Public Works (1896) Department.

G.O., No. 5569
557

Dated 3/7/96

[Despatch Abstract.]

Expenditure — Orders on the note by the Chief Engr for Irrigation reviewing the — incurred on Irrigation, Navigation and Agricultural works during 1895-96

A Copy of the above Proc forwarded to the Govt of India —

[P.W. 95.
1,000—23-10-95.]

BACK PAPERS.

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

FURTHER PAPERS.

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

No. 556 I., 3rd July 1896.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

Read—the following paper :—

Note by the Chief Engineer for Irrigation.

No. 134 I.

The accompanying two statements comparing the expenditure incurred on Irrigation, Navigation and Agricultural works during 1895–96 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 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 do not include the supplemental transactions of the year—*vide* office-note from the Examiner of Public Works Accounts, No. 1599 D./B., dated 6th June 1896.

3. The total expenditure amounted to Rs. 60,60,754 against a total final grant of Rs. 60,42,014 as shown below :—

	Grant. Rs.	Expenditure. Rs.
Imperial—		
35. Protective Works—Irrigation	2,28,410	2,26,055
42. Major Works (Working Expenses) ...	12,85,000	13,14,094
49. Capital expenditure not charged to Revenue.	12,96,500	13,07,180
Total ...	28,09,910	28,47,329
Provincial—		
43. Minor Works and Navigation	32,03,240	31,86,587
Local—		
43. Minor Works and Navigation	28,864	26,838
Grand total ...	60,42,014	60,60,754

The expenditure under Imperial was in excess of the grants by Rs. 37,419, while under Provincial and Local there was a short outlay of Rs. 16,653 and Rs. 2,026, respectively.

4. 35. *Protective Works—Irrigation.*—The works of the Rushikulya project were satisfactorily proceeded with, the outlay exceeding the grant by Rs. 2,272, which is attributed to the project works being executed under piece-work agency which does not admit of expenditure being more satisfactorily regulated.

5. 42. *Major Works (Working Expenses).*—The total expenditure on works and repairs under this head exceeded the grants by Rs. 24,543. The short outlay of Rs. 1,216 in the Gódávari Eastern division will disappear when land compensation charges are adjusted in the supplemental accounts for March 1896. The outlay in the Kistna Eastern and Western divisions exceeded the grants by Rs. 4,645 and Rs. 8,712, respectively, owing to liabilities incurred having been paid in preference to holding back bills. The excess of Rs. 7,112 in the Nellore division occurred chiefly under the Sangam anicut system, works having been proceeded with under the impression that funds were available, but which funds were, previous to the application submitted and disposed of in Proceedings of Madras Government, No. 223 I., dated 4th March 1896, appropriated to meet other demands. The short outlay of Rs. 3,001 in the Kurnool division is alleged to be due to the frequent changes of Division officers. Rupees 1,264 of the short outlay will be adjusted in the supplemental accounts. The excess of Rs. 1,876 in the Tanjore division is chiefly due to the payment of compensation for land not anticipated. The excess of Rs. 4,979 in the Tinnevelly division represents the emergent outlay incurred in repairing damages caused by the floods of December 1895.

6. 49. *Capital Expenditure not charged to Revenue.*— The unexpended balance of the grants for works of the Gódávari delta system is Rs. 2,508, which is chiefly due to funds having been reserved to meet land compensation to be paid by the Revenue Department as per awards already passed. The grant for the Kistna delta system was exceeded by Rs. 1,656. The short outlay of Rs. 1,094 in the Nellore division under the Pennér and Sangam anicut systems represents the liabilities incurred under land compensation and workshop charges which will be adjusted in the supplemental accounts for March 1896. In the Tanjore division the cost of the Upper Coleroon anicut shutters (about Rs. 1,600), and in the Negapatam division the workshop charges, amounting to Rs. 9,105, in connection with the regulator of nine vents across the Vettár just below the offtake of the Odemboghiar, have still to be adjusted. The total outlay under works of the Periyár project exceeded the grant by Rs. 25,640. The excess is attributed to works in the late No. I Periyár division having been pushed forward towards completion more vigorously than was expected, resulting in proportionately less expenditure being incurred in April 1896, and also to the Chief Engineer, Travancore, not having paid the value of machinery sold to him, amounting to about Rs. 7,000, which was expected to be realized before March 1896 and to reduce outlay against grant to that extent.

7. *Provincial*—43. *Minor Works and Navigation—Capital Account.*—In the Kistna Northern division a sum of Rs. 20,185 has been reserved to meet the payments for land taken up for the Dondapad tank project, which the Deputy Collector in charge of the Vinukonda division said would be made before the close of 1895-96, with reference to awards passed by the District Court. Debits from the Civil Department are awaited. In the Coimbatore and South Arcot divisions the short outlay will disappear when land compensation charges on account of the Thadapalli channel and the Lower Coleroon anicut systems have been adjusted in the supplemental accounts for March 1896.

8. *Revenue Account.*—The season in the North Arcot division being favourable and sanctioned estimates being in hand, work was pushed on under the Pálár and Cheyár anicut systems, resulting in an excess of Rs. 2,758 over the grant. In other divisions the variations between grants and outlay are trifling.

9. *Minor Works for which neither Capital nor Revenue Accounts are kept, Public Works Department.*—In previous years the grants and outlay for *ordinary* works were separately shown in the statements from those which appertained to *Tank Restoration* works. In the year under review several adjustments of previous years' outlay have been made by the Examiner of Public Works Accounts. As a comparison between grants and outlay under each sub-head would be misleading, the particulars for both

sub-heads have been clubbed together, the total outlay being compared with the total grants. In the Nellore division work done by the Public Works Workshops, amounting to Rs. 2,200, has to be adjusted in the supplemental accounts for March 1896. In the West Coast division the short outlay is due to the allotment of Rs. 3,157 sanctioned in G.O. No. 155 I., dated 11th February 1896, for the restoration of the Enamakal dam having been surrendered by the Executive Engineer too late for acceptance. Rupees 3,516 lapsed in the Chingleput division owing to scarcity of labour, due to the construction of the railway line to Bezwada and to tanks being full till the end of the year. In the Madura division it is represented that Rs. 3,135 could not be utilized owing to the heavy rains in December.

10. *Minor Works, Revenue Department.*—The variations between grants and outlay under this head need no comment, the total short outlay being only Rs. 1,914.

11. *Agricultural Works.*—Under this head the grants were well worked out; liabilities under land compensation in the Nellore division have to be adjusted in the supplemental accounts.

12. *Local—Minor Works and Navigation.*—The total lapse under this head is only Rs. 2,026. The allotment of Rs. 1,000 sanctioned in G.O. No. 33 I., dated 14th January 1896, for re-sluicing the Chinna Dhárápuram channel in the Coimbatore division was not utilized owing to the estimate not having been prepared. In the Trichinopoly division work could not be proceeded with owing to the Ponnéri channels not having been closed till the beginning of March 1896 and also to standing crops on the lands under them.

(Signed) R. R. E. DRAKE-BROCKMAN, Colonel, R.E.,
19th June 1896. Chief Engineer for Irrigation.

A.—Statement showing by divisions the Grants for and Expenditure incurred on Original Works and Repairs under Irrigation, Navigation and Agricultural Works during 1895–96.

Divisions.	Imperial.						Provincial 43. Minor Works and Navigation.			
	35. Construction of Protective Irrigation Works.		42. Major Works (Working Expenses).		49. Capital Expenditure not charged to Revenue.		Minor Works for which Capital and Revenue Accounts are kept.			
							Capital.		Revenue.	
	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.
Rushikulya	1,90,000	1,92,272	20,000	20,781	..	..	..	..	..	..
Ganjám	..	..	..	..	..	..	..	..	1,313	1,350
Vizagapatam	..	..	..	..	..	..	..	..	..	..
Gódávari Eastern	..	..	84,608	83,392	5,683	4,576	..	..	..	..
Do. Central	..	..	1,55,974	1,56,937	6,682	5,281	..	..	..	..
Do. Western	..	..	38,200	38,977	34,800	33,839	1,29,729	1,10,430	..	..
Kistna Northern	..	..	1,51,500	1,56,145	1,74,841	1,69,284	..	..	..	..
Do. Eastern	..	..	1,18,289	1,27,001	2,19,527	2,27,701	..	..	..	..
Do. Western	..	..	59,413	66,525	17,844	15,850	..	..	..	..
Nellore	..	..	..	..	..	..	1,50,523	1,50,587	62,520	62,795
Buckingham canal	..	..	..	..	..	..	1,04,049	1,03,914	..	..
Cuddapah	..	..	74,000	70,999	..	..	10,889	10,163	550	553
Kurnool	..	..	..	..	..	..	..	..	..	..
Bellary	..	..	..	..	..	..	..	..	..	..
West Coast	..	..	..	..	..	..	..	..	..	..
Coimbatore	..	..	2,270	2,075	2,470	2,969	10,774	8,184	6,497	6,991
Salem	..	..	..	..	..	..	..	..	..	..
North Arcot	..	..	..	..	..	..	25,300	25,751	74,598	77,356
Chingleput	..	..	..	..	..	..	..	..	10,565	10,378
South Arcot	..	..	..	..	..	..	37,977	30,572	46,510	45,588
Tanjore	..	..	51,669	53,545	7,918	6,296	4,369	4,346	4,700	4,521
Negapatam	..	..	18,866	17,906	10,372	3,874	..	..	3,049	3,344
Trichinopoly	..	..	8,500	8,570	..	..	38,500	39,126	1,260	616
Madura	..	..	..	..	..	..	..	..	..	..
Tinnevelly	..	..	14,862	19,841	1,252	1,403	2,012	1,912	13,399	13,072
Periyár No. 1	..	..	..	..	4,12,195	4,36,550	..	..	..	..
Madura (Periyár No. 2)	..	..	..	..	1,30,304	1,31,589	..	..	..	..
Total	1,90,000	1,92,272	7,98,151	8,22,694	10,23,888	10,39,212	5,14,122	4,84,985	2,24,961	2,26,564
Adjustment of old maintenance charges	..	..	— 1,40,847	— 1,40,847	..	..	..	..	— 12,384	— 12,384
Total	1,90,000	1,92,272	6,57,304	6,81,847	10,23,888	10,39,212	5,14,122	4,84,985	2,12,577	2,14,180

A.—Statement showing by divisions the Grants for and Expenditure incurred on Original Works and Repairs under Irrigation, Navigation and Agricultural Works during 1895–96—*cont.*

Divisions.	Provincial 43. Minor Works and Navigation—*cont.*						Local 43. Minor Works and Navigation.		Total.	
	Minor Works for which neither Capital nor Revenue Accounts are kept.				Agricultural Works.					
	Public Works Department.		Revenue Department.							
	Grant.	Outlay.	Grant.	Outlay.	Grant.	Outlay.	Grant.	Outlay.	Grant.	Outlay.
	12	13	14	15	16	17	18	19	20	21
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Rushikulya	..	10	..	..	12,620	12,932	..	..	2,22,620	2,25,995
Ganjám	20,500	20,673	..	..	3,000	2,467	..	..	24,813	24,490
Vizagapatam	54,046	54,879	..	..	6,200	6,216	..	..	60,246	61,095
Gódávari Eastern	29,000	29,785	..	..	29,810	29,750	..	..	1,49,101	1,47,503
Do. Central	..	..	..	..	85,500	85,055	..	..	2,59,461	2,57,721
Do. Western	11,305	10,448	..	..	1,300	1,240	..	..	2,49,879	2,31,221
Kistna Northern	45,300	45,989	550	746	40,092	40,358	..	..	3,70,433	3,69,788
Do. Eastern	4,000	4,001	..	..	98,000	98,599	..	..	4,35,816	4,53,301
Do. Western	..	..	..	..	10,100	8,980	..	..	1,79,724	1,81,840
Nellore	91,412	89,485	955	1,000	7,000	7,002	..	..	2,20,043	2,20,384
Buckingham canal	..	..	..	..	2,000	2,208	..	..	1,36,612	1,36,121
Cuddapah	27,000	26,953	3,563	3,046	..	..	..	..	1,04,056	1,00,105
Kurnool	17,650	17,890	967	500	..	..	..	..	68,602	69,054
Bellary	66,295	66,673	2,307	2,381	..	..	..	..	4,782	1,442
West Coast	4,782	1,442	..	..	5,821	6,191	1,000	..	45,888	45,199
Coimbatore	21,796	23,833	..	..	900	921	5,000	5,053	53,480	53,564
Salem	38,000	37,981	4,840	4,565	..	..	..	..	1,97,863	2,00,978
North Arcot	93,200	93,042	4,765	4,829	..	..	..	..	1,52,240	1,48,257
Chingleput	1,37,099	1,33,583	1,756	1,501	1,500	1,656	1,320	1,139	1,73,326	1,64,897
South Arcot	80,212	80,389	4,260	4,034	4,367	4,314	..	..	1,33,956	1,33,840
Tanjore	5,380	5,431	690	691	59,230	59,010	..	..	1,21,367	1,14,669
Negapatam	75,500	75,751	380	380	13,200	13,414	..	..	1,00,093	1,00,688
Trichinopoly	— 6,747	— 6,707	2,294	2,248	34,742	36,189	21,544	20,646	1,04,394	1,00,751
Madura	1,03,609	1,00,474	785	277	..	..	..	..	1,46,025	1,50,686
Tinnevelly	1,08,500	1,08,458	..	..	6,000	6,000	..	..	4,12,195	4,36,550
Periyár No. 1	..	..	..	..	..	..	..	..	1,30,304	1,31,589
Madura (Periyár No. 2)	..	..	..	..	..	..	..	..	..	..
Total	10,27,839	10,20,463	28,112	26,198	4,21,382	4,22,502	28,864	26,838	42,57,319	42,61,728
Adjustment of old maintenance charges	1,53,231	1,53,231	..	..	..	..	..	..	..	..
Total	11,81,070	11,73,694	28,112	26,198	4,21,382	4,22,502	28,864	26,838	42,57,319	42,61,728

B.– Statement showing by systems the Grants for and Expenditure incurred on Irrigation, Navigation and Agricultural Works during theo fficial year 1895–96.

—	Final grants for 1895–96.				Expenditure incurred in 1895–96.					
	Original Works and Repairs.	Establishment.	Tools and Plant.	Total.	Original Works and Repairs.	Establishment.	Tools and Plant.	Refund of Revenue.	Less Receipts on Capital Account.	Total.
IMPERIAL.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
35. Construction of Protective Irrigation Works.										
Rushikulya project	1,90,000	38,410	..	2,28,410	1,92,272	38,372	— 3,837	..	752	2,26,055
42. Major Works (Working Expenses).										
Gódávari delta system	2,40,582	2,01,445	42,146	4,84,173	2,40,329	1,98,571	43,455	..	..	4,82,355
Kistna do.	3,07,989	2,06,327	64,404	5,78,720	3,22,123	2,08,399	65,027	19	..	5,95,568
Pennéru anicut system	7,576	10,542	— 5	18,113	7,242	10,310	— 5	..	..	17,547
Sangam do	22,184	19,863	— 57	41,990	29,630	21,343	— 57	108	..	51,024
Kurnool-Cuddapah canal	74,000	23,894	2,016	99,910	70,999	21,723	1,116	85	..	93,923
Barur tank project	2,270	1,122	..	3,392	2,075	1,081	..	..	..	3,156
Cauvery delta system	— 26,599	43,092	— 903	15,590	— 25,613	44,084	— 1,050	..	..	17,421
Srívaikuntam anicut system	9,302	8,649	— 78	17,873	14,281	9,742	— 78	..	..	23,945
Rushikulya project	20,000	4,599	640	25,239	20,781	4,820	3,554	..	..	29,155
Total	6,57,304	5,19,533	1,08,163	12,85,000	6,81,847	5,20,073	1,11,962	212	..	13,14,094
49. Capital Expenditure not charged to Revenue.										
Gódávari delta system	12,365	2,460	..	14,825	9,857	2,224	..	..	..	12,081
Kistna do.	4,29,168	93,832	15,000	5,38,000	4,30,824	95,227	12,358	..	204	5,38,205
Pennéru anicut system	3,252	748	..	4,000	2,521	574	..	..	..	3,095
Sangam do.	14,592	2,408	..	17,000	13,329	2,317	— 193	..	..	15,453
Kurnool-Cuddapah canal	..	..	..	..	..	..	..	..	384	— 384
Barur tank project	2,470	568	..	3,038	2,969	683	..	..	..	3,652
Cauvery delta system	18,290	4,207	..	22,497	10,170	2,304	..	..	..	12,474
Srívaikuntam anicut system	1,252	288	..	1,540	1,403	322	..	..	..	1,725
Periyár project	5,42,499	1,22,601	30,500	6,95,600	5,68,139	1,29,936	24,613	..	1,809	7,20,879
Total	10,23,888	2,27,112	45,500	12,96,500	10,39,212	2,33,587	36,778	..	2,397	13,07,180
Total, Imperial	18,71,192	7,85,055	1,53,663	28,09,910	19,13,331	7,92,032	1,44,903	212	3,149	28,47,329
PROVINCIAL.										
43. Minor Works and Navigation.										
Minor Works for which Capital and Revenue Accounts are kept.										
Capital Account.										
Kurnool-Cuddapah canal	5,000	1,150	..	6,150	4,519	826	..	..	..	5,345
Munnyeru project	95,740	22,019	..	1,17,759	96,305	22,151	723	..	148	1,19,031
Dondapad tank project	33,989	3,176	..	37,165	14,125	3,248	..	..	..	17,373
Sagiléru project	1,04,049	23,931	..	1,27,980	1,03,914	23,627	18	..	..	1,27,559
Cumbum tank system	5,889	1,354	..	7,243	5,644	1,299	..	..	..	6,943
Thadapalli channel system	10,774	2,126	..	12,900	8,184	1,882	..	..	..	10,066
Pálár anicut system	13,664	3,071	..	16,735	13,828	2,794	..	..	..	16,622
Poiney do.	..	..	..	..	— 39	— 9	..	..	..	— 48
Cheyar do.	11,636	2,364	..	14,000	11,962	2,589	..	..	..	14,551
Tirukkóyilúr do.	..	..	..	..	18	..	..	..	..	18
Shatiatope do.	703	162	..	865	1,228	267	..	..	..	1,495
Lower Coleroon do.	41,643	6,953	..	48,596	33,672	4,063	..	..	..	37,735
Nandiyar channel extension	38,500	8,671	..	47,171	39,126	8,999	40	..	..	48,165
Maradur anicut system	2,012	463	..	2,475	1,912	..	..	..	..	2,352
Buckingham canal	1,50,240	34,555	11,100	1,95,895	1,50,304	34,512	10,757	..	1,244	1,94,329
Canal from the Madras harbour to the Buckingham canal.	283	65	5,120	5,468	283	65	5,623	..	..	5,971
Total	5,14,122	1,10,060	16,220	6,40,402	4,84,985	1,06,753	17,161	..	1,392	6,07,507
Revenue Account.										
Ganjám minor rivers system	1,012	233	..	1,245	1,037	238	..	..	..	1,275
Cumbum tank system	550	126	..	676	552	127	..	..	..	679
Thadapalli channel system	2,234	522	..	2,756	2,864	647	..	..	..	3,511
Arkenkota do.	1,363	314	..	1,677	1,230	269	..	..	..	1,499
Kalingaroyen do.	2,900	709	..	3,609	2,896	625	..	..	..	3,521
Pálár anicut system	34,110	7,999	— 4	42,105	36,079	7,816	— 4	94	..	43,985
Poiney do.	17,997	4,199	..	22,196	18,804	4,343	..	..	..	23,147
Cheyár do.	22,563	5,209	..	27,772	22,756	5,260	..	..	..	28,016
Chembrambakam tank system	— 2,351	— 538	— 109	— 2,998	— 2,653	— 597	— 109	..	..	— 3,359
Madras water-supply and irrigation extension	89	1,359	— 10	1,438	86	1,034	— 10	..	..	1,110
Vallur anicut system	488	112	..	600	397	93	..	..	..	490
Tirukkóyilúr anicut system	15,372	3,593	..	18,965	14,798	3,440	..	..	..	18,238
Mehamatur do.	3,346	772	..	4,118	3,158	720	..	..	..	3,878
Vriddhachalam do.	4,650	1,074	..	5,724	4,554	1,060	..	..	..	5,614
Shatiatope do.	8,873	2,071	..	10,944	8,882	2,060	..	..	..	10,942
Pelandorai do.	3,583	849	— 2	4,430	3,496	815	146	30	..	4,487
Lower Coleroon do.	15,269	3,612	..	18,881	15,104	3,383	..	..	..	18,487
Nandiyar channel extension	1,260	290	..	1,550	616	46	..	..	..	662
Maradur anicut system	13,399	3,116	..	16,515	13,072	3,022	..	..	..	16,094
Chilka Lake canal	301	69	..	370	313	70	..	..	..	383
Buckingham canal	62,520	25,380	4,000	91,900	62,795	24,897	4,153	9	..	91,854
Védáranniyam canal	3,049	821	..	3,870	3,344	883	..	..	..	4,227
Total	2,12,577	61,891	3,875	2,78,343	2,14,180	60,251	4,176	133	..	2,78,740
Minor Works for which neither Capital nor Revenue Accounts are kept.										
Old maintenance charges	1,53,231	2,62,823	1,868	4,17,922	1,53,231	2,62,823	1,868	..	..	4,17,922
Minor works, Public Works Department	10,27,839	2,62,849	15,900	13,06,588	10,20,463	2,93,104	16,576	101	..	13,30,244
Minor works, Revenue Department	28,112	6,466	422	35,000	26,198	6,025	393	..	..	32,616
Total	12,09,182	5,32,138	18,190	17,59,510	11,99,892	5,61,952	18,837	101	..	17,80,782
Agricultural works	4,21,382	96,938	6,665	5,24,985	4,22,502	90,617	6,108	331	..	5,19,558
Total, Provincial	23,57,263	8,01,027	44,950	32,03,240	23,21,559	8,19,573	46,282	565	1,392	31,86,587
LOCAL.										
43. Minor Works and Navigation.										
Minor works for which neither Capital nor Revenue Accounts are kept	28,864	..	..	28,864	26,838	..	..	..	..	26,838

(Signed) R. R. E. DRAKE-BROCKMAN, Colonel, R.E.,
Chief Engineer for Irrigation.

Order—No. 556 I, dated 3rd July 1896.

The foregoing note by the Chief Engineer for Irrigation indicates that during the past official year works were prosecuted with commendable energy, and that the grants provided under the several heads were, except in a few instances, fully utilized.

2. Ordered that a copy of these Proceedings be forwarded for the information of the Government of India with reference to its Circular No. XXI, Public Works, dated 13th December 1882.

[Here enter No. 557 I., dated 3rd July 1896.]

(True Extract.)

(Signed) R. R. E. DRAKE-BROCKMAN, Colonel, R.E.,
Secretary to Govt., P.W.D.,
Irrigation Branch.

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

Endorsement—No. 557 I., dated 3rd July 1896.

Forwarded.

(By order.)

Colonel, R.E.,
Secretary to Govt., P.W.D.,
Irrigation Branch.

Exd. T. K. Narayana Aiyangar.
Spare Copies

IRRIGATION.
ACCOUNT.

Govt. of {1896} Madras.

PUBLIC WORKS.

Dated July, 3rd.

Recd. *Encl.*

G.O. Nos. 556, 557 I., 3rd July 1896.

JULY.

Expenditure

Forwarding for information a copy of the Proceedings of this Government passing orders on the note by the Chief Engineer for Irrigation reviewing the — incurred on Irrigation, Navigation and Agricultural works during 1895–96.

No 556 dt 3rd July 1896.

PUBLIC WORKS DEPARTMENT,
IRRIGATION BRANCH.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the 14th

READ the following

Order thereon

The foregoing Note by the Chief Engineer for Irrigation indicates that during the past official year works were prosecuted with commendable energy & that the grants provided under the several heads were, except in a few instances, fully utilized.

2. Ordered that a copy of these Proc. be forwarded for

A. 94
20.6.96

A most satisfactory account of the work of the Irr. Branch under Col Drake Brockman

WH
22/6/96

JR
25/6/96

the information of the Govt of India with reference to its Circular No. XXI P.W. dt 13th Oct. 1882.

Endorsement No 2559 dt 3rd July 1896.

Forwarded.

18/6/96

Rueds 19/6/96

DESPATCHED 20 JUL. 93

13.1.83. 141 W
5.7.95. 543 J
11.2.96. 155 J
4.3.96. 223 J.

P. W. CURRENT No. 5972

No.

From Hon'ble Mr. Ibbetson
To Hon'ble Mr. Gracroft
Dated 2.7.96

Outlay incurred on Irrigation, navigation & Agricultural works during 1895-96

Issue

Rueds 27/6

DESPATCHED 20 JUL. 96

To The Chief Engr for I.
Chief Engr for Irrigation, Bombay
Do Executive Engr, Bombay P.W.D.
All Supdg Engrs
Ex P.W.D.
Rev Dept.

P. I. Form No 1—1,000 -27-11-95.

16/6 DR.

O/S 1861

A. Statement showing by divisions the cultural works during 1895-96

Divisions	Imperial 35. Construction of Protective Irrigation works		42. (Work cultural works		Local 43. Minor works navigation		Total	
	Grant	outlay	grant	outlay	grant	outlay	grant	outlay
	Rs 2	Rs 3	Rs	Rs 17	Rs 18	Rs 19	Rs 20	Rs 21
Rushikulya	1.90000	192272	20	12932	-	-	222620	225995
Ganjam	.	.		2467	.	.	24813	24490
Vizagapatam	.	.		6216	.	.	60246	61095
Godavari Eastern	.	.	84	29750	.	.	149101	147503
" Central }	.	.	155	85055	.	.	259461	257721
" Western }								
Kistna Northern	.	.	38	1240	.	.	249879	231221
" Eastern	.	.	151½	40358	.	.	370433	369788
" Western	.	.	118	98599	.	.	435816	453301
Nellore	.	.	59	8980	.	.	179724	181840
Buckingham canal	.	.		7002	.	.	220043	220384
Cuddapah	.	.		2208	.	.	136612	136121
Kurnool	.	.	74	.	.	.	104056	100105
Bellary	.	.		.	.	.	68602	69054
West Coast	.	.		.	.	.	4782	1442
Coimbatore	.	.		6191	1000	.	45888	45199
Salem	.	.	2	921	5000	5053	53480	53564
North Arcot	.	.		.	.	.	197863	200978
Chingleput	.	.		1656	1320	1139	152240	148257
South Arcot	.	.		4314	.	.	173326	164897
Tanjore	.	.	51	69010	.	.	133956	133840
Negapatam	.	.	188	13414	.	.	121367	114669
Trichinopoly	.	.	8	36189	21544	20646	100093	100688
Madura	.	.		.	.	.	104394	100751
Tinnevelly	.	.	148	6000	.	.	146025	150686
Periyar No. 1.	.	.					412195	436550
Madura (Periyar No 2)	.	.					130304	131589
Total	190000	192272	798	422502	28864	26838	4257319	4261728
Adjustment of old maintenance charges	.	.	-1408	.	.	.	.	
Total	190000	192272	657	422502	28864	26838	4257319	4261728

Executive Engineer

Colonel R.E.
Chief Engr for Irrigation

HD

P. W. CURRENT F.C. 5972

A. Statement showing by divisions the grants for and expenditure incurred on Irrigation, Navigation and Agricultural works during 1895-96

Original works and Repairs under

Divisions	Imperial						Provincial - 43. Minor works and Navigation						Local 43. Minor works & navigation		Total	
	35. Construction of Protective Irrigation works		42. Major works (Working expenses)		49. Capital expenditure not charged to Rev.		Minor works for which Capital and Revenue accts are kept				Minor works for which neither Capital nor Revenue accounts are kept		Agricultural works			
							Capital		Revenue		P. W. D.		Rev. Dept.			
	Grant	outlay	grant	outlay	grant	outlay	grant	outlay	grant	outlay	grant	outlay	grant	outlay	grant	outlay	grant	outlay
	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Rushikulya	190000	192272	20200	20781								10			12620	12932		
Ganjam																		
Vizagapatam									1313	1350	20500	20673						
Godavari Eastern											54046	54879			3000	2467		
" Central			84608	83392	5683	4576									6200	6216		
" Western			155974	156937	6682	5281					29000	29785			29810	29750		
Kistna Northern																		
" Eastern			38200	38977	34800	33839	129729	110430			11305	10448			85500	85055		
" Western			151500	156145	174841	169284					45300	45989	530	746	1300	1240		
Nellore			118289	127001	219527	227701					4000	4001			40092	40358		
Buckingham canal			59413	66525	17844	15850									98000	98599		
Cuddapah							150523	150587	62520	62795	91412	89485	955	1000	10100	8980		
Kurnool							104049	103914							7000	7002		
Bellary			74000	70999			10889	10163	530	553	27000	26953	3563	3046	2000	2208		
West Coast											17650	17890	967	500				
Coimbatore											66295	66673	2307	2381				
Salem							10774	8184	6497	6991	4782	1442						
North Arcot			2270	2075	2470	2969					21796	23833					1000	
Chingleput							25300	25751	74598	77356	38000	37981	4840	4565	5821	6191	5000	5053
South Arcot									10565	10378	93200	93042	4765	4829	900	921		
Tanjore							37977	30572	46510	45588	137099	133583	1756	1501	1500	1656	1320	1139
Negapatam			51669	53545	7918	6296	4369	4346	4700	4521	80212	80389	4260	4034	4367	4314		
Trichinopoly			18866	17906	10372	3874			3049	3344	5380	5431	690	691	59230	59010		
Madura			8500	8570			38500	39126	1260	616	75500	75751	380	380	13200	13414		
Tinnevelly											-6747	-6707	2294	2248	34742	36189	21544	20646
Periyar No 1.			14862	19841	1252	1403	2012	1912	13399	13072	103609	100474	785	277				
Madura (Periyar No 2)					412195	436550					108500	108458			6000	6000		
					130304	131589												
Total	190000	192272	798151	822694	1023888	1039212	514122	484985	224961	226564	1027839	1020463	28112	26198	421382	422502	28864	26838
Adjustment of old maintenance charges			-140847	-140847					-12384	-12384	153231	153231						
Total	190000	192272	657304	681847	1023888	1039212	514122	484985	212577	214180	1181070	1173694	28112	26198	421382	422502	28864	26838

	Total		
	grant	outlay	
	Rs	Rs	
	19	20	21
Rushikulya	222620	225995	
Ganjam			
Vizagapatam	24813	24490	
Godavari Eastern	60246	61095	
" Central	149101	147503	
" Western			
Kistna Northern	259461	257721	
" Eastern	249879	231221	
" Western	370433	369788	
Nellore	435816	453301	
Buckingham canal	179724	181840	
Cuddapah	220043	220384	
Kurnool	136612	136121	
Bellary	104056	100105	
West Coast	68602	69054	
Coimbatore	4782	1442	
Salem	45888	45199	
North Arcot	53480	53564	
Chingleput	197863	200978	
South Arcot	152240	148257	
Tanjore	173326	164897	
Negapatam	133956	133840	
Trichinopoly	121367	114669	
Madura	100093	100688	
Tinnevelly	104394	100751	
Periyar No 1.	146025	150686	
Madura (Periyar No 2)	412195	436550	
	130304	131589	
Total	4257319	4261728	
Adjustment of old maintenance charges			
Total	4257319	4261728	

Rushikulya - Buckingham canal 283 65 5120 5408
Total 514122 110060 16220 640402
Ganjam Main Sluice System 1012 233 " 1245
Ganjam Main Link System 530 126 " 656
Tradahalli Channel System 2234 522 " 2756
Athikola do 1363 314 " 1677
Total 4484985 1067553 65 5623
Total 1181070 1173694 28112 26198 421382 422502 28864 26838 4257319 4261728 1392 6097507 5911
Total 1181070 1173694 28112 26198 421382 422502 28864 26838 4257319 4261728 1392 6097507 5911

Rushikulya - Buckingham 283 65 5120 5408
Total 514122 110060 16220 640402
Ganjam Main Sluice System 1012 233 " 1245
Ganjam Main Link System 530 126 " 656
Tradahalli Channel System 2234 522 " 2756
Athikola do 1363 314 " 1677
Total 4484985 1067553 65 5623

B. Statement showing by Systems the grants for and expenditure incurred on Irrigation, Navigation and Agricultural works during the Official year 1895-96.

	Final grants for 1895-96.				Expenditure incurred in 1895-96.					
	Original Works & Repairs	Establishment	Tools and Plant	Total	Original Works and Repairs	Establishment	Tools and Plant	Refund of Revenue	Less receipts on Capital account	Total
	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs
35. Construction of Protective Irrigation Works.										
Rushikulya project	190,000	38410	"	228410	192272	38372	-3837	"	752	226055
42. Major Works (Working Expenses)										
Godavari delta System	240582	201445	42146	484173	240329	198571	43455	"	"	482355
Kistna do	307989	206327	64404	578720	322123	208399	65027	19	"	595568
Penner anicut System	7576	10542	-5	18113	7242	10310	-5	"	"	17547
Sangam do	22184	19863	-57	41990	29630	21343	-57	108	"	51024
Kurnool-Cuddapah Canal	74000	23894	2016	99910	70999	21723	1116	85	"	93923
Baur tank project	2270	1122	"	3392	2075	1081	"	"	"	3156
Minor Works and Navigation Works for which Cap. & Rev. accounts are kept	28864	"	"	28864	26838	"	"	"	"	26838

Rao Bahadur Vinchur
Colonel R.E.
Chief Engr for Irrigation

Baur Tank project	2470	568	"	3038	2969	683	"	"	"	3652
Cauvery delta System	18290	4207	"	22497	10170	2304	"	"	"	12474
Srivaikuntham anicut do	1252	288	"	1540	1403	322	"	"	"	1725
Periyar project	542499	122601	30500	695600	568139	129936	24613	"	1809	720879
Total	1023888	227112	45500	1296500	1039212	233587	36778	"	2397	1307180
Total, Imperial	1871192	785055	153663	2809910	1913331	792032	144903	212	3149	2847329
Provincial.										
43. Minor Works and Navigation Minor Works for which Cap. & Rev. accounts are kept. Capital account										
Kurnool-Cuddapah Canal	5000	1150	"	6150	4519	826	"	"	"	5345
Munnyeru project	95740	22019	"	117759	96305	22151	723	"	148	119031
Dondapad tank project	33989	3176	"	37165	14125	3248	"	"	"	17373
Sagiler project	104049	23931	"	127980	103914	23627	18	"	"	127559
Cumbum tank System	5889	1354	"	7243	5644	1299	"	"	"	6943
Thadapalli channel System	10774	2126	"	12900	8184	1882	"	"	"	10066
Palar anicut System	13664	3071	"	16735	13828	2794	"	"	"	16622
Ponney do	"	"	"	"	-39	-9	"	"	"	-48
Cheyar do	11636	2364	"	14000	11962	2589	"	"	"	14551
Tirukkoyilur anicut System	"	"	"	"	18	"	"	"	"	18
Shatiatope do	703	162	"	865	1228	267	"	"	"	1495
Lower Coleroon do	41643	6953	"	48596	33672	4063	"	"	"	37735
Nandiyar Channel extension	38500	8671	"	47171	39126	8999	40	"	"	48165

Shatialope anic
Pelandorai
Lower Coleroon
Nandyar Cha
Maradur an
Chilka Lak
Buckingha
Vedaranny

Minor Works fo
nor Rev:
Old main
Minor W
Minor W

Agricul

Loc

43. Minor
Minor Works
nor Rev:

Maradur principal System	2012	463	"	2475	1912	440	"	"	"	2352
Buckingham Canal	150240	34555	11100	195895	150304	34512	10757	"	1244	194329
Canal from the Madras Harbour to the Buckingham Canal	283	65	5120	5468	283	65	5623	"	"	5971
Total	514122	110060	16220	640402	484985	106753	17161	"	1392	607507
Revenue account										
Ganjam Minor Rivers System	1012	233	"	1245	1037	238	"	"	"	1275
Cumbum tank System	550	126	"	676	552	127	"	"	"	679
Thadapalli Channel System	2234	522	"	2756	2864	647	"	"	"	3511
Arkenkota do	1363	314	"	1677	1230	269	"	"	"	1499
Kalingarayen do	2900	709	"	3609	2896	625	"	"	"	3521
Palar anicut System	34110	7999	-4	42105	36079	7816	-4	94	"	43985
Poiney do	17997	4199	"	22196	18804	4343	"	"	"	23147
Cheyar do	22563	5209	"	27772	22756	5260	"	"	"	28016
Chembrambakam tank System	-2351	-538	-109	-2998	-2653	-597	-109	"	"	-3359
Madras Water Supply & Irrigation Extension	89	1359	-10	1438	86	1034	-10	"	"	1110
Vallur anicut System	488	112	"	600	397	93	"	"	"	490
Tiruttoyilur anicut System	15372	3593	"	18965	14798	3440	"	"	"	18238
Mehamatur do	3346	772	"	4118	3158	720	"	"	"	3878
Vriddhachellam do	4650	1074	"	5724	4554	1060	"	"	"	5614

				15500	5618	11081	1050	"	"		17421
Shatialope anicut System	8873	2071	"	10944	8882	2060	"	"	"		10942
Pelandorai do	3583	849	-2	4430	3496	815	146	30	"		4487
Lower Coleroon do	15269	3612	"	18881	15104	3383	"	"	"		18487
Nandyar Channel Extension	1260	290	"	1550	616	46	"	"	"		662
Maraddur anicut System	13399	3116	"	16515	13072	3022	"	"	"		16094
Chitlka Lake Canal	301	69	"	370	313	70	"	"	"		383
Buckingham Canal	62520	25380	4000	91900	62795	24897	4153	9	"		91854
Vedaranniem Canal	3049	821	"	3870	3344	883	"	"	"		4227
Total	212577	61891	3875	278343	214186	60251	4176	133	"		278740
Minor Works for which neither Cap: nor Rev: Accounts are kept.											
Old Maintenance Charges.	153231	262823	1868	417922	153231	262823	1868	"	"		417922
Minor Works, Public Works Dept	1027839	262849	15900	1306588	1020463	293104	16576	101	"		1330244
Minor Works, Rev: Dept	28112	6466	422	35000	26198	6025	393	"	"		32616
Total	1209182	532138	18190	1759510	1199892	561952	18834	101	"		1780782
Agricultural Works	421382	96938	6665	524985	422502	90617	6108	331	"		519558
Total Provincial	2357263	801027	44950	3203240	2321559	819573	46282	565	1392		3186587
Local.											
43. Minor Works & Navigation											
Minor Works for which neither Cap: nor Rev: Acct: are kept	28864	"	"	28864	26838	"	"	"	"		26838

Rec'd 11/6/96. 25.12

Recd 1876

Rivadh. Birchmore
Colonel RE
Chief Engr to Irrigation

2352

Mehamatur do	3346	77									

Cauvery delta System	-26599	43092	-903	15590	-25613	44084	-1050	"	"	17421
Srivaikuntham anicut System	9302	8649	-78	17873	14281	9742	-78	"	"	23945
Rushikulya project	20000	4599	640	25239	20781	4820	3554	"	"	29155
Total	657304	519533	108163	1285000	681847	520073	111962	212	"	1314094
49 Capital Expenditure not Charged to Revenue.										
Godavari delta System	12365	2460	"	14825	9857	2224	"	"	"	12081
Kistna do	429168	93832	15000	538000	430824	95227	12358	"	204	538205
Penner anicut System	3252	748	"	4000	2521	574	"	"	"	3095
Sangam do	14592	2408	"	17000	13329	2317	-193	"	"	15453
Kurnool Cuddapah Canal	"	"	"	"	"	"	"	"	384	-384

No 55857, dy 3rd July 1896

Read the following:-

Note by the Chief Engr. for Irrigation.

No 1345 dy 19-6-96.

The accompanying two statements comparing the expenditure incurred on Irrigation, Navigation & Agricultural works during 1895-96 with the final grants for the year are submitted to Govt with reference to G.O. No. 141. W, dy 13th Jan 1883.

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 & plant &c., for each system & objet 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 Examiner of P.W. Accounts No. 1599 D/15 dt 6th June 196.

3. The total expenditure amounted to Rs 60,60,754 against a total final grant of Rs 60,42,074 as shown below:—

	Grant Rs.	Expenditure Rs.
Imperial—		
35. Protective works. Irrigation.	2,28,410	2,26,053
42. Major Works (Working Expenses).	12,85,000	13,14,094
49. Capital Expenditure not charged to Revs.	12,96,500	13,07,180
Total	28,09,910	28,47,329
Provincial—		
43. Minor Works & Navigation	32,03,240	31,86,587
Local—		
43. Minor Works Navigation.	28,864	26,838
Grand Total	60,42,074	60,60,754

The expenditure under Imperial was in excess of the grants by Rs 37,419 while under Provincial & Local

there was a short outlay of Rs 16,653 & Rs 2026 respectively.

4. 35. Protective works. Irrigation. The works of the Rushikulya project were satisfactorily proceeded with, the outlay exceeding the grant by Rs 2272 which is attributed to the project works being executed under piece-work agency which does not admit of expenditure being more satisfactorily regulated.

5. 42. Major Works. (Working Expenses). The total expenditure on works & repairs under this head exceeded the grants by Rs 24,543. The short outlay of Rs 1216 in the Godavari Eastern Dn will disappear when land compensation charges are adjusted in the supplemental accounts for March 1916. The outlay in the Krishna Eastern & Western Dns exceeded the grants by Rs 4645 & Rs 8712 respectively owing to liabilities incurred having been paid in preference to holding back bills. The excess of Rs 7112 in the Pennar Dn occurred chiefly under the Sangam Anicut

system, works having
been proceeded with
under the impression
that funds were
available, but which
funds were, previous
to the application
submitted & disposed
of in T-Mig Rs 223,
of 4 March 1916,
appropriated to
meet other demands.
The short outlay of
Rs 3001 in the Kurnool
Dn is alleged to be
due to the frequent
changes of Dn Officers.
Rs 1,364 of the short
outlay will be
adjusted in the
supplemental Accounts.
The excess of Rs 1,876 in
the Tanjore Dn is chiefly
due to the payment
of compensation for
land not anticipated.
The excess of Rs 4,979
in the Tinnevelly Dn
represents the
emergent outlay in-
curred in repairing
damages caused by
the floods of Dec 1915.

6. 49. Capital Ex-
penditure not charged
to Revs. The un-
expended balance
of the grants for
works of the Godavari
Delta System is Rs
2,508 which is
chiefly due to
funds having been
reserved to meet

land compensation
to be paid by the
Rev Dept as per
awards already
passed. The grant
for the Kistna Delta
System was exceeded
by Rs 1,656. The short
outlay of Rs 1994 in
the Nellore Dn under
the Pennet & Sangam
Anicut Systems re-
presents the liabilities
incurred under land
compensation & work-
shop charges which
will be adjusted in
the supplemental ac-
counts for March 96.
In the Tanjore Dn
the cost of the Upper
Coleroon Anicut Shutters

about Rs 1,600, and
in the Negapatam Dn
the workshop charges
amty. to Rs 9,105 in
connection with the
regulator of nine vents
across the Vettar just
below the offtake
of the Odembaghian
have still to be
adjusted. The total
outlay under works
of the Periyar Project
exceeded the grant
by Rs 25,640. The
excess is attributed
to works in the (late)
Periyar Dn having
been pushed forward
towards completion
more vigorously than
was expected, re-
sulting in proportionately
less expenditure being

incurred in April/96
& also to the Chief
Engineer, Travancore,
not having paid the
value of machinery
sold to him amtg.
to about Rs 7,000
which was expected
to be realized before
March/96 & to reduce
outlay against grant
to that extent.

7. Provincial. 43.
Minor works & navign.
Capital Account. In
the Kistna Northern
Dn. a sum of Rs 20,185
has been reserved
to meet the payments
for land taken up
for the Dondapad tapt. project
which the Dy. Collector
in charge of the Pinnikada

Dn. said would be made
before the close of
1895-96 with reference
to awards passed by
the District Court.
Debits from the Civil
Dept are awaited. In
the Coimbatore & South
Arcot Dns the short
outlay will disappear
when land compensation
charges on account
of the Thadapalli
channel & the town
Coleroon Anicut systems
have been adjusted
in the supplemental
accounts for March/96.

8. Rev. Account.
The season in the
North Arcot Dn being
favorable & sanctioned
estimates being in

hand work was pushed on under the Palar & Cheyar Anicut systems, resulting in an excess of Rs 2,758 over the grant. In other divisions the variations between grants & outlay are trifling.

9. Minor works for which written Capital and Rev: accts are kept, P. W.D. In previous years the grants & outlay for ordinary works were separately shown in the statements from those which appertained to tank restoration works. In the year under review several adjustments of previous years' outlay have been made by the Examiner of P. W. A. As a comparison between grants & outlay under each subhead would be misleading the particulars for both subheads have been clubbed together, the total outlay being compared with the total grants. In the Nellore Dr. work done by the P. W. workshops amtg. to Rs 2,200 has to be adjusted in the supplemental Accounts for March/96.

In the West Coast Dn the short outlay is due to the allotment of Rs 3157 sanctioned in G.O. No. 155 I, dy 11th Feb/96, for the restoration of the Kamakal Dam having been surrendered by the Executive Engineer too late for acceptance. Rs 3576 lapsed in the Chingleput Dn owing to scarcity of labour due to the construction of the Railway line to Beswada & to tanks being full till the end of the year. In the Madura Dn it is represented that Rs 3135 could not be utilized owing to the heavy rains in Dec.

10. Minor Works, Rev. Dept. The variations between grants & outlay under this head need no comment, the total short outlay being only Rs 1914.

11. Agricultural Works. Under this head the grants were well worked out; liabilities under land compensation in the Nellore Dn have to be adjusted in the supplemental accounts.

12. Local. Minor Works Manip. The total lapse under this head

is only Rs 2026. The
allotment of Rs 1000
sanctioned in G.O. No
33.I, dt 14 Jan/96, for
reshifting the Chinna
Dharapuram channel
in the Coimbatore Dt
was not utilized owing
to the estimate not
having been prepared.
In the Trichinopoly
Dt work could not be
proceeded with owing
to the Pownerj channels
not having been closed
till the beginning
of March/96 & also
to standing crops on the lands
under them.

Rmedds
19/6
/96