvery left bank from 5th to 8th B. M.	...	...	...	11,800	118	Estimate under preparation.
Tinnevelly ...	...	.....	119	Authur diversion.—Tambrapurni right bank below Srivaikuntam anicut.	...	...	...	15,000	119	Do.
				Total ...				71,572		
			120	Minor original works	...	...	...	10,300	120	
				Total, Agricultural Works ...	...	...	...	81,872		
				LOCAL IRRIGATION CESS FUND.						
				43. MINOR WORKS AND NAVIGATION.						
				Minor Works for which neither Capital nor Revenue Accounts are kept.						
Salem	...	.....	121	Minor original works	...	...	...	3,000	121	

GOVERNMENT OF MADRAS.

CHARGES.

Part II—continued.

General Abstract of the Grant provided for above.

—	Local Irrigation Cess Fund.	Provincial Funds.	Total.
	Rs.	Rs.	Rs.
IRRIGATION.			
43. MINOR WORKS AND NAVIGATION.			
WORKS FOR WHICH CAPITAL AND REVENUE ACCOUNTS ARE KEPT.			
PROVINCIAL.			
CAPITAL.			
Sangam Anicut System	...	70,041	70,041
Kurnool-Cuddapah Canal	...	2,846	2,846
Ganjám Minor Rivers System	...	17,886	17,886
Munnyeru Project	...	90,000	90,000
Chopaud Project	...	34,959	34,959
Pálár Anicut System...	...	7,886	7,886
Choyaru do.	...	5,528	5,528
Valluru do.	...	2,772	2,772
Shatiatope do.	...	30,000	30,000
Pelandorai do.	...	5,000	5,000
Lower Coleroon Anicut System	...	70,732	70,732
Maradur do.	...	3,000	3,000
Buckingham Canal	...	14,626	14,626
Total ...	...	3,55,276	3,55,276
REVENUE.			
Cumbum Tank System	...	500	500
Thadapalli Channel System	...	2,007	2,007
Arkenkotta do.	...	998	998
Kalingarayan do.	...	1,000	1,000
Pálár Anicut System	...	4,611	4,611
Poiney do.	...	2,000	2,000
Cheyáru do.	...	3,000	3,000
Chembrambakam Tank	...	— 2,283	— 2,283
Madras Water-supply and Irrigation Extension	...	— 3,600	— 3,600
Tirukkóyilúr Anicut System	...	5,610	5,610
Mohamattur do.	...	1,093	1,093
Vriddhachalam do.	...	3,533	3,533
Shatiatope do.	...	1,545	1,545
Pelandorai do.	...	3,724	3,724
Lower Coleroon do.	...	3,500	3,500
Marudur Anicut System	...	1,003	1,003
Buckingham Canal	...	1,000	1,000
Total ...	...	29,241	29,241
Irrigation and Navigation Works for which neither Capital nor Revenue Accounts are kept, P.W.D.—			
Major	...	82,480	82,480
Minor	...	1,27,295	1,27,295
Old Maintenance charges for works for which Capital and Revenue Accounts are kept	...	10,381	10,381
"Minor Works, Revenue Department," Minor Original Works ...	...	28,112	28,112
Total ...	...	2,48,268	2,48,268

GOVERNMENT OF MADRAS.

CHARGES.

Part II—continued.

General Abstract of the Grant provided for above—continued.

—	Local Irrigation Cess Fund.	Provincial Funds.	Total.
	Rs.	Rs.	Rs.
43. MINOR WORKS AND NAVIGATION—cont.			
PROVINCIAL—continued.			
Agricultural Works.			
Works for which neither Capital nor Revenue Accounts are kept.			
Major works	...	71,572	71,572
Minor works	...	10,300	10,300
Total ...	...	81,872	81,872
LOCAL IRRIGATION CESS FUND.			
43. MINOR WORKS AND NAVIGATION.			
Minor works for which neither Capital nor Revenue Accounts are kept, P.W.D.—			
Minor works	3,000	...	3,000
Total ...	3,000	...	3,000

GOVERNMENT OF MADRAS.

CHARGES.

Part III.

Detail of the Budget Estimate for Maintenance and Repairs of Irrigation Minor Works in the Madras Presidency for the year 1898–99.

Executive division.	—	Estimate, 1898–99.		Estimate, 1897–98.	
		Amount.	Total.	Amount.	Total.
	IRRIGATION.	Rs.	Rs.	Rs.	Rs.
	43. MINOR WORKS AND NAVIGATION.				
	Minor Works for which Capital and Revenue Accounts are kept.				
	Provincial.				
	Maintenance and Repairs.				
Ganjám ...	Ganjám Minor Rivers System	25,000	25,000	10,000	10,000
Kistna Northern.	Dondapad tank	699	699	...	...
Cuddapah ...	Sagiléru Project	6,000	6,000	...	...
Kurnool ...	Cumbum Tank System	1,500	1,500	1,500	1,500
Coimbatore ...	Thadapalli Channel System	3,800	3,800	2,900	2,900
Do. ...	Arkenkotta Channel System	2,000	2,000	902	902
Do. ...	Kalingaroyen Channel System	2,805	2,805	1,901	1,901
North Arcot ...	Pálár Anicut System—				
	Head Works				
	Kávéripak Channel				
	Govindavádi Channel				
	Mahendravadi Channel				
	Dusi channel	20,000		20,004	
	Tennampettu Channel				
	Chuckramallur Channel				
	Reserve for incomplete works				
Chingleput ...	Kambakal Channel	9,228		8,400	
	Total ...	29,228		28,404	
	Deduct Old Maintenance Charges ...	* 2,909		* 2,909	
			26,319		25,495
North Arcot ...	Poiney Anicut System	9,000	9,000	9,000	9,000
Do. ...	Cheyáru Anicut System	12,000	12,000	12,000	12,000
Chingleput ...	Chembrambakam Tank System	3,021		3,005	
	Deduct Old Maintenance Charges ...	* 3,097		* 3,097	
			— 76		— 92
Do. ...	Madras Water-supply and Irrigation Extension...	3,003		2,499	
	Deduct Old Maintenance Charges ...	* 200		* 200	
			2,803		2,299
Do. ...	Vallur Anicut System	989	989	500	500
South Arcot ...	Shatiatope Anicut System	9,000	9,000	10,000	10,000
Do. ...	Pelandorai Anicut System	4,730		3,000	
	Deduct Old Maintenance Charges ...	* 58		* 58	
			4,672		2,942

* These sums are provided under Minor Works for which neither Capital nor Revenue Accounts are kept, P.W.D.

GOVERNMENT OF MADRAS.

CHARGES.

Part III—continued.

Detail of the Budget Estimate for Maintenance and Repairs of Irrigation Minor Works in the Madras Presidency for the year 1898–99—continued.

Executive division.	—	Estimate, 1898–99.		Estimate, 1897–98.	
		Amount.	Total.	Amount.	Total.
	IRRIGATION—*continued.*	Rs.	Rs.	Rs.	Rs.
	43. MINOR WORKS AND NAVIGATION— continued.				
	Minor Works for which Capital and Revenue Accounts are kept—continued.				
	Provincial—cont.				
	Maintenance and Repairs—continued.				
South Arcot ...	Vriddhachalam Anicut System	1,650	1,650	2,500	2,500
Do. ...	Mehamattur Anicut System	2,090	2,090	1,000	1,000
Do. ...	Tirukkóyilúr Anicut System	7,364	7,364	8,000	8,000
Do. ...	Lower Coleroon Anicut System	11,636		16,000	
Tanjore ...	Do. do.	4,000	15,636	3,000	19,000
Trichinopoly ...	Nandiar channel	5,000	5,000	7,610	7,610
Tinnevelly ...	Maradur Anicut System	13,000	13,000	13,000	13,000
Ganjám ...	Chilka Lake Canal	496	496	301	301
Negapatam ...	Védáranniyam Canal	2,683	2,683	5,065	5,065
Chingleput ...	Buckingham Canal—				
	262 miles	35,370		35,370	
	M. Maintenance establishment	6,000		6,000	
	Repairs to masonry works	7,000		7,000	
	Unforeseen and sundry items	4,030		4,030	
	Payment to the Madras Municipality being the amount of lease for Trevelyan wharf ...	1,600		1,600	
			54,000		54,000
	Total ...	...	2,08,430	...	1,89,823
	Minor Works for which neither Capital nor Revenue Accounts are kept, P.W.D., Ordinary works	3,85,700		3,70,000	
	Old Maintenance charges	1,42,850		1,42,850	
	Tank Restoration works to be executed by ordinary divisions	3,32,169		3,91,968	
			8,60,719		9,04,818
	Agricultural Works—				
	Repairs	4,05,325		3,77,213	
			4,05,325		3,77,213
	Total ...	...	14,74,474	...	14,71,854
	LOCAL IRRIGATION CESS FUND.				
	43. MINOR WORKS AND NAVIGATION.				
	Minor Works for which neither Capital nor Revenue Accounts are kept, P.W.D.				
Salem ...	Cauvery channels in Salem district	2,000	2,000	2,000	2,000
	Total ...	...	2,000	...	2,000

GOVERNMENT OF MADRAS.

CHARGES.

Part IV.

Detail of the Budget Estimate for Establishment of the Irrigation Branch in the Madras Presidency for the year 1898-99.

Particulars.	Budget Estimate for 1898-99. Per mensem.	Per annum.	Total.	Revised Estimate for 1897-98.
	Rs.	Rs.	Rs.	Rs.
IRRIGATION.				
43. Minor Works and Navigation.				
PROVINCIAL.				
Grant for works and repairs	...	...	21,89,131	21,06,291
Deduct item on which no charge for establishment is admissible—				
Grant for land compensation	...	...	21,000	24,548
Net Grant for Works and Repairs ...	...	...	21,68,131	20,81,743
A. Share of the Public Works establishment charges at 23 per cent. on the net grant for works and repairs.	...	...	4,98,670	4,78,801
Estimate of Direct Revenue	...	...	1,72,000	1,72,000
B. Share of the Public Works establishment charges at 10 per cent. on Direct Revenue.	...	...	17,200	17,200
Revenue due to old Irrigation under Major Productive Works.	...	...	41,45,510	41,16,840
C. Share of the Public Works establishment at 6 per cent. on Revenue.	...	...	2,48,732	2,47,010
Total, A + B + C ...	...	...	7,64,602	7,43,011
Total, Establishment Charges ...	...	...	7,64,602	7,43,011

GOVERNMENT OF MADRAS.

CHARGES.

Part IV-A.

Detail of estimated charges for establishment by systems of canals for 1898-99.

—	Percentage on the Grant for Works and Repairs. Grant for Works and Repairs.	23 per cent.	Percentage on the Direct Revenue. Direct Revenue.	10 per cent.	Percentage on the Indirect Revenue. Indirect Revenue.	6 per cent.	Cost of Establishment actually employed.	Total Charges for Establishment.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
IRRIGATION.								
43. MINOR WORKS AND NAVIGATION.								
Provincial.								
Minor Works for which Capital and Revenue Accounts are kept.								
Capital.								
Sangam Anicut System	65,041	14,959	...	...	...	...	...	14,959
Kurnool-Cuddapah Canal	2,846	654	...	...	...	...	...	654
Ganjám Minor Rivers System ...	17,886	4,114	...	...	...	...	...	4,114
Munnyeru Project	90,000	20,700	...	...	...	...	...	20,700
Chopaud Project	26,959	6,201	...	...	...	...	...	6,201
Pálár Anicut System	7,886	1,814	...	...	...	...	...	1,814
Cheyáru do.	5,528	1,272	...	...	...	...	...	1,272
Valluru do.	2,772	638	...	...	...	...	...	638
Shatiatope do.	30,000	6,900	...	...	...	...	...	6,900
Pelandorai do.	5,000	1,150	...	...	...	...	...	1,150
Lower Coleroon Anicut System ...	70,732	16,268	...	...	...	...	...	16,268
Maradur Anicut System	3,000	690	...	...	...	...	...	690
Buckingham Canal	14,626	3,364	...	...	...	...	...	3,364
Total ...	3,42,276	78,724	...	...	...	...	...	78,724
Revenue.								
Ganjám Minor Rivers System ...	25,000	5,750	300	30	...	...	...	5,780
Dondapad Tank	699	161	...	...	...	...	...	161
Sagiléru Project	6,000	1,380	...	...	...	...	...	1,380
Cumbum Tank System	2,000	460	...	...	...	...	...	460
Thadapalli Channel System	5,807	1,335	80	8	...	...	...	1,343
Arcenkotta do.	2,998	690	20	2	...	...	...	692
Kalingaroyen do.	3,805	875	...	...	...	...	...	875
Pálár Anicut System	30,930	7,114	1,600	160	...	...	...	7,274
Poiney do.	11,000	2,530	300	30	...	...	...	2,560
Cheyáru do.	15,000	3,450	300	30	...	...	...	3,480
Chembrambakam Tank System ...	**—2,359**	**— 542**	100	10	...	...	...	**— 532**
Madras Water-supply and Irrigation Extension	**— 797**	**— 183**	18,400	1,840	...	...	...	1,657
Vallur Anicut System	989	227	40	4	...	...	...	231
Tirukkóyilúr do.	12,974	2,984	420	42	...	...	...	3,026
Mehamattur do.	3,183	732	50	5	...	...	...	737
Vriddháchalam do.	5,183	1,192	50	5	...	...	...	1,197
Shatiatope do.	10,545	2,425	300	30	...	...	...	2,455
Pelandorai do.	8,396	1,931	250	25	...	...	...	1,956
Lower Coleroon do.	19,136	4,401	1,630	163	...	...	...	4,564
Nundiar Channel Extension ...	5,000	1,150	100	10	...	...	...	1,160
Maradur Anicut System	14,003	3,221	60	6	...	...	...	3,227
Chilka Lake Canal	496	114	...	...	...	...	...	114
Buckingham Canal	55,000	12,650	1,14,000	11,400	...	...	...	24,050
Védáranniyam Canal	2,683	617	1,000	100	...	...	...	717
Total ...	2,37,671	54,664	1,39,000	13,900	...	...	...	68,564

GOVERNMENT OF MADRAS.

CHARGES.

Part IV-A—continued.

Detail of estimated charges for establishment by systems of canals for 1898–99—continued.

—	Percentage on the Grant for Works and Repairs.		Percentage on the Direct Revenue.		Percentage on the Indirect Revenue.		Cost of Establishment actually employed.	Total Charges for Establishment.
	Grant for Works and Repairs.	23 per cent.	Direct Revenue.	10 per cent.	Indirect Revenue.	6 per cent.		
IRRIGATION—continued.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
43. MINOR WORKS AND NAVIGATION—continued.								
Provincial—continued.								
Minor Works for which neither Capital nor Revenue Accounts are kept, P.W.D.								
Ordinary Works	5,95,475	1,36,959	9,000	900	...	...	...	1,37,859
Tank Restoration Works	3,32,169	76,399	...	...	...	...	...	76,399
Old Maintenance charges	1,53,231	35,243	...	...	41,45,540	2,48,732	...	2,83,975
Minor Works, Revenue Department...	28,112	6,466	...	...	...	...	...	6,466
Total ...	11,08,987	2,55,067	9,000	900	41,45,540	2,48,732	...	5,04,699
Agricultural Works.								
Works for which neither Capital nor Revenue Accounts are kept ...	4,79,197	1,10,215	24,000	2,400	...	...	...	1,12,615
Total, Provincial ...	21,68,131	4,98,670	1,72,000	17,200	41,45,540	2,48,732	...	7,64,602

GOVERNMENT OF MADRAS.

CHARGES.

Part V.

Detail of the Budget Estimate for Tools and Plant under Irrigation Minor Works in the Madras Presidency for the year 1898–99.

—	Special Tools and Plant.	General Tools and Plant.	Total.	Grant for Works and Repairs.
IRRIGATION.	Rs.	Rs.	Rs.	Rs.
43. MINOR WORKS AND NAVIGATION.				
Provincial.				
Minor Works for which Capital and Revenue Accounts are kept.				
Capital.				
Munnyeru project	1,000	...	1,000	...
Total ...	1,000	...	1,000	...
Revenue.				
Pálár Anicut System	...	...	...	...
Deduct Old Maintenance charges ...	4	...	4	...
Net ...	— 4	...	— 4	...
Chembrambakam Tank System	...	...	...	...
Deduct Old Maintenance charges ...	109	...	109	...
Net ...	— 109	...	— 109	..
Madras Water-supply and Irrigation Extension	...	...	...	...
Deduct Old Maintenance charges ...	10	...	10	...
Net ...	— 10	...	— 10	...
Pelandorai Anicut System	...	...	...	...
Deduct Old Maintenance charges ...	2	...	2	...
Net ...	— 2	...	— 2	...
Buckingham Canal	2,000	...	2,000	...
Total ...	1,875	...	1,875	...
Minor Works for which neither Capital nor Revenue Accounts are kept, P.W.D.				
Ordinary Works	...	8,932	8,932	5,95,475
Tank Restoration works	...	4,982	4,982	3,32,169
Old Maintenance charges	1,868	...	1,868	1,53,231
Minor Works, Revenue Department	...	422	422	28,112
Agricultural Works.				
Works for which neither Capital nor Revenue Accounts are kept	...	7,188	7,188	4,79,197
Total ...	1,868	21,524	23,392	15,88,184
Total, Provincial ..	4,743	21,524	26,267	...

GOVERNMENT OF MADRAS.

CHARGES.

Part VI.

Abstract of the Probable Increase or Decrease in the Suspense Accounts of Irrigation Minor Works in the Madras Presidency for the year 1898-99—Nil.

All Suspense Accounts are included under Provincial, 45. Civil Works.

GOVERNMENT OF MADRAS.

CHARGES.

Schedule A—Showing the distribution of the grants for Minor Original Works and Repairs for 1898-99.

	Irrigation Revenue.	Minor Original Works (under Rs. 2,500 each).	Repairs.
		1898-99.	1898-99.
	Rs.	Rs.	Rs.
Irrigation and Navigation Works for which neither Capital nor Revenue Accounts are kept.			
Old Maintenance charges—			
Pennéru Anicut System	...	3,564	13,860
Sangam do. do.	...	345	11,884
Cauvery Delta do.	...	...	1,05,634
Srivaikuntam Anicut System	...	352	5,208
Chembrambakam Tank	...	2,283	3,097
Pálár Anicut System	...	178	2,909
Pelandorai Anicut System	...	59	58
Madras Water-supply and Irrigation Extension Project	...	3,600	200
Total	...	10,381	1,42,850
Minor Works, Public Works Department, Ordinary—			
Divisions—			
Ganjám	1,229	5,000	12,000
Vizagapatam	68,806	8,000	18,000
Gódávari Eastern	39,773	6,000	15,000
Do. Western		4,000	12,000
Kistna Eastern	11,839	...	8,000
Do. Northern		...	3,000
Nellore	3,39,799	6,000	30,000
Cuddapah	1,96,618	5,000	30,000
Kurnool	35,393	1,500	10,000
Bellary	1,55,383	2,500	30,000
West Coast	...	...	2,000
Coimbatore	3,20,832	3,000	15,000
Salem	1,36,435	2,000	12,000
North Arcot	2,17,698	7,000	25,000
Chingleput	6,03,004	7,000	35,000
South Arcot	3,67,601	20,000	40,000
Tanjore	46,362	1,000	1,200
Negapatam	...	700	2,500
Trichinopoly	4,29,785	8,000	25,000
Madura	2,16,649	4,000	20,000
Tinnevelly	7,79,331	6,000	40,000
Total	...	96,700	3,85,700
Reserve	...	30,595	...
Grand Total	...	1,27,295	3,85,700
Minor Works, Revenue Department, Reserve	...	28,112	...

GOVERNMENT OF MADRAS.

CHARGES.

Schedule A—Showing the distribution of the grants for Minor Original Works and Repairs for 1898–99—continued.

	Irrigation Revenue.	Minor Original Works (under Rs. 2,500 each).	Repairs.
		1898–99.	1898–99.
Tank Restoration Works.	Rs.	Rs.	Rs.
Execution—			
Divisions—			
Gódávari Eastern	...	...	4,000
Kistna Northern	...	...	10,000
Nellore	...	...	20,000
Salem	...	...	50,000
North Arcot	...	...	40,000
South Arcot	...	...	20,000
Chingleput	...	...	60,169
Negapatam	...	...	8,000
Madura	...	...	60,000
Tinnevelly	...	...	60,000
Total ...	...	...	3,32,169
Agricultural Works.			
Divisions—			
Ganjám	...	3,000	6,000
Vizagapatam	...	300	2,500
Gódávari Eastern	...	...	15,600
Do. Central	...	...	55,000
Do. Western	...	1,000	12,000
Kistna Eastern	...	...	20,100
Do. Western	...	...	1,50,000
Nellore	...	...	6,000
Cuddapah	...	...	4,000
Coimbatore	...	...	6,500
Salem	...	...	625
Chingleput	...	...	9,500
South Arcot	...	...	2,500
Tanjore	...	3,000	60,000
Negapatam	...	1,000	10,000
Trichinopoly	...	2,000	30,000
Tinnevelly	...	...	15,000
Total ...	...	10,300	4,05,325

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