Public Works (1897) Department.

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G.O., No. 570-H 9

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[Despatch Abstract.]

Expenditure on Irrigation Works. Passing orders on Note by the Chief Engineer for Irrigation reviewing the Statements of Grants for, and Expenditure on, Irrigation, Navigation and Agricultural Works during 1896-97.

Expenditure on Irrigation Works. Forwarding Copy of Res: embodying a Note by the Chief Engineer for Irrigation reviewing the Statements of Grants for and expenditure on, Irrigation Navigation and Agricultural Works during 1896-97.

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V. 6/97

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IRRIGATION.
ACCOUNT.

Government {1897} of Madras.

PUBLIC WORKS.

Recd.
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G.O., Nos. 570, 571 I., 18th June 1897.

JUNE.

Expenditure on Irrigation Works

Forwarding copy of proceedings embodying a note by the Chief Engineer for Irrigation reviewing the statements of grants for, and expenditure on Irrigation, Navigation and Agricultural works during 1896–97.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

READ—the following paper:—

No. 124 I.

Note by the Chief Engineer for Irrigation.

The accompanying two statements which compare the expenditure on Irrigation, Navigation and Agricultural works during 1896-97 with the final grants for the year are submitted to Government in accordance with G.O., No. 141 W., dated 13th January 1883.

2. Statement A shows by divisions the grants for, 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 are subject to modification when the supplementary accounts for March 1897 have been booked by the Examiner (*vide* his office-note No. 1705 D./B., dated 28th May 1897).

3. The total expenditure amounted to Rs. 62,90,728 against a total final grant of Rs. 64,50,532 as shown below:—

	Grant. Rs.	Expenditure. Rs.
Imperial.		
35. Protective Works, Irrigation	2,03,500	2,04,087
42. Major Works (Working expenses)	15,89,500	16,03,425
49. Capital Expenditure not charged to Revenue ...	7,85,750	7,07,402
Total ...	25,78,750	25,14,914
Provincial.		
33. Famine Relief	31,048	15,931
43. Minor Works and Navigation	38,27,150	37,49,522
Total ...	38,58,198	37,65,453
Local.		
43. Minor Works and Navigation	13,584	10,361
Grand Total ...	64,50,532	62,90,728

The total lapse appears as 2·47 per cent. on the whole grant, but this will be considerably reduced by the adjustments yet to be made.

4. 35. *Protective Works, Irrigation.*—The works of the Rushikulya project were proceeded with very satisfactorily, the operations of the year resulting in a small excess of Rs. 587 over the grant.

5. 42. *Major Works (Working expenses).*—The total expenditure on works and repairs under this head exceeded the grants by Rs. 3,553. On the Rushikulya project in the Ganjám division, an excess of Rs. 6,730 was incurred under maintenance and repairs in anticipation of sanction to an additional allotment which was applied for but not sanctioned. The excess is ascribed to increase in the number of completed works to be maintained. The unspent balance of Rs. 1,371 in the Kistna Western division represents the amount reserved to meet payment for compensation

of land in the supplemental accounts for March 1897. Rs. 2,798 of the grant for the Kurnool-Cuddapah canal lapsed. The detailed explanation for the short outlay promised by the Superintending Engineer, III Circle, has not yet been submitted. The excess of Rs. 2,263 under extensions and improvements in the Negapatam division is due to the write-back of expenditure ordered in G.O., No. 919 I., dated 3rd November 1896.

6. 49. *Capital Expenditure not charged to Revenue.*—The unexpended balance of the grants for works of the Gódávari delta system is Rs. 15,587, which is partly due to the unavoidable delay in settling the details of the falling shutters required for the Gódávari anicut, and partly to liabilities incurred under land compensation not having yet been adjusted. The apparent short outlay of Rs. 5,156 on works of the Kistna delta system represents the amount reserved in the Kistna Western division to meet payment for compensation of land in the supplemental accounts for March 1897. The Executive Engineer states that the Sub-Collector promised to send in bills for this amount. Under tools and plant of this system there is a liability of Rs. 26,327 on account of the two stern wheel steamers from the Kidderpore dockyard which requires adjustment. The short outlay of Rs. 1,392 in the Nellore division will disappear when land compensation charges have been adjusted. In the Tanjore division the workshop debits for shutters for the Grand anicut, Mudicondanar bridge and Keeranur dam (about Rs. 12,500) are still awaited. The apparent short outlay in the Negapatam division is attributable to the reduction of expenditure owing to the write-back of Rs. 2,500 ordered in G.O., No. 919 I., dated 3rd November 1896, from the Capital to the Revenue account of the Cauvery delta system. The grant for works of the Periyár project in the Madura division was fully worked out, but land compensation charges to the extent of Rs. 6,853 have to be adjusted in the supplemental accounts for March 1897. The short outlay of Rs. 537 on the Srívaikuntam anicut system in the Tinnevelly division is ascribed to the failure of the contractor employed on the improvements to the Palayakoyal tank.

7. *Provincial*—43. *Minor Works and Navigation, Capital Account.*—In the Kistna Northern division, Rs. 1,440 have been reserved to meet land compensation charges for the Dondapad and Munuyéru projects. The short outlay of Rs. 1,272 under works on the Buckingham canal due to stoppage of work on the Otary nulla, will be counterbalanced by the anticipated excess under tools and plant incurred on the new steam dredger. The short outlay in the Kurnool division is due to the excavation of a channel to Sirvel tank, Cumbum tank system, not having been put in hand. The unexpended balance of Rs. 22,264 in the South Arcot division represents the amount reserved for shutters made in the Public Works Workshops for the Shatiatope and Pelandorai anicut systems. It is expected the value of these shutters will be adjusted in the supplemental accounts for March 1897. The short outlay of Rs. 4,860 in the Tanjore division is partly due to value of shutters required for the Lower Coleroon anicut not having been yet debited by the General Superintendent, Public Works Workshops, and partly to surrenders reported too late for acceptance.

8. *Revenue Account.*—The grants under this head have been fully worked out.

9. *Minor Works for which neither Capital nor Revenue Accounts are kept, Public Works Department.*—The total outlay both under original works and repairs under this head fell short of the grant by Rs. 4,153. Under the former head Rs. 5,000 have been reserved in the Kistna Northern division for land compensation.

10. *Tank Restoration.*—The grants under this head have been closely worked up to, except in the Madura division where Rs. 8,877 lapsed owing to want of subordinates. The net short outlay under this head is only Rs. 3,915.

11. *Minor Works, Revenue Department.*—The total outlay under both original works and repairs fell short of the grants by Rs. 4,389. Rs. 1,374 of the short outlay occurred in the Madura division and Rs. 1,730 in the Salem division. In the former division, for want of subordinates in Tirumangalam sub-division, work could not be proceeded with, while work done in Thirumanimuthoo naddi breaches was not measured in March 1897 owing to water passing through the river; in the latter division the progress of repairs to the Thevur anicut was backward, as great difficulty

was experienced in getting in the foundation owing to the presence of water; also a large quantity of loose stones had to be removed from the deep foundation before work could be commenced.

12. *Agricultural Works.*—In the Gŏdávari Central division Rs. 5,021 have been reserved to adjust the cost of land. Of the short outlay of Rs. 10,013 in the Tinnevelly division Rs. 3,410 will, it is anticipated, be adjusted in the supplemental accounts for compensation for land taken up. The balance represents the amount which could not be utilized owing to late receipt of sanction to additional grant. In other divisions the variations between grant and expenditure need no comment.

13. *Local*—43. *Minor Works and Navigation.*—In the Salem division the short outlay of Rs. 1,121 under original works represents the saving effected by the use of West Coast wood instead of teak in constructing the inspection-shed and out-houses at Juderpalaiyam. No expenditure is shown against the grant for the Coimbatore division owing, probably, to its late sanction (*vide* G.O., No. 379 I., dated 13th April 1897). The short outlay in the Trichinopoly division will, it is said, be adjusted in the supplemental accounts for March 1897.

14. 33. *Famine Relief.*—No explanation has been furnished by the Superintending Engineers concerned for the short outlay of Rs. 15,117 under this head.

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

5th June 1897.

A.—STATEMENT showing by divisions the grants for, and expenditure incurred on, Original Works and repairs under Irrigation, Navigation and Agricultural works during 1896-97.

Divisions.	35. Protective works—Irrigation.		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.			
			Extensions and improvements.		Maintenance and repairs.		Capital Account.			
	Grant.	Outlay.	Grant.	Outlay.	Grant.	Outlay.	Grant.	Outlay.	Grant.	Outlay.
1	2	3	4	5	6	7	8	9	10	11
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Ganjám	1,67,317	1,67,773	..	..	24,918	31,648	..	..	3,717	4,011
Vizagapatam	..	..	..	..	..	..	44,000	38,246	..	..
Gŏdávari Eastern ..	..	..	3,500	3,446	77,500	77,508	44,000	38,246	..	..
Do. Central ..	..	..	6,600	4,963	49,900	50,164	10,950	6,072	..	..
Do. Western ..	..	..	9,845	8,656	1,12,927	1,13,415	12,231	8,176	..	..
Kistna Eastern ..	..	..	10,640	10,968	2,02,988	2,03,338	1,70,000	1,70,961	..	..
Do. Northern ..	..	..	360	373	72,000	71,779	65,765	66,826	1,64,722	1,65,958
Do. Western ..	..	..	3,000	2,937	1,43,106	1,41,798	2,17,700	2,10,522	..	..
Nellore	..	..	7,865	8,232	62,221	62,564	21,447	20,065	1,72,157	1,70,885
Buckingham Canal	..	..	..	..	..	..	..	..	80,000	80,075
Cuddapah ..	..	..	..	..	..	..	..	..	15,300	11,181
Kurnool	..	..	6,500	7,769	56,200	52,133	..	..	..	..
Bellary	..	..	..	..	..	..	..	..	..	..
West Coast ..	..	..	..	..	..	..	..	..	6,000	6,655
Coimbatore ..	..	..	..	..	1,500	1,613	1,382	1,256	..	..
Salem	..	..	1,004	904	..	..	..	..	10,500	10,153
North Arcot ..	..	..	..	..	..	..	..	..	..	..
Chingleput ..	..	..	..	..	..	..	..	..	69,243	46,979
South Arcot ..	..	..	14,750	13,930	60,362	60,737	25,073	11,276	23,529	18,669
Tanjore	..	..	2,864	6,117	15,717	15,693	12,746	10,192	..	..
Negapatam ..	..	..	227	247	7,273	7,454	..	..	4,322	4,321
Trichinopoly ..	..	..	..	..	40,000	40,000	1,02,000	98,553	..	..
Madura	..	..	..	..	55,367	55,397	1,080	543	1,000	982
Tinnevelly ..	..	..	..	..	..	..	1,487	..	..	..
Reserve	..	..	..	..	..	..	..	..	..	..
Total ..	1,67,317	1,67,773	67,561	67,943	9,71,969	9,75,239	6,75,761	6,31,677	5,40,490	5,06,969
Adjustment of old maintenance charges ..	..	..	4,261	4,261	— 1,36,586	— 1,36,586	..	..	..	..
Total ..	1,67,317	1,67,773	63,400	63,682	8,35,383	8,38,653	6,75,761	6,31,677	5,40,490	5,06,969

* The amount should be shown under the departmental head 1-C, Compensation.

was experienced in getting in the foundation owing to the presence of water; also a large quantity of loose stones had to be removed from the deep foundation before work could be commenced.

12. *Agricultural Works.*—In the Gódávari Central division Rs. 5,021 have been reserved to adjust the cost of land. Of the short outlay of Rs. 10,013 in the Tinnevelly division Rs. 3,410 will, it is anticipated, be adjusted in the supplemental accounts *for compensation for land taken up. The balance represents the amount which could not be utilized owing to late receipt of sanction to additional grant. In other divisions the variations between grant and expenditure need no comment.*

13. *Local*—43. *Minor Works and Navigation.*—In the Salem division the short outlay of Rs. 1,121 under original works represents the saving effected by the use of West Coast wood instead of teak in constructing the inspection-shed and out-houses at Juderpalaiyam. No expenditure is shown against the grant for the Coimbatore division owing, probably, to its late sanction (*vide* G.O., No. 379 I., dated 13th April 1897). The short outlay in the Trichinopoly division will, it is said, be adjusted in the supplemental accounts for March 1897.

14. 33. *Famine Relief.*—No explanation has been furnished by the Superintending Engineers concerned for the short outlay of Rs. 15,117 under this head.

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

5th June 1897.

A.—STATEMENT showing by divisions the grants for, and expenditure incurred on, Original Works and repairs under Irrigation, Navigation and Agricultural works during 1896-97.

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.	
			Extensions and improvements.		Maintenance and repairs.				Capital Account.	
	Grant.	Outlay.	Grant.	Outlay.	Grant.	Outlay.	Grant.	Outlay.	Grant.	Outlay.
1	2	3	4	5	6	7	8	9	10	11
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Ganjám	1,67,317	1,67,773	..	..	24,918	31,648	..	..	3,717	4,011
Vizagapatam	..	..	..	..	..	..	..	..	..	..
Gódávari Eastern	..	..	3,500	3,446	77,500	77,508	44,000	38,246	..	..
Do. Central	..	..	6,600	4,963	49,900	50,164	10,950	5,072	..	..
Do. Western	..	..	9,845	8,656	1,12,927	1,13,415	12,131	8,176	..	..
Kistna Eastern	..	..	10,640	10,968	2,02,988	2,03,336	1,70,000	1,70,961	..	..
Do. Northern	..	..	360	373	72,000	71,779	55,765	56,826	1,54,722	1,53,058
Do. Western	..	..	3,000	2,937	1,43,106	1,41,798	2,17,700	2,10,522	..	..
Nellore	..	..	7,865	8,232	52,221	52,564	21,447	20,055	..	..
Buckingham Canal	..	..	..	..	..	..	..	..	1,72,157	1,70,885
Cuddapah	..	..	..	..	..	..	..	..	80,000	80,075
Kurnool	..	..	6,500	7,769	56,200	52,133	..	..	15,300	11,181
Bellary	..	..	..	..	..	..	..	..	..	..
West Coast	..	..	..	..	..	..	..	..	..	..
Coimbatore	..	..	..	..	..	..	..	..	..	..
Salem	..	..	1,004	904	1,500	1,613	1,382	1,255	6,000	6,655
North Arcot	..	..	..	..	..	..	..	..	..	..
Chingleput	..	..	..	..	..	..	..	..	10,500	10,153
South Arcot	..	..	..	..	..	..	..	..	..	..
Tanjore	..	..	14,750	13,930	60,352	60,737	25,073	11,276	69,243	46,979
Negapatam	..	..	2,854	5,117	15,717	15,693	12,746	10,192	23,529	18,669
Trichinopoly	..	..	227	227	7,273	7,454	..	..	..	..
Madura	..	..	..	..	* 40,000	* 40,000	1,02,000	98,553	4,322	4,321
Tinnevelly	..	..	516	421	55,367	55,397	1,080	543	..	..
Reserve	..	..	..	..	..	..	1,487	..	1,000	982
Total ..	1,67,317	1,67,773	67,661	67,943	9,71,969	9,75,239	6,75,761	6,31,677	5,40,490	5,06,969
Adjustment of old maintenance charges ..	..	..	— 4,261	— 4,261	— 1,36,586	— 1,36,586	..	..	..	..
Total ..	1,67,317	1,67,773	63,400	63,682	8,35,383	8,38,653	6,75,761	6,31,677	5,40,490	5,06,969

* The amount should be shown under the departmental head 1-C. Compensation.

A.—Statement showing by divisions the grants for, and expenditure incurred on, Original Works and repairs under Irrigation, Navigation, &c., for 1896-97—*cont.*

Divisions.	Provincial—43. Minor Works and Navigation—*cont.*											
	Minor works for which Capital and Revenue accounts are kept—*cont.*				Minor works for which neither Capital nor Revenue Account are kept, P.W.D.				Tank Restoration works.		Minor Works—Revenue Department.	
	Revenue Account.				Original works.		Repairs.		Execution.		Original works.	
	Extensions and improvements.		Maintenance and repairs.						Repairs.			
	Grant.	Outlay.	Grant.	Outlay.	Grant.	Outlay.	Grant.	Outlay.	Grant.	Outlay.	Grant.	Outlay.
	12	13	14	15	16	17	18	19	20	21	22	23
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Ganjám	..	..	9,354	9,329	3,000	2,831	8,230	8,781	..	..	..	..
Vizagapatam	..	..	..	..	7,690	7,333	13,523	13,717	30,000	29,504	..	..
Godávari Eastern	..	..	..	..	3,000	3,109	21,000	20,416	6,000	6,239	..	..
Do. Central	..	..	..	..	..	..	..	..	..	..	..	..
Do. Western	..	..	..	..	6,252	6,160	8,500	8,500	1,000	1,147	..	..
Kistna Eastern	..	..	..	..	5,980	5,648	21,000	21,000	..	..	..	..
Do. Northern	..	..	..	..	37,119	32,450	11,662	11,487	28,000	29,087	1,700	1,670
Do. Western	..	..	..	..	..	..	..	..	..	..	..	..
Nellore	..	..	..	..	58,965	59,952	28,473	27,412	..	..	1,940	1,930
Buckingham Canal	3,030	3,080	64,380	64,143	..	..	..	..	..	..	..	..
Cuddapah	..	..	..	..	5,000	5,217	22,379	22,609	..	..	2,387	2,239
Kurnool	50	1,432	2,150	745	6,035	6,142	6,627	7,153	..	..	128	182
Bellary	..	..	..	..	29,500	30,559	43,880	49,487	..	..	195	479
West Coast	..	..	..	..	11	— 173	2,000	2,184	..	..	..	..
Coimbatore	..	..	..	..	23,689	24,257	11,300	11,531	..	..	..	..
Salem	4,880	4,835	10,700	10,271	8,000	7,803	12,000	12,170	37,475	37,837	330	458
North Arcot	..	..	..	..	12,580	12,668	23,223	23,155	27,000	28,089	1,471	737
Chingleput	14,514	14,591	50,922	51,244	30,700	30,359	44,601	44,367	70,000	70,107	24	24
South Arcot	2,308	2,307	20,906	21,364	15,424	14,166	33,527	32,322	37,500	37,470	735	245
Tanjore	10,605	9,756	47,044	47,194	820	818	2,000	2,002	..	..	645	644
Negapatam	1,800	1,544	7,220	7,243	160	157	3,500	3,511	55,655	58,160	120	114
Trichinopoly	..	..	4,225	4,171	8,769	8,504	22,700	22,752	..	..	2,381	2,381
Madura	..	..	1,750	1,750	4,800	2,028	16,200	16,047	75,379	66,502	2,286	1,822
Tinnevelly	..	..	..	..	10,027	9,567	51,000	50,535	77,000	76,952	..	..
Reserve	..	..	17,004	16,994	..	..	..	..	..	..	..	..
Total ..	37,187	37,545	2,35,655	2,34,448	2,77,521	2,69,555	4,07,825	4,11,138	4,45,009	4,41,094	14,342	12,925
Adjustment of old maintenance charges ..	— 6,120	— 6,120	— 6,264	— 6,264	10,381	10,381	1,42,850	1,42,850	..	..	..	..
Total ..	31,067	31,425	2,29,391	2,28,184	2,87,902	2,79,936	5,50,175	5,53,988	4,45,009	4,41,094	14,342	12,925

A.—Statement showing by divisions the grants for, and expenditure incurred on, Original Works and repairs under Irrigation, Navigation, &c., for 1896-97—*cont.*

Divisions.	Provincial—43. Minor Works and Navigation—*cont.*						Local—43 Minor Works and Navigation.				33. Famine Relief.		Total.	
	Minor Works—Revenue Department—*cont.*		Agricultural works.				Original works.		Repairs.					
	Repairs.		Original works.		Repairs.									
	Grant.	Outlay.	Grant.	Outlay.	Grant.	Outlay.	Grant.	Outlay.	Grant.	Outlay.	Grant.	Outlay.	Grant.	Outlay.
	24	25	26	27	28	29	30	31	32	33	34	35	36	37
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Ganjám	..	..	6,000	5,723	4,000	3,854	..	..	..	..	..	..	2,26,536	2,33,950
Vizagapatam	791	623	2,154	2,221	4,230	4,146	..	..	..	..	2,000	..	60,888	57,544
Godávari Eastern	..	..	..	380	30,000	29,925	..	..	..	..	..	3	1,85,000	1,79,272
Do. Central	..	..	22,650	18,217	53,350	52,231	..	..	..	..	..	..	1,43,450	1,30,647
Do. Western	..	..	40,596	40,813	35,428	34,468	..	..	..	..	..	..	2,26,679	2,21,335
Kistna Eastern	..	..	20,500	20,554	42,000	41,991	..	..	..	..	..	..	4,73,108	4,74,458
Do. Northern	210	171	..	..	40,435	48,744	..	..	..	..	..	..	4,01,973	4,05,645
Do. Western	..	..	15,300	15,070	1,69,653	1,70,084	..	..	..	..	..	..	5,48,759	5,40,411
Nellore	..	..	..	33	6,295	6,269	..	..	..	..	..	..	1,78,010	1,77,251
Buckingham Canal	804	804	..	..	6,595	6,606	..	..	..	..	..	..	2,46,162	2,44,714
Cuddapah	..	..	..	..	2,600	2,402	..	..	..	..	5,000	1,015	1,17,366	1,13,803
Kurnool	..	246	..	..	..	..	..	..	..	..	7,200	4,556	1,00,392	91,903
Bellary	202	610	..	..	..	..	..	..	..	..	16,848	10,357	91,173	91,630
West Coast	750	748	..	..	..	..	..	..	1,140	..	..	..	2,011	2,011
Coimbatore	..	..	..	..	..	..	6,000	4,879	2,000	2,015	..	..	68,989	68,522
Salem	1,970	1,635	210	210	9,100	9,128	..	..	..	..	..	..	73,105	70,511
North Arcot	2,825	967	..	..	589	610	..	..	..	..	..	..	1,42,495	1,42,410
Chingleput	2,285	1,778	..	..	..	..	..	..	..	..	..	..	1,74,831	1,74,777
South Arcot	292	292	500	522	5,500	5,435	..	..	..	..	..	..	2,25,583	2,00,550
Tanjore	545	563	..	..	10,960	11,855	..	..	..	..	..	..	2,26,371	2,05,569
Negapatam	200	201	10,500	10,192	79,482	78,313	..	..	..	..	..	..	1,07,477	1,09,735
Trichinopoly	..	..	500	500	12,000	12, 20	..	..	..	..	..	..	1,03,899	1,03,971
Madura	..	179	2,976	3,116	49,057	49,820	1,160	1,128	3,284	2,339	..	..	2,41,865	2,25,242
Tinnevelly	1,200	290	..	..	..	..	..	..	..	..	..	..	2,67,463	2,55,847
Reserve	..	..	18,803	15,163	35,666	29,293	..	..	..	..	..	..	1,487	..
Total ..	12,074	9,102	1,40,689	1,32,714	5,96,940	5,97,294	7,160	6,007	6,424	4,354	31,048	15,931	46,34,572	45,21,708
Adjustment of old maintenance charges ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	12,074	9,102	1,40,689	1,32,714	5,96,940	5,97,294	7,160	6,007	6,424	4,354	31,048	15,931	46,34,572	45,21,708

B.—STATEMENT showing by systems the grants for, and expenditure incurred on, Irrigation, Navigation and Agricultural works during 1896–97.

	Final grants for 1896–97.					Expenditure incurred in 1896–97.						
	Original works.	Repairs.	Establishment.	Tools and plant.	Total.	Original works.	Repairs.	Establishment.	Tools and plant.	Refund of revenue.	Loss receipts on capital account.	Total.
IMPERIAL.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
35. CONSTRUCTION OF PROTECTIVE IRRIGATION WORKS.												
Rushikulya project	1,67,317	..	36,183	..	2,03,500	1,67,773	..	37,317	— 89	..	914	2,04,087
42. MAJOR WORKS—(WORKING EXPENSES).												
Gódávari delta system	19,945	2,40,327	2,13,988	38,500	5,12,760	17,065	2,41,087	2,32,883	38,127	53	..	5,29,215
Kistna do.	14,000	4,18,094	2,50,626	58,300	7,41,020	14,278	4,16,914	2,44,023	57,486	30	..	7,32,731
Pennér anicut system	— 64	6,361	10,338	45	16,680	— 851	7,293	10,168	26	..	..	16,636
Sangam do.	4,020	20,116	15,751	— 57	39,830	5,174	19,527	21,047	— 57	27	..	45,718
Kurnool-Cuddapah canal	6,500	56,200	22,501	1,636	86,837	7,769	52,133	18,691	1,207	215	..	80,015
Barór tank project	1,004	1,500	1,176	..	3,680	904	1,613	1,173	..	..	..	3,690
Cauvery delta system	17,831	— 22,292	49,982	2,773	48,294	19,274	— 21,751	47,379	2,518	25	..	47,445
Srivaikuntam anicut system	164	50,159	18,055	— 78	68,300	69	50,189	18,044	— 78	..	..	68,224
Periyár project	..	(a) 40,000	..	..	(a) 40,000	..	(a) 40,000	..	..	..	..	(a) 40,000
Rushikulya project	..	24,918	5,881	1,300	32,099	..	31,648	7,291	812	..	..	39,751
Total ..	63,400	8,35,383	5,88,298	1,02,419	15,89,500	63,682	8,38,653	6,00,699	1,00,041	350	..	16,03,425
49. CAPITAL EXPENDITURE NOT CHARGED TO REVENUE.												
Gódávari delta system	67,081	..	12,958	165	80,204	51,494	..	10,810	..	..	..	62,304
Kistna do.	4,43,465	..	96,166	55,411	5,95,042	4,38,309	..	91,653	29,405	..	..	5,59,367
Pennér anicut system	6,000	..	952	..	6,952	4,777	..	804	..	..	..	5,581
Sangam do.	15,447	..	3,553	..	19,000	15,278	..	2,666	— 1,378	..	..	16,566
Barór tank project	1,382	..	318	..	1,700	1,255	..	289	..	..	..	1,544
Cauvery delta system	37,819	..	8,629	..	46,448	21,469	..	4,679	..	..	..	26,148
Srivaikuntam anicut system	1,080	..	248	87	1,415	542	..	125	..	..	..	667
Periyár project	1,02,000	..	21,160	— 90,000	33,160	98,553	..	21,944	— 84,941	..	331	35,225
Reserve	1,487	..	342	..	1,829	..	..	..	..	..	..	..
Total ..	6,75,761	..	1,44,326	— 34,337	7,85,750	6,31,677	..	1,32,970	— 56,914	..	331	7,07,402
Total, Imperial ..	9,06,478	8,35,383	7,68,807	68,082	25,78,750	8,63,132	8,38,653	7,70,986	43,038	350	1,245	25,14,914

PROVINCIAL.												
43. MINOR WORKS AND NAVIGATION.												
Works for which Capital and Revenue Accounts are kept.												
Capital Account.												
Kurnool-Cuddapah canal	13,800	..	3,174	..	16,974	10,176	..	2,298	..	..	..	12,474
Munéru project	1,29,024	..	29,676	1,200	1,59,900	1,27,801	..	28,646	1,286	..	291	1,57,442
Dondapad tank project	25,698	..	850	..	26,548	25,258	..	1,349	..	..	7	26,600
Sagiléru project	80,060	..	18,170	230	98,400	80,075	..	18,364	..	..	..	98,439
Thadapalli channel system	6,000	..	690	..	6,690	6,655	..	1,530	..	..	..	8,185
Pálár anicut system	7,000	..	1,610	..	8,610	6,461	..	1,359	..	..	..	7,820
Cheyáru anicut system	3,500	..	492	..	3,992	3,691	..	836	..	..	..	4,527
Lower Coleroon anicut system	64,449	..	14,823	13,728	93,000	60,067	..	13,708	13,979	..	..	87,754
Maradur anicut system	1,000	..	230	..	1,230	982	..	226	..	..	..	1,208
Buckingham canal	1,72,157	..	39,596	37,373	2,49,126	1,70,885	..	37,612	31,101	..	..	2,39,598
Pelandorai anicut system	26,238	..	6,035	..	32,273	4,638	..	1,051	..	..	..	5,689
Shatiatope do.	2,085	..	480	..	2,565	943	..	217	..	..	..	1,160
Nandiyar channel	4,322	..	994	..	5,316	4,321	..	994	..	..	..	5,315
Ganjám Minor Rivers system	3,717	..	855	..	4,572	4,011	..	923	..	..	..	4,934
Cumbum tank system	1,500	..	345	..	1,845	1,005	..	232	..	..	..	1,237
Total ..	5,40,490	..	1,18,020	52,531	7,11,041	5,06,969	..	1,09,345	46,366	..	298	6,62,382
Revenue Account.												
Cumbum tank system	50	750	184	..	984	59	745	185	..	..	..	989
Thadapalli channel system	4,000	3,300	1,688	..	8,988	3,966	3,324	1,229	..	..	..	8,519
Arkencotta do.	700	1,600	529	..	2,829	689	1,477	342	..	..	..	2,508
Kalingaroyen do.	180	5,800	1,418	..	7,398	180	5,470	909	..	..	..	6,559
Pálár anicut system	9,357	35,811	10,518	— 4	55,682	9,356	35,975	10,623	— 4	..	..	55,950
Poiney do.	2,000	7,000	2,130	..	11,130	1,997	7,208	2,145	..	..	..	11,350
Cheyáru do.	3,500	18,622	5,108	..	27,230	3,579	18,591	5,118	..	..	..	27,288
Chembrambakam tank	— 934	— 706	— 360	— 109	— 2,109	— 934	— 697	— 365	— 109	..	..	— 2,105
Madras water-supply and irrigation extension ..	— 3,281	4,482	1,626	— 10	2,817	— 3,281	4,860	1,935	— 10	..	..	3,504
Valláru anicut system	119	413	124	..	656	119	465	138	..	..	..	722
Tirukkóyilúr anicut system	2,000	5,094	1,689	..	8,783	2,040	5,123	1,690	3	..	..	8,856
Mehamatur do.	802	1,950	637	..	3,389	803	1,950	637	..	..	..	3,390
Vriddhachalam do.	1,504	2,500	926	..	4,930	1,504	2,572	945	45	..	..	5,066
Shatiatope do.	2,194	11,000	3,065	..	16,259	2,167	11,048	3,037	41	..	..	16,293
Pelandorai do.	2,446	11,442	3,219	— 2	17,105	2,449	11,439	3,216	— 2	..	..	17,102
Lower Coleroon do.	3,400	22,220	5,996	..	31,616	2,279	22,247	5,598	50	..	..	30,174
Nandiyar channel	..	1,750	402	100	2,252	..	1,750	308	100	..	..	2,158
Maradur anicut system	..	17,004	3,936	..	20,940	..	16,994	3,914	..	..	..	20,908
Chilka lake canal	..	301	69	..	370	..	216	59	..	..	..	275
Buckingham canal	3,030	64,380	26,504	4,800	98,714	3,080	64,143	26,044	4,863	17	..	98,147
Védáranniyam canal	..	4,225	1,092	500	5,817	..	4,171	1,050	993	..	..	6,214
Patha-Cuddapah tank	..	1,400	322	..	1,722	1,008	..	232	..	..	..	1,240
Kurnool-Cuddapah canal	..	..	..	..	..	365	..	..	..	..	..	365
Ganjám Minor Rivers system	..	9,053	2,082	..	11,135	..	9,113	2,057	..	..	..	11,170
Total ..	31,067	2,29,391	72,904	5,275	3,38,637	31,425	2,28,184	71,046	5,970	17	..	3,36,642

(a) Should be shown separately under 1-C. Compensation.

B.—Statement showing by systems the grants for, and expenditure incurred on, Irrigation, Navigation and Agricultural works during 1896-97—*cont.*

—	Final grants for 1896-97.					Expenditure incurred in 1896-97.						
	Original works	Repairs.	Establishment.	Tools and plant.	Total.	Original works.	Repairs.	Establishment.	Tools and plant	Refund of revenue.	Less receipts on capital account.	Total.
PROVINCIAL—*cont.*	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Minor Works for which neither Capital nor Revenue Accounts are kept.												
Old maintenance charges	10,381	1,42,850	2,68,523	1,868	4,23,622	10,381	1,42,850	2,66,183	1,868	..	..	4,21,282
Ordinary works	2,77,521	4,07,325	1,66,565	10,179	8,51,590	2,69,555	4,11,138	1,57,058	10,265	28	..	8,48,044
Tank Restoration Works—												
Execution	..	4,45,069	1,02,352	6,676	5,54,037	..	4,41,094	1,01,101	6,590	..	..	5,48,785
"Minor Works," Revenue Department	14 342	12,074	6,076	397	32,889	12,925	9,102	4,905	323	..	..	27,255
Total ..	3,02,244	10,07,358	5,35,516	19,120	18,62,138	2,92,861	10,04,184	5,29,247	19,046	28	..	18,45,366
Agricultural works	1,40,689	5,96,940	1,66,978	10,727	9,15,334	1,32,714	5,97,294	1,63,456	11,028	640	..	9,05,132
33. Famine relief	..	31,048	..	..	31,048	10,241	5,690	..	..	..	..	15,931
Total, Provincial ..	10,14,490	18,64,637	8,91,418	87,653	38,58,198	9,74,210	18,35,352	8,73,094	82,440	685	298	37,65,453
LOCAL.												
43. MINOR WORKS AND NAVIGATION.												
Minor works for which neither Capital nor Revenue Accounts are kept	7,160	6,424	..	..	13,584	6,007	4,354	..	..	..	..	10,361

ORDER—No. 570 I., dated 18th June 1897.

The above review indicates that the grants for the past official year have, except in a few cases, been satisfactorily worked out. From paragraph 5 of the note by the Chief Engineer for Irrigation, it is observed that there is a tendency to incur expenditure in anticipation of allotments. It is hoped that the instructions contained in Proceedings of Madras Government, No. 150 I., dated 22nd February 1897, for the regulation of outlay will be strictly adhered to by Superintending Engineers.

2. Ordered that a copy of these Proceedings be forwarded to the Government of India for information, with reference to its Circular No. 21 (Public Works), dated 18th December 1882.

[Here enter No. 571 I., dated 18th June 1897.]

(True Extract.)

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

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

ENDORSEMENT—No. 571 I., dated 18th June 1897.

Forwarded.

(By order.)

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

Esd. T. K. Narayana Aiyangar.

Public Works (1897) Department.

CURRENT No. 5956

Order Print urgent 18/6/97

From The Chief Engineer for Irrigation

No.

Dated 5-6-97

Received 18.6.97

Enclosures 3

Spare copies

SUBJECT.

Note reviewing shortly on Irrigation works during 1896-97.

HEJ
18.6.97.

BACK PAPERS.

No.	Date.

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No.	Date.

PUBLIC WORKS DEPARTMENT,

IRRIGATION BRANCH.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the

READ the following

Note by the Chief Engr for Irrigation
W. 124 dy 5-6-97

The accompanying two statements which compare the expenditure on Irrigation, Navigation & Agricultural works during 1896-97 with the final grants for the year are submitted to Govt in accordance with G.O. No. 141 W, dy 13th Jan/83.

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

BACK PAPERS.

No.	Date.

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No.	

FURTHER PAPERS.

No.	Date.

The total lapse appears as 2.47 per cent on the whole grant, but this will be considerably reduced by the adjustments yet to be made.

4. 35. Protective Works, Irrigation. The works of the Rushikulya Project were proceeded with very satisfactorily, the operations of the year resulting in a small excess of Rs 587 over the grant.

5. 42. Major Works. (Working Expenses). The total expenditure on works & repairs under this head exceeded the grants by Rs 3552. On the Rushikulya Project in the Ganjam Dt an excess of Rs 6730 was incurred under main & repairs in anticipation of sanction to an additional allotment

plant &c for each system subject of works. The figures representing expenditure have been verified by the Examiner of P. W. A., but they are subject to modification when the supplementary accounts for March 97 have been worked by the Examiner. vide his office note No. 1705 $\frac{D}{15}$, dt 28 May 97.

3. The total expenditure amounted to Rs 62,90,728 against a total final grant of Rs 64,50,532 as shown below:—

	Grant Rs	Expenditure Rs
Imperial—		
35. Protective Works, Irrigation . .	203,500	204,057
42. Major Works. (Working Expenses) . .	1587,500	1603,425
49. Capital Expenditure not charged to Revenue . .	7,85,750	707,402
Total	25,78,750	25,14,914
Provincial—		
33. Famine Relief . . .	31,028	15,931
43. Minor Works, Navigation . .	3827,150	3749,522
Total	3858,178	3765,453
Local—		
43. Minor Works, Navigation . .	13,584	10,361
Grand Total	6450532	6290,728

F. I. Form No. 1—1,000—2-2-97.

The total lapse appears as 2.47 per cent on the whole grant, but this will be considerably reduced by the adjustments yet to be made.

4. 35. Protective Works, Irrigation. The works of the Rushikulya Project were proceeded with very satisfactorily, the operations of the year resulting in a small excess of Rs 587 over the grant.

5. 42. Major Works. (Working Expenses). The total expenditure on works & repairs under this head exceeded the grants by Rs 3552. On the Rushikulya Project in the Ganjam Dt an excess of Rs 6730 was incurred under maint. & repairs in anticipation of sanction to an additional allotment

which was applid for but not sanctioned. The excess is ascribed to increase in the number of completed works to be maintained. The unspent balance of Rs 1371 in the Kistna Western Dn represents the amount reserved to meet payment for compensation of land in the supplemental accounts for March 97. Rs 2,795 of the grant for the Kurnool-Cuddapah Canal lapsed. The detailed explanation for the short outlay promised by the Supdg Engr. 3rd circle has not yet been submitted. The excess of Rs 2263 under Extensions & improvements in the Kegnpalam Dn is due to the write back of expenditure ordered in Lgo. No 919 I. of 3rd Nov 96.

6. 49. Capital Expenditure not charged to Revs. The

43. Minor works Navigation . . 13,584 10,301

Grand Total 6450532 6290728

E. I. Form No. 1—1,000—2-2-97.

40

unexpended balance of the grants for works of the Godavari delta system is Rs 15587, which is partly due to the unavoidable delay in settling the details of the falling shutters required for the Godavari anicut, & partly to liabilities incurred under land compensation not having yet been adjusted. The apparent short outlay of Rs 5156 on works of the Kistna delta system represents the amount reserved in the Kistna Western Dn to meet payment for compensation of land in the supplemental accounts for March 97. The Executive Engr states that the Sub Collector promised to send in bills for this amount. Under tools & plant of this system there is a

which was applied for but not sanctioned. The excess is ascribed to increase in the number of completed works to be maintained. (The unspent balance) of Rs 1371 in the Kistna Western Dn represents the amount reserved to meet payment for compensation of land in the supplemental accounts for March 97. Rs 2,795 of the grant for the Kurnool-Cuddapah Canal lapsed. The detailed explanation for the short outlay promised by the Supdg Engr. Tirichi, has not yet been submitted. The excess of Rs 2263 under extensions & improvements in the Kegnpetam Dn is due to the write back of expenditure ordered in G.O. No. 919 I. dy 3rd Nov 96.

6. 49. Capital Expenditure not charged to Revr. The

43. Minor works Navigation . . . 13,584 10,301

Grand Total 6450532 6290728

suspended balance of the grants for works of the Godavari delta system is Rs 15,587, which is partly due to the unavoidable delay in settling the details of the falling shutters required for the Godavari anicut, & partly to liabilities incurred under land compensation not having yet been adjusted. The apparent short outlay of Rs 5,156 on works of the Kistna delta system represents the amount reserved in the Kistna Western Dn to meet payment for compensation of land in the supplemental accounts for March 97. The Executive Engr states that the Sub Collector promised to send in bills for this amount. Under tools & plant of this system there is a

which was applied for but not sanctioned. The excess is ascribed to increase in the number of completed works to be maintained. The unspent balance of Rs 1371 in the Kistna Western Dn represents the amount reserved to meet payment for compensation of land in the supplemental accounts for March/97. Rs 2795 of the grant for the Kurnool-Cuddapah Canal lapsed. The detailed explanation for the short outlay promised by the Supdg Engr. Tn Circle has not yet been submitted. The excess of Rs 2263 under Extensions & improvements in the Kegpetam Dn is due to the write back of expenditure ordered in G.O. No 919 I. of 3rd Nov/96.

6. 49. Capital Expenditure not charged to Revenue. The unexpended balance of the grants for works of the Godavari delta system is Rs 15587, which is partly due to the unavoidable delay in settling the details of the falling shutters required for the Godavari anicut, & partly to liabilities incurred under land compensation not having yet been adjusted. The apparent short outlay of Rs 5156 on works of the Kistna delta system represents the amount reserved in the Kistna Western Dn to meet payment for compensation of land in the supplemental accounts for March/97. The Executive Engr states that the Sub Collector promised to send in bills for this amount. Under tools & plant of this system there is a

43. Minor works navigation . .		13,584	10,361
Grand Total		6450532	6290728

E. I. Form No. 1—1,000—2-2-97.

which was applied for but not sanctioned. The excess is ascribed to increase in the number of completed works to be maintained. The unspent balance of Rs 1371 in the Kistna Western Dn represents the amount reserved to meet payment for compensation of land in the supplemental accounts for march/97. Rs 2,795 of the grant for the Kurnool-Cuddapah Canal lapsed. The detailed explanation for the short outlay promised by the Supdg Engr. III circle has not yet been submitted. The excess of Rs 2263 under extensions & improvements in the Kegipalem Dn is due to the write back of expenditure ordered in Lr. No. 919 I. dy 3rd Nov 96.

6. 49. Capital Expenditure not charged to Revn. The unspended balance of the grants for works of the Godavari delta system is Rs 15587, which is partly due to the unavoidable delay in settling the details of the falling shutters required for the Godavari anicut, & partly to liabilities incurred under land compensation not having yet been adjusted. The apparent short outlay of Rs 5156 on works of the Kistna delta system represents the amount reserved in the Kistna Western Dn to meet payment for compensation of land in the supplemental accounts for march/97. The Executive Engr states that the Sub Collector promised to send in bills for this amount. Under tools & plant of this system there is a

43. Minor works navigation	. .	13,584	10,361
	Grand Total	6450532	6280728

E. I. Form No. 1—1,000—2-2-97.

liability of Rs 26327 on account of the two steamers from the Kidderpore dockyard which requires adjustment. The short outlay of Rs 1392 in the Nellore Dn will disappear when land compensation charges have been adjusted. In the Tanjore Dn the workshop debits for shutters for the Grand Anicut, Mudicondaur bridge & Veeranam dam (about Rs 12500) are still awaited. The apparent short outlay in the Negapatam Dn is attributable to the reduction of expenditure owing to the write back of Rs 2500 ordered in G.O. No 1691, dt 3 Nov 96, from the Capital to the Rev account of the Cauvery

delta system. The grant for works of the Periyar project in the Madura Dn was fully worked out, but land compensation charges to the extent of Rs 6853 have to be adjusted in the supplemental accounts for March 97. The short outlay of Rs 537 in the Trivadithittam Anicut system in the Tinnevelly Dn is ascribed to the failure of the contractor employed on the improvements to the Palayakoyil tank.

7. Provincial. 43. Minor works Margn. Capital Account.

In the Kistna Northern Dn, Rs 1440 have been reserved to meet land compensation charges for the Dadapad & Munnyeru

projects. The short outlay of Rs 1,272 under works on the Buckingham Canal due to stoppage of work on the Otary nulla, will be counterbalanced by the anticipated excess under tools & plant incurred on the new steam dredges. The short outlay in the Thermal Dn is due to the excavation of a channel to Sirsell tank, Cumbum tank system, not having been put in hand. The unexpended balance of Rs 22,264 in the South Arcot Dn represents the amount reserved for shutters made in the P. W. workshops for the Shatanoor & Vellandoorai Anicut systems. It is expected

the value of these shutters will be adjusted in the supplemental accounts for March 1917. The short outlay of Rs 4,860 in the Tanjore Dn is partly due to value of shutters required for the Lower Coleroon Anicut not having been yet debited by the Genl. Supdt. P.W. Workshops & partly to surrenders reported too late for acceptance.

8. Revn Account. The grants under this head have been fully worked out.

9. Minor works for which written Capital or Revn Accts are kept, P.W.D. The total outlay with under

original works & repairs under this head fell short of the grant by Rs 4153. Under the former head Rs 5000 have been reserved in the Kistna Northern Dn for land compensation.

10. Tank restoration. The grants under this head have been closely worked upto except in the Madura Dn where Rs 8877 lapsed owing to want of subordinates. The net short outlay under this head is only Rs 3915.

11. Minor works, Rev Dept. The total outlay under both original works & repairs fell short of the grants by Rs 4389. Rs 13740 of the short outlay occurred in the Madura Dn

Johnson has three cases of heavy expenditure of the kind in the Revenue Secretariat

12/6
draft altered
15/6/57

& Rs 1730 in the Salem Dn. In the former dist for want of subordinates in Tirunmangalam subdivn work in the Revenue secretariat could not be proceeded with, while work done in Thirumanimuthoo naddi breaches was not measured in March 57 owing to water passing through the river. In the latter dist the progress of repairs to the Thevur anicut was backward as great difficulty was experienced in getting in the foundation owing to the presence of water, also a large quantity of loose stones had to be removed from the deep foundation before work could be commenced.

12. Agricultural work.
In the Godavari Central Dn Rs 5024 have been reserved to adjust the cost of land. Of the short outlay of Rs 10013 in the Tuni work Dn Rs 3240 will, it is anticipated, be adjusted in the Supplemental Account for compensation for land taken up. The balance represents the amount which could not be utilised owing to late receipt of sanction to additional grant. In other divns the variations between grant & expenditure need no comment.

13. Local & Minor works & Navigation. In the Salem Dn the short outlay of Rs 1124 under original works represents the saving effected by the use of west coast wood instead of teak in constructing the inspection shed & out-houses at Jinderpallem. No expenditure is shown against the grant for the Combatoor Dn owing probably to its late sanction - vide Go. No. 379 I, dt 13th April 97. The short outlay in the Trichinopoly Dn will, it is said, be adjusted in the Supplemental accounts for March 97.

14. 33. Famine Relief. No explanation has been furnished by the Supdg Engrs concerned for the short outlay of Rs 15117 under this head.

Order thereon
No: 570 J dt 18.6.97
The above review

indicates that the grants for the past official year have kept in a few cases been satisfactorily worked out. From para 5 of the note by the Chief Engr for I. it is observed that there is a tendency to incur expenditure in anticipation of allotments. It is hoped that the instructions contained in P.W.D. No. 180 I. of 22nd Feb/97. for the regulation of outlay will be strictly adhered to by Supdg Engrs.

2. Ordered that a copy of these Proc: be forwarded to the Govt of India for information, with

Flagg D
A.S.H
11.6.97

GP.

reference to its Circular No. 21 (Public Works), dated 13 Oct/96 & 82

Endorsement No. 571 12/6.6.97
Forwarded ~~No. 571 11.6.97~~

A.S.H
12/6/97

J.J.
5/6
97.

W.H
5.6.97
J

S D 5/6/97

To
The Chief Engr P.W.D.
" Chief Engr for I.
" Do T.R.S.
all Supdg Engrs
Ry Dept.
Rev Dept.

W.H
4/6/97

Trial

Imperial.

35. Construction of Protective Irrigation Works.												
Rushikulya project	167317	"	36183	"	203500	167773	"	37317	-89	"	914	204087
42. Major Works (Working Expenses).												
Godavari delta System	19945	240327	213988	38500	512760	17065	241087	232883	38127	53	"	529215
Kistna do	14000	418094	250626	58300	741020	14278	416914	244023	57486	30	"	732731
Penner anicut System	-64	6361	10338	45	16680	-851	7293	10168	26	"	"	16636
Sangam do	4020	20116	15751	-57	39830	5174	19527	21047	-57	27	"	45718
Kurnool. Cuddapah Canal	6500	56200	22501	1636	86837	7769	52133	18691	1207	215	"	80015
Barwe Tank project	1004	1500	1176	"	3680	904	1613	1173	"	"	"	3690
Cauvery delta System	17831	-22292	49982	2773	48294	19274	-21751	47379	2518	25	"	47445
Srivaikuntham anicut System	164	50159	18055	-78	68300	69	50189	18044	-78	"	"	68224
Periyar project	"	(a) 40000	"	"	(a) 40000	"	(a) 40000	"	"	"	"	(a) 40000
Rushikulya do	"	24918	5881	1300	32099	"	31648	7291	812	"	"	39751
Total	63400	835383	588298	102419	1589500	63682	838653	600699	100041	350	"	1603425
49. Capital Expenditure not charged to Revenue.												
Godavari delta System	67081	"	12958	165	80204	51494	"	10810	"	"	"	62304
Kistna do	443465	"	96166	55411	595042	438309	"	91653	29405	"	"	559367
Minor Works for which neither Capital nor Revenue Accounts are kept.												
Old Maintenance Charges	10381	142850	268523	1868	423622	10381	142850	266183	1868	"	"	421282
Ordinary Works	277521	407325	156565	10179	851590	269555	411138	157058	10265	28	"	848044
Tank Restoration Works— Execution	"	144500	102352	6676	554037	"	441094	101101	6590	"	"	548785
"Minor Works" Revenue Dep.t	14342	12074	6076	397	32889	12925	9102	4905	323	"	"	27255
Total	302244	1007258	533516	19120	1862138	292861	1004184	529247	19046	28	"	1845366
Agricultural Works	140689	596940	166978	10727	915334	132714	597294	163456	11028	640	"	905132
33. Famine Relief	"	31048	"	"	31048	10241	5690	"	"	"	"	15931
Total Provincial	1014490	1864637	891418	87653	3858198	974210	1835352	873094	82410	685	298	3765453
Local												
43. Minor Works & Navigation												
Minor Works for which neither Capital nor Rev: Accts are kept	7160	6424	"	"	13584	6007	4354	"	"	"	"	10361

Tinnevelly													8856
Tirukoyilur ancient System	2,000	5094	1689	"	8783	2040	5123	1690	3	"	"		3390
Menamatur do	802	1950	637	"	3389	803	1950	637	"	"	"		5066
Vriddhachellam do	1504	2500	926	"	4930	1504	2572	945	45	"	"		16293
Shalialope do	2194	11000	3065	"	16259	2167	11048	3037	41	"	"		17102
Pelandorai do	2446	11442	3219	−2	17105	2449	11439	3216	−2	"	"		30174
Lower Coleroon do	3400	22220	5996	"	31616	2279	22247	5598	50	"	"		2158
Nandiyar Channel	"	1750	402	100	2252	"	1750	308	100	"	"		20908
Maraduer ancient System	"	17004	3936	"	20940	"	16994	3914	"	"	"		275
Chilka lake Canal	"	301	69	"	370	"	216	59	"	"	"		98147
Buckingham Canal	3030	64380	26504	4800	98714	3080	64143	26044	4863	17	"		6214
Vedaranniyam do	.	4225	1092	500	5817	"	4171	1050	993	"	"		1240
Patha Cuddapah tank	"	1400	322	"	1722	1008	"	232	"	"	"		365
Kurnool Cuddapah Canal	"	"	"	"	"	365	"	"	"	"	"		11170
Ganjam Minor Rivers System	"	9053	2082	"	11135	"	9113	2057	"	"	"		
Total	31067	229391	72904	5275	338637	31425	228184	71046	5970	17	"		336642
Marakdur ancient System	1000	"	230	"	1230	982	"	226	"	"	"	3	1208
Buckingham Canal	172157	"	39596	37373	249126	170885	"	37612	31101	"	"		239598
Pelarkdorai ancient System	26238	"	6035	"	32273	4638	"	1051	"	"	"		5689
Shalialope do	2085	"	480	"	2565	943	"	217	"	"	"		1160
Nandiyar Channel	4322	"	994	"	5316	4321	"	994	"	"	"		5315
Ganjam Minor Rivers System	3717	"	855	"	4572	4011	"	923	"	"	"		4934
Cumbum tank System	1500	"	345	"	1845	1005	"	232	"	"	"		1237
Total	540490	"	118020	52531	711041	506969	"	109345	46366	"	298		662382
Revenue account													
Cumbum tank System	50	750	184	"	984	59	745	185	"	"	"		989
Thadapalli Channel System	4000	3300	1688	"	8988	3966	3324	1229	"	"	"		8519
Arkenkota do	700	1600	529	"	2829	689	1477	342	"	"	"		2508
Kalingaroyen do	180	5800	1418	"	7398	180	5470	909	"	"	"		6559
Palar ancient System	9357	35811	10518	−4	55682	9356	35975	10623	−4	"	"		55950
Poiney do	2000	7000	2130	"	11130	1997	7208	2145	"	"	"		11350
Cheyaur do	3500	18622	5108	"	27230	3579	18591	5118	"	"	"		27288
Chembrambakam tank	−934	−706	−360	−109	−2109	−934	−697	−365	−109	"	"		−2105
Madras Water Supply and Irrigation Extension	−3281	4482	1626	−10	2817	−3281	4860	1935	−10	"	"		3504
Valiur ancient System	119	413	124	"	656	119	465	138	"	"	"		722
	Rs	Rs	Rs	Rs		Rs	Rs	Rs	Rs	Rs	Rs		Rs

Sirukoyilur anicut System	2,000	5,094	1689	"	8,783	2,040	5,123	1690	3	"	"	8,856
Menamatur do	802	1,950	637	"	3389	803	1,950	637	"	"	"	3390
Uriddhachellam do	1504	2,500	926	"	4,930	1504	2572	945	45	"	"	5,066
Shalialope do	2,194	11,000	3,065	"	16,259	2167	11,048	3037	41	"	"	16,293
Pelandorai do	2446	11,442	3219	-2	17,105	2449	11439	3216	-2	"	"	17,102
Lower Coleroon do	3,400	22,220	5,996	"	31,616	2279	22,247	5,598	50	"	"	30,174
Nandiyar Channel	"	1,750	402	100	2,252	"	1,750	308	100	"	"	2158
Maradur anicut System	"	17,004	3,936	"	20,940	"	16,994	3,914	"	"	"	20,908
Chilka lake Canal	"	301	69	"	370	"	216	59	"	"	"	275
Buckingham Canal	3,030	64,380	26,504	4,800	98,714	3,080	64,143	26,044	4,863	17	"	98,147
Vedaranniyam do	"	4,225	1,092	500	5,817	"	4,171	1,050	993	"	"	6,214
Patha Cuddapah tank	"	1,400	322	"	1,722	1,008	"	232	"	"	"	1,240
Kurnool Cuddapah Canal	"	"	"	"	"	365	"	"	"	"	"	365
Ganjam Minor Rivers System	"	9,053	2,082	"	11,135	"	9,113	2,057	"	"	"	11,170
Total	31,067	229,391	72,904	5,275	338,637	31,425	228,184	71,046	5,970	17	"	336,642

Maradur anicut System	1,000	"	230	"	1,230	982	"	226	"	"	"	1208
Buckingham Canal	1,72,157	"	39,596	37,373	249,126	1,70,885	"	37,612	31,101	"	"	239,598
Pelandorai anicut System	26,238	"	6,035	"	32,273	4,638	"	1051	"	"	"	5,689
Shalialope do	2,085	"	480	"	2,565	943	"	217	"	"	"	1,160
Nandiyar Channel	4,322	"	994	"	5,316	4,321	"	994	"	"	"	5,315
Ganjam Minor Rivers System	3,717	"	855	"	4,572	4,011	"	923	"	"	"	4,934
Cumbum tank System	1,500	"	345	"	18,45	1005	"	232	"	"	"	1,237
Total	5,40,490	"	1,18,020	52,531	7,11,041	5,06,969	"	109,345	46,366	"	298	662,382

Revenue account

Cumbum tank System	50	750	184	"	984	59	745	185	"	"	"	989
Thadapalli Channel System	4,000	3,300	1,688	"	8,988	3,966	3,324	1229	"	"	"	8,519
Arkenkotā do	700	1,600	529	"	2,829	689	1477	342	"	"	"	2,508
Kalingarayen do	180	5,800	1418	"	7,398	180	5470	909	"	"	"	6,559
Palar anicut System	9,357	35,811	10,518	-4	55,682	9,356	35,945	10,623	-4	"	"	55,950
Poiney do	2,000	7,000	2,130	"	11,130	1997	7,208	2,145	"	"	"	11,350
Cheyaur do	3,500	18,622	5,108	"	27,230	3,579	18,591	5,118	"	"	"	27,288
Chembrambakam tank	-934	-706	-360	-109	-2109	-934	-697	-365	-109	"	"	-2,105
Madras Water Supply and Irrigation Extension	-3281	4482	1626	-10	2817	-3281	4,860	1935	-10	"	"	3504
Valiur anicut System	119	413	124	"	656	119	465	138	"	"	"	722

"	"	"	"	"	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs

Penner anicut system	6000	"	952	"	6952	4777	"	804	"	"	"	5581
Sangam do	15447	"	3553	"	19000	15278	"	2666	-1378	"	"	16566
Barur tank project	1382	"	318	"	1700	1255	"	289	"	"	"	1544
Cauvery delta system	37819	"	8629	"	46448	21469	"	4679	"	"	"	26148
Srivaikuntham anicut system	1080	"	248	87	1415	542	"	125	"	"	"	667
Periyar project	102000	"	21160	-90000	33160	98553	"	21944	-84941	"	331	35225
Restrue	1487	"	342	"	1829	-	-	-	-	-	-	-
Total	675761	"	144326	-34337	785750	631677	"	132970	-56914	"	331	707402
Total Imperial	906478	835383	768807	68082	2578750	863132	838653	770986	43038	350	1245	2514914
Provincial.												
43. Minor Works & Navigation Works for which Capital and Revenue accounts are kept.												
Capital account.												
Kurnool Cuddapah Canal	13800	"	3174	"	16974	10176	"	2298	"	"	"	12474
Munneru project	129024	"	29676	1200	159900	127801	"	28646	1286	"	291	157442
Dondapad Tank project	25698	"	850	"	26548	25258	"	1349	"	"	7	26600
Sagileru project	80000	"	18170	230	98400	80075	"	18364	"	"	"	98439
Thadapalli Channel system	6000	"	690	"	6690	6655	"	1530	"	"	"	8185
Palar anicut system	7000	"	1610	"	8610	6461	"	1359	"	"	"	7820
Cheyar do	3500	"	492	"	3992	3691	"	836	"	"	"	4527
Lower Coleroon do	64449	"	14823	13728	93000	60067	"	13708	13979	"	"	87754

(a) should be shown separately under I.C. Compensation.

Ootacamund
5th June 1897

W. Hughes
Chief Engineer for Irrigation

B. Statement showing by systems the grants for, and expenditure incurred on, Irrigation, Navigation and Agricultural works, during 1896-97.

	Final grants for 1896-97					Expenditure incurred in 1896-97						
	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

A. Statement ... incurred on Original works and Repairs under ... 97

— 43. Minor works and Navigation

Divisions	Revenue account which Capital & Revenue accounts are kept				Minor works for Capital nor Revenue accounts are kept		Repairs		Tank Restoration works Execution		Minor works — Original works		Total	
	Extensions and Improvements		Maintenance and Repairs		Grant	Outlay	Grant	Outlay	Repairs		Grant	Outlay		Outlay
	Grant	Outlay	Grant	Outlay					Grant	Outlay				
1	12	13	14	15	16	17	18	19	20	21	22	23		37
Ganjam	"	"	9,354	9,329	3,000	2,831	8,230	8,781	"	"	"	"	36	2,33,950
Vizagapatam	"	"	"	"	7,690	7,333	13,523	13,717	30,000	29,504	"	"	88	57,544
Godavari Eastern	"	"	"	"	3,000	3,109	21,000	20,416	6,000	6,239	"	"	00	1,79,272
do Central	"	"	"	"	"	"	"	"	"	"	"	"	450	1,30,647
do Western	"	"	"	"	6,252	6,160	8,500	8,500	1,000	1,147	"	"	679	2,21,335
Kistna Eastern	"	"	"	"	5,980	5,648	21,000	21,000	"	"	"	"	108	4,74,458
do Northern	"	"	"	"	37,119	32,450	11,662	11,487	28,000	29,087	1,700	1,670	373	4,05,645
do Western	"	"	"	"	"	"	"	"	"	"	"	"	759	5,40,411
Nellore	"	"	"	"	58,965	59,952	28,473	27,412	"	"	1,940	1,930	010	1,77,251
Buckingham Car	3,030	3,080	64,380	64,143	"	"	"	"	"	"	"	"	162	2,44,714
Cuddapah	"	"	"	"	5,000	5,217	22,379	22,609	"	"	2,387	2,239	366	1,13,803
Kurnool	50	1,432	2,150	745	6,035	6,142	6,627	7,153	"	"	128	182	392	91,903
Bellary	"	"	"	"	29,500	30,559	43,880	49,487	"	"	195	479	173	91,630
West Coast	"	"	"	"	11	-173	2,000	2,184	"	"	"	"	011	2,011
Coimbatore	4,880	4,835	10,700	10,271	23,689	24,257	11,300	11,531	"	"	"	"	989	68,522
Salem	"	"	"	"	8,000	7,803	12,000	12,170	37,475	37,837	330	458	105	70,511
North Arcot	14,514	14,591	50,922	51,244	12,580	12,668	23,223	23,155	27,000	28,089	1,471	737	495	1,42,410
Chingleput	2,308	2,307	20,906	21,364	30,700	30,359	44,601	44,367	70,000	70,107	24	24	831	1,74,777
South Arcot	10,605	9,756	47,044	47,194	15,424	14,166	33,527	32,322	37,500	37,470	735	245	583	2,00,550
Tanjore	1,800	1,544	7,220	7,243	820	818	2,000	2,002	"	"	645	644	371	2,05,569
Negapatam	"	"	4,225	4,171	160	157	3,500	3,511	55,655	58,160	120	114	477	1,09,735
Trichinopoly	"	"	1,750	1,750	8,769	8,504	22,700	22,752	"	"	2,381	2,381	899	1,03,971
Madura	"	"	"	"	4,800	2,028	16,200	16,047	75,379	66,502	2,286	1,822	865	2,25,242
Tinnevelly	"	"	17,004	16,994	10,027	9,567	51,000	50,535	77,000	76,952	"	"	463	2,55,847
Reserve	"	"	"	"	"	"	"	"	"	"	"	"	487	"
	37,187	37,545	235,655	234,448	277,521	269,555	407,325	411,138	445,009	441,094	14,342	12,925	4,572	45,21,708
Adjustment of old Mamboo	-6,120	-6,120	-6,264	-6,264	10,381	10,381	142,850	142,850	"	"	"	"	"	"
	31,067	31,425	229,391	228,184	287,902	279,936	550,175	553,988	445,009	441,094	14,342	12,925	4,572	45,21,708

Statement of Expenditure for Irrigation

A. Statement showing by divisions the grants for and expenditure 97

Divisions	Imperial						Provincial —				Total
	35. Protective works Irrigation		42. Major works — working				49. Capital expenditure not charged to Revenue		Minor works for Capital Account		
			Extensions and Improvements		Maintenance						
	Grant	Outlay	Grant	Outlay	Grant	Outlay	Grant	Outlay	Grant	Outlay	Outlay
1	2	3	4	5	6	7	8	9	10	11	37
Ganjam	167.317	167.773	"	"	24.918	31.648	"	"	3.717	4011	2.33.950
Vizagapatam	"	"	"	"	"	"	"	"	"	"	57.544
Godavari Eastern	"	"	3500	3446	77500	77.508	44.000	38246	"	"	1.79.272
do Central	"	"	6600	4963	49900	50164	10950	5072	"	"	1.30.647
do Western	"	"	9845	8656	112927	1.13.415	12.131	8176	"	"	2.21.335
Kistna Eastern	"	"	10640	10968	202988	2.03336	1.70000	1.70961	"	"	4.74.458
do Northern	"	"	360	373	72000	71.779	55.765	56826	154.722	153058	4.05.645
do Western	"	"	3000	2937	143106	141.798	217.700	2.10522	"	"	5.40.411
Nellore	"	"	7865	8232	52221	52.564	21447	20055	"	"	1.77.251
Buckingham Canal	"	"	"	"	"	"	"	"	172.157	170885	2.44.714
Cuddapah	"	"	"	"	"	"	"	"	80.000	80075	1.13.803
Kurnool	"	"	6500	7769	56200	52.133	"	"	15.300	11181	91.903
Bellary	"	"	"	"	"	"	"	"	"	"	91.630
West Coast	"	"	"	"	"	"	"	"	"	"	2011
Coimbatore	"	"	"	"	"	"	"	"	6,000	6655	68.522
Salem	"	"	1004	904	1500	1.613	1382	1255	"	"	70.511
North Arcot	"	"	"	"	"	"	"	"	10.500	10153	1.42.410
Chingleput	"	"	"	"	"	"	"	"	"	"	1.74.777
South Arcot	"	"	"	"	"	"	"	"	69243	46979	2.00.550
Tanjore	"	"	14.750	13930	60352	60737	25073	11276	23529	18669	2.05.569
Negapatam	"	"	2854	5117	15717	15693	12746	10192	"	"	1.09.735
Trichinopoly	"	"	227	227	7273	7454	"	"	4.322	4321	1.03.971
Madura	"	"	"	"	*40.000	*40.000	102.000	98553	"	"	2.25.242
Tinnevelly	"	"	516	421	55367	55397	1080	543	1.000	982	2.55.847
Reserve	"	"	"	"	"	"	1487	"	"	"	"
Total	167.317	167.773	67661	67943	971969	9.75.239	6.75.761	6.31.677	5.40490	5.06.969	45.21.708
Adjustment of 5% Maintenance Charges	"	"	-4261	-4261	-136586	-136.586	"	"	"	"	"
Total	167.317	167.773	63400	63682	835383	8.38.653	6.75.761	6.31.677	5.40.490	5.06.969	45.21.708

* The amount should be shown under the departm

tal head I.C. Compensation

Hydles
ee for Irrigation

E. I. Form No. 22—2,000—8-8-96.

GOVT. OF MADRAS. 189 7. P. W. DEPT.

CHIEF ENGINEER FOR IRRIGATION.

EXAMINER, P. W. ACCOUNTS. 17 MAY. 1897 No.

Madras, 13 May 1897.

OFFICE NOTE No. 143

Q. 2

5793/97

Circulation Register.

To	From	Despatch Date.	Receipt Date.
C	D.E.I.		

KEEP-WITH.

No. , dated 189 .

Please have the figures in the accompanying two statements showing the grants for & expenditure on all irrigation works during 1896-97 verified in your office & the blanks in the statements filled in. The nearest approximation will do, if information as to correct expenditure is not available. As the

P.W. 4.3/5950/97

Statements should be submitted to Govt as soon as possible, please see that there is no delay in returning them.

CHIEF ENGINEER FOR IRRIGATION.
29 MAY. 1897
No. A119

DEJ 13/5/97

lcls
11/5/97

No 1705 P/05 dated 28th May 1897

To E.I.

The two statements received with the above are herewith returned, the entries having been checked, blanks filled in, and corrections made wherever necessary.

2. The figures of outlay would of course ordinarily be subject to modification when the supplementary accounts for March 1897 come in.

C.

P.W.S. 4:1 5/5/97