

Revenue (1898) Department.

MISCELLANEOUS SERIES.

G.O., No. 2514

DATED 14th June

[Despatch Abstract.]

to the Bd. of Rev.

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

BACK PAPERS.

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

FURTHER PAPERS.

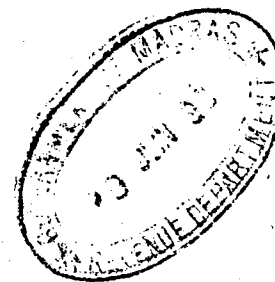
G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.
Cus no	2586/99 3574/99						

Revenue 1898 Department

Current A 41/2.

IRRIGATION.
ACCOUNT.

Government {1898} of Madras.
PUBLIC WORKS.



Recd. 9 June
Regd. 11 June } 1898.

Enclosures

Spare copies

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

APRIL.

G.O. no. 2514 d/14th June 98.
communicated
to the Board of Revenue.

14th June
List
To the Board of Revenue L.R. 20/10/98
- - - Ro. L.R. 43 17.6.98

8th
12/6/98.

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. 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:—

35. Construction of Protective Works, Irrigation—Imperial	...	Rs. 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 en-urgent 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.)

[Signature]
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.

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.	Rs.
IRRIGATION.				
IMPERIAL.				
MAJOR WORKS (DIRECT RECEIPTS). (PRODUCTIVE.)				
Gódavari 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
Deduct Collection Charges ...	6,349	5,900	6,000	6,000
Net Collections in the Revenue Department ...	1,20,630	1,12,100	1,14,000	1,14,000
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.	Rs.
IRRIGATION.				
XXIX. MAJOR WORKS—PORTION OF LAND REVENUE DUE TO IRRIGATION.				
Gódavari 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	9,400	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.

						Actual Realizations, 1896-97.	Budget Estimate, 1897-98.	Revised Estimate, 1897-98.	Budget Estimate, 1898-99.
IRRIGATION—continued.						Rs.	Rs.	Rs.	Rs.
XXIX. MAJOR WORKS—PORTION OF LAND REVENUE DUE TO IRRIGATION—continued.									
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
Srivaikuntam 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.

						Actual Realizations, 1896-97.	Budget Estimate, 1897-98.	Revised Estimate, 1897-98.	Budget Estimate, 1898-99.
IRRIGATION—continued.						Rs.	Rs.	Rs.	Rs.
XXIX. MAJOR WORKS—PORTION OF LAND REVENUE DUE TO IRRIGATION—continued.									
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
Periyar 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 Periyar project which was not reported in time by the Board of Revenue to admit of its inclusion in the budget estimate for 1897-98.

IMPERIAL—MAJOR WORKS.

MADRAS PRESIDENCY.

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.
IMPERIAL. MAJOR (PROTECTIVE) WORKS. <i>Famine Relief and Insurance.</i> 35. CONSTRUCTION OF PROTECTIVE IRRIGATION WORKS.	PAGES.	Rs.	Rs.	Rs.	Rs.
1. Works ... { In progress ... 77,000 Not commenced ... 3,000 }	8 & 9	1,67,744	1,38,618	1,13,618	80,000
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 im- { In progress ... provements. 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 ... 2,10,844 Not commenced ... 1,80,570 }	11 to 28	6,73,546	7,32,543	5,99,412	3,91,414
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.

IMPERIAL—MAJOR WORKS.

MADRAS PRESIDENCY.

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. <i>Famine Relief and Insurance.</i> 35. CONSTRUCTION OF PROTECTIVE IRRI- GATION WORKS. <i>Capital Account.</i> Rushikulya Project ...	Rs.	Rs.	Rs.	Rs.	Rs.	
42. MAJOR WORKS (WORKING EXPENSES). Gódávari Delta ...	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.
Kistna do. ...			4,80,000	4,85,715	5,10,000	
Pennér Anicut ...			5,75,000	5,69,297	6,21,000	
Sangam do. ...			20,000	21,508	22,000	
Kurnool-Cuddapah Canal ...			37,000	24,700	33,000	
Barur Tank Project ...			94,200	87,328	90,000	
Cauvery Delta ...			2,500	3,192	2,000	
Srivaikuntam Anicut ...			25,000	16,088	60,000	
Periyár Project ...			27,000	26,877	25,000	
Rushikulya Project ...			71,000	1,03,715	92,000	
Total ...			38,300	32,580	45,000	
CAPITAL EXPENDITURE NOT CHARGED TO REVENUE. 49. IRRIGATION. <i>Works in Progress.</i> Gódávari Delta System ...			13,70,000	13,71,000	15,00,000	
Kistna Delta do. ...	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. Government of India register No. 8 I. of 1894-95. 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. 644 I., dated 28th May 1897; No. 644 I., dated 12th July 1897; No. 730 I., dated 9th August 1897; No. 765 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 re- maining to be completed under prepara- tion. 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 13th 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

CHARG

Part

Details of the Budget Estimate for Original Works under Irrigation

Division.	Locality.	Sub-division of expenditure.	Item No.	Detail of works.
				IMPERIAL.
				MAJOR (PROTECTIVE) WORKS.
				Famine Relief and Insurance.
				35. CONSTRUCTION OF PROTECTIVE IRRIGATION WORKS.
				Capital Account.
				RUSHIKULYA PROJECT.
				(1) HEAD WORKS.
				Rushikulya Section.
Ganjam	...	3. Works	...	1 Suradā reservoir dam
			2	2 Channel to take the Pathama river into Suradā reservoir.
			3	3 Waste weir channel, Suradā reservoir
				(3) Distributaries.
			4	4 Irrigation sluices
			5	5 Masonry works
			6	6 Irrigation channels
				Total, Rushikulya Project ...
				IRRIGATION.
				42. MAJOR WORKS (WORKING EXPENSES).
				EXTENSIONS AND IMPROVEMENTS.
				Gódvāri Delta System.
Gódvāri Eastern	...		7	7 Extensions and improvements
Gódvāri Central.	...		8	8 Do. do.
Gódvāri Western Division.	...		9	9 Do. do.
				Total ...
				Kistna Delta System.
Kistna Eastern ...	...		10	10 Extensions and improvements
Kistna Western.	...		11	11 Do. do.
				Total ...
				Pennēru Anicut System.
Nellore	...		12	12 Extensions and improvements
			13	13 Deduct old maintenance charges
				Net grant ...

* These sums are provided in the budget estimates

OF MADRAS.

ES.

II.

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

Amount of estimate.	OUTLAY		Grant for 1898-99.	Item No.	Remarks and references.
	To end of 1896-97.	Probable during 1897-98.			
Rs.	Rs.	Rs.	Rs.		
2,75,000	2,58,488	30,000	60,000	1	
41,160	23 876	10,000	10,000	2	
21,800	14,561	5,000	4,000	3	
16,148	...	2,000	1,000	4	
61,602	...	18,000	2,000	5	
1,50,000	...	48,618	3,000	6	
...	...	...	80,000		
...	...	1,000	13,000	7	
...	...	5,000	5,000	8	
...	...	8,000	10,000	9	
...	...	14,000	28,000		
...	...	13,124	16,000	10	
...	...	3,000	5,000	11	
...	...	16,124	21,000		
...	...	2,461	5,000	12	
...	...	* 3,564	* 3,564	13	
...	...	1,103	1,436		

for Minor Works and Navigation for 1898-99.

GOVERNMENT

CHARG

Part

Details of the Budget Estimate for Original Works under Irrigation

Division.	Locality.	Sub-division of expenditure.	Item No.	Detail of works.
EXTENSIONS AND IMPROVEMENTS—cont.				
Sangam Anicut System.				
Nellore—cont. ...	...		14	Extensions and improvements
			15	Deduct old maintenance charges
				Net grant
Kurnool-Cuddapah Canal.				
Kurnool ...	...		16	Extensions and improvements
Cauvery Delta System.				
Tanjore ...	...		17	Extensions and improvements
Negapatam ...	...		18	Do. do.
Trichinopoly ...	...		19	Do. do.
				Total
Srivaikuntam Anicut System.				
Tinnevely ...	...		20	Extensions and improvements
			21	Deduct old maintenance charges
				Net grant
Periyár Project.				
Madura ...	...		22	Extensions and improvements
				Total, Extensions and Improvements
CAPITAL EXPENDITURE NOT CHARGED TO REVENUE.				
49. IRRIGATION.				
GODAVARI DELTA SYSTEM.				
OPEN CAPITAL ACCOUNT.				
Eastern Section.				
(1) Head Works.				
Gódavari Eastern. ...	...	3. Works	23	Fitting falling shutters on the crest of the Gódavari anicut.
Western Section.				
(2) Main Canals and Branches.				
Gódavari Western. ...	...	5. River and hill torrent works.	24	Constructing cross drainage works
				Total, Gódavari Delta System
KISTNA DELTA SYSTEM.				
(1) Head Works.				
Kistna Eastern ...	...	3. Works	25	Fitting falling shutters on the crest of the Kistna anicut.

OF MADRAS.

ES—cont.

II—cont.

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

Amount of estimate.	OUTLAY		Grant for 1898-99.	Item No.	Remarks and references.
	To end of 1896-97.	Probable during 1897-98.			
Rs.	Rs.	Rs.	Rs.		
...	...	3,975	5,332	14	
...	...	345	345	15	
...	...	3,630	4,987		
...	...	8,325	8,000	16	
...	...	9,200	15,000	17	
...	...	4,800	6,000	18	
...	...	96	1,000	19	
...	...	14,096	22,000		
...	...	1,506	2,000	20	
...	...	352	352	21	
...	...	1,154	1,648		
...	...	...	2,925	22	
...	...	...	89,993		
1,75,500	26,493	82,961	80,000	23	P.M.G., No. 696 I., dated 28th July 1897.
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.
...	...	...	90,000		
47,200	...	34,000	12,000	25	P.M.G., No. 45 I., dated 18th January 1898.

GOVERNMENT

CHARG

Part

Details of the Budget Estimate for Original Works under Irrigation

Division.	Locality.	Sub-division of expenditure.	Item No.	Detail of works.
Kistna Eastern— cont.	...	Kistna Delta System—cont.		
		Ellore Canal.		
		(2) Main Canals and Branches.		
		12. Earthwork ...	26	Removing banks of Ellore canal in 6th mile ...
		6. Other cross drain- age works.	27	Minor works
		9. Escape ...	28	Do.
		(3) Distributaries.		
		4. Earthwork ...	29	Excavating Wungutur main channel ...
		3. Works ...	30	Minor works
		4. Earthwork ...	31	Do.
		5. Miscellaneous ...	32	Do.
		(4) Drainage and Protective Works.		
		4. Earthwork ...	33	Excavating Pedapad escape drain ...
		Ryves' Canal.		
		(2) Main Canals and Branches.		
		8. Escape ...	34	Constructing surplus escape at 12/0 miles of Ryves' canal.
		Masulipatam Canal.		
		(2) Main Canals and Branches.		
		9. Navigation ...	35	Alterations to Nidumolu lock and weir ...
		(3) Distributaries.		
		4. Earthwork ...	36	Excavating Bheemacodu channel ...
		3. Works ...	37	Minor works
		4. Earthwork ...	38	Do.
		5. Miscellaneous ...	39	Do.
		(4) Drainage and Protective Works.		
		5. Do. ...	40	Minor works
		Pedalanka Channel.		
		(3) Distributaries.		
		4. Earthwork ...	41	Excavating Tummacodu branch of Pedalanka channel.
		5. Miscellaneous ...	42	Constructing 100 pipe sluices on Pedalanka channel.
		(4) Drainage and Protective Works.		
		4. Earthwork ...	43	Excavating Kalidindi drain

OF MADRAS.

ES—cont.

II—cont.

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

Amount of estimate.	OUTLAY		Grant for 1898-99.	Item No.	Remarks and references.
	To end of 1896-97.	Probable during 1897-98.			
Rs.	Rs.	Rs.	Rs.		
4,450	...	950	3,500	26	
2,530	...	...	2,530	27	
1,600	...	...	1,600	28	
4,560	4,055	...	505	29	
2,460	1,405	223	832	30	
4,910	2,575	18	2,317	31	
2,075	571	514	990	32	
4,665	13	1,152	3,500	33	
8,100	...	...	5,000	34	
500	...	...	500	35	
10,300	10,050	...	1,780	36	
9,275	5,765	624	2,887	37	
10,210	7,300	19	2,891	38	
755	432	— 44	367	39	
60	34	...	26	40	
3,000	2,490	300	210	41	
7,500	3,321	4,007	172	42	
3,450	2,792	400	258	43	

GOVERNMENT

CHARG

Part

Details of the Budget Estimate for Original Works under Irrigation

Division.	Locality.	Sub-division of expenditure.	Item No.	Detail of works.
Kistna Eastern —cont.	...	4. Earthwork ... 5. Miscellaneous.	44 45	Kistna Delta System—cont. Pulleru Canal. (3) Distributaries. Minor works Do.
		5. Miscellaneous.	46 47 48	Bantumalli Canal. (3) Distributaries. Minor works Reserve Land compensation
				Total, Kistna Eastern division ...
Kistna Western.	...	11. Earthwork ... 15. Miscellaneous.	49 50	Bank Canal. (2) Main Canals and Branches. Improving the head-sluice channel of Bank canal. Fixing demarcation stones on both sides of Bank canal.
		2. Land ... Do. ... Do. ... Do. ... Do. ... Do. ... Do. ... Do. ... 3. Works ... Do. ... Do. ... Do. ... Do. ... Do. ... Do. ... Do. ... Do. ... Do. ... Do. ... Do. ...	51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70	(3) Distributaries. Compensation for land for Iskapalli channel ... Compensation for land for Allaparru branch channel. Compensation for land for Kuchipudi branch channel. Compensation for land for diversion of Raza channel at 573 from head of proposed surplus channel at 45 miles 6 furlongs of Bank canal. Compensation for land for proposed surplus channel at 45 miles 6 furlongs of Bank canal. Compensation for land for proposed surplus channel at 44 miles 4½ furlongs of Bank canal. Compensation for land for Venkannah's channel. Compensation for proposed channel at 45 miles 2 furlongs 310 feet Combined bridge and drop at 4 miles 5 furlongs of Varahapuram channel. Tail escape and bridge at 4 miles 5 furlongs of Varahapuram channel. Earthenware pipe sluices at 4 miles 5 furlongs of Varahapuram channel. Drop at 3 miles 4 furlongs Tail escape Ullipalam channel tail escape Allapuram branch channel tail escape Tail dam Earthenware pipe sluices at head of channel 44 miles 4 furlongs 330 feet. Earthenware pipe sluices at head of Venkannah's channel 44 miles ½ furlong Bank canal. Tail dam Earthenware pipe sluices at head of proposed channel at 45 miles 2 furlongs and 310 feet.

OF MADRAS.

ES—cont.

II—cont.

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

Amount of estimate.	OUTLAY		Grant for 1898-99.	Item No.	Remarks and references.
	To end of 1896-97.	Probable during 1897-98.			
Rs.	Rs.	Rs.	Rs.		
1,878	120	868	890	44	
1,774	547	795	430	45	
1,863	351	12	1,500	46	
...	...	...	3,730	47	
...	...	...	16,270	48	
			64,685		
...	...	...			
6,600	2,869	2,000	1,000	49	
2,200	1,551	300	300	50	
1,000	194	500	200	51	
800	...	200	600	52	
350	...	200	150	53	
840	...	300	500	54	
370	...	200	170	55	
420	...	200	220	56	
260	...	100	160	57	
330	...	100	230	58	
1,120	859	200	100	59	
1,200	...	700	500	60	
1,000	127	500	400	61	
440	21	140	280	62	
220	...	100	120	63	
240	...	140	100	64	
230	...	130	100	65	
100	...	...	100	66	
290	...	...	290	67	
200	...	...	200	68	
70	...	...	70	69	
290	...	...	290	70	

GOVERNMENT

CHARG

Part

Details of the Budget Estimate for Original Works under Irrigation

Division.	Locality.	Sub-division of expenditure.	Item No.	Detail of works.
Kistna Western —cont.	...	. Bank Canal—cont.		
		(3) Distributaries—cont.		
		3. Works ...	71	Tail dam ...
		Do. ...	72	Fixing cement concrete pipes to Aravapally branch of Iskapalle channel.
		4. Earthwork ...	73	Vellatur channel ...
		Do. ...	74	Improvements to Iskapalle channel ...
		Do. ...	75	Excavating Aravapally channel ...
		Do. ...	76	Do. Allaparru branch channel ...
		5. Miscellaneous...	77	Fixing demarcation stones along Iskapalle channel.
		Do. ...	78	Fixing demarcation stones on both sides of Potumarka channel.
		Do. ...	79	Cattle-crossings No. 5 at 5 miles 4 furlongs of Varahapuram channel.
		Do. ...	80	Cattle-crossings No. 6 at 6 miles 7 furlongs and 220 feet of Varahapuram channel.
		Do. ...	81	Cattle-crossings No. 7 at 8 miles 1 furlong of Varahapuram channel.
		Do. ...	82	Fixing demarcation stones for Aravapally branch channel.
		Do. ...	83	Fixing demarcation stones for Ullipalam branch channel.
		Do. ...	84	Fixing demarcation stones for Allaparru branch channel.
		Do. ...	85	Fixing demarcation stones for Nallur channel ...
		Do. ...	86	Do. for No. 2 branch ...
		Do. ...	87	Fixing demarcation stones for diversion of Raza channel.
		Do. ...	88	Fixing demarcation stones for proposed surplus channel, 45 miles 6 furlongs.
		Do. ...	89	Fixing demarcation stones on both sides of channel at 44 miles 4½ furlongs of Bank canal.
		Do. ...	90	Fixing demarcation stones for Venkannah's channel.
		Do. ...	91	Fixing demarcation stones for proposed channel at 45 miles 2 furlongs 310 feet.
		Do. ...	92	B.M. demarcation stones for Répalle main drain.
		Do. ...	93	Demarcation stones to Allaparru drain.
		(4) Drainage and Protective Works.		
		2. Land ...	94	Compensation for land required for Répalle main drain straight cut.
		4. Earthwork ...	95	Excavating the proposed straight cut ...
		5. Miscellaneous.	96	Fixing demarcation stones for Bhattiprolu drain.
		Commamur Canal.		
		(3) Distributaries.		
		3. Works ...	97	Reconstructing a culvert near Yerracalva on Bapatla-Guntur road over the Karlapalam channel.
		Do. ...	98	Under-tunnel at about 0/2 of Tungabhadra side channel.
		Do. ...	99	Road and culvert and under-tunnel at 1 mile 5 furlongs of Tungabhadra side channel.

OF MADRAS.

ES—cont.

II—cont.

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

Amount of estimate.	OUTLAY		Grant for 1898-99.	Item No.	Remarks and references.
	To end of 1896-97.	Probable during 1897-98.			
Rs.	Rs.	Rs.	Rs.		
70	...	...	70	71	
79½	...	...	350	72	
...	...	1,000	2,000	73	
11,400	13,048	500	1,000	74	
2,360	329	1,100	930	75	
5,860	2,964	2,160	730	76	
720	256	100	360	77	
460	210	...	200	78	
675	...	375	300	79	
705	...	400	300	80	
725	...	425	300	81	
420	...	320	100	82	
370	...	270	50	83	
420	...	320	100	84	
160	31	...	120	85	
50	9	...	40	86	
80	38	...	40	87	
40	18	...	20	88	
45	19	...	20	89	
120	61	...	60	90	
40	18	...	20	91	
340	173	140	50	92	
200	45	100	50	93	
12,400	5,383	3,000	200	94	
39,760	22,678	7,000	9,000	95	
170	41	...	130	96	
5,000	...	3,000	2,000	97	
3,620	...	1,000	2,500	98	
8,000	...	2,000	6,000	99	

GOVERNMENT

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Part

Details of the Budget Estimate for Original Works under Irrigation

Division.	Locality.	Sub-division of expenditure.	Item No.	Detail of works.
Kistna Western Division—cont.	...	3. Works	100	Commamūr Canal—cont. (3) Distributaries—cont. Regulator for Aremanda and Alva channel at 11 miles 7 furlongs of Tungabhadra side channel.
			101	Constructing head sluice to Cherukur channel ...
			102	Bridge at 0 mile 6 furlongs 330 feet ...
			103	Do. at 1 mile 3 furlongs and 580 feet ...
			104	Pipe sluices No. 3 at 1 mile 4½ furlongs ...
			105	Bridge at 1 mile 6 furlongs and 220 feet ...
			106	Tail drop ...
			107	Pipe sluices No. 2 at 1 mile ...
			108	Bridge at 3 mile 4½ furlongs ...
			109	Do. at 1 mile 0 furlong and 290 feet ...
		4. Earthwork	110	Do. at 1 mile 5 furlongs 20 feet ...
			111	Pipe sluice No. 6 at 2 miles 7 furlongs ...
			112	Head sluice to Tungabhadra side channel ...
			113	Excavating Bāpatla tank East branch channel ...
			114	Do. West do. ...
			115	Constructing an iron trough aqueduct over drainage on Bāpatla tank to carry Mallapalam Branch channel.
			116	Excavating Tungabhadra side channel ...
			117	(4) Drainage and Protective Works. Compensation for land required for Perali drain.
			118	Extending the bridge at 7 miles 15 chains of Nallamada drain.
			119	Excavating Tungabhadra drain ...
			120	Maintenance of Perali drain during construction.
		2. Land ...	121	Nizampatam Canal. (2) Main Canals and Branches. Compensation for land for improvements to west side channel.
			122	Constructing sheds for lock superintendent and three lascars at Intur lock.
			123	Do. do. at Nallavada lock ...
			124	Do. do. at Nizampatam tidal lock.
			125	(3) Distributaries. Compensation for land for improvements to branch channel of west side channel.
			126	Tail drop to Rambolipalem channel branch of west side channel.
			...	Total, Kistna Western Division ...
			...	Total, Kistna Delta System ...

OF MADRAS.

ES—cont.

II—cont.

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

Amount of estimate.	OUTLAY		Grant for 1898-99.	Item No.	Remarks and references.
	To end of 1896-97.	Probable during 1897-98.			
Rs.	Rs.	Rs.	Rs.		
2,850	...	1,000	1,850	100	
620	...	400	200	101	
1,270	...	850	400	102	
1,70	...	700	400	103	
95	33	20	40	104	
1,210	...	700	500	105	
200	...	100	100	106	
80	...	20	50	107	
1,130	...	700	400	108	
1,100	...	700	400	109	
1,070	...	600	400	110	
95	...	50	40	111	
1,950	...	1,000	950	112	
7,400	164	6,400	1,050	113	
3,900	101	3,000	900	114	
3,217	...	2,500	600	115	
22,460	...	5,000	5,000	116	
6,160	...	2,000	1,000	117	
25,000	5,297	20,000	20,000	118	
2,01,111	1,81,070	16,000	12,000	119	
5,000	...	...	1,000	120	
600	...	200	200	121	
2,060	1,482	220	300	122	
1,970	1,016	400	500	123	
2,000	1,323	500	200	124	
400	89	200	100	125	
305	20	100	200	126	
...	...	...	81,900		
...	...	...	1,46,585		

IMPERIAL—MAJOR WORKS.

GOVERNMENT

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Part

Details of the Budget Estimate for Original Works under Irrigation

Division.	Locality.	Sub-division of expenditure.	Item No.	Detail of works.
Tanjore ...	...	3. Works ...	127	CAUVERY DELTA SYSTEM.
				OPEN CAPITAL ACCOUNT.
				(1) Head Works.
				Fitting lift shutters to the Grand anicut
				(2) Main Canals and Branches.
				Constructing a rest-house at Peralam
				(3) Distributaries.
				Improving Maraneri, Iyanar tank
				{ Improving the Kali voikal, an offtake of the
				{ Vickramanar.
Trichinopoly ...	...	3. Works ...	132	(4) Drainage and Protective Works.
				Constructing a masonry regulating dam across
				Porai voikal.
				Total, Tanjore Division
				(3) Distributaries.
				Improving the Murukarai dam across Punguny
				channel.
				Total, Cauvery Delta System
				Periyár Project.
				(2) Main Canals and Branches.
Madura ...	...	5. Miscellaneous.	133	Demarcating the line of main and branch
				channels.
				Planting Athalay along Periyár main channel...
				I. Reach.
				Constructing a distributary and field channel
				from the irrigation sluice at 2 miles 2 furlongs
				300 feet, main canal.
				Excavating a distributary channel from Natche-
				kulam weir.
				Bridge at 5 miles 4 furlongs, I reach
...	...	3. Works ...	137	II. Reach.
				Bridge across Periyár main channel at 8 miles
				7 furlongs 560 feet, near Thathampatty, II
				reach.
				III. Reach.
				Distributary and field channel from the irriga-
				tion sluice at 15 miles.
				Distributary channel from the irrigation sluice
				at 16 miles 6 furlongs, main canal.
				Excavating a supply channel to Inam Sembai-
...	...	4. Earthwork ...	139	kulam tank from Ellakuttai odai at 14 miles
				2 furlongs.
				Do. ...
				140
				Do. ...
				141
				...
				...
				...
				...

MADRAS PRESIDENCY.

OF MADRAS.

ES—cont.

II—cont.

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

Amount of estimate.	OUTLAY		Grant for 1898-99.	Item No.	Remarks and references.
	To end of 1896-97.	Probable during 1897-98.			
Rs.	Rs.	Rs.	Rs.		
1,05,000	6,188	60,255	21,045	127	P.M.G., No. 443 I., dated 11th May 1897.
2,500	...	1,000	1,500	128	" " 730 I., " 9th August 1897.
4,470	520	2,667	735	129	" " 644 I., " 12th July 1897.
2,610	...	1,200	1,410	130	" " 1086 I., " 23rd December 1896.
2,350	...	1,000	1,175	131	" " 454 I., " 14th May 1897.
...	...	...	25,865		
3,300	...	...	964	132	" " 312 I., " 23rd March 1897.
...	...	...	26,829		
6,300	5,433	474	393	133	
917	556	303	58	134	
1,550	608	677	265	135	
2,170	1,330	688	152	136	
...	...	680	200	137	
1,540	...	291	1,249	138	
2,300	415	1,452	433	139	
870	126	240	504	140	
740	96	391	253	141	

GOVERNMENT

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Part

Details of the Budget Estimate for Original Works under Irrigation

Division.	Locality.	Sub-division of expenditure.	Item No.	Detail of works.
Madura—cont.	...	4. Earthwork ...	142	<i>Periyár Project—cont.</i> (2) Main Canals and Branches—cont. ● VI. Reach. Distributary and field channel from sluice at 22 miles, main canal.
				VIII. Reach. Constructing lascars' shed at Kallandry ...
				Repairing Kallandry rest-house ...
				X. Reach. Pipe culvert at 32 miles 6 furlongs 400 feet ...
				XI. Reach. Constructing a sluice and excavating a distributary channel at 30 miles 6 furlongs 100 feet.
				(3) Distributaries. Branch Channel. Fixing enamelled iron gauges in Periyár Branch channels.
				I. Branch Channel. Excavating field channel from drop No. 4 in the I. Branch channel to Nedungulam tank.
				II. Branch Channel. Constructing earthenware pipe sluice at A and B and excavating field channel in the II. Branch channel.
				III. Branch Channel. Cross drainage work in the III. Branch channel.
				Improvements to Athalay tank ...
				IV. Branch Channel. Estimates to be submitted.
				Constructing the tail end of IV. Branch channel.
				Constructing the tail end of Koilpapagudy tank.
				V. Branch Channel. No. 11th fall at 3 miles 2 furlongs ...
				Sluices attached to 13th fall at 3 miles 7 furlongs.
				No. 14th fall ...
				Excavation of V. Branch channel ...
				Diversion of surplus channel at 4 miles 3 furlongs V. Branch channel.
				Re-grading the V. Branch channel works and constructing masonry cross drainage works.
				VI. Branch Channel. Excavating main and branch field channels from the right and left sluices above the drop at 2 miles 1 furlong.

OF MADRAS.

ES—cont.

II—cont.

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

Amount of estimate.	OUTLAY		Grant for 1898-99.	Item No.	Remarks and references.
	To end of 1896-97.	Probable during 1897-98.			
Rs.	Rs.	Rs.	Rs.		
3,000	50	1,432	1,518	142	
450	...	...	450	143	
44	...	17	27	144	
470	...	280	190	145	
5,850	...	518	5,332	146	
1,300	...	397	903	147	
65	...	9	56	148	
430	174	105	155	149	
2,430	...	756	1,674	150	
1,800	...	1,958	500	151	
2,000	...	...	2,000	152	
2,640	...	...	2,640	153	
610	248	...	362	154	
330	83	...	247	155	
610	61	...	549	156	
10,665	8,479	345	1,841	157	
110	...	79	31	158	
6,240	...	1,938	4,302	159	
380	138	82	160	160	

GOVERNMENT

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Part

Details of the Budget Estimate for Original Works under Irrigation

Division.	Locality.	Sub-division of expenditure.	Item No.	Detail of works.
Madura—cont. ...	...	4. Earthwork ...	161	<i>Periyár Project—cont.</i>
				(3) Distributaries—cont. CI
				VI. Branch Channel—cont.
				Excavating distributary and field channel from right and left sluices of drop No. 1.
				Excavating main and field channels above drop at 1 mile 4 furlongs, VI. Branch channel.
				Distributary channel from drop at 1 mile 2 furlongs, VI. Branch channel.
				VIII. Branch Channel.
				Excavation of VIII. Branch channel ...
				Excavating a field channel from the left sluice of drop No. 1, VIII. Branch channel.
				Re-grading the VIII. Branch channel and constructing cross drainage works.
				IX. Branch Channel.
				Excavating field channels from sluices in drop No. 1.
				Excavating field channels from sluices in drop No. 5.
				Distributary and field channel from sluices, 5th mile, IX. Branch channel.
				Excavating distributary and field channel from left sluice of drop No. 14 in IX. Branch channel and constructing masonry works.
				Excavating distributary and field channels from the right sluice of drop No. 14.
				Chittampatty Offtake.
				Excavating distributary and field channel from right sluice of drop No. 9, Chittampatty offtake.
				Estimates submitted.
				Excavating tail end of Chittampatty offtake ...
				Kunnathur Offtake.
				No. 6 fall and road bridge at 7 furlongs 500 feet, Kunnathur.
				Excavating a distributary channel from the left sluice of drop No. 8, Kunnathur offtake, IX. Branch channel.
				Field channels in the Kunnathur offtake ...
				Papagudy Offtake.
				Excavating tail end of Papagudy offtake and constructing masonry works in the same.
				X. Branch Channel.
				Excavation of X. Branch channel ...
				Tiruvadur Offtake, X Branch channel.
				Providing covering slabs over fall Nos. 6 and 7 in Tiruvadur offtake, X. Branch channel.
				Constructing a masonry culvert at 3 miles 400 feet.

OF MADRAS.

ES—cont.

II—cont.

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

Amount of estimate.	OUTLAY		Grant for 1898-99.	Item No.	Remarks and references.
	To end of 1896-97.	Probable during 1897-98.			
Rs.	Rs.	Rs.	Rs.		
1,980	303	1,293	384	161	
410	127	78	205	162	
1,100	...	407	693	163	
7,090	6,051	2	1,000	164	
340	...	...	340	165	
4,710	...	3,232	1,478	166	
500	239	66	195	167	
170	50	41	79	168	
3,480	1,461	1,740	400	169	
3,840	66	3,010	774	170	
1,670	203	1,262	205	171	
850	433	288	129	172	
1,040	...	376	664	173	
600	363	...	249	174	
1,860	...	...	1,860	175	
1,200	...	102	1,098	176	
8,750	...	...	3,861	177	
95,890	87,266	6,802	1,822	178	
56	...	20	36	179	
230	...	...	230	180	

GOVERNMENT

CHARG

Part

Details of the Budget Estimate for Original Works under Irrigation

Division.	Locality.	Sub-division of expenditure.	Item No.	Detail of works.
Madura—cont.	...	3. Works	181	Periyár Project—cont. (3) Distributaries—cont. Q X. Branch Channel, Chunnambur Offtake. Estimates to be submitted. Cross drainage works in Chunnambur offtake ...
				XI Branch Channel.
				Bridge regulator combined at the head of XI. and XII. Branch channels.
				Excavation XI. Branch channel ...
				XII. Branch Channel.
				Excavation XII. Branch Channel ...
				No. 1 Distributary, 0 mile 4,700 feet, XII. Branch channel.
				No. 2 Distributary, 1 mile 1,620 feet, XII. Branch channel.
				No. 3 Distributary from the left sluice of drop No. 5 at 1 mile 1,620 feet, XII. Branch channel.
				No. 6 Distributary, XII. Branch channel ...
				No. 7 Distributary from the proposed head sluice at 5 miles 4,100 feet, XII. Branch channel.
				No. 8 Distributary, taking off at 7 miles 3,440 feet on the left bank, XII. Branch channel
				No. 9 Distributary do. ...
				Total, Periyár Project ...

OF MADRAS.

ES—cont.

II—cont.

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

Amount of estimate.	OUTLAY		Grant for 1898-99.	Item No.	Remarks and references.
	To end of 1896-97.	Probable during 1897-98.			
Rs.	Rs.	Rs.	Rs.		
3,380	...	...	3,380	181	
3,040	1	2,183	856	182	
24,630	914	10,295	13,721	183	
70,500	9,563	51,745	9,192	184	
2,080	...	7	2,073	185	
280	...	...	280	186	
2,950	...	12	2,938	187	
27,400	...	1,926	25,228	188	
3,220	...	158	3,062	189	
7,600	...	120	7,480	190	
20,000	...	2,110	17,644	191	
...	...	...	1,28,000		

IMPERIAL—MAJOR WORKS.

MADRAS PRESIDENCY.

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).			
Gódavari Delta System	28,000	...	28,000
Kistna do.	21,000	...	21,000
Pennér 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.			
Gódavari 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

IMPERIAL—MAJOR WORKS.

MADRAS PRESIDENCY.

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.		
Ganjám	...	IRRIGATION.				Rs.	Rs.	Rs.	Rs.
		42. MAJOR WORKS (WORKING EXPENSES).							
		Rushikulya Project.							
		Head Works.							
		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
		Gódavari Delta System.							
Eastern Division.	Divi-	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.	Divi-	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.	Divi-	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	...	...	...	20,000		19,435	
		Kaza do. 16 do.	...	...	...				
		Mogultur do.	...	...	...				
		Gonter do.	...	...	...				
		Gostanadi do.	...	...	...	2,000		...	
Yannamadurru drain, 32 miles	...	...	...						
Compensation	...	...	...		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.		ESTIMATE, 1897-98.	
		Amount.	Total.	Amount.	Total.
	IRRIGATION—continued. 42. MAJOR WORKS (WORKING EXPENSES)—continued. Kistna Delta System.	Rs.	Rs.	Rs.	Rs.
	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			
Kistna North-ern Division.	Head works		2,11,500	13,000	1,32,000
	Main canal			6,000	
	Ellore do.			4,000	
	Masulipatam canal			7,000	
	Ryves' canal			5,000	
Kistna Western Division.	Western Section.				35,000
	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			
	TOTAL, KISTNA DELTA SYSTEM		1,00,000		1,14,024
			3,11,500		2,81,024
	Pennér 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.		ESTIMATE, 1897-98.	
		Amount.	Total.	Amount.	Total.
	IRRIGATION—continued. 42. MAJOR WORKS (WORKING EXPENSES)—continued. Sangam Anicut System.	Rs.	Rs.	Rs.	Rs.
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		3,090	
	Cauvery	6,300		5,631	
	Kodumurti and Puthaur	1,300		1,000	
	Arasillár	1,450		1,250	
	Trimulrajan	2,000		1,700	
	Mudicondanar	1,700		1,500	
	Nattar	500		300	
	Keerthemanar	200		200	
	Veerasholen	900		600	
	Solasudamaniar	700		700	
	Munjalaar	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.

IMPERIAL—MAJOR WORKS.

MADRAS PRESIDENCY.

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.		ESTIMATE, 1897-98.	
		Amount.	Total.	Amount.	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.	Vennaur	1,000		1,000	
	Vettaur	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.

IMPERIAL—MAJOR WORKS.

MADRAS PRESIDENCY.

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.		ESTIMATE, 1897-98.	
		Amount.	Total.	Amount.	Total.
	IRRIGATION—continued.	Rs.	Rs.	Rs.	Rs.
	42. MAJOR WORKS (WORKING EXPENSES)—continued.				
	Srivaikuntam Anicut System.				
Tinnevely Division.	Head works	1,000		1,000	
	North main channel	2,500		3,000	
	Tanks fed by the above channel	6,872		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, SRIVAİKUNTAM ANICUT SYSTEM ...		13,464		14,792
	Periyar Project.				
Madura Division.	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
Gódavari 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
Srivaikuntam Anicut System	13,464		13,464
Periyar Project	29,000		29,000
Total	6,63,364		6,63,364

IMPERIAL—MAJOR WORKS.

MADRAS PRESIDENCY.

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.
IMPERIAL.	Rs.	Rs.
FAMINE RELIEF AND INSURANCE.		
35. Construction of Protective Irrigation Works.		
Grant for Works	80,000	1,13,618
<i>Deduct item for which no charge for Establishment is admissible.</i>		
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
<i>Deduct items for which no charge for Establishment is admissible.</i>		
Compensation for land, Gódavari 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
<i>Deduct estimated collections in the Revenue Department of water-rates levied on lands irrigated under the Kurnool-Cuddapah Canal</i>	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
<i>Add estimated collections in the Revenue Department of water-rates levied on lands irrigated under the Kurnool-Cuddapah Canal</i>	1,20,000	1,20,000
Total ...	66,80,010	64,16,210

IMPERIAL—MAJOR WORKS.

MADRAS PRESIDENCY.

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. 6 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
<i>Deduct item for which no charge for Establishment is admissible.</i>		
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.						
	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.		Total.
	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).							
Godavari 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	4,06,801	5,88,398
CAPITAL EXPENDITURE NOT CHARGED TO REVENUE.							
49. IRRIGATION.							
Godavari 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

IMPERIAL—MAJOR WORKS.

MADRAS PRESIDENCY.

IMPERIAL—MAJOR

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.
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
8. Repairs and carriage	...	...
Deduct old maintenance charges	* 5	* 5
NET TOTAL, PENNERU ANICUT SYSTEM ..	— 5	— 5
Sangam Anicut System.		
8. Repairs and carriage	...	...
Deduct old maintenance charges	50	49
NET TOTAL, SANGAM ANICUT SYSTEM ..	* 57	* 57
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	...	...
8. Repairs and carriage	200	2,300
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.

IMPERIAL—MAJOR WORKS.

MADRAS PRESIDENCY.

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.
IRRIGATION—continued.		
42. MAJOR WORKS (WORKING EXPENSES)—continued.		
Srivaikuntam Anicut System—		
8. Repairs and carriage	...	...
Deduct old maintenance charges	* 78	* 78
NET TOTAL, SRIVAİKUNTAM 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.		
Goddavari 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.	...	...
16. Subordinate staff boats	...	11,600
A new staff boats for officers	...	3,000
12. Dinghies	...	4,800
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.

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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PROVINCIAL—MINOR WORKS
AND NAVIGATION.

MADRAS PRESIDENCY.

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.
PROVINCIAL.	Rs.	Rs.	Rs.	Rs.
IRRIGATION AND NAVIGATION WORKS.				
Works for which Capital and Revenue Accounts are kept.				
Ganjām Minor Rivers System ...	340	...	...	300
Thadapalli Channel System ...	75	80	80	80
Arkenkotta Channel System ...	23	...	20	20
Kalingaroyen Channel System ...	...	120	...	...
Pālār Anicut System ...	2,614	1,300	1,700	1,600
Poincy Anicut System ...	281	500	300	300
Cheyāru 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
Tirukkōyilār Anicut System ...	420	570	420	420
Mehamattur Anicut System ...	48	50	50	50
Vridhachalam Anicut System ...	78	50	50	50
Shatlatope 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
Védāranniyam 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

PROVINCIAL—MINOR WORKS
AND NAVIGATION.

MADRAS PRESIDENCY.

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.					
MINOR WORKS FOR WHICH CAPITAL AND REVENUE ACCOUNTS ARE KEPT.	PAGES.	Rs.	Rs.	Rs.	Rs.
CAPITAL.					
1. Works ... { In progress ... Not commenced ...	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 ...	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 ... Not commenced ...	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 ... Not commenced ...	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	4,05,325
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

PROVINCIAL—MINOR WORKS
AND NAVIGATION.

MADRAS PRESIDENCY.

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	...	...	...	...	...
{ Not commenced	...	...	...	...	...
Repairs	...	...	...	...	...
Establishment	...	...	...	...	...
Tools and Plant	...	...	...	...	...
Refunds of Revenue	...	...	...	...	...
Receipts on capital account	...	...	...	...	...
Total, Provincial	...	38,31,762	28,95,000	28,71,000	29,80,000
LOCAL IRRIGATION CESS FUND.					
43. MINOR WORKS AND NAVIGATION.					
<i>Minor Works for which neither Capital nor Revenue Accounts are kept, P.W.D.</i>					
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

PROVINCIAL—MINOR WORKS
AND NAVIGATION.

MADRAS PRESIDENCY.

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.
	Rs.	Rs.	Rs.	Rs.	Rs.	
PROVINCIAL.						
43. MINOR WORKS AND NAVIGATION.						
<i>Minor Works for which Capital and Revenue Accounts are kept.</i>						
CAPITAL.						
<i>Works in Progress.</i>						
Sangam Anicut System	2,08,000	...	...	11,070	85,000	P.M.G., No. 407 I., dated 9th May 1896. Estimate 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 1896.
Ganjām Minor Rivers System	...	...	...	12,915	22,000	Estimate under preparation.
Munneyeru 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.
Chopand Project	3,65,000	...	...	...	41,160	P.M.G., No. 344 I., dated 8th April 1897, and No. 1064 I., dated 29th November 1897.
Pālār 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 Feb- ruary 1897.
Shatiatope Anicut System	64,000	...	...	28,505	36,900	P.M.G., No. 983 I., dated 5th November 1897.
Pelandorai Anicut System	5,00,363	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 re- maining to be completed under prepa- ration.
<i>Works not commenced.</i>						
Cheyāru 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	

PROVINCIAL—MINOR WORKS
AND NAVIGATION.

MADRAS PRESIDENCY.

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.						
<i>Minor Works for which Capital and Revenue Accounts are kept—continued.</i>						
REVENUE.						
Ganjām Minor Rivers System ...	...	...	12,300	25,215	30,780	
Dondapad Tank System ...	...	...	...	784	860	
Sagilēru 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	
Pālār Anicut System ...	...	...	40,220	34,873	38,200	
Poiney do. do. ...	...	...	12,350	8,025	13,560	
Cheyāru do. do. ...	...	...	18,470	14,165	18,480	
Chembrambakam Tank System.	...	...	2,770	1,362	3,000	
Madras Water-supply and Irriga- tion Extension.	...	...	...	...	...	
Vallūr Anicut System ...	...	...	360	2,445	850	
Tirukkōyilūr 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	
Shatlatope 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	
Védāranniyam 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 Ac- counts are kept.	...	...	6,83,660	7,20,958	7,43,110	
<i>Minor Works for which neither Capital nor Revenue Accounts are kept, P.W.D.</i>						
Old maintenance charges ...	...	...	4,26,136	4,37,352	4,39,074	
Ordinary Minor Works ...	...	...	6,96,751	7,70,223	7,42,266	
Tank Restoration Works— Execution ...	...	...	...	...	...	
Minor Works, Revenue Department.	...	...	4,88,000	3,00,627	4,13,550	
	...	...	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	

PROVINCIAL—MINOR WORKS
AND NAVIGATION.

MADRAS PRESIDENCY.

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.						
<i>Works for which neither Capital nor Revenue Accounts are kept.</i>						
MAJOR ORIGINAL WORKS.						
<i>In Progress.</i>						
Constructing left bank for the Nagavalli river between Anna- varam and Ampilli villages.	6,620	4,090	...	...	1,640	P.M.G., No. 747 I., dated 4th September 1896.
Raising the Vasista Gōdāvari 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.
<i>Works not commenced.</i>						
Straight-cutting the Mudikonda- nar 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.
Arthur 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.						
<i>Minor Works for which neither Capital nor Revenue Accounts are kept, P.W.D.</i>	...	...	9,000	8,000	5,000	
Total ...	...	...	9,000	8,000	5,000	

PROVINCIAL—MINOR WORKS
AND NAVIGATION.

GOVERNMENT

CHARG

Part

Detail of the Budget Estimate for Original Works under Irrigation

Executive division.	Locality.	Sub-division of expenditure.	Item No.	Detail of works.
Nellore ...	...	4. Earthwork ...	1	SANGAM ANICUT SYSTEM.
				OPEN CAPITAL ACCOUNT.
				4. Drainage and Protective Works.
				Diversion of the surplus of the Kanigiri reservoir into the Pyderu.
Nellore ...	...	2. Land ...	2	Land ...
				...
				...
				Total ...
Kurnool ...	...	14. Miscellaneous.	3	KURNOOL-CUDDAPAH CANAL.
				OPEN CAPITAL ACCOUNT.
				Demarcating land under the canal ...
				...
Ganjām ...	...	3. Regulators ...	4	GANJAM MINOR RIVERS SYSTEM.
				OPEN CAPITAL ACCOUNT.
				2. Main Canals and Branches.
				Wadada Channel.
				Providing screw-gearing shutters to the head sluice.
				Constructing masonry regulators at Vanjangi, Bavajipett, Thotada, Balaga and Siddipett across the main channel.
				Constructing surplus weir near the seven vents aqueduct.
				Constructing a surplus weir to Kallepalli tank ...
				Bhairi Channel.
				Providing screw-gearing shutters to the head sluice.
				Providing screw-gearing shutters to several regulators on the channel.
				Providing a masonry regulator across the main channel at Ronanki.
				Providing a scouring surplus sluice, 2nd mile ...
				Purushottapur Channel.
				Providing screw-gearing shutters to the head sluice.
				Constructing a surplus weir at Iskakulam ...
				Providing screw shutters to the sluices of Avadhana tank.
				Nagarikatakan Channel.
				Providing screw-gearing shutters to the head sluice.
				Constructing a surplus weir to Ayyanna ...
				Jalamur Channel.
				Providing screw-gearing shutters to the head sluice.

OF MADRAS.

ES.

II.

Minor Works in the Madras Presidency for the year 1898-99.

Amount of estimate.	OUTLAY		Grant, 1898-99.	Item No.	Remarks and references.
	To end of 1898-97.	Probable during 1897-98.			
Rs.	Rs.	Rs.	Rs.		
1,68,900	...	...	65,041	1	G.O., No. 407 I., dated 9th May 1896.
...	...	...	5,000	2	
...	...	...	70,041		
13,360	9,886	3,738	2,846	3	G.O., No. 1098 I., dated 19th December 1895.
...	...	...	500	4	
...	...	...	2,000	5	
...	...	...	700	6	
...	...	...	1,300	7	
...	...	...	500	8	
...	...	...	1,000	9	
...	...	...	500	10	
...	...	...	1,000	11	Estimate under preparation.
...	...	...	500	12	
...	...	...	1,000	13	
...	...	...	500	14	
...	...	...	400	15	
...	...	...	1,200	16	
...	...	...	500	17	

PROVINCIAL—MINOR WORKS
AND NAVIGATION.

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CHARG

Part

Detail of the Budget Estimate for Original Works under Irrigation

Executive division.	Locality.	Sub-division of expenditure.	Item No.	Detail of works.
Ganjám—cont.	...		GANJAM MINOR RIVERS SYSTEM—cont.	
			OPEN CAPITAL ACCOUNT—cont.	
			2. Main Canals and Branches—cont.	
			Polaki Channel.	
			3. Regulators ...	18 Providing screw-gearing shutters to the head sluice.
			8. Escapes ...	19 Constructing a scouring surplus sluice near Andhavaram.
			Garibulagedda Channel.	
			3. Regulators ...	20 Providing screw-gearing shutters to the head sluice.
			14. Tanks and re-servoirs.	21 Providing screw-gearing regulators to the open headed channels of Malabanda, &c., tanks.
			Do. ...	22 Constructing drops Nos. 1 and 2 in Malabanda, &c., tanks.
			3. Distributaries.	
			Wadada Channel.	
			3. Works ...	23 Constructing a regulator at the head of Kallepalli channel.
			Do. ...	24 Constructing masonry dams in place of mamul earthen dams in the branch channels.
			Do. ...	25 Reserve ...
Kistna Northern.	...		Total, Ganjám Minor Rivers System ...	
			MUNNYERU PROJECT.	
			CAPITAL ACCOUNT.	
			(1) Head Works.	
			3. Works ...	26 Anicut and under sluices ...
			Do. ...	27 Extending anicut ...
			4. Buildings ...	28 Store-shed, &c. ...
			6. Maintenance ...	29 Forming sand bank across spills, right side anicut.
			2. Main Canals and Branches.	
			3. Regulators ...	30 Head sluice ...
			Do. ...	31 Regulator 11th mile ...
			5. River and hill torrent works.	32 Inlets and outlets ...
			6. Other cross drainage works.	33 Petty works to under tunnel up to 22/4 ...
			Do. ...	34 Under tunnel 23/3 1/2 ...
			Do. ...	35 Do. 25/3 ...
			7. Bridges ...	36 Bridges ...

MADRAS PRESIDENCY.

OF MADRAS.

ES—cont.

II—cont.

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

Amount of estimate.	OUTLAY		Grant. 1898-99.	Item No.	Remarks and references.
	To end of 1896-97.	Probable during 1897-98.			
Rs.	Rs.	Rs.	Rs.		
...	...	...	700	18	Estimate under preparation.
...	...	...	800	19	
...	...	...	700	20	
...	...	...	1,000	21	
...	...	...	600	22	
...	...	...	500	23	G.O., No. 1089 I., dated 12th December 1893.
...	...	...	1,000	24	
...	...	...	986	25	
...	...	...	17,886		
...	...	...	...		
39,780	44,582	...	500	26	
...	...	...	8,000	27	
...	...	...	50	28	
...	...	...	1,000	29	
...	...	...	...	...	
10,700	9,439	...	400	30	
...	...	...	200	31	
2,940	...	...	1,000	32	
...	...	...	1,000	33	
...	...	...	2,880	34	
...	...	...	3,080	35	
23,430	7,578	...	2,000	36	

PROVINCIAL—MINOR WORKS
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Detail of the Budget Estimate for Original Works under Irrigation

Executive division.	Locality.	Sub-division of expenditure.	Item No.	Detail of works.
Kistna Northern —cont.	...	MUNNYERU PROJECT—cont. $\odot$		
		CAPITAL ACCOUNT—cont.		
		2. Main Canals and Branches—cont.		
		11. Buildings ...	37	Buildings ...
		12. Earthwork ...	38	Earthwork ...
		14. Tanks and re- servoirs.	39	Reservoirs ...
		15. Miscellaneous.	40	Miscellaneous ...
		3. Distributaries.		
		3. Works ...	41	Sluices, drops and masonry work
		4. Earthwork ...	42	Excavation branch channel
		5. Miscellaneous ...	43	Miscellaneous ...
			44	Other works ...
		Total ...		
		CHOPAUD PROJECT.		
		2. Main Canals and Branches.		
Cuddapah	...	2. Land ...	45	Compensation for land ...
		3. Regulators ...	46	Head sluice ...
		Do. ...	47	Under-sluices ...
		6. Other cross drainage works.	48	Big syphons ...
		Do. ...	49	Small syphons ...
		7. Bridges ...	50	Bridges ...
		12. Earthwork ...	51	Excavation ...
		Total, Chopaud Project ...		
		PALAR ANICUT SYSTEM.		
		OPEN CAPITAL ACCOUNT.		
North Arcot	...	3. Distributaries.		
		3. Works ...	52	Constructing an under-tunnel in the proposed channel from Tennen to Nelvay tank.
		Kolathur Branch.		
		3. Works ...	53	Proposed drop at 5,000 feet below head in Kari- vedu and Kolathur channels.
		4. Earthwork ...	54	Cutting Karivedu-Kolathur proposed extension from a point 700 feet below the existing head sluice in Govindavadi channel.

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MADRAS PRESIDENCY.

OF MADRAS.

ES—cont.

II—cont.

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

Amount of estimate.	OUTLAY		Grant, 1898-99.	Item No.	Remarks and references.
	To end of 1896-97.	Probable during 1897-98.			
Rs.	Rs.	Rs.	Rs.		
...	...	...	100	37	G.O., No. 1089 I., dated 12th December 1893. Revised estimate is now under the consideration of the Chief Engineer for Irrigation.
1,13,400	1,11,665	...	19,000	38	
...	4,902	...	180	39	
2,000	1,247	...	800	40	
...	...	...	...	...	
11,000	2,533	...	8,000	41	G.O., No. 344 I., dated 8th April 1897 and No. 1064 I., dated 29th November 1897.
1,000	...	...	12,000	42	
...	...	...	500	43	
...	...	...	29,310	44	
...	...	...	90,000	...	
...	...	...	8,000	45	G.O., No. 344 I., dated 8th April 1897 and No. 1064 I., dated 29th November 1897.
...	...	...	1,000	46	
...	...	...	2,000	47	
...	...	...	4,000	48	
...	...	...	1,000	49	
...	...	...	2,000	50	G.O., No. 917 I., dated 15th October 1897.
...	...	...	16,959	51	
...	...	...	34,959	...	
...	...	...	1,390	52	
1,390	...	...	...	...	
280	6	...	280	53	G.O., No. 917 I., dated 15th October 1897.
1,430	...	...	1,430	54	

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Detail of the Budget Estimate for Original Works under Irrigation

Executive division.	Locality.	Sub-division of expenditure.	Item No.	Detail of works.
North Arcot— cont.	...	3. Works ... Do. ... Do. ... 4. Earthwork ...	55 56 57 58	PALAR ANICUT SYSTEM—cont. OPEN CAPITAL ACCOUNT—cont. 3. Distributaries—cont. Puduputti Surplus Channel. Constructing an outlet ... Do. an irrigation sluice ... Do. a drop ... Cutting and embanking ...
				Attayanur Small Tank. Cutting and embanking ... Reserve ...
				Total, Palar Anicut System ...
				CHEYARU ANICUT SYSTEM. OPEN CAPITAL ACCOUNT. 2. Main Canals and Branches. Iyalavadi Channel. Improvements to the channel ...
				Seyyathuvanam Project. Cutting and embanking channel from Cheyar main channel to Seyyathuvanam tank.
				Total, Cheyar Anicut System ...
				VALLURU ANICUT SYSTEM. OPEN CAPITAL ACCOUNT. 3. Distributaries. Extension of Munjur branch channel ...
				BUCKINGHAM CANAL. OPEN CAPITAL ACCOUNT. 2. Main Canals and Branches. Providing new gates for the Musi, Mudigindy, Pyderu south and Covelong north locks.
				Reserve ... Total ...
				SHATIATOPE ANICUT SYSTEM. OPEN CAPITAL ACCOUNT. 1. Head Works. Improving the Shatiatope anicut ...

MADRAS PRESIDENCY.

OF MADRAS.

ES—cont.

II—cont.

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

Amount of estimate.	OUTLAY		Grant for 1898-99.	Item No.	Remarks and references.
	To end of 1896-97.	Probable during 1897-98.			
Rs.	Rs.	Rs.	Rs.		
265	...	...	265	55	} Estimate under preparation.
80	...	...	80	56	
170	...	...	170	57	
1,090	...	...	1,090	58	
1,300	...	...	1,300	59	} Estimate under preparation.
...	...	...	1,881	60	
...	...	...	7,886		
...	...	...			
7,000	...	...	2,000	61	} Estimate under preparation.
13,000	...	...	3,528	62	
...	...	...	5,528		
5,290	...	2,501	2,772	63	G.O., No. 169 L, dated 18th February 1897.
9,300	...	...	9,300	64	} Estimate will shortly be sanctioned.
...	...	...	5,326	65	
...	...	...	14,626		
52,000	...	...	30,000	66	G.O., No. 983 L, dated 5th November 1897.

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Detail of the Budget Estimate for Original Works under Irrigation

Executive division.	Locality.	Sub-division of expenditure.	Item No.	Detail of works.
				PELANDORAI ANICUT SYSTEM. ^c
				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.
				LOWER COLEROON ANICUT SYSTEM.
				CAPITAL ACCOUNT.
				1. Head Works.
Tanjore ...	...	3. Works ...	68	Improvements to the Lower Coleroon anicut ...
				4. Drainage and Protective Works.
				Old Coleroon Drain.
South Arcot ...	...	3. Works ...	69	Aqueduct and bridge extension ...
		4. Earthwork ...	70	Clearing, widening and forming banks ...
				Total, Lower Coleroon Anicut System ...
				MARADUR ANICUT SYSTEM.
				(2) Main Canals and Branches.
Tinnevely ...	...	3. Works ...	71	Improvements to Maradur-Melakal channel ...
				REVENUE ACCOUNT.
				Extensions and Improvements.
Kurnool ...	...	...	72	Cumbum tank system ...
Coimbatore ...	...	...	73	Thadapalli channel system ...
			74	Arkenkota do. ...
			75	Kalingaroyen channel system ...
North Arcot ...	...	...	76	Poincy anicut system ...
			77	Cheyaru do. ...
			78	Pálár do. ...
				Deduct old maintenance charges ...
				Net ...
Chingleput ...	...	...	79	Pálár anicut system ...
				Total, Pálár Anicut System ...
			80	Chembrambakam tank system ...
				Deduct old maintenance charges ...
				Net ...

MADRAS PRESIDENCY.

OF MADRAS.

ES—cont.

II—cont.

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

Amount of estimate.	OUTLAY		Grant, 1898-99.	Item No.	Remarks and references.
	To end of 1896-97.	Probable during 1897-98.			
Rs.	Rs.	Rs.	Rs.		
60,800	33,928	37,600	5,000	67	G.O., No. 551 I., dated 2nd July 1896.
1,01,400	17,657	40,207	40,370	68	G.O., No. 273 I., dated 21st March 1896.
41,000	15,368	4,000	10,362	69	G.O., No. 383 I., dated 21st April 1897.
89,600	10,975	40,000	20,000	70	G.O., No. 385 I., dated 8th October 1892.
...	...	...	70,732		
...	...	...	3,000	71	Estimate under preparation.
...	...	...	500	72	
...	...	516	2,007	73	
...	...	1,000	998	74	
...	...	100	1,000	75	
...	...	2,500	2,000	76	
...	...	2,000	3,000	77	
...	...	2,500	4,000	78	
...	...	178	178		
...	...	2,322	3,822		
...	...	5,000	789	79	
...	...	7,322	4,611		
...	...	200	...	80	
...	...	2,283	2,283		
...	...	— 2,083	— 2,283		

PROVINCIAL—MINOR WORKS
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Part

Detail of the Budget Estimate for Original Works under Irrigation

Executive division.	Locality.	Sub-division of expenditure.	Item No.	Detail of works.
Chingleput—cont.	...		81	REVENUE ACCOUNT—cont. Extensions and Improvements—cont. Madras water-supply and irrigation extension ... Deduct old maintenance charges ... Net ...
South Arcot ...	...		82	Tirukkoyilūr anicut system ...
			83	Mehamattur do. ...
			84	Vriddhachalam do. ...
			85	Shatiatope do. ...
			86	Pelandorai do. ... Deduct old maintenance charges ... Net ...
Tanjore ...	...		87	Lower Coleroon anicut system ...
			88	Do. do. ...
				Total, Lower Coleroon Anicut System ...
Tinnevelly ...	...		89	Maradur anicut system ...
Chingleput ...	...		90	Buckingham Canal ... Total, Extensions and Improvements ... Minor Works for which neither Capital nor Revenue Accounts are kept, P.W.D. Ordinary Major Original Works.
Gōdāvari Eastern.	...		91	Reconstructing Pattamamidi-Doddi anicut ...
Gōdāvari Western.	...		92	Diversion of Yerracalva and construction of masonry dams across it and Gudapalli channel.
Kistna Northern.	...		93	Ipur tank ...
Nellore ...	...		94	Jonapad tank ...
			95	Mopaud tank improvements ...
			96	Tallapallem do. ...
			97	Sayipet do. ...
Bellary ...	...		98	Timmasamudram do. ...
Cuddapah ...	...		99	Yepral and Kollical tanks ...
Coimbatore ...	...		100	Chintagunta tank ...
			101	Constructing an aqueduct and bridge in lieu of Pungaliyur outlet on the Chitrachavady channel.
Salem ...	...		102	Improving supply channel to Pennagundapuram tank.
South Arcot ...	...		103	Improving Nedunathan-Kumarai anicut across Karamangudi channel.
			104	Alathur anicut across the Cheyar river.—Reconstructing dam and improvements to tanks and channels under the —.

MADRAS PRESIDENCY.

OF MADRAS.

ES—cont.

II—cont.

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

Amount of estimate.	OUTLAY		Grant, 1898-99.	Item No.	Remarks and references.
	To end of 1896-97.	Probable during 1897-98.			
Rs.	Rs.	Rs.	Rs.		
...	...	3,600	3,600	81	
...	...	— 3,600	— 3,600		
...	...	3,002	5,610	82	
...	...	100	1,093	83	
...	...	180	3,533	84	
...	...	1,000	1,545	85	
...	...	2,850	3,783	86	
...	...	59	59		
...	...	2,791	3,724		
...	...	2,900	3,000	87	
...	...	692	500	88	
...	...	3,592	3,500		
...	...	193	1,003	89	
...	...	570	1,000	90	
...	...	...	29,241		
...	...	...	...		
...	...	...	5,000	91	Estimate under preparation.
9,450	6,069	6,000	1,000	92	G.O., No. 405 I., dated 28th April 1897. Revised estimate under preparation.
31,000	8,869	5,061	10,200	93	G.O., No. 1031 I., dated 23rd November 1893.
26,630	9,089	3,871	12,800	94	" " 148 I., " 16th February 1895.
23,800	17,334	4,895	2,500	95	" " 57 I., " 18th January 1896.
...	...	...	5,500	96	Estimate under preparation.
...	...	...	4,000	97	Do.
...	...	...	3,000	98	Do.
...	...	600	5,000	99	G.O., No. 194 I., dated 24th February 1897.
11,800	397	...	10,000	100	" " 721 I., " 3rd August "
35,000	...	2,870	3,130	101	" " 1119 I., " 13th December "
6,150	...	...	...		
13,000	...	...	5,000	102	" " 229 I., " 6th March "
...	...	...	2,800	103	Estimate under preparation.
...	...	...	5,000	104	Do.

PROVINCIAL—MINOR WORKS
AND NAVIGATION.

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Detail of the Budget Estimate for Original Works under Irrigation

Executive division.	Locality.	Sub-division of expenditure.	Item No.	Detail of works.
				<i>Minor Works for which neither Capital nor Revenue Accounts are kept, P.W.D.—cont.</i>
				Ordinary Major Original Works—cont.
Trichinopoly ...	...		105	Improvements to Kothamangalam and Periyakulam.
			106	Improvements to Thuvagudi, Periyari and Chittari.
			107	Reconstructing Chintamani odai weir on the right bank of Penneri channel.
Madura ...	...		108	Constructing an under-tunnel at 3,200 feet from the head of Seelimpatty channel.
			109	Minor original works Total ...
			110	Old maintenance charges for works for which Capital and Revenue Accounts are kept.
				Total, Ordinary Works ...
			111	Minor Works, Revenue Department, Minor original work.
				<i>Agricultural Works.</i>
				Major Original Works.
Vizagapatam ...	...		112	Constructing left flood bank for the Nagavalli river between Annaveram and Ampilli villages.
Gódavari Western.	...		113	Raising the Vasista Gódavari right bank from head to Chinchinada.
Kistna Eastern ...	...		114	Raising the Kistna river left bank below the anicut.
Kistna Western...	...		115	Raising the flood bank of the Kistna river on right side from 44 to 52½ miles.
Tanjore ...	...		116	Straight cutting the Mudikondanar at 59/1 and 59/6 miles.
Trichinopoly ...	...		117	Raising and strengthening the right bank of the Cauvery from the Cauvery bridge down to old Vennar head.
			118	Raising the Agunda Cauvery left bank from 5th to 8th B. M.
Tinnevelly ...	...		119	Author diversion.—Tambrapurni right bank below Srivaikuntam anicut.
			120	Minor original works Total ...
				Total, Agricultural Works ...
				LOCAL IRRIGATION CESS FUND.
				43. MINOR WORKS AND NAVIGATION.
				<i>Minor Works for which neither Capital nor Revenue Accounts are kept.</i>
Salem ...	...		121	Minor original works

MADRAS PRESIDENCY.

OF MADRAS.

ES—cont.

II—cont.

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

Amount of estimate.	OUTLAY		Grant, 1898-99.	Item No.	Remarks and references.
	To end of 1896-97.	Probable during 1897-98.			
Rs.	Rs.	Rs.	Rs.		
4,060	...	1,000	2,060	105	G.O., No. 996 I., dated 25th November 1896.
3,500	10	1,500	1,490	106	" " 534 I. " 25th June 1896.
...	...	...	2,000	107	Estimate under preparation.
2,710	19	710	2,000	108	G.O., No. 50 I., dated 17th January 1896.
...	...	...	82,480	109	
...	...	...	1,27,295		
...	...	...	10,381	110	
...	...	...	2,20,156		
...	...	...	28,112	111	
6,620	4,090	...	1,640	112	G.O., No. 717 I., dated 4th September 1896.
72,800	50,012	15,378	4,602	113	" " 56 I. " 19th January 1898.
78,300	42,886	13,414	22,000	114	" " 278 I. " 28th March 1893.
33,000	26,044	300	4,000	115	" " 248 I. " 13th " 1895.
3,930	...	...	3930	116	" " 403 I. " 27th April 1897.
9,600	...	2,000	8,600	117	" " 349 I. " 9th " "
...	...	...	11,800	118	Estimate under preparation.
...	...	...	15,000	119	Do.
...	...	...	71,572		
...	...	...	10,300		
...	...	...	81,872	120	
...	...	...	3,000	121	

IRRIGATION—MINOR WORKS
AND NAVIGATION.

MADRAS PRESIDENCY.

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. 0
IRRIGATION.			
43. MINOR WORKS AND NAVIGATION.			
WORKS FOR WHICH CAPITAL AND REVENUE ACCOUNTS ARE KEPT.			
PROVINCIAL.			
CAPITAL.			
Sangam Ancient System	...	70,041	70,041
Kurnool-Cuddapah Canal	...	2,846	2,846
Ganjām Minor Rivers System	...	17,886	17,886
Munneyaru Project	...	90,000	90,000
Chopand Project	...	34,959	34,959
Palar Ancient System... ..	...	7,886	7,886
Choyaru do.	...	5,528	5,528
Valluru do.	...	2,772	2,772
Shatintope do.	...	30,000	30,000
Pelandorai do.	...	5,000	5,000
Lower Coleroon Ancient System	...	70,732	70,732
Marudur do.	...	3,000	3,000
Buckingham Canal	...	14,626	14,626
Total ...	...	3,55,276	3,55,276
REVENUE.			
Cumbum Tank System	...	500	500
Thalappalli Channel System	...	2,007	2,007
Arkenkotta do.	...	998	998
Kalingarayan do.	...	1,000	1,000
Palar Ancient System	...	4,611	4,611
Poincy do.	...	2,000	2,000
Choyaru do.	...	3,000	3,000
Chombrambakam Tank	...	— 2,283	— 2,283
Madras Water-supply and Irrigation Extension	...	— 3,600	— 3,600
Tirukkōyilūr Ancient System	...	5,610	5,610
Mohamattur do.	...	1,093	1,093
Vridhachalam do.	...	3,533	3,533
Shatintope do.	...	1,545	1,545
Pelandorai do.	...	3,724	3,724
Lower Coleroon do.	...	3,500	3,500
Marudur Ancient 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			
“Minor Works, Revenue Department,” Minor Original Works	...	10,381	10,381
...	...	28,112	28,112
Total ...	...	2,48,268	2,48,268

IRRIGATION—MINOR WORKS
AND NAVIGATION.

MADRAS PRESIDENCY.

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

IRRIGATION—MINOR WORKS
AND NAVIGATION.

MADRAS PRESIDENCY.

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.				
	43. MINOR WORKS AND NAVIGATION.				
	Minor Works for which Capital and Revenue Accounts are kept.				
	Provincial.				
	Maintenance and Repairs.				
Ganjám ...	Ganjám Minor Rivers System ...	Rs. 25,000	Rs. 25,000	Rs. 10,000	Rs. 10,000
Kistna North-ern.	Dondapad tank ...	699	699	...	...
Cuddapah ...	Sagilérú 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 ...				
	Kávérípak Channel ...				
	Govindavádi Channel ...				
	Mahendravadi Channel ...				
	Dusi channel ...				
	Tennampettu Channel ...				
	Chukkramallur Channel ...				
	Reserve for incomplete works ...				
Chingleput ...	Kambakal Channel ...	9,228	9,228	8,400	8,400
	Total ...	29,228	29,228	28,404	28,404
	Deduct Old Maintenance Charges ...	* 2,909	* 2,909	* 2,909	* 2,909
North Arcot ...	Poincy 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	3,021	3,005	3,005
	Deduct Old Maintenance Charges ...	* 3,097	* 3,097	* 3,097	* 3,097
Do. ...	Madras Water-supply and Irrigation Extension... Deduct Old Maintenance Charges ...	3,003	3,003	2,499	2,499
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	4,730	3,000	3,000
	Deduct Old Maintenance Charges ...	* 58	* 58	* 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.

IRRIGATION—MINOR WORKS
AND NAVIGATION.

MADRAS PRESIDENCY.

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.				
	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 ...	Vridhachalam Anicut System ...	Rs. 1,650	Rs. 1,650	Rs. 2,500	Rs. 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	11,636	16,000	16,000
Tanjore ...	Do. do. ...	4,000	4,000	3,000	3,000
			15,636		19,000
Trichinopoly ...	Nandiar channel ...	5,000	5,000	7,610	7,610
Tinnevely ...	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	35,370	35,370
	M. Maintenance establishment ...	6,000	6,000	6,000	6,000
	Repairs to masonry works ...	7,000	7,000	7,000	7,000
	Unforeseen and sundry items ...	4,030	4,030	4,030	4,030
	Payment to the Madras Municipality being the amount of lease for Trevelyan wharf ...	1,600	1,600	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	3,85,700	3,70,000	3,70,000
	Old Maintenance charges ...	1,42,850	1,42,850	1,42,850	1,42,850
	Tank Restoration works to be executed by ordinary divisions ...	3,32,169	3,32,169	3,91,968	3,91,968
	Agricultural Works—				
	Repairs ...	4,05,325	4,05,325	3,77,213	3,77,213
			8,60,719		9,04,818
	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
			2,000		2,000
	Total ...	...	2,000	...	2,000

PROVINCIAL—MINOR WORKS
AND NAVIGATION.

MADRAS PRESIDENCY.

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.			Revised Estimate for 1897-98.
	Per mensem.	Per annum.	Total.	
IRRIGATION.				
43. Minor Works and Navigation.				
PROVINCIAL.				
Grant for works and repairs Deduct item on which no charge for establishment is admis- sible—	...	...	21,89,131	21,06,291
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.	...	...	41,45,540	41,16,840
C. Share of the Public Works establishment at 6 per cent. on Revenue.	...	...	2,43,732	2,47,010
Total, A + B + C ...	...	...	7,64,602	7,43,011
Total, Establishment Charges ...	...	...	7,64,602	7,43,011

IRRIGATION—MINOR WORKS
AND NAVIGATION.

MADRAS PRESIDENCY.

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.		PERCENTAGE ON THE DIRECT REVENUE.		PERCENTAGE ON THE INDIRECT REVENUE.		Cost of Establish- ment actually employed.	Total Charges for Establish- ment.
	Grant for Works and Repairs.	23 per cent.	Direct Revenue.	10 per cent.	Indirect Revenue.	6 per cent.		
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	2,845	654	...	...	...	...	...	654
Ganjām Minor Rivers System	17,886	4,114	...	...	...	...	...	4,114
Munneyru Project	90,000	20,700	...	...	...	...	...	20,700
Chopaud Project	26,959	6,201	...	...	...	...	...	6,201
Pālār Anicut System	7,886	1,814	...	...	...	...	...	1,814
Cheyāru 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.								
Ganjām Minor Rivers System	25,000	5,750	300	30	...	...	...	5,780
Dondapad Tank	699	161	...	...	...	...	...	161
Sagilēru 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
Arankotta do.	2,998	690	20	2	...	...	...	692
Kalingaroyen do.	3,805	875	...	...	...	...	...	875
Pālār Anicut System	30,930	7,114	1,600	160	...	...	...	7,274
Poiney do.	11,000	2,530	300	30	...	...	...	2,560
Cheyāru 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
Tirukkóyilūr do.	12,974	2,984	420	42	...	...	...	3,026
Mehamattur do.	3,183	732	50	5	...	...	...	737
Vridhāchalam 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
Védaranniyam Canal	2,683	617	1,000	100	...	...	...	717
Total ...	2,37,671	54,664	1,39,000	13,900	...	...	...	68,564

IRRIGATION—MINOR WORKS
AND NAVIGATION.

MADRAS PRESIDENCY.

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	2,53,067	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

IRRIGATION—MINOR WORKS
AND NAVIGATION.

MADRAS PRESIDENCY.

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.
	Rs.	Rs.	Rs.	Rs.
IRRIGATION.				
43. MINOR WORKS AND NAVIGATION.				
Provincial.				
Minor Works for which Capital and Revenue Accounts are kept.				
Capital.	1,000	...	1,000	...
Munneyeru project	1,000	...	1,000	...
Total	1,000	...	1,000	...
Revenue.				
Palar Anicut System	4	...	4	...
Deduct Old Maintenance charges	— 4	...	— 4	...
Net	109	...	109	...
Chembrambakam Tank System	109	...	109	...
Deduct Old Maintenance charges	— 109	...	— 109	...
Net	10	...	10	...
Madras Water-supply and Irrigation Extension	10	...	10	...
Deduct Old Maintenance charges	— 10	...	— 10	...
Net	2	...	2	...
Pelandorai Anicut System	2	...	2	...
Deduct Old Maintenance charges	— 2	...	— 2	...
Net	2,000	...	2,000	...
Buckingham Canal	1,875	...	1,875	...
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	1,868	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	...

PROVINCIAL—MINOR WORKS
AND NAVIGATION.

MADRAS PRESIDENCY.

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.

IRRIGATION—MINOR WORKS
AND NAVIGATION.

MADRAS PRESIDENCY.

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—		3,564	13,860
Pennér Anicut System	...	345	11,884
Sangam do. do.	...	...	1,05,634
Cauvery Delta do.	...	352	5,208
Srivaikuntam Anicut System	...	2,283	3,097
Chembrambakam Tank	...	178	2,909
Pálár Anicut System	...	59	58
Pelandorai Anicut System	...	3,600	200
Madras Water-supply and Irrigation Extension Project ...	...		
Total ...	...	10,381	1,42,850
Minor Works, Public Works Department, Ordinary—			
Divisions—	1,229	5,000	12,000
Ganjám	68,806	8,000	18,000
Vizagapatam	39,773	6,000	15,000
Gó dávari Eastern	...	4,000	12,000
Do. Western	11,839	...	8,000
Kistna Eastern	...	...	3,000
Do. Northern	3,39,799	6,000	30,000
Nellore	1,96,618	5,000	30,000
Cuddapah	35,393	1,500	10,000
Kurnool	1,55,383	2,500	30,000
Bellary	...	...	2,000
West Coast	3,20,832	3,000	15,000
Coimbatore	1,36,435	2,000	12,000
Salem	2,17,698	7,000	25,000
North Arcot	6,03,004	7,000	35,000
Chingleput	3,67,601	20,000	40,000
South Arcot	46,362	1,000	1,200
Tanjore	...	700	2,500
Negapatam	4,29,785	8,000	25,000
Trichinopoly	2,16,649	4,000	20,000
Madura	7,79,331	6,000	40,000
Tinnevelly	...	...	...
Total ...	...	96,700	3,85,700
Reserve ...	...	30,595	...
Grand Total ...	...	1,27,295	3,85,700
Minor Works, Revenue Department, Reserve	...	28,112	...

IRRIGATION—MINOR WORKS
AND NAVIGATION.

MADRAS PRESIDENCY.

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—										
Godavari 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
Tinnevely	...	...	...	...	...	...	...	...	...	60,000
Total								...	...	3,32,169
Agricultural Works.										
Divisions—										
Ganjām	...	...	...	...	...	...	...	...	3,000	6,000
Vizagapatam	...	...	...	...	...	...	...	...	300	2,500
Godavari 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
Tinnevely	...	...	...	...	...	...	...	...	...	15,000
Total								...	10,300	4,05,325

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