

P.W.

~~Mining~~

(1898)

Department.

G.O., No. 124-25

DATED 12th February 1898

[Despatch Abstract.]

Budget & Estimates of the Irrigation Branch
for "Major Works" & "Minor Works & Navigation" for 1898-99

Order on the preliminary issue of the —

For ~~any~~ copy of the same on the preliminary issue of the
—, and requesting early approval thereto.

11-298

MADRAS PRESIDENCY.

Connections to be
carried out before
striking off copies
of MSS.

Public Works Department.

C

UNDER

IN THE

FOR THE YEAR

1898-99.

(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.
IRRIGATION.		Rs.	Rs.	Rs.	Rs.
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.
IRRIGATION.		Rs.	Rs.	Rs.	Rs.
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	8,400	8,550	8,550
Net Revenue		1,47,000	1,59,600	1,59,450	1,59,450
Four per cent. on sale-proceeds of tank-bed and other waste lands less 5 per cent. for collection charges		...	400	550	550
Total		1,47,000	1,60,000	1,60,000	1,60,000

IMPERIAL—MAJOR WORKS.

MADRAS PRESIDENCY.

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.
	Rs.	Rs.	Rs.	Rs.
IRRIGATION—continued.				
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

IMPERIAL—MAJOR WORKS.

MADRAS PRESIDENCY.

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.
	Rs.	Rs.	Rs.	Rs.
IRRIGATION—continued.				
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	6,000	7,000	7,000
Deduct Collection Charges in the Civil Department	369	300	350	350
Net Revenue	7,006	5,700	6,650	6,650
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	105,23,050	108,15,550
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.
	PAGES.	Rs.	Rs.	Rs.	Rs.
IMPERIAL.					
MAJOR (PROTECTIVE) WORKS.					
<i>Famine Relief and Insurance.</i>					
35. CONSTRUCTION OF PROTECTIVE IRRIGATION WORKS.					
1. Works ...					
{ In progress ...	Rs. 77,000				
{ Not commenced ...	3,000				
2. Establishment ...		1,67,744	1,38,618	1,23,618	80,000
3. Tools and plant ...		37,317	30,732	27,282	18,400
5. Receipts on capital account ...		— 90	150	150	600
		— 913	...	...	...
Total ...		2,04,058	1,69,500	1,51,050	99,000
42. WORKING EXPENSES.					
1. Extensions and im- provements. ...					
{ In progress ...	Rs. ...				
{ Not commenced ...	89,996				
2. Maintenance and repairs ...		66,884	69,481	61,437	89,996
3. Compensation * ...		8,01,096	5,98,183	6,21,108	6,63,364
4. Establishment ...		40,000	40,000	40,000	40,000
5. Tools and plant ...		5,67,071	5,68,610	5,58,229	5,88,398
6. Refunds of revenue ...		93,557	93,726	90,351	1,18,242
		359	...	...	...
Total, Working Expenses ...		15,68,967	13,70,000	13,71,125	15,00,000
CAPITAL EXPENDITURE NOT CHARGED TO REVENUE.					
49. IRRIGATION.					
1. Works ...					
{ In progress ...	Rs. 2,10,844				
{ Not commenced ...	1,80,570				
2. Establishment ...		6,73,546	7,32,543	6,69,336	3,91,414
3. Tools and plant ...		1,36,714	1,59,357	1,40,364	85,426
5. Receipts on capital account ...		— 46,174	58,100	62,300	23,160
		— 331	...	...	...
Total, Capital Expenditure ...		7,63,715	9,50,000	8,72,000	5,00,000

* Annual rent payable to the Travancore Darbar 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 IRRIGATION WORKS.						
<i>Capital Account.</i>						
Rushikulya Project ...	43,68,000	41,11,212	1,69,500	1,51,050	59,000	Government of India register No. 7 I. of 1894-95. Proceedings of Madras Govt. No. 846 I. of 7th November 1894.
42. MAJOR WORKS (WORKING EXPENSES).						
Gódavari Delta ...	...	...	4,80,000	4,80,685	5,10,000	
Kistna do. ...	...	...	5,75,000	5,58,660	6,21,000	
Pennérú Anicut ...	...	...	20,000	19,970	22,000	
Sangam do. ...	...	...	37,000	37,000	33,000	
Kurnool-Cuddapah Canal ...	...	...	94,200	87,328	90,000	
Barur Tank Project ...	...	...	2,500	3,192	2,000	
Cauvery Delta ...	...	...	25,000	20,393	60,000	
Srivaikuntam Anicut ...	...	...	27,000	26,754	25,000	
Periyár Project ...	...	...	71,000	98,843	92,000	
Rushikulya Project ...	...	...	38,300	38,300	45,000	
Total ...	...	...	13,70,000	13,71,125	15,00,000	
CAPITAL EXPENDITURE NOT CHARGED TO REVENUE.						
49. IRRIGATION.						
<i>Works in Progress.</i>						
Gódavari Delta System ...	1,11,96,871	1,09,96,977	55,000	1,15,693	1,11,000	P.M.G. No. 790 I., dated 30th August 1897; No. 696 I., dated 28th July 1897; No. 732 I., dated 9th August 1897; and No. 969 I., dated 29th October 1897.
Kistna Delta do. ...	1,39,19,784	1,19,61,702	4,50,000	4,12,503	1,98,000	Government of India register No. 8 I. of 1884-85. P.M.G. No. 862 I., dated 22nd Sept. 1894. 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 will be closed on 31st March 1898.
Cauvery Delta ...	25,82,583	17,29,908	1,93,000	1,56,994	33,000	P.M.G. No. 790 I., dated 30th August 1897; No. 454 I., dated 14th May 1897; No. 500 I., dated 28th May 1897; No. 443 I., dated 11th May 1897; No. 644 I., dated 12th July 1897; No. 730 I., dated 9th August 1897; No. 755 I., dated 17th 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	1,77,232	1,58,000	Construction estimate closed on 31st March 1897. Schedule of works remaining to be completed under preparation. P.M.G. No. 361 I., dated 13th April 1897; No. 397 I., dated 27th April 1897; No. 572 I., dated 23rd January 1897; No. 587 I., dated 29th January 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 16th October 1897; No. 942 I., dated 21st October 1897; No. 994 I., dated 10th November 1897; No. 1007 I., dated 12th November 1897; No. 1003 I., dated 12th November 1897; No. 1013 I., dated 13th November 1897 and Nos. 1104 I. and 1141 I., dated 9th and 22nd December 1897.
Total ...	...	...	...	...	5,00,000	

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	1,23,618
<i>Deduct item for which no charge for Establishment is admissible.</i>		
Compensation for land	...	5,000
Net Grant ...	80,000	1,18,618
Contribution to Provincial Funds at 23 per cent. on the Net Grant ...	18,400	27,282
IRRIGATION.		
42. Major Works (Working Expenses).		
Grant for Works and Repairs	7,53,360	6,82,545
<i>Deduct items for which no charge for Establishment is admissible.</i>		
Compensation for land, Gôdâvari 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	6,79,375
A. 23 per cent. on the Net Grant	1,70,197	1,56,256
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
Add estimated collections in the Revenue Department of water-rates levied on lands irrigated under the Kurnool-Cuddapah Canal	1,20,000	1,20,000
Total ...	66,80,010	64,16,210

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	5,58,229
CAPITAL EXPENDITURE NOT CHARGED TO REVENUE.		
49. Irrigation.		
Total Grant for Works	3,91,414	6,69,336
<i>Deduct item for which no charge for Establishment is admissible.</i>		
Land compensation	20,000	59,057
Net Grant ...	3,71,414	6,10,279
Contribution to Provincial Funds at 23 per cent. on Net Grant ...	85,426	1,40,364

IRRIGATION—MAJOR WORKS.

MADRAS PRESIDENCY.

GOVERNMENT OF MADRAS.

CHARGES.

Part VI.

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

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

MINOR WORKS AND NAVIGATION.

MADRAS PRESIDENCY.

PRELIMINARY 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,
February 1898.

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

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GOVERNMENT OF MADRAS.

REVENUE.

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

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

GOVERNMENT OF MADRAS.

CHARGES.

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

	Reference to Detailed Estimate.	Actual Outlay, 1896-97.	Budget Estimate, 1897-98.	Revised Estimate, 1897-98.	Budget Estimate, 1898-99.
PROVINCIAL.					
MINOR WORKS FOR WHICH CAPITAL AND REVENUE ACCOUNTS ARE KEPT.	PAGES.	Rs.	Rs.	Rs.	Rs.
CAPITAL.					
1. Works ... { In progress 2,06,309 } { Not commenced 1,39,341 }		5,51,006	3,25,598	3,88,377	3,45,650
2. Establishment		1,17,319	73,656	87,911	78,350
3. Tools and Plant		49,056	4,406	1,006	1,000
Receipts on capital account		-2,298	...	...	...
Total, Capital ...		7,15,983	4,03,660	4,77,294	4,25,000
REVENUE.					
1. Extensions and Improvements. { In progress } { Not commenced 29,241 }		31,839	24,913	23,483	29,241
2. Maintenance and Repairs		2,28,190	1,89,823	1,95,138	2,08,430
3. Establishment		72,186	62,389	64,183	68,564
4. Tools and Plant		6,694	2,875	2,875	1,875
Refunds of Revenue		16	...	...	...
Total, Revenue ...		3,38,925	2,80,000	2,85,679	3,08,110
Total, Minor Works for which Capital and Revenue Accounts are kept		10,54,908	6,83,660	7,62,973	7,33,110
MINOR WORKS FOR WHICH NEITHER CAPITAL NOR REVENUE ACCOUNTS ARE KEPT.					
1. Works—					
Major ... { In progress 50,180 } { Not commenced 32,300 }		1,67,270	59,542	1,14,019	82,480
Minor		1,29,625	1,47,789	1,46,096	1,63,820
2. Repairs		10,03,840	9,04,818	7,60,134	8,70,719
3. Establishment		5,45,140	4,97,189	4,81,877	5,06,547
4. Tools and Plant		19,086	16,552	14,829	16,324
Refunds of Revenue		28	...	...	...
Total, Minor Works for which neither Capital nor Revenue Accounts are kept		18,64,989	16,45,890	15,16,955	16,39,890
AGRICULTURAL WORKS.					
Works for which neither Capital nor Revenue Accounts are kept.					
1. Works—					
Major ... { In progress 40,842 } { Not commenced 30,730 }		1,24,855	59,420	52,011	71,572
Minor		12,357	17,700	19,160	10,300
2. Repairs		5,99,692	3,77,213	4,25,068	4,05,225
3. Establishment		1,63,303	1,04,467	1,12,625	1,12,615
4. Tools and Plant		11,018	6,650	7,188	7,188
Refunds of Revenue		640	...	...	...
Total, Agricultural Works ...		9,11,865	5,65,450	6,16,052	6,07,000
Total, Provincial ...		38,31,762	28,95,000	28,95,980	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 2,97,331	10,17,852	6,54,962	7,43,146	7,03,063
	Not commenced 4,05,732				
Repairs		18,31,722	14,71,854	13,80,340	14,84,474
Establishment		8,97,948	7,37,701	7,46,596	7,66,076
Tools and Plant		85,854	30,483	25,898	26,387
Refunds of Revenue		684	...	...	...
Receipts on capital account		-2,298	...	...	...
Total, Provincial ...		38,31,762	28,95,000	28,95,980	29,80,000
LOCAL IRRIGATION CESS FUND.					
43. MINOR WORKS AND NAVIGATION.					
Minor Works for which neither Capital nor Revenue Accounts are kept, P.W.D.					
I. Original Works		6,007	7,000	5,110	3,000
II. Repairs		4,354	2,000	2,525	2,000
Total ...		10,361	9,000	7,635	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.	Rs.	
PROVINCIAL.						
43. MINOR WORKS AND NAVIGATION.						
Minor Works for which Capital and Revenue Accounts are kept.						
CAPITAL.						
Works in Progress.						
Kurnool-Cuddapah Canal ...	16,500	12,160	3,490	3,490	3,500	P.M.G., No. 1098 I., dated 19th December 1896.
Munneyeru Project	3,69,410	3,02,302	90,030	1,41,198	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	...	...	47,482	43,000	P.M.G., No. 344 I., dated 8th April 1897, and No. 1064 I., dated 29th November 1897.
Pálár Anicut System	19,74,008	19,59,968	14,840	11,840	9,700	P.M.G., No. 917 I., dated 15th October 1897. Estimate for other works under preparation.
Pelandorai Anicut System ...	5,00,363	4,57,708	52,830	46,248	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	96,441	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. 383 I., dated 21st April 1897; No. 383 I., dated 5th April 1897; No. 557 I., dated 15th June 1897; No. 720 I., dated 3rd August 1897; and No. 799 I., dated 1st September 1897.
Valluru Anicut System ...	6,400	...	...	3,076	3,410	P.M.G., No. 169 I., dated 18th February 1897.
Buckingham Canal	...	...	89,950	21,623	6,150	Construction estimate was closed on 31st March 1897. Schedule of works remaining to be completed under preparation.
Works not commenced.						
Ganjám Minor Rivers System ...	...	...	...	...	22,000	Estimate under preparation.
Cheyaru Anicut System ...	...	...	...	...	6,800	Do. do.
Shatiatope Anicut System ...	64,000	...	...	...	36,900	P.M.G., No. 983 I., dated 5th November 1897.
Maradur do. do. ...	...	...	...	...	3,690	Estimate under preparation.
Sangam do. do. ...	2,08,000	...	...	...	85,000	P.M.G., No. 407 I., dated 9th May 1896. Estimates for minor channels under preparation.
Other Projects	...	...	...	1,05,896	...	
Total, Capital ..	...	...	...	4,77,294	4,25,000	

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.
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
PROVINCIAL—continued.						
43. MINOR WORKS AND NAVIGATION—continued.						
Minor Works for which Capital and Revenue Accounts are kept—continued.						
REVENUE.						
Ganjām Minor Rivers System ..	...	...	12,300	25,215	30,780	
Dondapad Tank System ..	...	...	...	981	860	
Sagilēru Project ..	...	...	...	...	7,380	
Cumbum Tank System ..	...	...	2,460	2,460	2,460	
Thadapalli Channel System ..	...	...	6,030	6,491	7,150	
Arkenkotta do. do. ...	...	...	2,340	3,078	3,690	
Kalingaroyen do. do. ...	...	...	2,350	3,690	4,680	
Pālār Anicut System ...	...	...	40,220	34,873	38,200	
Poinēy do. do. ...	...	...	12,350	8,025	13,560	
Cheyāru do. do. ...	...	...	18,470	14,165	18,480	
Chembrambakam Tank System.	...	...	— 2,770	— 1,977	— 3,000	
Madras Water-supply and Irrigation Extension.	...	...	— 360	2,445	850	
Valluru Anicut System ..	...	...	3,940	866	1,220	
Tirukkōyilūr Anicut System ..	...	...	13,590	13,575	16,009	
Mehamattur Anicut System ..	...	...	1,850	2,096	3,920	
Vriddhachalam Anicut System ..	...	...	3,690	2,932	6,380	
Shatiatope Anicut System ..	...	...	14,790	13,560	13,000	
Pelandorai do. do. ...	...	...	4,180	11,995	10,350	
Lower Coleroon Anicut System.	...	...	27,780	25,858	23,700	
Nandyar Channel System ..	...	...	9,360	9,370	6,160	
Maradur Anicut System ..	...	...	17,240	17,240	17,230	
Chilka Lake Canal ..	...	...	370	370	610	
Buckingham Canal ..	...	...	83,470	82,038	81,050	
Vēdāranniyam Canal ..	...	...	6,350	6,330	3,400	
Total, Revenue ..	...	...	2,80,000	2,85,679	3,08,110	
Total, Minor Works for which Capital and Revenue Accounts are kept.	...	...	6,83,660	7,62,973	7,33,110	
Minor Works for which neither Capital nor Revenue Accounts are kept, P.W.D.						
Old maintenance charges ..	...	...	4,26,136	4,37,352	4,39,074	
Ordinary Minor Works ..	...	...	5,96,754	7,23,697	7,39,816	
Tank Restoration Works—						
Execution ..	...	...	4,88,000	3,13,605	4,26,000	
Minor Works, Revenue Department.	...	...	35,000	42,301	35,000	
Total ..	...	...	16,45,890	15,16,955	16,39,890	
Total, Irrigation and Navigation Works.	...	...	23,29,550	22,79,928	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.
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
PROVINCIAL—continued.						
AGRICULTURAL WORKS.						
Works for which neither Capital nor Revenue Accounts are kept.						
MAJOR ORIGINAL WORKS.						
In Progress.						
Constructing left bank for the Nagavalli river between Annavaram and Ampilli villages.	5,730	4,090	...	...	1,640	P.M.G., No. 681 I., dated 10th August 1892.
Raising the Vasista Gōdāvari right bank from head to Chinchinada.	72,800	50,012	21,378	19,378	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	...	...	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	...	...	1,000	8,600	P.M.G., No. 349 I., dated 9th April 1897.
Works not commenced.						
Straight-cutting the Mudikondanar at 59/1 and 59/6 miles.	3,930	...	...	...	3,930	P.M.G., No. 403 I., dated 27th April 1897.
Raising the Agunda Cauvery left bank from 5th to 8th B.M.	...	...	...	...	11,800	Estimate under preparation.
Anthur diversion Tambrapurni right bank below Srivaikuntam anicut.	...	...	...	...	15,000	Do. do.
Total, Major Original Works ...	...	...	...	...	71,572	
Minor Original Works ...	...	...	...	...	10,300	
Repairs ...	...	...	...	...	4,05,325	
Establishment ...	...	...	...	...	1,12,615	
Tools and Plant ...	...	...	...	...	7,188	
Total, Agricultural Works ...	...	...	...	...	6,07,000	
Total, Provincial ...	...	...	...	...	29,80,000	
LOCAL IRRIGATION CESS FUND.						
43. MINOR WORKS AND NAVIGATION.						
Minor Works for which neither Capital nor Revenue Accounts are kept, P.W.D.	...	...	9,000	7,635	5,000	
Total ...	...	...	9,000	7,635	5,000	

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.	Rs.	Rs.	Rs.	Rs.
43. Minor Works and Navigation.				
PROVINCIAL.				
Grant for works and repairs	...	...	21,87,537	21,23,486
Deduct item on which no charge for establishment is admis- sible—	...	...	13,000	26,153
Grant for land compensation	...	...	21,74,537	20,97,333
Net Grant for Works and Repairs	...	...	5,00,144	4,82,386
A. Share of the Public Works establishment charges at 23 per cent. on the net grant for works and repairs.	...	...	1,72,000	1,72,000
Estimate of Direct Revenue	...	...	17,200	17,200
B. Share of the Public Works establishment charges at 10 per cent. on Direct Revenue.	...	...	41,45,540	41,16,840
Revenue due to old Irrigation under Major Productive Works.	...	...	2,48,732	2,47,010
C. Share of the Public Works establishment at 6 per cent. on Revenue.	...	...	7,66,076	7,46,596
Total, A + B + C	...	...		
Total, Establishment Charges	...	...	7,66,076	7,46,596

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.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the

READ the following

2043: J. d. 92/27
Note by the Chief Engineer for Irrigation

The accompanying preliminary
issue of the budget estimates of the
Irrigation Branch, Public Works Dept.,
under Imperial, Provincial and Local
for 1898-99, embodying the revised
estimates for 1897-98, works up to the
Imperial grants provisionally sanctioned
by the Govt. of India in its telegram N^o 93 A,
dated 29 Dec. 1897, printed in P. M. G.
N^o 40-I, dated 17 January 1898, and
N^o 5 A J. d. 15 Jan 1898,
telegram, printed with G. O. N^o 77-I of the
28th idem, and to the Provincial and
Local grants fixed in P. M. G. N^o 57
dated 5 January 1898 and P. M. G.
N^o 1026, Revenue, dated 8 December
1897, respectively.

2. The budget estimates of
receipts and expenditure for 1898-99
compare

Note on preliminary issue of the
budget estimates of the Irrigation Branch
for 1898-99

Issued
J. d.
D. I.
10/2/98

5000
8.57
10.2.98

10/2/98
7 May C
7 May D
7 May E
7 May F

Read 3/4/98
10.2.98

with the revised estimates for 1897-98 and the actuals of 1896-97 as shown below:-

	Budget estimate, 1898-99.	Revised estimate, 1897-98.	Budget estimate, 1897-98.	Actuals, 1896-97.
<u>Imperial.</u>	R.	R.	R.	R.
<u>Receipts.</u>				
<u>XIX. Major Works.</u>				
Direct receipts.	2,88,000	2,84,000	2,93,000	2,87,265.
Portion of land revenue due to irrigation.	67,94,000.	65,00,000.	69,01,000.	60,43,066.
Total.	70,82,000.	67,84,000	71,94,000.	63,30,331.
<u>Expenditure.</u>				
35, Protective Works, Irrigation.	99,000.	1,51,050.	1,69,500.	2,04,058.
42, Major Works (Working expenses.)	15,00,000	13,71,125.	13,70,000.	15,68,967.
49, Capital Expenditure not charged to Revenue.	5,00,000.	8,72,000.	9,50,000.	7,63,755.
Total.	20,99,000.	23,94,175.	24,89,500.	25,36,780.
<u>Provincial.</u>				
<u>Receipts.</u>				
<u>XXX. Minor Works and Navigation.</u>				
Direct receipts.	1,72,000.	1,72,000	1,65,000.	1,75,059.
<u>Expenditure.</u>				
43, Minor Works and Navigation.	29,80,000.	28,95,980.	28,95,000	38,31,762.
<u>Local Irrigation Cess Fund.</u>				
<u>Expenditure.</u>				
43, Minor Works and Navigation.	5,000.	7,635.	9,000.	10,361.
Total.	72,54,000.	69,56,000	73,59,000.	65,05,390.
	50,84,000.	52,97,750.	53,93,500.	63,78,903.

3. Major Works - Direct receipts. - The current year's revised estimate is Rs. 9,000. less than the budget estimate, the decrease being due to the budget estimate of receipts from the Krishna delta system having been over-estimated and to an anticipated falling off in the collections of tolls on boats and rafts

in the Godavari delta system owing to railway competition. Compared with revised estimate for the current year the budget estimate for the ensuing year shows an increase of Rs. 400, which is expected under navigation receipts and other canal produce in the Godavari delta system, there having been no damages to canals during 1897-98.

4. Major Works - Portion of Land Revenue due to Irrigation. - The current year's revised estimate is Rs. 4,01,000. less than the budget estimate. The decrease occurs chiefly under the Krishna delta system, the revenue from which was over-estimated by the Board of Revenue. The budget estimate for the next year is Rs. 2,94,000. more than the current year's revised estimate. The increase is ^{partly} ~~chiefly~~ due to the expectation that more dry lands under the Godavari delta system will be converted into wet and that the resettlement of the Godavari district will be introduced during 1898-99 ^{partly} ~~the anticipated~~ and to extension of irrigation under the

E. I. Form No. 1 (a) 250-1-11-97

Flag

Schemes	Divisions.	Extensions & Improvements		Maintenance & Repairs.		Tools and plant.	
		Amount ap- -plied for.	Amount provided.	Amount ap- -plied for.	Amount provided.	Amount ap- -plied for.	Amount provided.
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Godavari delta.	Productive -						
	Eastern.	13,260.	13,000.	94,600.	70,000.	30,700.	30,450.
	Central.	5,000.	5,000.	65,000.	55,000.	3,000.	3,000.
	Western.	10,000.	10,000.	1,00,000.	82,000.	5,000.	5,000.
	Total.	28,260.	28,000.	2,59,600.	2,07,000.	38,700.	38,450.
Kistna delta.	Eastern.	16,000.	16,000.	1,71,500.	1,61,000.	7,500.	7,500.
	Northern.	"	"	50,500.	50,500.	66,400.	65,715.
	Western.	5,000.	5,000.	1,00,000.	1,00,000.	5,000.	5,000.
	Total.	21,000.	21,000.	3,22,000.	3,11,500.	78,900.	78,215.
Pennis. Ament.	Hellore.	5,000.	5,400.	25,000.	23,111.	"	"
	Deduct old main- -tenance charges.	3,564.	3,564.	13,860.	13,860.	5.	5.
	Net Total.	1,436.	1,436.	11,140.	9,251.	-5.	-5.
Sangam Ament.	Hellore.	5,000.	5,332.	25,000.	25,000.	50.	50.
	Deduct old main- -tenance charges.	345.	345.	11,884.	11,884.	57.	57.
	Net Total.	4,655.	4,987.	13,116.	13,116.	-7.	-7.
Kurnool-Cuddapah Canal.	Kurnool.	8,000.	8,000.	60,732.	57,244.	1,600.	1,600.
Barrs Tank.	Salem.	"	"	1,500.	1,090.	"	"
Canvey delta.	Tanjore.	15,000.	15,000.	50,000.	50,000.	200.	200.
	Repapetam.	6,000.	6,000.	37,500.	33,386.	300.	200.
	Trichinopoly.	1,000.	1,000.	8,500.	8,500.	20.	20.
	Total.	22,000.	22,000.	96,000.	91,886.	520.	420.
	Deduct old main- -tenance charges.	"	"	1,05,634.	1,05,634.	1,603.	1,603.
	Net Total.	22,000.	22,000.	-9,634.	-13,748.	-1,083.	-1,183.
Sivankuntam Ament.	Tinnevely.	2000.	2000.	20,000.	18,672.	"	"
	Deduct old main- -tenance charges.	352.	352.	5,208.	5,208.	78.	78.
	Net Total.	1,648.	1,648.	14,792.	13,464.	-78.	-78.
Perrys project.	Madura.	3,000.	2,925.	29,000.	29,000.	"	"
Rushikuliy project.	Protective -						
	Sangam.	"	"	39,000.	35,447.	1,250.	1,250.
	Grand Total.	89,999.	89,996.	740,742 7,39,246.	663,364.	119,277.	118,240.

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ferry flats required for the Godavari delta system. In the schedule of demands printed in P.M.G. No. 1142-1, dated 28 December 1897, Rs. 15,59,000 were applied for, for expenditure during 1898-99, but the provisional assignment sanctioned by the Govt. of India being only Rs. 15,00,000, the grants originally proposed for all the systems, save the Sangam Ancient and the Periyar project, have been reduced.

7. The provisional grant of Rs. 15,00,000 for next year is distributed as shown below:—

Systems.	Intensions and Improvements.	Maintenance and Repairs.	Establishment.			Tools and plant.	Total.
			23 percent on expenditure.	10 percent on direct revenue.	6 percent on irrigation revenue.		
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Productive—							
Godavari delta.	28,000.	2,07,000	57,290	11,200.	1,74,060.	38,450	5,10,000.
Kistna —	21,000.	3,11,500.	76,245.	4,560.	1,29,480.	78,215	6,21,000.
Periyar Ancient.	1,436	9,251	2,458.	40.	8,820.	-5.	22,000.
Sangam —	4,987	13,116.	4,164.	60.	10,680.	-7	33,000.
Kurnool-Cuddapah Canal.	8,000.	57,244.	15,006	950	7,200.	1,600.	90,000.
Barnes tank.	"	1,090.	250.	"	660	"	2,000.
Canvey delta.	22,000.	-13,748.	1,813.	310.	50,808.	-1,183	60,000.
Pravara Ancient.	1,648	13,464	3,476	130	6,360	-78	25,000.
Periyar project.	2,925	69,000*	7,342.	"	12,733.	"	92,000.
Protective—							
Revakuliy project.	"	35,447.	8,153.	150.	"	1,250	45,000.
Total.	89,996	70,3364*	1,70,197	17,400.	4,00,801	1,18,242	15,00,000.

* Inclusive of Rs. 40,000. provided separately under 3 Compensation.

8. The amount provided for "Maintenance

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will shortly be made owing chiefly to recovery of expenditure under tools & plant, Periyar Project.

owing to the reduction under the item of the Govt. of India of the works which can be postponed.

Systems.	Divisions.	Land Rs.	Works Rs.	Establishment Rs.	Tools & plant Rs.	Total Rs.
Godavari delta.	Eastern.	"	80,000.	20,700.	300.	"
	Western.	"	10,000.			
	Total.	"	90,000.	20,700.	300.	1,11,000.
Kistna delta.	Eastern.	20,000.	32,685.	29,115.	2,000.	"
	Northern.	"	12,000.			
	Western.	"	81,900.	29,115.	2,000.	1,98,000.
Canvey delta.	Tanjore.	"	25,865.	6,171.	"	"
	Trichinopoly.	"	964.			
	Total.	"	26,829.	6,171.	"	33,000.
Periyar project.	Madura.	"	1,28,000.	29,440.	560.	1,58,000.
	Grand Total.	20,000.	3,71,414.	85,426.	23,160.	5,00,000.

From the amount of Rs. 1,58,000. provided for the Periyar project, the Safford, V.I. Arch, should arrange for the distribution of the date offered necessary and for referred to in para 5 of the the construction of several distrib-

10. Capital Expenditure not charged to Revenue. — 49, Lington. — The current year's revised estimate is Rs. 78,000. less than the budget estimate. The decrease represents the surrender accepted by the Government of India in its telegram No. 3.A dated 12/Jan/98, communicated with G.O. No. 69, dated 26/Jan/98. A further small surrender

11. The provisional grant of Rs. 5,00,000. sanctioned for next year is Rs. 3,72,000. less than the current year's revised estimate, and is distributed as shown below:—

more printed in 1897.
 - Since recently sanctioned the only
 1142 D. of 28 Dec/97,
 completion of which is very necessary
 being proceeded with
 as they will bring in a good revenue
 & completed as soon
 from the time they are in working
 as possible.

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The construction estimate of
 the ~~Canal~~ project having been closed
 on the 31 March 1897, the Super.
 Engineer, Sixth Circle, should expedite
 the submission of the completion report
 and schedule of works remain-
 ing to be completed and state,
 with reference to G.O. N^o 1141-I dated

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22^d December 1897, when they will
 be submitted. ^{Of the grant provided for the Godavari Delta System}
 Rupees 10,000 have
 been assigned for cross drainage
 works on the Ellore Canal ~~in the~~
~~Godavari Delta system~~, the estimate
 for which ~~has been~~ ^{will shortly be} forwarded for
 the sanction of the Gov^t of India.

* P. H. N^o 1 dated 26/12/97

On 26 March 26 I
 9 29-198
 109 1/2
 30 not made yet
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 124450

12. The following statement com-
 pares the probable "direct" capital
 outlay to the end of 1898-99 with the
^{estimate}
 sanctioned for the project for which funds
 have been provided and for which
 the construction estimate ^{will be}
 closed on the 31 March/98.

Project	Sanctioned estimate.	Outlay to end of 1896-97.	Revised estimate 1897-98.	Budget estimate 1898-99.	Total.	Balance estimate.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Kistna delta.	139,19,784.	119,61,702.	4,12,503.	1,98,000.	125,72,205.	13,47,579.

10. "Provincial" works and navigation.
 - Direct receipts. - The current year's
 revised estimate is Rs. 7,000. more than
 the budget estimate, the former being
 based on the ^{actuals} estimate of the previous
 year which amounted to Rs. 17,5,059.
 No increase is anticipated over the
 current year's revised estimate in the
 budget estimate for the ensuing year.

14. Provincial Minor Works & Navigation.

- The current year's revised estimate
 is Rs. 980 more than the budget estimate.
 The increase represents the sum placed
 at the disposal of this department
 by the Local and Municipal dept.,
 in G.O. N^o 68-I dated 26 Jan'y 1898,
 for expenditure on raising the Taxisla
 Godavari right bank from Chinchi-
 -nada ferry to Narsapur. The amount
 fixed in G.O. N^o 824, S. Manual, dated
 5 October 1897, communicated with
 G.O. N^o 3458-W, dated 10 December 1897,
 being Rs. 7,11,000. less than the ~~allow-~~
^{amounts}
~~amounts~~ aggregating Rs. 36,56,000, ap-
 -plied for by Super. Engineers for next
 year, a considerable reduction in the
 amounts applied for ~~being~~
 these had ^{to be} made in this year.

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now printed in 1000
of demands to
sanctioned by the Financial department.

15. The assignment of Rs. 29.80 lakhs,
including 35 lakhs for Minor Works
sanctioned by the Financial Dept
Revenue department is distributed
as shown below:-

Minor Works for which Capital & Revenue
Accounts are kept.

Capital Account (see paragraph 16) —	4,25,000.	
Revenue do — do — (17) —	3,08,110.	7,33,110.

Minor Works for which neither Capital nor
Revenue Accounts are kept. P.M.D.

Old maintenance charges of Major and
Minor Works for which Capital & Revenue

Accounts are kept. (see paragraph 18) — 4,39,074.

Ordinary Works (see paragraph 19) — 9,39,816.

Sanct. Restoration Works (see paragraph 21) — 4,26,000.

Minor Works Revenue Dept. (see paragraph 23) — 35,000.

Agricultural Works (see paragraph 22) — 6,07,000.

Total 2,980,000

16. Capital Account - The
amount proposed for expenditure
under this head compares with
the sanctioned estimates as shown
below:-

Projects

Projects.	Amount of sanctioned estimate.	Outlay to end of 1896-97.	Probable outlay during 1897-98.	Budget Estimate, 1898-99.					Total Outlay	Balance of Estimate
				Land	Works	Establishment.	Tools & plant.	Total.		
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Sangam Ament.	2,08,000	"	"	5,000	65,041	14,959	"	85,000	85,000	123,000
Kurnool-Cuddapah Canal	16,500	12,160	34,90	"	3,846	684	"	3,500	19,150	-26,50
Gangai Minor rivers.	"	"	"	"	17,886	4,114	"	22,000	22,000	-22,000
Munigera.	3,69,410	3,02,302	1,41,198	"	90,000	20,700	1,000	1,11,700	535,200	-185,790
Chopand.	3,65,000	"	47,482	"	34,959	8,041	"	43,000	90,482	274,518
Palar Ament.	19,74,008	19,59,968	11,840	"	7,886	1,814	"	9,700	198,1508	-7,500
Cheyaru Ament.	"	"	"	"	5,528	1,272	"	6,800	6,000	-6,000
Valluru Ament.	6,400	"	3076	"	2,772	638	"	3,410	6,486	-86
Shariatpore Ament.	64,000	"	"	"	30,000	6,900	"	36,900	36,900	27,100
Pelandorai Ament.	5,00,368	4,57,709	52,836	"	5,000	1,150	"	6,150	5,16,688	-16,320
Lower Coleroon Ament.	9,47,884	6,95,997	96,441	"	70,732	16,268	"	87,000	8,79,438	68,446
Maradur Ament.	"	"	"	"	3,000	690	"	3,690	3,690	-3,690
Buckingham Canal	"	"	"	"	5,000	1,150	"	6,150	6,150	-6,150
Total	"	"	"	5,000	3,40,650	78,350	1,000	4,25,000	"	"

The amount proposed for
the Sangam Ament system
provides Rs 50000
for diverting the surplus
of the Kanigiri reservoir
into the Pydam sanctioned
in 1890-91, 27 9 May/96
& the balance for Minor
Channels absolutely
necessary to be provided
with. The small amount
provided for the Kurnool.
Cuddapah Canal is
for completing the de-
marcation of the canal.

With his letter, No. 89-KN/97
17 Jan'y 1898, the Supy Engr. A. Corick
has forwarded a revised
estimate amtg to Rs 6,29,970
for the Munigera Project,
which is now under scrutiny
and will be shortly submitted
to Govt for sanction. + 7/11/97 M

The provision made for the works in
the Gangai Minor rivers, Palar Ament,
Cheyaru Ament, Maradur Ament &
Buckingham Canal systems are
mostly for unsanctioned works
for which the Supy. Engineers concerned
should submit the necessary estimate
for sanction at an early date. The

Supy. Engineer, Third Circle, should ex-
pedite the submission of the re-
vised estimate for the Chopand
project called for in P.M.G. No.
1064-I dated 29 November 1897.
The Supy. Engineer, Fifth Circle, should
submit at an early date, the
completion

completion report of the Buckingham Canal, the construction estimate for which was closed on the 31 March 1897.

Funds applied for by Super. Engineers for the following works have not been provided for:—

Sanctioned Works—

Sangam Ancient System—

Supply channel from the Panner above Sangam Ancient to Nellore tank and improving its distributaries (P.O. No. 458-I. Dated 28 May 1896).

Amount applied for.
Rs.

1,00,000.

Unsanctioned Works—

Kurnool. Cuddapah Canal.

Sirvel Project, Gvindapalli channel extension. 5,000.

Total 4,05,000.

17. Revenue Account.— The following statement shows the amount provided for each system under this head:—

Divisions.	Systems.	Extensions and improvements.	Maintenance and repairs.	Establishment.		Tools and plant.	Total.
				23 per cent. on expenditure.	10 per cent. on direct receipts.		
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Gangam.	Gangam Minor works.	"	25,000.	5,750.	30.	"	30,780.
Kistna Northern.	Dondapad tank.	"	699.	161.	"	"	860.
Cuddapah.	Saggiler.	"	6,000.	1,380.	"	"	7,380.
Kurnool.	Cumbam tank.	500.	1,500.	460.	"	"	2,460.
Coimbatore.	Kadapalli Channel.	2007.	3,800.	1,335.	8.	"	7,150.
	Arunkota — do.	998.	2,000.	690.	2.	"	3,690.
	Kaliyarogun do.	1,000.	2,805.	875.	"	"	4,680.
North Arcot.	Piney Ancient.	2,000.	9,000.	2,530.	30.	"	13,560.
	Chingleput.	"	10,000.	2,450.	30.	"	18,480.

Divisions.	Systems.	Extensions and improvements.	Maintenance and repairs.	23 per cent. on expenditure.	10 per cent. on direct receipts.	Tools and plant.	Total.
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
North Arcot.	Palar Ancient.	3822.	17,091.	7,114.	160.	-4.	38,200.
Chingleput.	do.	769.	9,228.				
	Chembambakam tank.	-2283.	-76.	-542.	10.	-109.	-3000.
	Madras Water Supply Commission extension.	-3,600.	2,803.	-183.	1840.	-10.	850.
	Vallur Ancient.	"	989.	227.	4.	"	1,220.
South Arcot.	Tirunkozilur Ancient.	5610.	7,364.	2,984.	42.	"	16,000.
	Mehmathur Ancient.	1,093.	2,090.	732.	5.	"	3,920.
	Vidduhachalam Ancient.	3,533.	1,650.	1,192.	5.	"	6,380.
	Shakatope Ancient.	1,545.	9,000.	2,425.	30.	"	13,000.
	Palandurai Ancient.	3,724.	4,672.	1,931.	25.	-2.	10,350.
	Lower Coleroon Ancient.	3,000.	11,636.	4,401.	163.	"	23,700.
Tanjore.	do.	500.	4,000.				
Tiruchirappalli.	Grandyar channel.	"	5,000.	1,150.	10.	"	6,160.
Tinnevely.	Mandur Ancient.	1003.	13,000.	3,221.	6.	"	17,230.
Gangam.	Chilka lake Canal.	"	496.	114.	"	"	610.
Nagapattinam.	Vedaranniyapur Canal.	"	2,683.	617.	100.	"	3,400.
Chingleput.	Buckingham Canal.	1,000.	54,000.	12,650.	11,400.	2000.	81,050.
	Total.	29,241.	2,08,430.	54,664.	13,900.	1875.	3,08,110.

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In all cases, the amounts applied for by Super. Engineers have been provided with slight modifications to round off totals.

18. Old maintenance charges.— The sum provided is Rs. 74,912, more than that fixed in G.O. Nos. 395-S and 484-S dated 18 July and 6 September 1890, respectively. The increase is due to the Board of Revenue having raised the old irrigation revenue for the Cauvery delta system from Rs. 23,65,000 to Rs. 33,74,200, (vide P.M.G. No. 51 I.d. 19th January 1898), and to the addition of the old irrigation revenue of Rs. 2,39,340 of the Serijer project.

19. irrigation Works. - The amounts proposed under this head are compared below with the current year's grants:-

	1898-99. Rs.	1897-98. Rs.
Original Works, major. _____	82,480.	1,14,019.
— do. —, minor (see statement A). —	1,25,327.*	1,16,501.
Repairs, (see statement A) —	3,85,700.	3,50,628.
Total.	5,93,507.	5,81,148.
Establishment at 23 per cent. on expenditure.	1,36,507.	1,32,975.
— do. — at 10 — do. — on direct revenue.	900.	900.
Total	1,37,407.	1,33,875.
Tools and plant at 1/2 per cent. on expenditure.	8,902.	8,674.
Total.	7,39,816.	7,23,697.

* Inclusive of a reserve of Rs. 38,627.

20. Under Original Works - Major funds have been provided for the following works. -

	Amount provided. Rs.
Godavari Eastern division -	
1. Re-constructing Pattanamiddi doddi Ament. _____	5,000.
Godavari Western division -	
2. Diversion of Yerracalva and construction of masonry dams across it and Gudapelli channels. _____	1,000.
Kistna Northern division -	
3. Spur Tank. _____	10,200.
4. Jonapad Tank. _____	12,800.
Kollore division -	
5. Mopand tank improvement. _____	2,500.
6. Tallapalam — do. _____	5500.
7. Sayipet. — do. _____	4,000.
8. Jimmacanudram — do. _____	3,000.
Bellary division -	
9. Yerral and Kollical tanks. _____	5,000.
Cuddapah division -	
10. Chintagunta tank. _____	10,000.
Coimbatore division -	
Constructing an aqueduct & bridge in lieu of Pungaliger outlet on the Chithrachavady channel. _____	3,130.

Handoveram tank restoration. _____	4,700.
Kamalapadi tank improvement. _____	9,000.
Kunigunda — do. _____	3,620.
Tadipatri. — do. _____	12,000.
Gandipallam tank restoration. _____	100,000.
Krishna River Kumbhara lake tank. Cuddapah division. _____	4070.
Peddapaseupula Channel. _____	15,000.
Bellary division -	
Singappa Channel improvement. _____	3,000.
Kampli channel extension. _____	2,000.
Karaindavarkami tank supply channel. _____	4,000.
Coimbatore division -	
Investigating Muthikolam and Amaravaty project. _____	15,000.
West Coast division -	
Improvements to Snamakal dam. _____	10,000.
Trinnevelly division -	
Improvements to North Kodamalakurum channel. _____	5,000.
— do — Singampatty Perungal channel. _____	3,000.
Total	2,24,590.

21. Tank Restoration Works. - The amount of Rs. ^{342,169}~~4,26,000~~ provided for expenditure on tank restoration works has been distributed as shown below:-

Divisions.	Probable balance of sanctioned estimates on 1 st April 1898. Rs.	Amounts applied for by Supp. Engineers. Rs.	Amounts provided. Rs.
Vijayapalam			
Godavari Eastern -	2,791.	4,000.	4,000.
Kistna Northern. _____	6,537.	10,000.	10,000.
Nellore. _____	38,080.	20,000.	20,000.
Salem. _____	62,879.	50,000.	50,000.
North Arcot. _____	46,704.	40,000.	40,000.
South Arcot. _____	914.	20,000.	20,000.
Chingleput. _____	119,513.	50,000.	70,169.
Nagapattinam. _____	13,300.	8,000.	8,000.
Madura. _____	97,732.	50,000.	60,000.
Trinnevelly. _____	74,823.	50,000.	60,000.
Total	4,63,273	3,02,000	3,42,169.

8

Salem division—

12. Improving supply channel to Pennapunda-
Juran tank. ————— 5000.

South Arcot division—

13. Improving Nedunathan Kumarai Aicut
across Karamangudi channel. ————— 2,800.

14. Alathur Aicut across the Cheyar river.
Reconstructing dam and improvements
to tanks and channels under the ————— 5,000.

Trichinopoly division—

15. Improvements to Kothamangalam Periyar
Kulam. ————— 2,060.

16. —do— Thuvagudi Periyar & Chittai. — 1,490.

17. Reconstructing Chintamani Odai weir
on the A.B. & Sonneri channel. ————— 2,000.

Madura division—

18. Constructing an under-tunnel at 3,200 ft.
from the head of Sechiampatty channel. — 2,000

Total 82,480.

The estimates for items 1, 6 to 8, 13, 14,
and 17 have not yet been sanctioned.
The Superintendents concerned
should expedite the submission of the
estimates for sanction of Govt.
for these at an early date.

The amounts proposed by Super-
intendents for the following works have
not been provided:—

Vizagapattam division—

- Constructing Tatakulapalem head sluice Aicut and restoring
Tatakulapalem channel and branches. ————— Amount
proposed
Rs. 1,900.

- Improving Kokirapilli channel. ————— 2,000.

- Reconstructing Atcheenna Kattu across Varaha river. — 5,000.

- Constructing Muntamamidi Kattu across Varaha river. — 5,000.

- Improving the Burugapalem Aicut across Kottakota river. — 8,300.

- Constructing Intipala Aicut. ————— 5,000.

Godavari Western division—

- Constructing surplus weir to Vathur Pedda tank. ————— 4,000.

- Constructing an aqueduct & bridge on the Chittrachavady channel. — 5,150.

provided.
Rs.

9

22. Agricultural Works.— The
distribution of Rs 6,07,000. provided
for expenditure on Agricultural works
during the next year compares with
the current year's grants as shown below

	1896-97. Rs.	1897-98. Rs.
Original Works, major. —————	71,572.	52,011
— do. —, minor. —————	10,300.	19,160.
Repairs. —————	4,05,325.	4,25,068.
Establishment, at 23 percent on expenditure. 110,215.		1,10,225.
— do. —, at 10 — " — on direct receipts. 2,400.		2,400.
Tools and plant, at 1½ — " — on expenditure. 7,188.		7,188.
Total. 6,07,000.		6,16,052

The major original works for which
funds have been provided are
enumerated in Part I of the bud-
get estimate for "43, Minor Works
and Navigation." The estimates for
the marginally noted works for
which funds have been provided in
anticipation of sanction, should be
submitted, without delay, by the Super-
intendents, Sixth Circle.

The distribution of the grants for
minor original works and repairs
is shown in statement B attached
to this note.

23. Minor Works, Revenue Dept.—

The budget estimate of Rs 35,000. is

Raising the Aprunda Cauvery
left bank from 5th to 8th B.M. — Trichinopoly
division.
Arthur division Tambaram
right bank below Sivakantam. —
— Tirunelveli division.

been distributed as shown below:-

Reserve—	Rs.
Minor Original Works. —	28,112.
Establishment. —	6,466.
Tools and plant. —	422.
Total	35,000.

Superv. Engineers should apply, at an early date, for the funds required for expenditure on sanctioned works to be executed by P. W. Dept. Officers.

24. Local Irrigation Cos Fund. —

The current year's revised estimate of expenditure is Rs. 1,365 less than the budget estimate. The decrease represents the ~~net~~ sum relinquished to the ~~Board of Revenue~~ ^{Dev. Dept.}. The budget estimate of Rs. 5,000 for next year is distributed as shown below:—

	Original Works	Repairs	Total.
	Rs.	Rs.	Rs.
Salem division.	3,000.	2,000.	5,000.

25. The total grant for "works," "repairs" and "Compensation" under all heads and the contribution to "45, Civil Works" on account of establishment and tools and plant charges are shown below:-

10

1898-99-
Rs.

10 P 1897-98.
Rs.

Total grant for "works," "repairs" ^{including} "Compensation" —	34,67,311.	36,06,620.
Establishment—		
23 per cent. on expenditure. —	7,74,167.	8,06,288.
10 — " — on direct revenue. —	34,600.	34,200.
6 — " — on indirect revenue. —	6,49,533.	6,31,983.
Total.	14,58,300.	14,72,471.
Tools and plant, at $1\frac{1}{2}$ per cent. on expenditure. —	21,644.	20,149.

26. The following statement shows the amounts provided for each division for land compensation under the several heads, excepting "49, Capital Expenditure not charged to Revenue," particulars appertaining to which are shown in para 11:—

42, Major Works (Working Expenses).

Maintenance & Repairs.	Rs.	Rs.
Godavari Central division. —	10,000.	
Godavari Western division. —	2,000.	
Kistna Western division. —	1,000.	
Trichinopoly division. —	370.	13,370.

43, Minor Works and Kanigatim.

Capital Account.

Kelkore division—

Sangam Ancient System. —	5,000.
--------------------------	--------

Agricultural Works.

Original Works.

Godavari Central division. —	8,000.	13,000.
Total	26,370.	

No 124 I d 12-2-98.
Order thereon.

The budget estimates, preliminary issue, for "Major Works" and "Minor Works and Navigation" for 1898-99, embodying the revised estimates for 1897-98, as drawn up by the Chief Engineer for Irrigation, are approved and will be forwarded to the Govt. of India. The distribution by divisions of the grants for minor original works and repairs proposed by him is also approved.

2. The attention of the Supergr. Engineers concerned is drawn to the remarks made in the foregoing note.

3. Ordered that the following letters be sent:-

JH 7.2.98
No 125 I d 12.2.98.
To Joint
Secretary to the Govt. of India,
Public Works Dept.

Sir,
In forwarding a copy of copy of Madras Government, No. 124 I d, dated 12th February 1898, together with

A.H.
10.2.98

To The Chief Engineer for Irrigation.
All Supergr. Engineers.
The Supr. Engineer on special duty,
Dangre.
" Examiner, P.W. Accounts.
" Revenue dept.
" Financial dept.

A.H.
10.2.98

the preliminary issue of the budget estimates of the Irrigation Branch for "Major Works" and "Minor Works and Navigation" for 1898-99. I am directed to request that the approval of the Govt. of India thereto may be communicated at an early date.

JH
9/2/98

H.H.
9.2.98

See
8/2/98
NCS
9/2/98

Note for H.C. P.W.
This should issue in reply to the Govt. of India with whom it is due on the 15th February 1898.
JH 10/2/98

12

A. Statement showing the proposed grants for Minor original works under Rs. 2500 each and repairs for 1898-99 under "Minor works for which neither Capital nor Revenue Accounts are kept P. W. D."

Divisions	Irrigation revenue for 1896-97	Grant for 1898-99	
		Minor Original works	Repairs
	Rs	Rs	Rs
Ganjam	1229	5000	12000
Vizagapatam	68,806	8000	18,000
Godavari Eastern	39,773	6000	15,000
" Western		4000	12,000
Kistna Eastern	11,839	"	8,000
" Northern		"	3,000
Nellore	339,799	6000	30,000
Cuddapah	1,96,618	5000	30,000
Kurnool	35,393	1,500	10,000
Bellary	1,55,383	2,500	30,000
West Coast	"	"	2,000
Coimbatore	3,20,832	3,000	15,000
Talem	1,36,435	2,000	12,000
North Arcot	2,17,698	7,000	25,000
Chingleput	6,03,004	7,000	35,000
South Arcot	3,67,601	10,000	40,000
Tanjore	46,362	1000	1,200
Nagapattam	"	700	2,500
Trichinopoly	4,29,785	8,000	25,000
Madurai	2,16,649	4,000	20,000
Tinnevely	7,79,331	6,000	40,000
Total Reserve		86,700	3,85,700
		38,627	"
Grand Total		1,25,327	3,85,700

B. Statement showing the grants for Minor original works below Rs 2,500 each and repairs under "Agricultural works" for 1898-99.

Divisions		Minor Original works	Repairs
		Rs	Rs
Ganjam		3000	6000
Vizagapatam		300	2500
Godavari	Eastern	"	15600
"	Central	"	55000
"	Western	1000	12000
Krishna	Eastern	"	12000
"	Northern	"	8100
"	Western	"	150000
Nellore		"	6000
Buckingham Canal		"	7000
Cuddapah		"	4000
Coimbatore		"	6500
Galem		"	625
Chingleput		"	2500
South Arcot		"	2500
Tanjore		3000	60000
Nagapatam		1000	10000
Trichinopoly		2000	30000
Tinnevely		"	15000
Total		10300	405325