

(1) Number of pages 8

(2) Date of repair 20-7-1983

(3) Initials of the Referencer _____

TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

REVENUE DEPARTMENT

G.O. No.	1992	Press.
B.P. No.		Mis.
Dated	14-8-1878	197.

Not to be folded or roughly handled

1912

GOVERNMENT OF MADRAS.
PUBLIC WORKS DEPARTMENT.

2nd August 1878, No. 611 I.

Irrigation.
Account.

Read the following paper :—

No. 9. From Colonel J. J. McLEOD INNES, R.E., Deputy Secretary to the Government of India, Public Works Department, (Account—Irrigation), to the Joint Secretary to the Government of Madras, Public Works Department, Irrigation Branch, dated Simla, 9th July 1878, No. 209 A—I.

I AM directed to acknowledge receipt of your letter No. 218 I, dated 15th March 1878, and in reply to forward herewith for information and guidance the orders passed on the Madras Irrigation Budget Estimate for 1878-79.

MADRAS IRRIGATION BUDGET ORDERS FOR 1878-79.

THE Budget grant for 1878-79 for the Irrigation Branch in Madras has been fixed at Rupees 32,20,000, viz., Rupees 6,00,000 from Extraordinary, and Rupees 26,20,000 from Ordinary funds. The following is a comparison of the grants for the various projects classed as Productive Public Works with the Regular Estimate for 1877-78 and the Actual Outlay in 1876-77 and 1875-76 :—

	BUDGET ESTIMATE FOR 1878-79.				Regular Estimate, 1877-78.	Actual Outlay, 1876-77.	Actual Outlay, 1875-76.
	Works.	Establishment.	Tools and Plant.	Total.			
<i>Capital.</i>	RS.	RS.	RS.	RS.	RS.	RS.	RS.
Godavery Delta System	2,19,190	60,370	16,602	2,96,162	2,50,965	2,59,100	4,48,300
Kistna do.	1,97,916	54,512	13,764	2,66,212	74,092	33,870	80,400
Pennair Anicut System	..	..	..	..	7,870	1,630	990
Cauvery Delta do.	..	..	..	..	5,749	..	540
Strevaikuntum Anicut System ..	29,500	8,126	..	37,626	29,770	45,450	47,110
Pelandorai Project	..	..	..	..	..	4,160	18,630
Total	4,46,606	1,23,008	30,366	6,00,000	3,68,246	3,35,890	5,94,080
Less to be met by refund from Provincial Funds on account of Madras water-supply	..	..	..	1,00,000	1,00,000	50,000	..
Grand Total	..	..	..	5,00,000	2,68,246	2,85,890	5,94,080

2. Distributed by heads of Service the figures are—

	Budget Estimate, 1878-79.	Regular Estimate, 1877-78.	Actual Outlay, 1876-77.	Actual Outlay, 1875-76.
	RS.	RS.	RS.	RS.
Works ...	4,46,606	2,49,248	2,02,010	4,24,260
Establishment ...	1,23,008	98,560	1,00,050	1,30,140
Tools and Plant ...	30,386	19,991	15,560	39,850
Suspense ...	...	17,406	18,470	...
Receipts on Capital Account ...	...	16,959	200	170
Total ...	6,00,000	3,68,246	3,35,890	5,94,080
Less to be met by refund from Provincial funds.	1,00,000	1,00,000	50,000	...
Grand Total ...	5,00,000	2,68,246	2,85,890	5,94,080

The figures under the head "Regular Estimate for 1877-78" are the aggregate of the details entered in the body of the budget, but they are not in accord with the amounts entered in the general abstract at the commencement of the budget. This should be attended to when striking off the final issue.

3. In regard to the Madras water works, it is noted that provision is made under Extraordinary for the refund of Rupees 1,00,000 from Provincial funds. But on referring to the Madras Provincial Budget Estimate, which is now under disposal, it is observed that the amount of such refund for which provision has been made is only Rupees 50,000; explanation of the discrepancy is necessary.

* Godavery Delta System.

Head Works—Eastern Delta—	RS.
Improvements to under-sluzes at Dowlaish-werum	5,000†
Improvements to under-sluzes at Vijeshwerum.	4,000
Total ...	9,000

Kistna Delta System.

Masulipatam Canal—Eastern Delta—	RS.
Lock sheds	1,510
Tappal lascars' sheds	440
Ellore Canal—	
Lock sheds	110
Tappal lascars' sheds	220
Pulleru Canal—	
Lock sheds	302
Tappal lascars' sheds	55
Western Delta—	
Main Canal—	
Lock sheds	302
Bank Canal—	
Lock sheds	302
Nisampatam Canal—	
Lock sheds	1,015
Tappal lascars' sheds	440
Minor sluices	1,000
Commamur Canal—	
Lock sheds	357
Tappal lascars' sheds	550
Total ...	3,966
Total ...	6,003

† There is no estimate for this work.

Main Canal ...	RS.
Gunnaram Canal	10,000
Bank Canal	15,000
Total ...	40,000

4. In the Budget Orders for 1877-78, exception was taken to normal outlay, from the Extraordinary grant, on the sanctioned items of an Extraordinary work, being supplemented by provision under Ordinary, for outlay not included in those items, but sanctioned by the Madras Government. It is noticed that similar provision* has been made in the budget for 1878-79. It is therefore necessary to remark that the rules regarding sanctioning increases to Capital Outlay and revising estimates are unaltered. It is also observed in the present instance that the works noted in the margin as provided for under Capital Ordinary seem to be properly chargeable to "Revenue."

5. For the Godavery Delta System, the total provision in the Budget is Rupees 2,96,162, of which Rupees 2,19,190 is for new works, and the balance Rupees 76,972 for establishment and tools and plant. The proposed expenditure on new works is thus distributed, Rupees 89,000 for the Eastern Delta, Rupees 40,000 for the Central Delta, and Rupees 90,190 for the Western Delta.

6. There are no sanctioned estimates to cover the proposed outlay on the Central Delta. It is explained that the estimates are prepared and are now under review, and that they will shortly be submitted. The provision for the main canal is intended to allow of the improvement of the head sluice which, from want of efficient means of regulation, occasions heavy silting; while in the case of the Gunnaram and Bank Canals, the allotments are intended to

cover the cost of replacing certain old works which have with difficulty been maintained till now, and on which it is urged it would be unwise and a waste of money to incur heavy outlay for repairs, when new works have to be constructed. Under the explanation afforded, the provision for the Central Delta is allowed to stand, but no expenditure can be permitted until the estimates have been passed by the Government of India.

7. For the Kistna Delta System, the

Eastern Delta—	RS.
Main Canal	4,440
Masulipatam Canal	2,000
Ryves' do.	35,000
Bank do.	16,000
Ellore do.	29,915
Polarakodu do.	10,800
Pulleru do.	2,000
Distributaries	14,500
Drainage works	5,000
Total ...	1,19,655
Western Delta—	
Head Works	60
Main Canal	5,000
Bank do.	9,000
Nisampatam Canal	3,885
Commamur	59,716
Total ...	78,261
Total ...	1,97,916

provision under Extraordinary amounts to Rupees 2,66,212, of which Rupees 1,97,916 is for original works, and the balance Rupees 68,296 for establishment and tools and plant. The completion estimates are now before the Government of India, and the greater number of the items in the budget are stated to be dependent on the sanction to these estimates. The Chief Engineer for Irrigation, in the note which accompanies the Budget Estimate, also says that, looking to the importance which Government attach to the opening or completion of the through communication between Cocanada and Madras, it is proposed that the larger part of the allotment should be spent on the Ellore and Commamur Canals, but that the amount available is inadequate, and might with advantage be increased by Rupees 15,000.

8. For the Strevaikuntum Ancient System the amount provided for new works is Rupees 29,500, and Rupees 8,126 for establishment. It is reported that the entries in the budget for 1878-79 will allow of the completion of very nearly all the work remaining to be done, but the following paragraph would tend to show that the estimate for this work has been exceeded, and that the amount now provided would bring the excess up to Rupees 59,886. The grant for the Strevaikuntum Ancient System is allowed to stand, but if the present estimate is likely to be exceeded, a revised estimate should be submitted.

9. The following is a statement showing the estimated amount as entered in the budget for each of the three projects for which funds are provided under Extraordinary, together with the probable expenditure to end of 1878-79, and the amount required to complete the works:—

	Godavery Delta System.	Kistna Delta System.	Strevaikuntum Ancient System.	Total.
	RS.	RS.	RS.	RS.
Actual outlay to end of 1876-77 ...	23,93,532	4,55,144	11,12,077	39,60,753
Probable outlay during 1877-78 ...	2,50,965	74,092	29,770	3,54,827
Proposed outlay during 1878-79 ...	2,96,162	2,66,212	37,626	6,00,000
Total Outlay ...	29,40,659	7,95,448	11,79,473	49,15,580
Amount of estimate ...	28,21,532	49,16,603	11,19,587	88,57,722
Amount remaining to complete the works ...	1,19,127*	41,21,155	59,886	39,42,142

* This excess is due to the absence of provision for establishment in the estimate. The computed outlay on establishment to end of 1878-79 is Rupees 6,00,000.

10. With the exception of the amount of estimate of the Strevaikuntum project, the figures under the head "Estimate" and "Actual Outlay" as shown above cannot be reconciled with the figures on record in the books of the Government of India. First, as regards Estimates. In the recent correspondence which ended with Government of India Public Works Department No. 93 A—1, dated the 4th March 1878, the state of the existing sanctions to the Godavery and Kistna Delta Systems was investigated, and the resulting amount definitely settled. In the case of the Godavery, the current sanctions were set down as Rupees 25,47,169 for new works. If to this sum be added the Rupees 1,91,560 entered in the Budget for the tools and plant, the total would amount to Rupees 27,38,729, whereas the amount shown by the Madras Government in the Budget Estimate as per foregoing statement is Rupees 28,21,532. In the case too of the Kistna, the total amount of estimate shown above does not correspond with the amount entered

in the estimate now before the Government of India. Next as regards the actual outlay to end of 1876-77, the figures reported by the Madras Government are not in accord* with the amounts entered as such in the Accountant-General's books—the differences are not understood. They should now be explained, and it is requested that in future the column of "remarks and references" (see page 5 of Budget Estimate) may be used for the entry of the necessary explanations on these and similar points.

11. The Pennair Anicut and the Cauvery Delta Systems are both entered in the Budget under the head Extraordinary, but in the absence of revised estimates no provision has been made for expenditure on these works in 1878-79. The Government of India considers it necessary to remind the Madras Government that no expenditure is to be incurred on these projects from Extraordinary funds without the permission of the Government of India.

12. The following table compares the provision from ORDINARY funds in the Budget Estimate of 1878-79 under Capital, Revenue, and Ordinary Agricultural works, with the Regular Estimate for 1877-78, and the Actual Outlay in 1876-77:—

	BUDGET ESTIMATE 1878-79.						Regular Estimate 1877-78.	Actual Outlay 1876-77.
	Works.	Repairs.	Establishment.	Tools and Plant.	Suspense.	Total.		
ORDINARY.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
Capital.								
Godavery Delta System ..	9,000	..	2,479	250	..	11,729	16,261	12,970
Kistna do. ..	6,603	..	1,819	9,537	..	17,959	7,356	27,350
Chumbrambakam Tank ..	4,349	..	1,197	..	..	5,546	73,766	1,960
Palar Anicut System ..	..	..	..	..	..	..	632	..
Cauvery Delta System ..	10,000	..	2,754	..	..	12,754	15,514	700
Srevaikuntam Anicut System ..	..	..	..	..	..	..	..	210
Pennair Anicut System ..	..	..	..	200	..	200	6,347	68,560
Special Revenue investigation ..	..	..	12,000	..	..	12,000	18,240	..
Survey Establishment ..	..	..	6,000	..	..	6,000	..	15,850
Other works ..	..	..	..	..	..	..	..	..
State Outlay on Guaranteed Irrigation Works (Madras Irrigation and Canal Company).	29,952	..	26,349	9,987	..	66,188	1,05,393	86,330
	9,743	..	..	..	..	9,743	6,04,000	5,000
Total ..	39,695	..	26,249	9,987	..	75,931	7,69,393	91,330
Revenue.								
Godavery Delta System ..	11,000	1,36,670	89,624	37,000	..	2,74,294	2,73,118	2,83,570
Kistna do. ..	4,000	1,14,730	58,820	12,913	..	1,90,263	2,11,178	2,07,110
Pennair Anicut System ..	..	28,700	12,280	..	..	40,980	86,439	41,220
Chumbrambakam Tank ..	..	9,600	3,358	..	..	12,958	3,078	22,940
Palar Anicut System ..	3,000	37,200	13,756	100	..	54,056	51,827	73,010
Palandorai Anicut System ..	..	4,800	1,970	..	..	6,770	23,141	12,230
Cauvery Delta System ..	10,000	66,810	30,254	4,737	..	1,11,801	1,14,839	1,19,180
Srevaikuntam Anicut System ..	6,000	47,900	16,987	..	..	70,787	22,559	19,880
Revenue investigation establishment and reserve ..	..	..	2,000	26,000	..	28,000	..	..
Total ..	34,000	4,46,810	2,28,849	30,750	..	7,89,909	7,36,804	7,79,910
Ordinary Agricultural Works for which no Capital or Revenue Account is kept.								
Irrigation works ..	1,70,316	9,00,000	..	..	..	..	..	..
River conservancy ..	..	..	..	..	..	..	..	..
embankment ..	4,500	1,18,000	3,92,861	25,293	..	17,54,160	16,06,646	17,76,300
Drainage ..	5,700	7,200	..	..	..	..	..	..
Miscellaneous ..	2,800	2,300	..	..	..	..	..	..
Reserve ..	25,000	..	..	..	..	..	..	..
Total ORDINARY ..	2,06,011	16,58,000	6,17,959	1,24,030	..	26,20,000	29,52,343	26,47,660

* Exclusive of Rs. 1,50,129 expenditure on Famine works.

13. Distributed by heads of service the figures are—

	Budget Estimate 1878-79.	Regular Estimate 1877-78.	Actual Outlay 1876-77.
	RS.	RS.	RS.
Works ...	2,80,263	3,60,065	4,15,950
Repairs ...	15,58,000	12,86,611	14,56,380
Establishment ...	6,47,959	6,59,253	6,64,020
Tools and Plant ...	1,24,030	65,851	1,31,410
Profit and Loss ...	9,743	6,04,000	5,000
State expenditure on Guaranteed Irrigation Works.	..	— 16,405	— 4,730
Suspense ...	..	— 7,632	— 20,370
Receipts on Capital Account ...	..	..	..
Total ...	26,20,000	29,52,343	26,47,660

14. The following is an abstract of the ordinary grant under all heads:—

	RS.	RS.
1. New works, including Rupees 9,743 for State outlay on "Guaranteed Irrigation" (Madras Irrigation and Canal Company) ...	..	2,90,011
2. Maintenance and repairs ...	..	15,58,000
3. Establishment—		
General establishment, being 25 per cent. on outlay on works and repairs ...	4,59,567	
Share of Chief Engineer's establishment and survey and special Revenue establishments ...	73,744	
Water regulation, navigation, and river conservancy establishment ...	1,14,648	
		6,47,959
4. Tools and plant ...	..	1,24,030
Total Ordinary Grant ...	..	26,20,000

15. The grant for original works under the head Capital Ordinary amounts to Rupees 29,952. The only item calling for remark is the provision of Rupees 10,000 for the regulating works on the Cauvery Delta System. This sum is said to be inadequate to do more than put in the foundation and wings, and the benefit to be derived by the completion of the work will be deferred for another year.

16. The grant for new works under Revenue is Rupees 34,000 compared with Rupees 29,168 in 1877-78, while for maintenance and repairs the proposed grant is Rupees 4,46,310 compared with Rupees 4,19,980 in the previous year. As regards the Godavery and Kistna Delta Systems, where the grants are Rupees 1,36,670 and Rupees 1,14,730, respectively, it is stated in the case of the former that, compared

with the area irrigated (530,000 acres probably in 1877-78), the provision is small, while in respect to the Kistna Delta System, it is urged that the extension of irrigation in the present incomplete state of the works adds much to the cost of maintenance; but that when the completion estimates are allowed to be proceeded with, a steady effort will be made to reduce the cost per acre.

17. For new works classed as Ordinary Agricultural, provision has been made to the extent of Rupees 2,16,316, but this amount is proposed to be expended on minor works alone, so that there is no provision for major works. The grant for Repairs, Ordinary Agricultural, is Rupees 11,11,690, or Rupees 73,554 in excess of the grant for 1877-78, the increase being due principally to the necessity for providing funds to make good the damages to the works at Tinnevely.

18. The total grant for Establishment chargeable to Ordinary funds (Capital Ordinary, Revenue, and Ordinary Agricultural) is Rupees 6,47,959, which is less than the amount of the Regular Estimate for 1877-78 (Rupees 6,59,253) and of the Budget Estimate for the same year (Rupees 6,79,746). Complete details have been furnished showing how the grant will be expended, and their examination shows that the proposed charges, as a rule, vary only slightly from the entries in the Budget for 1877-78. There is one item, however, which calls for notice, and that is the provision for a Deputy Chief Engineer for Irrigation, an officer to be of the

rank of an Executive Engineer, 1st Grade. Such an appointment though proposed has not yet been sanctioned.

19. The grant for Tools and Plant debitable to Ordinary funds (Rupees 1,24,030) is in excess of the provision in the Budget for 1877-78 (Rupees 77,724). The excess is mainly due to the grant of Rupees 26,000, held in reserve for enamelled iron gauges, which it is proposed to indent for from England in 1878-79.

20. The direct Irrigation REVENUE expected to be realised during the year 1878-79 is estimated at Rupees 1,20,000, compared with Rupees 97,476 in 1877-78 and Rupees 1,09,974 in 1876-77, as follows:—

	Budget Estimate 1878-79.	Regular Estimate 1877-78.	Actual Receipts 1876-77.
	RS.	RS.	RS.
Godavery Delta System	67,500	67,000	63,330
Kistna do.	26,350	22,170	28,000
Pennair Ancient System	400	...	40
Palar do.	200	100	100
Pelandorai do.	50	100	120
Cauvery do.	9,000	4,000	4,370
Strevaikuntum do.	1,500	800	800
Chumbrambakam Tank Ancient System	...	100	20
Madras Water Works	...	— 10,610	...
	1,05,000	83,660	96,780
Receipts from Ordinary Agricultural Works, for which no Capital or Revenue accounts are kept.	15,000	13,754	14,950
Difference in total as shown in Budget	...	62	...
Total ...	1,20,000	97,476	1,11,730

21. The question as to whether the pattern form of Budget laid down by the Government of India in Public Works Department Circular No. 94 of 1876 is to be altered or not is now under consideration, and it seems unnecessary to enter upon the matter in the orders on the Budget Estimate. It would appear, from the Note of the Chief Engineer which accompanies the Budget, that one object of the specialities in the proposed form for local use is to admit of the exercise of the power which is now apparently being delegated by the Madras Government to the Chief Engineer for Irrigation to make re-appropriations from one sub-head of classification to another without reference to higher authority.

SIMLA, (Signed) W. A. CROMMELIN, Major-General, R.E.,
The 9th July 1878. Secretary to the Government of India.

No. 10. ORDER THEREON, 2nd August 1878, No. 611 I.

COMMUNICATED to the Chief Engineer for Irrigation for early report on the several points requiring notice.

(True Extract.)

(Signed) JOHN MULLINS, Lt.-Col., R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

(True Copy.)

John Mullins
Major, R.E.,
Under Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Chief Engineer for Irrigation.
" Examiner of Public Works Accounts.
" District Engineers.
" Revenue Department.
" Financial "

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the Board of Revenue

14 August 1878

With Order.