

Public Works (1898) Department.

G.O., No. 5392

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[Despatch Abstract.]

Expenditure on Irrigation, Navigation & Agri-
cultural Works during 1897-98. Reviewing
Statements Comparing the — with the
final grants for the year, and adding that
a copy of the Pro: be forwarded to the G.O.
of India.

Expenditure on Irr. Navigation & Agricultural
Works during 1897-98 : Forwarding copy of Pro:
reviewing Statements Comparing the — with
the final grants for the year.

Dr

Forwarding copy of Proceedings reviewing statements comparing the — with the final grants for the year.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.

READ—the following paper :—

No. 182 I.

Note by the Chief Engineer for Irrigation.

The accompanying two statements comparing the expenditure incurred on Irrigation, Navigation and Agricultural works during 1897-98 with the final grants for the year are submitted to Government with reference to G.O., No. 141 W., dated 13th January 1883.

2. Statement A shows by divisions the grants and expenditure on original works and repairs under the several heads; and Statement B shows the total grants and expenditure, including establishment, tools and plant, &c., for each system and object of works. The figures representing expenditure have been verified by the Examiner of Public Works Accounts, but they do not include the supplemental transactions of the year—*vide* office-note from the Examiner of Public Works Accounts, No. 1877 B/B., dated 6th June 1898.

3. The total expenditure amounted to Rs. 55,17,790 against a total final grant of Rs. 56,16,593 as shown below :—

	Final Grant.	Expenditure.
	RS.	RS.
Imperial—		
35. Protective Works, Irrigation	1,38,750	1,43,327
42. Major Works (Working Expenses) ..	13,71,125	13,59,565
49. Capital Expenditure not charged to Revenue ...	7,81,400	7,22,571
33. Famine Relief	5,31,293	5,11,622
	28,22,568	27,37,085
Provincial—		
43. Minor Works and Navigation	27,88,520	27,74,397
Local—		
43. Minor Works and Navigation	5,505	6,308
Grand Total ...	56,16,593	55,17,790

The expenditure under Imperial and Provincial fell short of the grants by Rs. 85,483 and Rs. 14,123, respectively, but under Local there was an excess outlay of Rs. 803. The apparent large lapse under Imperial will be considerably reduced when the adjustments still to be made in the supplemental accounts for March 1898 have been effected. The expenditure under Provincial as booked by the Examiner presumably includes a large amount for percentage charges for establishment on famine-relief works in accordance with Public Works Department Code, Volume I, Chapter IX, paragraph 104, rule V, though grants have not been provided to cover this debit. The lapse under this head is actually therefore more than Rs. 14,123, but the outlay would probably have approximated more closely to the grants were it not for the orders passed in Financial Department G.O., No. 993, dated 30th November 1897, that excess over budget grants will not be permitted unless such excess can be clearly shown to be due to unavoidable circumstances.

4. 35. *Protective Works—Irrigation.*—The grant for the Rushikulya project was closely worked up to, the lapse under works being only 0.63 per cent. of the grant.

5. 42. *Major Works (Working Expenses).*—The total outlay on works and repairs under this head fell short of the grants by Rs. 5,605. The short outlay will disappear when the value of Stoney's gate obtained from England for the Periyar head sluice, Madura division, is adjusted in the supplemental accounts. It is probable, however, that the final outlay will exceed the grants as liabilities and land compensation aggregating Rs. 7,660 have yet to be adjusted in the Gódavari Central and Western divisions. In the Kistna delta and on the Kurnool-Cuddapah canal the instructions laid down in G.O., No. 180 I., dated 22nd February 1897, were apparently not kept in view, as the expenditure under maintenance and repairs was allowed to exceed the grants to the extent of Rs. 6,452 and Rs. 5,708, respectively. In the above circumstances no portion of the debit owing to the write-back of the cost of the existing head sluice at Seetanagaram ordered in G.O., No. 49 I., dated 19th January 1898, can be adjusted against the grants of the year.

6. 49. *Capital Expenditure not charged to Revenue.*—The unexpended balance of the grants for works of the Gódavari delta system is Rs. 8,957 and is due to liabilities incurred and land compensation having yet to be adjusted. The grant for the Kistna delta system was exceeded by Rs. 26,452, for which no explanation has been furnished. In the Nellore division land charges for the Allur drain affluents have still to be adjusted. In the Tanjore division Rs. 36,200 for workshop charges for fitting lift shutters to the grand anicut and Rs. 7,400 for similar charges in connection with the improvements to the Upper Coleroon anicut will be adjusted in the supplemental accounts. The unexpended balance of grant in the Madura division represents the liabilities incurred on land charges which have yet to be adjusted.

7. *Provincial—43. Minor and Navigation—Capital Account.*—In the Kistna Northern division a sum of Rs. 1,947 has been reserved to meet payments for lands taken up for the Muniyeru project, the balance of the lapse of grant of Rs. 1,072 being ascribed to the failure of the piece-worker entrusted with the main channel excavation to fulfil his engagement. The excess of Rs. 4,126 in the Nellore division is due to the late receipt of the bill for the extra span of 40 feet to the Pyderu Railway bridge, the payment for which was sanctioned in G.O., No. 122 I., dated 12th February 1898. In the South Arcot division workshop liabilities to the extent of Rs. 24,300 in connection with the improvements to the Pelandorai anicut and in the Tanjore division similar liabilities amounting to Rs. 2,500 for fitting iron shutters to the Lower Coleroon anicut have yet to be adjusted.

8. *Revenue Account.*—The grants under this head have been fully worked out. The apparent short outlay of Rs. 3,796 under maintenance and repairs in the Chingleput division is due to Rs. 3,800 having been reserved to meet workshop charges for reconstructing the Papanchavady bridge for which an estimate was sanctioned in G.O., No. 74 I., dated 27th January 1898.

9. *Minor Works for which neither Capital nor Revenue Accounts are kept, P.W.D.*—The total outlay both under original works and repairs under this head fell short of the grants by Rs. 13,450. Under the former head a debit of Rs. 3,177 is expected from the Civil Department for land taken up for the Macherla tank in the Kistna Northern division. Under the latter head there is a short outlay of Rs. 3,120 in the Vizagapatam division for which the Superintending Engineer has promised to submit an explanation, but has not yet done so. Of the lapse of Rs. 3,147 in the Gódavari Western division it is stated that Rs. 1,400 will be adjusted in the supplemental accounts, the balance of the short outlay has not yet been explained.

10. *Tank Restoration.*—The lapse under this head is only 0.26 per cent. of the grant.

11. *Minor Works—Revenue Department.*—The total outlay under both original works and repairs fell short of the grants by Rs. 4,677. The lapses occurred chiefly in the Vizagapatam and Nellore divisions for which explanations promised have not yet been furnished.

12. *Agricultural Works*.—In the Gódvári Eastern and Central divisions land compensation to the extent of Rs. 5,000 and Rs. 4,500, respectively, is expected to be adjusted in the supplemental accounts. The expenditure in the three divisions of the Kistna district fell short of the grant by Rs. 8,159, of which Rs. 3,793 represents the amount reserved for land compensation. In the Tinnevely division there was a short outlay of Rs. 3,807, of which about Rs. 1,500 will, it is anticipated, be adjusted in payment of land compensation, the balance of the lapse being attributed to a want of sufficient estimates, which can hardly be regarded as a satisfactory explanation. The variations between grants and outlay in other divisions are trifling and need no comment.

13. *Local—43. Minor Works and Navigation*.—The outlay exceeded the grants by Rs. 803.

14. 33. *Famine Relief*.—The Examiner of Public Works Accounts reports that the grants entered in the statements are based on the distribution of the sum of Rs. 66,86,000 assigned for this head as per G.O., No. 241 W., dated 28th January 1898, instead of on the existing grant of Rs. 67,19,000, for which the necessary distribution according to the various funds and departmental heads involved has not yet been communicated to him. Taking the grants as given by the Examiner, there was a lapse of Rs. 19,671, which occurred chiefly in the Ganjam and Kurnool divisions.

18th June 1898.

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

ENCLOSURES.

A.—STATEMENT showing by divisions the grant for, and expenditure incurred on, Original Works and Repairs under Irrigation, Navigation and Agricultural Works during 1897-98.

Divisions.	Imperial.										Provincial—43. Minor Works and Navigation.									
	35. Protective Works—Irrigation.		42. Major Works—Working Expenses.				49. Capital Expenditure not charged to Revenue.		Minor Works for which Capital and Revenue Accounts are kept.		Minor Works for which neither Capital nor Revenue Accounts are kept, P.W.D.				Minor Works for which Capital and Revenue Accounts are kept.		Minor Works for which neither Capital nor Revenue Accounts are kept, P.W.D.			
	Grant. Outlay.		Extensions and improvements.		Maintenance and repairs.		Grant. Outlay.		Capital account.		Revenue account.		Original works.		Capital account.		Revenue account.		Original works.	
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1																				
Ganjam	Rs. 1,13,618	Rs. 1,12,899	Rs. 1,000	Rs. 1,256	Rs. 6,436	Rs. 26,000	Rs. 26,136	Rs. 57,880	Rs. 10,500	Rs. 10,360	Rs. 409	Rs. 409	Rs. 20,727	Rs. 20,737	Rs. 3,929	Rs. 3,795	Rs. 8,712	Rs. 8,880	Rs. 20,000	Rs. 16,880
Vizagapatam	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Gódvári, Eastern	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Do. Central	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Do. Western	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Kistna, Eastern	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Do. Northern	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Do. Western	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Nellore	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Buckingham Canal	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cuddapah	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Kurnool	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bellary	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
West Coast	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Coimbatore	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Salem	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
North Arcot	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Chingleput	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Consulting Architect	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
South Arcot	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tanjore	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Negapatam	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Trichinopoly	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Madura	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tinnevely	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total	Rs. 1,13,618	Rs. 1,12,899	Rs. 55,379	Rs. 54,568	Rs. 7,99,223	Rs. 7,84,429	Rs. 5,95,023	Rs. 5,59,115	Rs. 3,56,227	Rs. 3,30,590	Rs. 26,013	Rs. 23,608	Rs. 1,98,694	Rs. 1,94,730	Rs. 2,13,897	Rs. 2,06,619	Rs. 3,56,896	Rs. 3,50,724	Rs. 1,42,850	Rs. 1,42,850
Adjustment of old maintenance charges	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total	Rs. 1,13,618	Rs. 1,12,899	Rs. 51,118	Rs. 50,307	Rs. 6,62,637	Rs. 6,47,843	Rs. 5,95,023	Rs. 5,59,115	Rs. 3,56,227	Rs. 3,30,590	Rs. 19,893	Rs. 17,488	Rs. 1,92,430	Rs. 1,88,466	Rs. 2,24,278	Rs. 2,17,000	Rs. 4,99,746	Rs. 4,98,574	Rs. 1,42,850	Rs. 1,42,850

B.—STATEMENT showing by systems the grants for, and expenditure incurred on, Irrigation, Navigation and Agricultural Works during 1897-98.

Final grants for 1897-98.						Expenditure incurred in 1897-98.						
	Final grants for 1897-98.					Expenditure incurred in 1897-98.						
	Original works.	Repairs.	Establishment.	Tools and plant.	Total.	Original works.	Repairs.	Establishment.	Tools and plant.	Refund of revenue.	Less receipts on capital account.	Total.
IMPERIAL.												
35. Construction of Protective Irrigation Works.												
Rushikulya project	1,13,618	..	24,982	150	1,38,750	1,12,899	..	32,698	1,749	..	521	1,43,327
42. Major Works—(Working Expenses).												
Goddavari delta system	13,500	2,02,894	2,22,386	46,385	4,85,715	11,294	1,95,849	2,17,197	46,222	76	..	4,70,638
Kistna delta system	11,256	2,96,013	2,04,153	58,000	5,69,422	10,934	3,02,466	2,25,666	58,078	188	..	5,97,332
Penner anicut system	1,103	11,390	11,226	5	21,508	4,472	4,472	9,252	5	..	..	10,959
Sangam anicut system	3,630	8,116	12,982	8	24,700	3,778	13,149	14,048	87	..	..	31,012
Kurnool-Cuddapah canal	8,925	55,072	22,731	1,200	87,328	9,091	60,780	27,695	1,069	60	..	98,695
Barur tank project	660	1,447	1,085	..	3,192	662	1,369	1,035	..	..	..	3,066
Cauvery delta system	14,086	37,774	45,349	5,583	16,088	13,917	38,528	43,803	5,707	195	..	13,688
Srivaikuntam anicut system	754	15,892	10,809	78	26,877	755	18,860	9,966	78	..	..	26,503
Rushikulya project	..	26,000	6,130	450	32,580	..	26,135	6,083	369	..	..	32,587
Periyar project	..	83,587	19,878	250	1,03,715	2,636	66,286	5,973	193	..	..	75,088
Total	51,118	6,62,637	5,56,209	1,01,161	13,71,125	50,307	6,47,843	5,60,718	1,00,178	519	..	13,59,565
49. Capital Expenditure not charged to Revenue.												
Goddavari delta system	71,929	..	15,264	..	87,193	62,972	..	13,300	48,006	..	..	76,272
Kistna delta system	2,56,563	..	47,472	61,000	3,65,025	2,83,006	..	53,074	..	..	..	3,84,086
Penner anicut system	100	..	23	..	123	83	..	20	..	..	..	103
Sangam anicut system	15,900	..	207	..	16,107	10,647	..	106	16	..	..	10,636
Cauvery delta system	1,07,576	..	24,628	8,140	1,40,344	63,259	..	14,404	8,212	..	..	85,575
Srivaikuntam anicut system	6,687	..	1,538	..	8,225	6,688	..	1,538	..	..	..	6,226
Periyar project	1,36,278	..	31,344	3,239	1,64,383	1,32,560	..	29,173	4,360	..	..	1,57,373
Total	5,95,023	..	1,20,476	66,961	7,81,400	5,59,115	..	1,11,614	51,842	..	..	7,22,671
Total, Imperial	7,59,769	6,62,437	7,01,667	1,67,212	22,91,275	7,22,321	6,47,843	7,06,030	1,50,271	519	521	22,25,463

B.—Statement showing by systems the grants for, and expenditure incurred on, Irrigation, Navigation and Agricultural Works during 1897-98—cont.

	Final grants for 1897-98.						Expenditure incurred in 1897-98.					
	Original works.	Repairs.	Establishment.	Tools and plant.	Total.	Original works.	Repairs.	Establishment.	Tools and plant.	Refund of revenue.	Less receipts on capital account.	Total.
	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
PROVINCIAL.												
43. Minor Works and Navigation—Works for which Capital and Revenue Accounts are kept.												
Capital Account.												
Karnool-Cuddapah canal ..	3,738	..	869	1,500	4,507	3,377	..	761	..	..	..	4,138
Munneyeru project ..	1,21,494	..	27,944	..	1,50,938	1,18,448	..	27,243	1,406	..	..	1,47,076
Sagileru do. ..	44,293	..	10,187	..	54,480	44,198	..	23,397	..	..	..	67,594
Palar anicut system ..	5,306	..	794	..	6,100	5,605	..	378	..	..	..	6,983
Pelandorai anicut system ..	43,413	..	9,985	..	53,398	21,003	..	4,831	..	..	..	26,834
Buckingham canal ..	16,490	..	3,794	..	20,284	16,483	..	3,697	..	..	..	12,220
Lower Coleroon anicut system ..	71,532	..	17,022	..	88,554	68,269	..	14,739	7,862	..	..	83,166
Ganjam anicut system ..	600	..	138	..	738	602	..	138	..	..	..	740
Shatiapote anicut do. ..	10,500	..	2,415	..	12,915	10,359	..	2,381	..	..	..	12,740
Coorn improvements scheme ..	23,175	..	5,380	..	28,555	22,829	..	5,250	..	..	..	28,079
Maradar anicut system ..	608	..	139	..	747	608	..	140	..	..	..	748
Poincy do. ..	..	..	..	..	..	13	..	8	..	..	..	16
Kalingarayan channel system ..	2,700	..	621	..	3,321	2,700	..	15	..	..	..	81
Thadapalli do. ..	1,782	..	410	..	2,192	2,017	..	621	..	..	..	3,321
Cheyar anicut system ..	25	..	6	..	31	25	..	6	..	..	..	31
Chembarambakkam tank system ..	2,283	..	627	..	2,910	2,283	..	526	..	..	..	2,814
Sangam anicut system ..	2,108	..	485	..	2,593	2,234	..	1,434	93	..	..	7,761
Dondapad tank project ..	4,970	..	..	..	4,970	4,996	..	20	..	..	..	5,016
Cumbum tank system ..	700	..	161	..	861	485	..	12	..	..	..	597
Chepad project ..	..	..	..	..	..	116	..	26	..	..	..	142
Total ..	3,56,227	..	80,817	— 6,356	4,30,688	3,30,690	..	86,152	— 6,215	..	111	4,10,416
Revenue Account.												
Ganjam minor rivers system ..	..	20,500	4,715	..	25,215	..	20,511	4,736	18	..	..	25,247
Cumbum tank system ..	..	500	115	..	615	..	528	23	..	..	..	497
Patha Cuddapah tank system ..	..	..	..	..	..	..	..	..	..	..	..	1,608
Thadapalli channel system ..	..	..	..	..	..	..	..	..	..	..	..	5,609
Arankota do. ..	..	..	..	..	..	..	..	..	..	..	..	4,777
Kalingarayan do. ..	..	..	..	..	..	..	..	..	..	..	..	5,992
Palar anicut system ..	..	..	..	..	..	..	..	..	..	..	..	36,425
Poincy do. ..	..	..	..	..	..	..	..	..	..	..	..	8,034
Cheyar do. ..	..	..	..	..	..	..	..	..	..	..	..	13,852
Chembarambakkam tank system ..	..	..	..	..	..	..	..	..	..	..	..	1,634
Total ..	3,56,227	..	80,817	— 6,356	4,30,688	3,30,690	..	86,152	— 6,215	..	111	4,10,416

	Final grants for 1897-98.						Expenditure incurred in 1897-98.					
	Original works.	Repairs.	Establishment.	Tools and plant.	Total.	Original works.	Repairs.	Establishment.	Tools and plant.	Refund of revenue.	Less receipts on capital account.	Total.
	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
PROVINCIAL.												
43. Minor Works and Navigation—Works for which Capital and Revenue Accounts are kept.												
Capital Account.												
Karnool-Cuddapah canal ..	3,738	..	869	1,500	4,507	3,377	..	761	..	..	..	4,138
Munneyeru project ..	1,21,494	..	27,944	..	1,50,938	1,18,448	..	27,243	1,406	..	..	1,47,076
Sagileru do. ..	44,293	..	10,187	..	54,480	44,198	..	23,397	..	..	..	67,594
Palar anicut system ..	5,306	..	794	..	6,100	5,605	..	378	..	..	..	6,983
Pelandorai anicut system ..	43,413	..	9,985	..	53,398	21,003	..	4,831	..	..	..	26,834
Buckingham canal ..	16,490	..	3,794	..	20,284	16,483	..	3,697	..	..	..	12,220
Lower Coleroon anicut system ..	71,532	..	17,022	..	88,554	68,269	..	14,739	7,862	..	..	83,166
Ganjam anicut system ..	600	..	138	..	738	602	..	138	..	..	..	740
Shatiapote anicut do. ..	10,500	..	2,415	..	12,915	10,359	..	2,381	..	..	..	12,740
Coorn improvements scheme ..	23,175	..	5,380	..	28,555	22,829	..	5,250	..	..	..	28,079
Maradar anicut system ..	608	..	139	..	747	608	..	140	..	..	..	748
Poincy do. ..	..	..	..	..	..	13	..	8	..	..	..	16
Kalingarayan channel system ..	2,700	..	621	..	3,321	2,700	..	15	..	..	..	81
Thadapalli do. ..	1,782	..	410	..	2,192	2,017	..	621	..	..	..	3,321
Cheyar anicut system ..	25	..	6	..	31	25	..	6	..	..	..	31
Chembarambakkam tank system ..	2,283	..	627	..	2,910	2,283	..	526	..	..	..	2,814
Sangam anicut system ..	2,108	..	485	..	2,593	2,234	..	1,434	93	..	..	7,761
Dondapad tank project ..	4,970	..	..	..	4,970	4,996	..	20	..	..	..	5,016
Cumbum tank system ..	700	..	161	..	861	485	..	12	..	..	..	597
Chepad project ..	..	..	..	..	..	116	..	26	..	..	..	142
Total ..	3,56,227	..	80,817	— 6,356	4,30,688	3,30,690	..	86,152	— 6,215	..	111	4,10,416
Revenue Account.												
Ganjam minor rivers system ..	..	20,500	4,715	..	25,215	..	20,511	4,736	18	..	..	25,247
Cumbum tank system ..	..	500	115	..	615	..	528	23	..	..	..	497
Patha Cuddapah tank system ..	..	..	..	..	..	..	..	..	..	..	..	1,608
Thadapalli channel system ..	..	..	..	..	..	..	..	..	..	..	..	5,609
Arankota do. ..	..	..	..	..	..	..	..	..	..	..	..	4,777
Kalingarayan do. ..	..	..	..	..	..	..	..	..	..	..	..	5,992
Palar anicut system ..	..	..	..	..	..	..	..	..	..	..	..	36,425
Poincy do. ..	..	..	..	..	..	..	..	..	..	..	..	8,034
Cheyar do. ..	..	..	..	..	..	..	..	..	..	..	..	13,852
Chembarambakkam tank system ..	..	..	..	..	..	..	..	..	..	..	..	1,634
Total ..	3,56,227	..	80,817	— 6,356	4,30,688	3,30,690	..	86,152	— 6,215	..	111	4,10,416

* Includes Rs. 13,334 being 23. per cent on 33. Famine-relief Works.

† Includes Rs. 22 being 23 per cent. on 33. Famine-relief works.

10

No. 539 I., 18TH JULY 1898.

ORDER—No. 539 I., dated 18th July 1898.

The Government is pleased to find that the grants of the past year have, on the whole, been fairly worked out.

2. Ordered that a copy of these Proceedings be forwarded to the Government of India with reference to its circular No. XXI P.W., dated 13th December 1882.

[Here enter No. 540 I., dated 18th July 1898.]

(True Extract.)

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

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

ENDORSEMENT—No. 540 I., dated 18th July 1898.

Forwarded.

(By order.)

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

Exd. Shaik Karim.

IRRIGATION.

Government {1898} of Madras. PUBLIC WORKS.

Recd.

Enclosures

Regd.

1898.

Spare copies

G.O., Nos. 539, 540 I., 18th July 1898.

JULY.

Expenditure on Irrigation, Navigation and Agricultural Works during 1897-98

Forwarding copy of Proceedings reviewing statements comparing the — with the final grants for the year.

GOVERNMENT OF MADRAS.
PUBLIC WORKS DEPARTMENT.

Irrigation.

READ—the following paper :—

No. 182 I.

Note by the Chief Engineer for Irrigation.

The accompanying two statements comparing the expenditure incurred on Irrigation, Navigation and Agricultural works during 1897-98 with the final grants for the year are submitted to Government with reference to G.O., No. 141 W., dated 13th January 1883.

2. Statement A shows by divisions the grants and expenditure on original works and repairs under the several heads; and Statement B shows the total grants and expenditure, including establishment, tools and plant, &c., for each system and object of works. The figures representing expenditure have been verified by the Examiner of Public Works Accounts, but they do not include the supplemental transactions of the year—*vide* office-note from the Examiner of Public Works Accounts, No. 1877 B/B., dated 6th June 1898.

3. The total expenditure amounted to Rs. 55,17,790 against a total final grant of Rs. 56,16,593 as shown below :—

	Final Grant.	Expenditure.
	RS.	RS.
Imperial—		
35. Protective Works, Irrigation	1,38,750	1,43,327
42. Major Works (Working Expenses)	13,71,125	13,59,565
49. Capital Expenditure not charged to Revenue	7,81,400	7,22,571
33. Famine Relief	5,31,293	5,11,622
	28,22,568	27,37,085
Provincial—		
43. Minor Works and Navigation	27,88,520	27,74,397
Local—		
43. Minor Works and Navigation	5,505	6,308
Grand Total	56,16,593	55,17,790

The expenditure under Imperial and Provincial fell short of the grants by Rs. 85,483 and Rs. 14,123, respectively, but under Local there was an excess outlay of Rs. 803. The apparent large lapse under Imperial will be considerably reduced when the adjustments still to be made in the supplemental accounts for March 1898 have been effected. The expenditure under Provincial as booked by the Examiner presumably includes a large amount for percentage charges for establishment on famine-relief works in accordance with Public Works Department Code, Volume I, Chapter IX, paragraph 104, rule V, though grants have not been provided to cover this debit. The lapse under this head is actually therefore more than Rs. 14,123, but the outlay would probably have approximated more closely to the grants were it not for the orders passed in Financial Department G.O., No. 993, dated 30th November 1897, that excess over budget grants will not be permitted unless such excess can be clearly shown to be due to unavoidable circumstances.

4. 35. *Protective Works—Irrigation.*—The grant for the Rushikulya project was closely worked up to, the lapse under works being only 0.63 per cent. of the grant.

5. 42. *Major Works (Working Expenses).*—The total outlay on works and repairs under this head fell short of the grants by Rs. 5,605. The short outlay will disappear when the value of Stoney's gate obtained from England for the Periyar head sluice, Madura division, is adjusted in the supplemental accounts. It is probable, however, that the final outlay will exceed the grants as liabilities and land compensation aggregating Rs. 7,660 have yet to be adjusted in the Gódavari Central and Western divisions. In the Kistna delta and on the Kurnool-Cuddapah canal the instructions laid down in G.O., No. 180 I., dated 22nd February 1897, were apparently not kept in view, as the expenditure under maintenance and repairs was allowed to exceed the grants to the extent of Rs. 6,452 and Rs. 5,708, respectively. In the above circumstances no portion of the debit owing to the write-back of the cost of the existing head sluice at Seetanagaram ordered in G.O., No. 49 I., dated 19th January 1898, can be adjusted against the grants of the year.

6. 49. *Capital Expenditure not charged to Revenue.*—The unexpended balance of the grants for works of the Gódavari delta system is Rs. 8,957 and is due to liabilities incurred and land compensation having yet to be adjusted. The grant for the Kistna delta system was exceeded by Rs. 26,452, for which no explanation has been furnished. In the Nellore division land charges for the Allur drain affluents have still to be adjusted. In the Tanjore division Rs. 36,200 for workshop charges for fitting lift shutters to the grand anicut and Rs. 7,400 for similar charges in connection with the improvements to the Upper Coleroon anicut will be adjusted in the supplemental accounts. The unexpended balance of grant in the Madura division represents the liabilities incurred on land charges which have yet to be adjusted.

7. *Provincial—43. Minor and Navigation—Capital Account.*—In the Kistna Northern division a sum of Rs. 1,947 has been reserved to meet payments for lands taken up for the Muniyeru project, the balance of the lapse of grant of Rs. 1,072 being ascribed to the failure of the piece-worker entrusted with the main channel excavation to fulfil his engagement. The excess of Rs. 4,126 in the Nellore division is due to the late receipt of the bill for the extra span of 40 feet to the Pyderu Railway bridge, the payment for which was sanctioned in G.O., No. 122 I., dated 12th February 1898. In the South Arcot division workshop liabilities to the extent of Rs. 24,300 in connection with the improvements to the Pelandorai anicut and in the Tanjore division similar liabilities amounting to Rs. 2,500 for fitting iron shutters to the Lower Coleroon anicut have yet to be adjusted.

8. *Revenue Account.*—The grants under this head have been fully worked out. The apparent short outlay of Rs. 3,796 under maintenance and repairs in the Chingleput division is due to Rs. 3,800 having been reserved to meet workshop charges for reconstructing the Papanchavady bridge for which an estimate was sanctioned in G.O., No. 74 I., dated 27th January 1898.

9. *Minor Works for which neither Capital nor Revenue Accounts are kept, P.W.D.*—The total outlay both under original works and repairs under this head fell short of the grants by Rs. 13,450. Under the former head a debit of Rs. 3,177 is expected from the Civil Department for land taken up for the Macherla tank in the Kistna Northern division. Under the latter head there is a short outlay of Rs. 3,120 in the Vizagapatam division for which the Superintending Engineer has promised to submit an explanation, but has not yet done so. Of the lapse of Rs. 3,147 in the Gódavari Western division it is stated that Rs. 1,400 will be adjusted in the supplemental accounts, the balance of the short outlay has not yet been explained.

10. *Tank Restoration.*—The lapse under this head is only 0.26 per cent. of the grant.

11. *Minor Works—Revenue Department.*—The total outlay under both original works and repairs fell short of the grants by Rs. 4,677. The lapses occurred chiefly in the Vizagapatam and Nellore divisions for which explanations promised have not yet been furnished.

12. *Agricultural Works*.—In the Gódvári Eastern and Central divisions land compensation to the extent of Rs. 5,000 and Rs. 4,500, respectively, is expected to be adjusted in the supplemental accounts. The expenditure in the three divisions of the Kistna district fell short of the grant by Rs. 8,159, of which Rs. 3,793 represents the amount reserved for land compensation. In the Tinnevely division there was a short outlay of Rs. 3,807, of which about Rs. 1,500 will, it is anticipated, be adjusted in payment of land compensation, the balance of the lapse being attributed to a want of sufficient estimates, which can hardly be regarded as a satisfactory explanation. The variations between grants and outlay in other divisions are trifling and need no comment.

13. *Local—43. Minor Works and Navigation*.—The outlay exceeded the grants by Rs. 803.

14. 33. *Famine Relief*.—The Examiner of Public Works Accounts reports that the grants entered in the statements are based on the distribution of the sum of Rs. 66,86,000 assigned for this head as per G.O., No. 241 W., dated 28th January 1898, instead of on the existing grant of Rs. 67,19,000, for which the necessary distribution according to the various funds and departmental heads involved has not yet been communicated to him. Taking the grants as given by the Examiner, there was a lapse of Rs. 19,671, which occurred chiefly in the Ganjam and Karnool divisions.

18th June 1898.

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

ENCLOSURES.

A.—STATEMENT showing by divisions the grant for, and expenditure incurred on, Original Works and Repairs under Irrigation, Navigation and Agricultural Works during 1897-98.

Divisions.	Imperial.										Provincial—43. Minor Works and Navigation.													
	42. Major Works—Working Expenses.					49. Capital Expenditure not charged to Revenue.					Minor Works for which Capital and Revenue Accounts are kept.					Minor Works for which neither Capital nor Revenue Accounts are kept, P.W.D.								
	Extensions and improvements.		Maintenance and repairs.		1	Grant.		Outly.		7	Grant.		Outly.		8	Capital account.		Revenue account.		Original works.		Repairs.		
	Grant.	Outlay.	Rs.	Rs.		Rs.	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Grant.	Outlay.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
Ganjam ..	1,13,618	1,12,899	..	..	..	26,000	26,186	..	..	..	10,500	10,360	..	..	..	20,727	20,737	3,929	3,795	8,880	..	..	..	
Vizagapatam ..	..	..	1,005	1,237	80,500	80,026	64,060	57,680	..	..	..	..	..	..	..	..	..	4,000	3,655	20,000	..	..	..	
Gódvári, Eastern ..	..	..	5,000	3,992	39,500	36,968	5,609	3,952	..	..	..	..	..	..	..	..	..	3,135	3,182	22,000	..	..	..	
Do. Central ..	..	..	7,500	6,065	82,894	78,855	2,260	1,340	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Do. Western ..	..	..	..	8,336	..	1,43,782	93,314	93,314	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Kistna, Eastern ..	..	..	..	..	..	46,360	30,812	2,56,553	1,23,445	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Do. Northern ..	..	..	11,256	2,598	4,927	1,12,323	10,630	16,000	6,234	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Do. Western ..	..	..	6,436	4,927	45,250	43,365	..	..	16,102	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Nellore ..	..	..	..	..	..	..	..	..	44,293	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Buckingham Canal ..	..	..	8,325	9,091	55,072	60,780	..	..	4,438	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Cuddapah ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Karnool ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Bellary ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
West Coast ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Coimbatore ..	..	..	660	662	1,447	1,369	..	..	4,482	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Salem ..	..	..	..	..	..	..	..	..	5,831	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
North Arcot ..	..	..	..	..	..	..	..	..	3,889	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Chingleput ..	..	..	..	..	..	..	..	..	94,413	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Consulting Architect ..	..	..	..	..	..	..	..	..	43,707	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
South Arcot ..	..	..	9,209	9,118	41,083	40,546	1,00,272	56,074	71,682	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Tanjore ..	..	..	4,800	4,703	21,277	21,544	6,304	6,186	41,019	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Nagapatam ..	..	..	96	96	5,600	5,021	1,000	1,000	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Trichinopoly ..	..	..	..	2,637	82,587	66,286	1,36,278	1,32,560	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Madura ..	..	..	1,106	1,106	21,100	21,098	6,687	6,688	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Tinnevelly ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Total ..	1,13,618	1,12,899	55,379	54,568	7,99,223	7,84,429	5,95,023	5,59,115	3,30,590	26,013	23,608	1,98,694	1,94,730	2,13,897	2,06,619	3,56,896	3,50,724	1,42,850	1,42,850	4,99,746	4,98,574	..	..	
Adjustment of old maintenance charges ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Total ..	1,13,618	1,12,899	55,379	54,568	7,99,223	7,84,429	5,95,023	5,59,115	3,30,590	26,013	23,608	1,98,694	1,94,730	2,13,897	2,06,619	3,56,896	3,50,724	1,42,850	1,42,850	4,99,746	4,98,574	..	..	

B.—STATEMENT showing by systems the grants for, and expenditure incurred on, Irrigation, Navigation and Agricultural Works during 1897-98.

Final grants for 1897-98.					Expenditure incurred in 1897-98.							Total.				
Original works.	Repairs.	Establishment.	Tools and plant.	Total.	Original works.	Repairs.	Establishment.	Tools and plant.	Refund of revenue.	Less receipts on capital account.						
IMPERIAL.																
35. Construction of Protective Irrigation Works.																
Rushikulya project	..	..	..	..	1,13,618	..	24,982	150	1,38,750	1,12,899	..	32,698	1,749	..	521	1,43,397
42. Major Works—(Working Expenses).																
Godavari delta system	..	..	..	..	13,500	2,02,894	2,22,386	46,335	4,85,715	11,204	1,95,849	2,17,197	46,222	76	..	4,70,638
Kistna delta system	..	..	..	..	11,256	2,96,013	2,04,153	58,000	5,69,422	10,934	3,02,466	2,25,666	58,078	188	..	5,97,332
Pennér ancient system	..	..	..	..	1,103	11,390	11,226	5	21,508	—	2,760	9,252	5	..	..	10,959
Sangam ancient system	..	..	..	..	3,630	8,116	12,962	8	24,708	3,778	13,149	14,048	37	..	..	31,012
Kurnool-Cuddapah canal	..	..	..	..	8,325	55,072	22,731	1,200	87,328	9,091	60,780	27,695	1,069	..	..	98,695
Barur tank project	..	..	..	..	660	1,447	1,085	3,192	3,192	662	1,369	1,035	..	..	..	3,066
Cauvery delta system	..	..	..	..	14,096	37,774	45,349	5,683	16,088	13,917	38,523	43,803	5,707	195	..	13,665
Srivaikuntam ancient system	..	..	..	..	754	15,802	10,309	78	26,877	755	18,800	9,966	78	..	..	26,603
Rushikulya project	..	..	..	..	..	26,000	6,150	450	32,680	..	26,135	6,083	369	..	..	32,587
Periyár project	..	..	..	..	..	83,587	19,878	250	1,03,715	2,636	66,286	5,973	193	..	..	75,088
Total	..	..	..	..	61,118	6,62,637	5,56,209	1,01,161	13,71,125	50,307	6,47,843	5,60,718	1,00,178	519	..	13,59,565
49. Capital Expenditure not charged to Revenue.																
Godavari delta system	..	..	..	..	71,929	..	15,264	..	87,193	62,072	..	13,300	..	..	..	76,272
Kistna delta system	..	..	..	..	2,56,553	..	47,472	61,000	3,65,025	2,83,006	..	53,074	48,006	..	..	3,84,086
Pennér ancient system	..	..	..	..	100	..	23	..	123	83	..	20	..	..	..	103
Sangam ancient system	..	..	..	..	15,900	..	207	..	16,107	10,647	..	105	..	..	..	10,636
Cauvery delta system	..	..	..	..	1,07,576	..	24,698	8,140	1,40,344	63,959	..	14,404	8,212	..	..	86,875
Srivaikuntam ancient system	..	..	..	..	6,687	..	1,538	..	8,225	6,088	..	1,638	..	..	..	8,226
Periyár project	..	..	..	..	1,36,278	..	31,344	—	1,64,353	1,32,560	..	29,173	4,360	..	..	1,57,373
Total	..	..	..	..	6,95,023	..	1,20,476	65,901	7,81,400	5,59,115	..	1,11,614	61,842	..	..	7,22,571
Total, Imperial	..	..	..	..	7,59,769	6,62,637	7,01,667	1,67,212	22,91,275	7,22,321	6,47,843	7,05,030	1,50,271	519	521	22,25,463

B.—Statement showing by systems the grants for, and expenditure incurred on, Irrigation, Navigation and Agricultural Works during 1897-98—*cont.*

	Final grants for 1897-98.					Expenditure incurred in 1897-98.				
	Original works.	Repairs.	Establishment.	Tools and plant.	Total.	Original works.	Repairs.	Establishment.	Tools and plant.	Total.
PROVINCIAL.										
43. Minor Works and Navigation—Works for which Capital and Revenue accounts are kept.										
Capital Account.										
Kurnool-Cuddapah canal ..	3,738	..	859	1,500	4,597	3,377	..	761	1,406	4,138
Mannevaru project ..	1,21,494	..	27,944	..	1,50,938	1,18,449	..	27,243	..	1,47,076
Sagileru do. ..	44,293	..	10,187	..	54,480	44,198	..	23,397	..	67,594
Palar anicut system ..	5,806	..	794	..	6,600	5,605	..	378	..	5,983
Pelandorai anicut system ..	43,413	..	9,955	..	53,368	21,003	..	4,831	..	25,834
Buckingham canal ..	16,490	..	3,794	..	20,284	16,483	..	3,697	..	19,230
Lower Coleroon anicut system ..	71,532	..	17,022	..	88,554	68,269	..	14,739	..	83,156
Vallur anicut system ..	600	..	138	..	738	602	..	138	..	740
Ganjum minor rivers anicut system ..	10,500	..	2,415	..	12,915	10,359	..	2,381	..	12,740
Shattope anicut do. ..	23,175	..	5,330	..	28,505	22,829	..	5,250	..	28,079
Cooum improvements scheme ..	608	..	139	..	747	608	..	140	..	748
Maradar anicut system ..	..	..	..	..	..	..	..	..	..	..
Poincy do. ..	..	..	..	..	..	..	..	..	..	..
Kalingarayan channel system ..	2,700	..	621	..	3,321	2,700	..	15	..	2,715
Thadapalli do. ..	1,782	..	410	..	2,192	2,017	..	621	..	2,638
Cheyar anicut system ..	25	..	6	..	31	25	..	6	..	31
Chembarambakam tank system ..	2,993	..	527	..	3,520	2,888	..	525	..	3,413
Sengam anicut system ..	2,108	..	485	..	2,593	2,493	..	1,434	..	3,927
Dondapad tank project ..	4,970	..	..	..	4,970	4,996	..	20	..	5,016
Cumbum tank system ..	700	..	161	..	861	485	..	12	..	497
Chopad project ..	..	..	..	..	..	116	..	26	..	142
Total ..	3,56,227	..	80,817	— 6,356	4,30,688	3,30,590	..	86,152	— 6,215	4,10,416
Revenue Account.										
Ganjum minor rivers system ..	..	20,500	4,715	..	25,215	..	36	4,736	.. 18	25,247
Cumbum tank system ..	..	500	115	..	615	..	..	23	..	497
Thadapalli tank system ..	..	4,525	1,168	..	5,693	394	..	685	..	1,608
Thadapalli channel system ..	..	3,000	923	..	3,923	999	..	778	..	5,609
Arkenkote do. ..	..	5,000	1,173	..	6,173	124	..	880	..	4,777
Kalingarayan do. ..	..	21,395	6,938	.. 4	28,361	8,032	..	6,957	.. 4	5,992
Palar anicut system ..	..	4,000	1,525	..	5,525	2,498	..	1,536	..	36,425
Poincy do. ..	..	9,500	2,655	..	14,155	2,000	..	2,614	..	8,094
Chembarambakam tank system ..	..	1,943	271	.. 109	1,620	2,283	..	280	.. 109	13,852
Total ..	..	..	80,817	— 6,356	4,30,688	3,30,590	..	86,152	— 6,215	4,10,416
Minor works for which neither Capital nor Revenue Accounts are kept.										
Madras water supply and irrigation extension ..	..	4,100	1,955	.. 10	2,445	..	3,600	4,104	.. 10	1,991
Vallur anicut system ..	..	500	166	..	666	200	..	470	..	824
Tirukkoyilur anicut system ..	..	8,000	2,573	..	13,573	3,024	..	8,083	..	13,693
Mehamattur do. ..	..	1,600	396	..	2,096	116	..	1,604	..	2,118
Vridhaachalam do. ..	..	180	552	..	732	161	..	2,202	..	2,929
Shattope do. ..	..	1,000	2,330	..	3,330	559	..	2,396	..	12,662
Pelandorai do. ..	..	2,791	2,494	.. 2	5,285	2,827	..	2,274	.. 2	12,964
Lower Coleroon do. ..	..	3,692	4,970	..	8,662	2,821	..	4,476	..	24,341
Nundayar channel ..	..	3,400	792	..	4,192	..	..	3,404	.. 38	4,079
Maradar anicut system ..	..	9,000	2,143	..	11,143	142	..	8,909	..	10,997
Chikka lake canal ..	..	227	52	..	279	..	..	227	.. 75	302
Buckingham canal ..	..	54,000	23,951	.. 762	79,273	580	..	50,241	.. 98	72,903
Vedaramaniyam canal ..	..	5,065	1,265	..	6,330	..	..	5,107	.. 23	6,392
Dondapad tank project ..	..	637	147	..	784	..	..	533	..	666
Total ..	19,893	1,92,430	62,737	627	2,75,687	17,488	..	1,88,466	626	2,61,032
Minor works for which neither Capital nor Revenue Accounts are kept.										
Old maintenance charges ..	..	..	..	..	..	..	..	..	..	..
Ordinary works ..	..	1,42,850	2,82,253	1,868	4,37,352	10,381	..	1,42,850	1,868	4,26,136
Total ..	..	1,42,850	2,82,253	1,868	4,37,352	10,381	..	1,42,850	1,868	4,26,136
Tank Restoration Works.										
Execution ..	..	2,39,168	55,009	3,587	2,97,764	..	..	2,38,544	3,571	2,96,763
Minor works, Revenue Department ..	..	12,672	7,463	486	20,623	17,133	..	10,338	414	34,545
Total ..	..	2,44,054	62,472	4,073	3,10,600	28,866	..	2,48,882	4,005	33,333
Agricultural works ..										
Total Provincial ..	..	1,33,705	1,08,887	6,946	2,49,538	1,22,187	..	1,27,000	6,404	2,55,591
LOCAL.										
43. Minor Works and Navigation.										
Minor works for which neither Capital nor Revenue Accounts are kept ..	..	2,510	..	..	2,510	..	..	..	..	..
33. Famine Relief—Imperial ..	..	2,98,705	..	..	2,98,705	2,479	..	3,829	..	6,308
Total ..	..	2,98,705	..	..	2,98,705	2,479	..	3,829	..	6,308

* Includes Rs. 13,334 being 23 per cent on 33. Famine-relief Works.

† Includes Rs. 22 being 23 per cent on 33. Famine-relief works.

ORDER—No. 539 I., dated 18th July 1898.

The Government is pleased to find that the grants of the past year have, on the whole, been fairly worked out.

2. Ordered that a copy of these Proceedings be forwarded to the Government of India with reference to its circular No. XXI P.W., dated 13th December 1882.

[Here enter No. 540 I., dated 18th July 1898.]

(True Extract.)

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

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

ENDORSEMENT—No. 540 I., dated 18th July 1898.

Forwarded.

(By order.)

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

Public Works (1898) Department.

CURRENT No. 5366

From The Chief Engineer
Irrigation

No. 182 I

Order

Dated 16.6.98

Received } 27.6.98
Registered }

Enclosures 2 sets

Spare copies

SUBJECT.

Review on short cutlay on
all irrigation works done
1897-98

Noted by the Chief Insp.
for Irrigation

The accompanying two statements comparing the expenditure incurred on Irrigation, Navigation & Agricultural works during 1897-98 with the final grants for the year are submitted to Govt with reference to G.O. No. 141 W, dt 13 Jan /83.

2. Statement A. shows by divisions the grants, & expenditure on original works & repairs under the several heads; & Statement B. shows the total grants & expenditure, including establishment, tools & plant, &c. for each

Print of

Issue emergently

23-6-98

100

25/6/95

system & object of works. The figures representing expenditure have been verified by the Examiner of P. W. Accounts, but they do not include the supplemental transactions of the year - vide office note from the Ex. Secy. No. 1877 B, dt 6th June 1901.

* Flayed D

3. The total expenditure amounted to Rs 55,17,790 against a total final grant of Rs 56,16,593 as shown below:—

Imperial—

	Final grant Rs	Expenditure Rs.
35. Protective Works, Irrigation	138,750	143,327
42. Major Works (Working Expenses)	13,71,125	13,59,565
49. Capital Expenditure not charged to Dept.	7,81,400	7,22,571
33. Famine Relief	5,31,293	5,11,622

Provincial—

43. Minor Works Navigation	27,88,520	27,74,397
----------------------------	-----------	-----------

Local—

43. Minor Works Navigation	5505	6308
Grand Total	56,16,593	55,17,790

The expenditure under Imperial & Provincial

* Flayed E

as booked by the Examiner presumably includes a large amount for percentage charges for establishment on famine relief works in accordance with P.W.D. Code Vol I, Chap IX, para 104, rule V, though grants have not been provided to cover this debit. The lapse under this head is actually therefore more than Rs 14,123, but the outlay

of Rs 14,123, but the outlay

fell short of the grant by Rs 85,483 + Rs 14,123, respectively, but under Local there was an excess outlay of Rs 803. The apparent large lapse under Imperial will be considerably reduced when the adjustments still to be made in the supplemental Accounts for March 1901 have been effected. The expenditure under Provincial ^{would} have approximated more closely to the grants ^{very if not} for the orders passed in Final Dept. L.O. No. 993, dt 30 Nov 1900 that excess over budget grants will not be permitted unless such excess can be clearly shown to be due to unavoidable circumstances.

35 Protective Works,

Irrigation. The grant for the Rushikulya Project was closely worked up to, the lapse under works being only 0.63 percent of the grant.

5. 42. Major Works, (Working Expenses). The total outlay on works & repairs under this head fell short of the grants by Rs 5605. The short outlay will disappear when the value of Storey's gate obtained from England for the Periyar head sluice, Madras, is adjusted in the supplemental accounts. It is probable, however, that the final outlay will exceed the grants as liabilities & land compensation aggregating Rs 7660 have yet

+ Slagged G.

+ Slagged M.
Being original
summed for difference
27/6/88
MB

to be adjusted in the Godavari Central & Western Dns. In the Krishna Delta & on the Kurnool-Luddapah Canal the instructions laid down in G.O. No. 180 J, of 22nd Feb/87, were apparently not kept in view, as the expenditure under maintenance & repairs was allowed to exceed the grants to the extent of Rs 6452 & Rs 5708, respectively.

In the above circumstances no portion of the debit owing to the write-back of the cost of the existing head sluices at Sutanagarapuram ordered in G.O. No. 49 J, of 19 Jan/87, can be adjusted against the grants of the year.

6. 49. Capital Expenditure not chargeable to Rev.. The unexpended balance of the grants for works

of the Godavari Delta system is Rs 8957 & is ~~due~~ due to liabilities incurred & land compensation having yet to be adjusted. The grant for the Krishna Delta system was exceeded by Rs 26452 for which no explanation has been furnished. In the Bellare D. land charges for the Allah drain affluents have still to be adjusted. In the Tanjore D. Rs 36200 set for workshop charges is for fitting lift shutters to the Grand Anicut & Rs 7400 for similar charges in connection with the improvements to the Upper Coleroon. Amount will be adjusted in the Supply & Est. Accounts.

Flayd. P.

The unexpended balance of grant in the Madura D. represents the liabilities incurred on land charges which have yet to be adjusted.

7. Provincial. 43. Minor Works. Capital Account.

In the Krishna Northern D. a sum of Rs 1947 has been reserved to meet payments for lands taken up for the Mungera Project. The balance of the lapse of grant of Rs 1072 being ascribed to the failure of the pioneer worker entrusted with the main channel excavation to fulfil his engagement. The excess of Rs 4626 in the Bellare D. is due to the late receipt of the bill for the extra span of 40 ft for the Tyderm Railway bridge the payment for which was sanctioned in G.O. No. 122 I of 12 Feb/91. In the So. Arcot D.

of workshop liabilities to
by the extent of Rs 24,300
in connection with the
improvements to the
of Pelandorai Ament
to in the Tanjore D.
Similar liabilities
Lantg. to Rs 2,500 for
a fitting iron shutters
to the lower Coleroon
Ament have yet to
be adjusted.

8. Revenue Account.

The grants under this
head have been fully
worked out. The apparent
short outlay of Rs 3,796
under Maintenance &
Repairs in the Chingput
D. is due to Rs 3,800
having been reserved
to meet workshop charges
for reconstructing the
a Panchavady bridge
for which an estimate
was sanctioned in G.O.

+ Flagg @

No 74 J. of 27 Jan 1908.

9. Minor Works for which
neither Capital nor Rev.
Accounts are kept, P.W.D.

The total outlay both
under original works &
repairs under this head
fell short of the grants
by Rs 13,450. Under the
former head a debit
of Rs 3,177 is expected
from the Civil Dept
for land taken up
for the Macherla
bank in the Krishna
North D. Under the
latter head there is
a short outlay of Rs
3,120 in the Vizagapatnam
D. for which the Supp.
Emp has promised to
submit an explanation
but has not yet done
so. Of the lapse of Rs
3,147 in the Godavari
Western D. it is stated
that Rs 1,400 will be
adjusted in the supplement

accounts, the balance of the short outlay has not yet been explained.

10. Tank restoration.

The lapse under this head is only 0.26 per cent of the grant.

11. Minor Works, Rev. Dept.

The total outlay under both original works & repairs fell short of the grants by Rs 4,677. The lapses occurred chiefly in the Vizagapatam & Nellore Divs for which explanations promised have not yet been furnished.

12. Agricultural Work.

In the Godavari Eastern & Central Divs land compensation to the extent of Rs 5000 & Rs 4500, respectively,

is expected to be adjusted in the supplemental accounts. The expenditure in the three divisions of the Krishna D. fell short of the grant by Rs 8,159 of which Rs 3,793 represents the amount reserved for land compensation. In the Tinnevely Div there was a short outlay of Rs 3,807 of which about Rs 1,500 will, it is anticipated, be adjusted in payment of land compensation, the balance of the lapse being attributed to a want of sufficient estimates, which can hardly be regarded as satisfactory explanation. The variations between grants & outlay in other

dues are trifling & need no comment.

13. Local. 43. Minor Works & repairs. The outlay exceeded the grants by Rs 803.

14. 33. Famine Relief.

The Examiner of P. W. reports that the grants entered in the statements are based on the distribution of the sum of Rs 66,86,000 assigned for this head as per G.O. No 241 W, 4 28. Jan 1908, instead of on the existing grant of Rs 67,19,000, for which the necessary distribution according to the various funds & departmental heads involved has not yet been communicated to him. Taking the grants as given by him - 1, 4, 500, respectively,

Flagged S

The Examiner, there was a lapse of Rs 19,671, which occurred chiefly in the Ganjam & Turnool Dues.

Went
Statements
x B

No 5392 of 18.7.88

Order thereon.

The Government is pleased to find that the grants of the past year have on the whole been fairly worked out.

2. Ordered that a copy of these Procs. be forwarded to the Govt of India with reference to its Circular No XX1 P.W., 13. Dec 1882.

Endorsement. 5408 of 18.7.88
Forwarded.

To The Chief Eng. P.W.D.
Chief Eng. for District
Do. T.R. & S.
all S.E.
Es. P.W.D.
New Dept
16/6/98

Flag. C.

13. Dec 1882

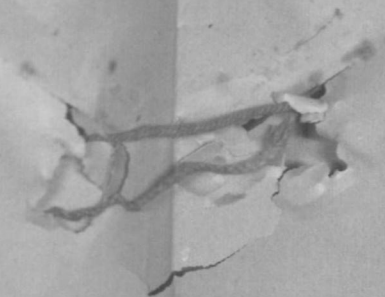
15/6/88

16.6.88

the same time
a paper of the 18th of
the month of
the year 1800

But then
the government
is pleased to find
that the grant of
the year 1800
on the other hand
fairly warranted
a. because that
a copy of the
be furnished to the
proper authorities
reference to it
the 18th of
the month of

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proper authorities
reference to it
the 18th of
the month of

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5366/88

A. Statement showing by divisions the grant for and expenditure

incurred on Original works and repairs under Irrigation, Navigation and Agricultural works during 1897-98.

Provincial - 43 minor works and Navigation.

Minor works for which Capital and Revenue accounts are kept

Minor works for which neither Capital nor Revenue accounts are kept P.W.D.

Divisions	Imperial							Provincial - 43 minor works and Navigation.		Minor works for which Capital and Revenue accounts are kept								Minor works for which neither Capital nor Revenue accounts are kept P.W.R.			
	35. Protective works-Irrigation		42. Major works - working expenses.				47. Capital expenditure charged to Revenue	Capital account		Revenue account				Original works		Repairs					
	Grant	Outlay	Extensions and improvements		Maintenance and repairs			Grant	Outlay	Extensions and improvements		Maintenance and repairs		Grant	Outlay	Grant	Outlay				
			Grant	Outlay	Grant	Outlay	Grant			Outlay	Grant	Outlay									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19			
Ganjam									10,500	10,360			20,727	20,737	3929	3795	8712	8880			
Vizagapatam	113,618	112,899			26,000	26,136		57,680							4,000	3,655	20,000	16,880			
Godavari Eastern								39,52							3,135	3,182	22,000	21,740			
Do. Central			1,000	1,237	80,500	80,026	64,060	13,40							11,700	11,146	12,900	9,753			
Do. Western			5,000	3,992	39,500	36,968	5,609	93,314								- 17	11,000	10,947			
Krishna Eastern			7,500	6,065	82,894	78,855	2,260	30,812	12,646	12,344			637	533	23,412	20,279	3,709	3,710			
Do. Northern				8,336		14,378		1,58,879													
Do. Western			11,256		2,960	13,360	2,565	10,630	2,108	6,234					18,185	17,167	24,000	24,350			
Nellore				2,598		1,12,323			16,102	16,102	409	409	34,484	34,484							
Buckingham Canal			6,436	4,927	45,250	43,365	16,000		44,293	44,314					3,500	3,386	2,150	2,136			
Cuddapah									4,438	3,862		-1,412	500	528	1,650	1,641	17,900	18,151			
Kurnool															38,310	36,719	42,600	44,203			
Bellary			8,325	9,091	55,072	60,750											3,300	3,072			
West Coast																					
Coimbatore									4,482	4,716	1,616	1,517	12,525	12,518	24,019	23,386	13,790	13,518			
Salem															1,500	1,544	8,500	8,462			
North Arcot			660	662	14,47	13,69			5,831	5,564	7,500	7,498	28,004	27,794	10,000	9,749	16,000	15,999			
Chingleput									3,889	3,879	5,571	5,586	38,256	34,460	18,200	18,226	33,735	33,772			
Consulting Architect																					
South Arcot									9,441	7,082	10,032	9,145	43,096	43,368	11,680	12,747	37,400	36,049			
Tanjore								56,074	43,707	41,019	692	723	3,000	2,888		14	1220	1,238			
Nagapattinam			9,200	9,118	41,083	40,546	10,072	6,186					50,65	5,107	25	25	2,150	2,133			
Trichinopoly			4,800	4,703	21,277	21,544	6,304	1,000					3,400	3,404	15,242	15,057	13,000	12,876			
Madura			96	96	5,500	5,021	1,000	13,256							13,810	13,244	11,480	11,482			
Tinnevely				2,637	83,587	66,286	1,36,278	6,688		13	193	142	9,000	8,909	11,600	11,674	32,000	32,142			
			1,106	1,106	21,100	21,068	6,687														
Total	113,618	112,899	55,379	54,568	799,223	784,429	5,95,023	559,115	3,56,227	3,30,590	26,013	23,608	198,694	1,94,730	2,13,111	2,06,619	3,56,896	3,50,724			
Adjustment of Old Maintenance Charges -			-4,261	-4,261	-1,36,586	-1,36,586					-6,120	-6,120	-6,264	-6,264	10,881	10,000	14,285	14,285			
Total	113,618	112,899	51,118	50,307	662,637	647,843	5,95,023	559,115	3,56,227	3,30,590	19,893	17,488	192,430	188,466	2,24,278	2,17,000	4,99,746	4,93,574			

A Statement showing by divisions the grant for and expenditure incurred on Original works and repairs under Irrigation, Navigation and Agricultural works during 1897-98 Contd.

Divisions	Provincial - 43 Minors works and Navigation								Contd.		Local - 43 Minors works and Navigation				Total		33. Famine Relief Imperial	
	Tank Restoration works		Minors works - Revenue Department				Agricultural		works		Original works		Repairs					
	Execution		Original works		Repairs		Original works		Repairs									
	Repairs																	
	Grant	Outlay	Grant	Outlay	Grant	Outlay	Grant	Outlay	Grant	Outlay	Grant	Outlay	Grant	Outlay	Grant	Outlay	Grant	Outlay
	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
Ganjam									2000	2012	"	"	"	"	188486	187754	44826	30781
Vizagapatam							3000	2935	2500	2335	"	"	"	"	31641	26594	21600	23046
Godavari Eastern	1000	1085	3841	2920	"	-285	300	4	48635	42511	"	"	"	"	228070	214690	6900	5536
" Do - Central	6500	6378	1910	1602	330	303	"	31	49500	44239	"	"	"	"	104809	91300	"	"
" Do - Western	"	"	"	"	"	"	4500	2149	9000	7948	"	"	"	"	144819	132376	"	"
Krishna Eastern	"	4	"	"	"	"	18565	17265	"	"	"	"	"	"	"	"	"	"
" Do - Northern	21420	21733	"	"	"	"	82968	77976	76134	72972	"	"	"	"	909566	927982	"	"
" Do - Western	"	"	"	"	"	"			2500	2237	"	"	"	"	118417	11264	"	3104
Nellore	80	36	2698	1678	1160	640	"	"	1372	1372	"	"	"	"	52367	52367	"	"
Buckingham Canal	"	"	"	"	"	"	"	"	1500	1543	"	"	"	"	70793	70830	230889	231167
Cuddapah	"	"	"	"	"	"	"	"	"	"	"	"	"	"	91275	95597	77918	65336
Hurnool	"	"	"	"	"	220	"	"	"	"	"	"	"	"	81710	80922	149160	152652
Bellary	"	"	"	"	3390	2956	"	"	"	"	"	"	"	"	3300	3072	"	"
West Coast	"	"	"	"	800	"	"	"	"	"	"	"	"	"	"	"	"	"
Coimbatore	"	"	"	"	"	"	"	40	2840	2853	110	"	1140	"	61442	59500	"	"
Salem	"	"	"	"	880	952	40	40	625	646	2400	2479	600	603	50072	49899	"	"
North Arcot	31000	30962	"	"	3340	3172	"	"	"	"	"	"	"	"	94070	93806	"	"
Chingleput	25000	25070	1364	1061	371	371	"	"	8628	8543	"	"	"	"	159588	155817	"	"
Consulting Architect	50909	50949	"	"	"	"	400	402	"	"	"	"	"	"	143	117	"	"
South Arcot	"	"	"	"	"	"	143	117	7900	7800	"	"	"	"	235261	210773	"	"
Tanjore	26599	26400	3141	3181	1000	1001	"	"	56600	58504	"	"	"	"	262359	216180	"	"
Nagapatam	"	"	"	"	35	25	6550	6031	"	"	"	"	"	"	70908	70843	"	"
Vizagapatam	16560	16125	"	"	420	405	1057	1389	13250	13226	"	"	1255	3226	101453	102478	"	"
Trichinopoly	"	"	4557	4557	61	61	7542	7570	49800	49610	"	"	"	"	266940	247928	"	"
Madurai	20700	20702	200	200	885	817	"	"	"	"	"	"	"	"	"	"	"	"
Tinnevely	39400	39100	2065	1934	"	"	8640	6278	13500	12055	"	"	"	"	145291	141109	"	"
Total	239168	238544	19776	17133	12672	10638	133705	122187	346284	330406	2510	2479	2995	3829	3472080	3342498	531293	511622
Adjustment of Old Maintenance Charges	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
Total	239168	238544	19776	17133	12672	10638	133705	122187	346284	330406	2510	2479	2995	3829	3472080	3342498	531293	511622
12#	5	5	4	4	4	4	5	4	4	4	4	4	4	4	5	4	4	4

W. Hyatt
Chief Engineer for Irrigation

Indonesian bank notes

637

147

"

784

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533

123

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"

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656

264,032

B-Statement showing by systems the grants for, and expenditure incurred on, Irrigation, Navigation and Agricultural works during 1897-98:-

Final grants for 1897-98				Expenditure incurred in 1897-98							
Original works	Repairs	Establi-ment	Tools and plant	Total	Original works	Repairs	Establi-ment	Tools and plant	Refund of unexpended revenue account	Less receipts	Total
Vallur ancient Sytem	200	500	166	"	866	200	470	154	"	"	824
Tirukkoiyalur ancient do.	3002	8000	2573	"	13575	3024	8083	2586	"	"	13693
Mechamattur do do.	100	1600	396	"	2096	116	1604	398	"	"	2118
Vridhachalam do.	180	2200	552	"	2932	161	2202	566	"	"	2929
Shaktiappu do.	1000	9000	2330	"	12330	859	9398	2395	"	"	12652
Selaundurai do.	2791	7942	2494	-2	13225	2827	7865	2274	-2	"	12964
Lower Coleroon do.	3592	17296	4970	-	25858	2821	17046	4476	-2	"	24341
Muddayar Channel	"	3400	792	"	4192	"	3404	637	38	"	4079
Maradur ancient Sytem	193	9000	2143	"	11336	142	8909	1946	"	"	10997
Chilka lake Canal	"	227	52	"	279	"	227	75	"	"	302
Buckingham Canal	570	54000	23951	752	79273	586	50241	21268	710	98	72903
Vedamaraniam do.	"	5065	1265	"	6330	"	5107	1262	23	"	6392
Dondupad tank proposed	"	637	147	"	784	"	533	123	"	"	656
Total	19893	192430	62737	627	275687	17488	188466	57354	626	98	264032
Minor works for which neither Capital nor Revenue Accts. are kept.											
Old main water chapp	10381	142850	282253	1868	437352	10381	142850	271037	1868	"	426136
Ordinary work	21389	356896	131496	8521	710810	206619	350724	211038	13757	83	782221
Tank Restoration works	"	239168	55009	3587	297764	"	238544	54648	3571	"	296763
Excavation	19776	12672	7463	486	40397	17133	10638	6360	414	"	34545
Minor works Res. Dept.	244054	751586	476221	14462	1486323	234133	742756	543083	19610	83	1539665
Total											

Includes Rs 22/- being 23% on Rs 337 minor works.

Agricultural books

Total Procs

Local

43. Minor works & rearranging

Minor works for which

neither Capital nor Revenue

Accounts are kept:

33 Famine Relief Imperial

Agricultural works	1,33,705	3,46,284	1,08,884	6,946	5,95,822	1,22,184	3,30,406	1,00,996	6,404	2,91	"	5,60,284
Total Provincial	1,53,879	12,90,300	7,28,662	15,679	27,88,520	7,04,398	12,61,628	78,7585	20,425	472	111	27,74,397
Local												
43. Minor works & Drainage												
Minor works for which neither Capital nor Revenue accounts are kept:-	2510	2995	"	"	5,505	2,479	3829	"	"	"	"	6308
33 Famine Relief, Imperial	298,705	2,32,588	"	"	5,31,293	2,86,931	2,24,691	"	"	"	"	5,11,622

W. H. Huffer,
Chief Engineer for Drainage

Piney Ancient-Syplem

Making a new channel - do

Thaatsalli - do - do -

Wholesale - do - do -
 to the Mint - do -

Onegor went - do -
L. Henry was taken -

Shewbarn bekam lank^{do}
Sanger President

Saugam Anent - do -
Dr. G. - look to get -

Dondepos bank project-
2 1 15-10 11.

Kumblers Laut System

Chesed Project.

Revenue Account.

Stevens Avenue
Union Grove Wisconsin

Yangam Minor Rivers of the

Summum hanc system
Pal. P. 28. 17. 1

Jaatha Uddapah bank-d.

Thadaballi channel - do -

Do KenKala do —

Kalingarayan - do -

Palat. anicent. Syphentim

Poincy - do - do -

to Henry - do - do -

Periyar - no - no -
Chembarambakkam tank

B. trivittatum - Sakam. Lanka
- do.

Sargam - do - do -	15900	"	207	"	16107	10527	"	105	-16	"	"	10,636
Lawney della - do -	107576	"	24628	8140	120344	63259	"	14404	8212	"	"	85,875
Swiraitam dam anicut - do -	6687	"	1538	"	8225	6688	"	1538	"	"	"	8226
Periyar Project -	136278	"	31344	- 3239	164383	132560	"	29173	-4360	"	"	157873
Total	595023	"	120476	65901	781400	559115	"	111614	51842	"	"	722571
Total Imperial	759759	662637	701667	167212	2291275	722321	647843	705030	150271	519	521	2225463

Provincial

43. Minor works and Savings

Works for which Capital and

Revenue accounts are kept

Capital account

Harvard Cuttappah canal

Munneyeru Project

Sagederu - do -

Palar anicut System

Palandurai - do -

Buckingham Canal -

Lower Coleroon anicut System

Vallur anicut System

Gurjara minor rivers - do -

Shokastope anicut - do -

Common Improvements Scheme

Wardur anicut System

35. Construction of public works

Navigation works

Rushikulya Project

42. Major works

(Working Expenses)

Godavari delta System

Kistna - do - do -

Penner anicut - do -

Sargam - do - do -

Harvard Cuttappah Canal

Barur tank Project

Lawney della System

Swiraitam dam anicut - do -

Rushikulya Project

Periyar Project

Total

49. Capital Expenditure

not charged to Revenue

Godavari delta System

Kistna - do - do -

Penner anicut - do -

3. Budget for 1933-4 being 23% on 1932-33

1933-4

1934-5

1935-6

1936-7

1937-8

1938-9

1939-40

1940-1

1941-2

1942-3

1943-4

1944-5

1945-6

1946-7

1947-8

1948-9

1949-50

1950-1

1951-2

1952-3

1953-4

1954-5

1955-6

0652
5366/18