ROUGH Estimate of the Probable Requirements of the Irrigation Works in the Madras Presidency for 1884-85.

Division.	Detail of Funds, Systems, Projects, &c.	Amount of Estimate.	Sum Required.	Remarks and References.
	IMPERIAL. M. EXPENDITURE ON PRODUCTIVE PUBLIC WORKS. CAPITAL ACCOUNT. 54. *Irrigation and Navigation.* *Godávari Delta System.*	RS.	RS.	
Godávari Eastern Division.	Eastern Delta	13,77,134	1,02,000	P.M.G., No. 854 I., dated 23rd October 1882.
Godávari Central Division.	Central Delta	8,79,441	1,80,000	
Godávari Western Division.	Western Delta	14,84,804	95,000	
	Total ... *Kistna Delta System*	...	3,77,000	
Kistna Eastern Division.	Ryves' Canal	5,77,288	12,000	P.M.G., No. 291 I., dated 28th March 1882.
	Head Works	1,30,500	4,000	
	Masulipatam Canal	3,94,520	15,000	
	Ellore Canal	2,37,130	50,000	
	Bank Canal	10,21,662	7,000	
	Uppular Drain	28,725	15,000	
	Lazzabanda Drain	2,19,034	15,000	
	Total, Eastern Division ...	...	1,18,000	
Kistna Western.	Main Canal	5,53,950	45,000	Do. do.
	Commamur Canal	10,00,531	51,500	
	Bank Canal	4,09,510	33,000	
	Répalle Main Drain	2,51,087	38,000	
	Tungabhadra Drain	6,15,191	10,000	
	Rompera Drain	1,84,100	10,000	
	Total, Western Division ...	...	1,87,500	
Gudiváda ...	Pulleru Canal	4,24,187	37,100	* The estimate amount for this canal has not been divided between Eastern and Gudiváda divisions, and the total is therefore shown against this canal in the Eastern Division.
	Polraz do.	2,98,067	25,000	
	Bantumilli Canal	1,46,070	10,000	
	Polraz Drain	1,87,130	14,500	
	Peddalanka Drain and Affluents.	98,240	4,000	
	Chendroyakodu Drain	1,43,402	18,900	
	Ryves' Canal	*	8,500	
	Pullava Drain	20,080	3,000	
	Dammidi do	3,209	1,000	
	Peddakommeleru Drain and Affluents.	41,686	4,000	
	Total, Gudiváda Division ...	...	1,26,000	
	Total, Kistna Delta System ...	...	4,31,500	
Sangam Division.	Sangam Anicut Project ...	23,64,935	5,00,000	P.M.G., No. 352 I., of 2nd June 1881.

Rough Estimate of the Probable Requirements of the Irrigation Works in the Madras Presidency for 1884-85—*cont.*

Division.	Detail of Funds, Systems, Projects, &c.	Amount of Estimate.	Sum Required.	Remarks and References.
	IMPERIAL—*cont.* M. EXPENDITURE ON PRODUCTIVE PUBLIC WORKS. CAPITAL ACCOUNT. 54. *Irrigation and Navigation*—cont.	RS.	RS.	
Salem ...	Baroor Tank Project	3,20,000	50,000	P.M.G., No. 714 I., dated 3rd September 1883.
	Cauvery Delta System.			
Cauvery and Vennár Regulators Division.	Cauvery and Vennár Regulators.	6,88,000	2,08,000	
Tinnevelly Division.	Srivaikuntham Anicut System.	10,59,051	36,000	P.M.G., No. 335 I., dated 19th April 1883.
	Total, Works ...	...	16,02,500	
	General Establishment at 23 per cent. on Rs. 14,90,646, exclusive of land compensation.	...	3,42,848	
	Tools and Plant	...	* 34,652	* Godávari ... RS. 9,000 Kistna ... 14,640 Sangam ... 5,100 Baroor ... 1,000 Cauvery ... 4,412 Srivaikuntham ... 500 34,652
	Total ...	...	19,80,000	
	PRODUCTIVE PUBLIC WORKS. REVENUE ACCOUNT. *Extension and Improvements.* *Major Works.*			
Tanjore Division.	Arasillár head—Converting bridge into regulator.	8,200	4,200	P.M.G., No. 168 I., dated 21st February 1883.
	Nattar head—Do. do. ...	7,580	3,580	
	Providing new head-sluice to Vadavár.	6,260	6,260	Estimate under preparation.
Negapatam...	Pandavyaur-Edayar—Constructing a dam across and a head-sluice.	6,380	3,830	P.M.G., No. 287 I., dated 31st March 1883.
	Pamanyar-Seraigulam dam—Fitting screw shutters to the —.	6,650	4,650	P.M.G., No. 441 I., dated 4th June 1883.
	Total, Major Works ...	...	22,520	
	Minor Works	...	1,13,000	*Vide* detailed list attached.
	Total ...	...	1,35,520	
	Deduct old maintenance charges.	...	3,916	
	Net Total, Extension and Improvements.	...	1,31,604	

can be provided. The Superintending Engineer, Sixth Circle, should expedite the submission of estimates for the river embankments in the Trichinopoly division.

10. PROTECTIVE WORKS.—The grants under this head have been increased, as the Rushikulya project will have fairly started, and to provide for a grant-in-aid of Rs. 1,50,000 for the Buckingham canal, as settled by the Government of India in their letter, No. 276 I., of 24th July 1883, printed with Proceedings, Madras Government, No. 649 I., of 16th August 1883.

OOTACAMUND, 8th October 1883. (Signed) J. O. HASTED, Colonel, R.E., Ag. Chief Engineer for Irrigation.

To the Acting Joint Secretary to Government, Public Works Department, Irrigation Branch.

ROUGH Estimate of Outlay on Irrigation and Navigation and Agricultural Works in 1884-85 compared with grants for 1883-84 arranged by Budget and Departmental Heads.

	Proposed Grant for 1884-85.	Grant for 1883-84.	Outlay in 1882-83.
M. EXPENDITURE ON PRODUCTIVE PUBLIC WORKS.	RS.	RS.	RS.
I. CAPITAL ACCOUNT.			
54. *Irrigation and Navigation.*			
Works	16,02,500	11,81,693	(a) 1,83,74,337
Establishment	3,42,848	2,50,621	1,64,510
Tools and Plant	34,652	67,686	78,237
Less receipts on Capital Account	...	...	— 1,088
Total ...	19,80,000	15,00,000	1,86,15,996
G. EXPENDITURE ON PRODUCTIVE PUBLIC WORKS.			
II. REVENUE ACCOUNT.			
39. *Irrigation and Navigation (Working Expenses).*			
Extensions and Improvements	1,31,604	1,08,620	65,465
Maintenance and Repairs	4,17,298	5,22,000	3,44,604
Establishment	3,07,876	2,68,674	3,08,442
Tools and Plant	50,222	47,145	58,086
Additional allotment provisionally allowed to stand pending further consideration,	...	2,63,161	...
Total ...	9,07,000	12,09,600	7,84,110
H. EXPENDITURE ON PUBLIC WORKS NOT CLASSED AS PRODUCTIVE.			
46. IRRIGATION AND NAVIGATION.			
III. Irrigation and Navigation Works for which Capital and Revenue Accounts are kept, Capital.			
Works	50,000	58,634	— 92,872
Establishment	11,500	13,487	— 23,511
Tools and Plant	500	879	— 1,642
Total ...	62,000	73,000	(b) —1,18,025

(a) Includes Rs. 1,76,25,050, the amount paid for the purchase of the Kurnool canal.
(b) Adjustment of the expenditure erroneously charged in the previous year's accounts.

Rough Estimate of Outlay on Irrigation and Navigation and Agricultural Works, &c.—*cont.*

	Proposed Grant for 1884-85.	Grant for 1883-84.	Outlay in 1882-83.
H. EXPENDITURE ON PUBLIC WORKS NOT CLASSED AS PRODUCTIVE—*cont.*	RS.	RS.	RS.
46. IRRIGATION AND NAVIGATION—*cont.*			
IV. Irrigation and Navigation Works for which Capital and Revenue Accounts are kept, Revenue.			
Extensions and Improvements	3,480	8,619	3,648
Maintenance and Repairs	30,436	29,500	62,035
Establishment	7,689	8,809	14,971
Tools and Plant	395	572	900
Total ...	42,000	47,500	81,554
V. Irrigation and Navigation Works for which neither Capital nor Revenue Accounts are kept.			
Works	4,63,241	29,187	2,36,430
Repairs	10,50,766	9,20,000	9,24,237
Establishment	4,59,811	2,41,856	3,90,721
Tools and Plant	17,182	13,797	15,930
Total ...	19,91,000	14,67,460	15,67,318
VI. Agricultural Works.			
Works	1,70,475	1,62,000	1,61,870
Repairs	1,50,000	1,50,000	2,94,193
Establishment	74,710	73,660	1,05,142
Tools and Plant	4,815	4,680	6,788
Total ...	4,00,000	3,90,340	5,67,993
Total, H. Expenditure on Public Works not classed as Productive ...	24,95,000	19,78,300	20,98,850
F. FAMINE RELIEF AND INSURANCE.			
34. PROTECTIVE WORKS.			
Irrigation.			
Works	3,54,000	64,000	3,563
Establishment	1,58,000	1,23,500	57,943
Tools and Plant	3,000	12,500	2,747
Total ...	5,15,000	2,00,000	64,253
Grand Total ...	58,97,000	48,87,900	2,15,63,209

8th October 1883. (Signed) J. O. HASTED, Colonel, R.E., Ag. Chief Engineer for Irrigation.

proposed for expenditure on the Srívaikuntham anicut project includes Rs. 17,394 for compensation for land taken up for the improvements to the Korampallem tank, and for the Upper odai embankment; but as this amount will probably be allotted during the current year, the amount applied for will be available for expenditure on other works of the project. The amount shown as outlay during 1882-83 includes Rs. 1,76,25,050, the sum paid by the Secretary of State for the purchase of the Kurnool Canal.

4. PRODUCTIVE PUBLIC WORKS, REVENUE ACCOUNT.—A sum of Rs. 6,260 is provided for a head-sluice to the Vadavár in the Cauvery delta, and the Superintending Engineer, Sixth Circle, should expedite the submission of an estimate for the sanction of Government. The increased grants proposed for extensions and improvements, as well as for maintenance and repairs, to the Godávari and Kistna delta systems are considered necessary for a more efficient upkeep of the works. As the special repairs to the Kurnool canal will be completed this year, the proposed grant for 1884-85 provides only for extension and improvements and the annual maintenance. The total grant proposed under this head is Rs. 2,89,600 less than the current year's grant, as the charge for the Public Works Establishment, at 6 per cent. on the increase of irrigation revenue, has been calculated on the amount exclusive of collection charges in the Civil Department, as laid down in the Government of India letter printed in Proceedings, Madras Government, No. 418 I., dated 26th May 1883; and, as the old maintenance charges, amounting to Rs. 1,63,988, and the charge for establishment, amounting to Rs. 1,52,646, at 6 per cent. on the revenue due to old irrigation, are, under the orders contained in Proceedings, Madras Government, No. 477 I., dated 16th June 1883, provided for under the head "Irrigation and Navigation Works for which neither Capital nor Revenue Accounts are kept."

5. GRANTS FOR WORKS OTHER THAN PRODUCTIVE.—The Government of India, in their letter, No. 40 I., dated 26th January 1883, printed in Proceedings, Madras Government, No. 143 I., dated 12th February 1883, fixed the grant for expenditure on Public Works not classed as Productive, during 1884-85, at Rs. 21,28,300; this should be increased to Rs. 24,44,934 (or 24,45,000 in round figures), in order to provide for the charges due to the old irrigation under Productive Public Works. The amounts applied for by Superintending Engineers aggregate Rs. 29,05,000, and have been reduced to Rs. 24,45,000, as it is considered improbable that the Government of India will sanction a further addition to the grant.

6. IRRIGATION AND NAVIGATION WORKS FOR WHICH CAPITAL AND REVENUE ACCOUNTS ARE KEPT, CAPITAL ACCOUNT.—The amount entered under this head provides for—

(1) Improving the channels in the northern section of the Pálár anicut system.

(2) The storage works for the Pelandorai anicut project.

The amounts applied for by the Superintending Engineers for these two items have been reduced from Rs. 40,000 to Rs. 30,000, and from Rs. 27,000 to Rs. 20,000, respectively, as the estimates for these works have not yet been sanctioned. Completion estimates for the Pálár anicut system have been prepared, and are waiting for the revenue information called for from Mr. Wilson. Revised estimates for the Pelandorai anicut project have not yet been submitted, and the Superintending Engineer, Fifth Circle, should see that the estimates are submitted without delay.

7. IRRIGATION AND NAVIGATION WORKS FOR WHICH CAPITAL AND REVENUE ACCOUNTS ARE KEPT, REVENUE ACCOUNT.—The amounts proposed for maintenance and repairs to the Pálár and Pelandorai anicut systems are Rs. 5,000 and 2,000, respectively, more than the current year's grants, and the increase is considered necessary for maintaining the works in a state of efficiency. The total grant under this head is, however, less than the current year's grant, as the old maintenance charges have been provided for under the head Irrigation and Navigation Works for which neither Capital nor Revenue Accounts are kept.

8. IRRIGATION AND NAVIGATION WORKS FOR WHICH NEITHER CAPITAL NOR REVENUE ACCOUNTS ARE KEPT.—Under this head the amounts applied for the Major

Original Works, for which estimates have not yet been sanctioned, have been omitted altogether, and those for Minor Original Works have been reduced as shown below:—

	Amount applied for.	Amount proposed.
	RS.	RS.
Godávari Eastern	10,000	5,000
Kurnool	3,000	2,000
Chingleput	20,000	15,000
North Arcot	12,000	10,000
Salem	8,000	5,000
Madura	10,000	8,000

The Superintending Engineer, Sixth Circle, should expedite the submission of revised estimates for improving the under-sluices to the Lower Coleroon anicut, for which Rs. 10,000 have been provided.

A reserve of Rs. 24,000 has been provided to meet further demands which may be made during the year. The total grant proposed for Minor Original Works is 1·86 per cent. on the total revenue due to the Imperial Works under this head. Superintending Engineers applied for Rs. 6,63,000 for repairs, and this amount has been reduced to Rs. 5,50,000, which is 7·86 per. cent on the total revenue, the amount generally considered sufficient for the annual maintenance of works being 8 per cent. on revenue. The amounts proposed for the Ganjam, Vizagapatam, Nellore, Cuddapah, Kurnool, Bellary, Chingleput, South Arcot, Tanjore, and Tinnevelly districts are below 8 per cent. on revenue, while for the remaining districts higher rate of percentage has been allowed. A sum of Rs. 3,70,000, equal to the current year's grant and approximately 7½ per cent. on revenue, has been provided for repairs to Minor Irrigation Works under the charge of the Revenue Department. After the classification of Imperial and Minor Irrigation Works has been finally settled, the revenue and charges appertaining to the latter class of works will have to be excluded from the estimates and accounts of the Public Works Department, and will be incorporated with those of the Civil Department. During 1884-85 another Tank Division will be formed in addition to the one already constituted, and a sum of Rs. 3,50,000 has been entered for expenditure in the Tank Divisions, including Rs. 50,000 surrendered from the current year's allotment, which will be required for expenditure during the next year in addition to Rs. 3,00,000, the amount entered in the programme sanctioned by the Government of India in their letter printed in Proceedings, Madras Government, No. 143 I., dated 12th February 1883. The amount has been distributed as follows:—

	RS.
Works	2,50,000
Establishment	97,600
Tools and Plant	2,400
Total ...	3,50,000

9. AGRICULTURAL WORKS.—The following amounts are proposed for expenditure on works under this head, in anticipation of sanction to the estimates:—

	Amount provided.
South Arcot Division.	RS.
Coleroon river embankment	15,000
Trichinopoly Division.	
Cauvery left bank from the Upper anicut to Ammamandapam ...	5,000
Coleroon left bank from the Upper anicut to the Coleroon bridge ...	5,000
Agunda Cauvery left bank from Ambravatty junction to 11¼ mile.	5,000
Total ...	30,000

The Superintending Engineer, Fifth Circle, submitted an estimate, amounting to Rs. 99,878, for the first work, and applied for Rs. 36,000 for expenditure during 1884-85. The estimate will be submitted for the sanction of Government as soon as possible, but considering the requirements of other works, no more than Rs. 15,000

GENERAL.
ESTABLISHMENT.

Govt. of {1883} Madras.

PUBLIC WORKS.

Dated December, 19th.

Recd. *Encl.*

G.O., 19th Dec. 1883, No. 3641 W.

DECEMBER.

Tungabhadra Channel Project

Proposal of the Superintending Engineer, Third Circle, to employ Mr. Tritsch, Executive Engineer, on the — on the completion of his present work, communicated to the Financial Department with remarks.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

READ—the following paper :—

Note by the Chief Engineer for Irrigation.

The accompanying schedule of demands for Imperial Irrigation Works for 1884-85, compiled from the statements received from Superintending Engineers, is submitted for approval.

2. The amounts proposed for 1884-85 compare as follows with the grants for the current year and the outlay of the past year :—

—	Amount proposed for 1884-85.	Budget Grant for 1883-84.	Outlay during 1882-83.
	RS.	RS.	RS.
M. Expenditure on Productive Public Works, Capital Account—			
54. Irrigation and Navigation	19,80,000	15,00,000	1,86,15,996
G. Expenditure on Productive Public Works, Revenue Account—			
39. Irrigation and Navigation (Working Expenses)	9,07,000	12,09,600	7,84,110
H. Expenditure on Public Works not classed as Productive—			
46. Irrigation and Navigation Works for which Capital and Revenue Accounts are kept, Capital Account	62,000	73,000	—1,18,025
46. Irrigation and Navigation Works for which Capital and Revenue Accounts are kept, Revenue Account	42,000	47,500	81,554
Works for which neither Capital nor Revenue Accounts are kept	19,51,000	14,67,460	15,67,318
Agricultural Works	4,00,000	3,90,340	5,67,993
Total ...	24,95,000	19,78,300	20,98,850
H. Famine Relief and Insurance—			
34. Protective Works, Irrigation	5,15,000	2,00,000	64,253
Grand Total ...	58,97,000	48,87,900	2,15,63,209

3. PRODUCTIVE PUBLIC WORKS, CAPITAL ACCOUNT.—The grants under this head have been increased, in order to admit of the works connected with the Godávari, Kistna, and Cauvery delta systems, and the Sangam anicut project, being pushed forward more rapidly than in the current year, and to provide funds for improving the Baroor tank, in the Salem district, for which estimates have been provisionally sanctioned this year. The Superintending Engineer, Sixth Circle, states that the amount

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

General.
Establishment.

READ—the following letter from Major S. C. CLARKE, R.E., Officiating Superintending Engineer, Third Circle, to the Chief Engineer, Public Works Department, dated Bellary, 5th December 1883, No. 2497 :—

With reference to G.O., No. 2437, Financial, of the 24th October, and the order thereon, No. 3237 W., of the 14th November 1883, I have the honor to inform you that the re-investigation of the Tungabhadra channel project will be started early next year, and it is purposed to employ Mr. Tritsch, Executive Engineer, C. Project Division, with his staff of surveyors on the said important scheme.

2. For many years past this project has been the source of a considerable correspondence, which unfortunately has led to its being put aside altogether and of much confliction of opinion.

3. It would appear to me that the great desideratum of supplementing the supply of the Darojee tank has been almost lost sight of, and that the great conception of compassing millions of acres of irrigable land is too gigantic a project for consideration nowadays.

4. The expansion of the project may be taken into consideration, but it is of primary importance that the Darojee tank should, first of all, be supplied with the Tungabhadra river water, and thence the Bellary cantonment and the Brucepettah tank. Whether the latter tank supply can be supplemented, by pounding up the water of the stream which flows into the west end of the tank, cannot yet be satisfactorily determined on, but will receive my early attention.

ORDER—dated 19th December 1883, No. 3641 W., Public Works.

Communicated to the Financial Department, with reference to Government Order in that department, No. 2437, dated 24th October 1883.

2. The employment of the Executive Engineer and staff of the C. Project Division in the manner suggested by the Superintending Engineer is dependent on the Government of India sanctioning the continuance of that division—a measure which has been recommended with reference to Proceedings of Government, No. 1014 I., dated 10th December 1883.

(True Extract.)

Major, R.E.,
Under Secy. to Govt., P.W.D.

To the Financial Department.
" Superintending Engineer, Third Circle.
" Chief Engineer for Irrigation.

Exd. C. Howarth.
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TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

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ORDER—dated 9th October 1883, No. 813 I., Public Works.

The rough estimate of the probable requirements of the Irrigation Branch of the Public Works Department from Imperial Funds, as drawn up by the Acting Chief Engineer for Irrigation, is approved, and will be forwarded to the Government of India.

2. The Superintending Engineers concerned will expedite the submission of estimates for works for which funds have been provided in anticipation of sanction.

(Here enter No. 814 I., dated 9th October 1883.)

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Ag. Joint Secy. to Govt., P W.D.,
Irrigation Branch.

To Superintending Engineers.
To the Chief Engineer for Irrigation.
" Examiner, Public Works Accounts.
" Revenue Department.
" Board of Revenue.

ENDORSEMENT—dated 9th October 1883, No. 814 I., Public Works.

Forwarded.

(Signed) J. O. HASTED, Colonel, R.E.,
Ag. Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

Exd. A. F. Goodall.
Spare Copies

364/18

DETAIL of Proposed Grants for Minor Works and Repairs to Irrigation and Navigation Works for which neither Capital nor Revenue Accounts are kept.

Division.	Revenue from Irrigation Works other than Productive Public Works.	Minor Original Works.		Repairs.		
		Proposed Grant for 1884-85.	Budget Grant for 1883-84.	Proposed Grant for 1884-85.		Budget Grant for 1883-84.
				Amount.	Percentage on Revenue.	
	Rs.	Rs.	Rs.	Rs.		Rs.
Ganjam	3,10,629	5,000	5,000	20,000	6·43	20,000
Vizagapatam	1,04,496	1,500	1,500	7,000	6·70	7,000
Godávari Eastern	1,13,438	5,000	3,000	7,000	9·70	5,000
Do. Western		2,000	2,000	3,500		3,500
Kistna Eastern	56,111	1,500	1,500	5,000	8·91	7,000
Nellore	6,95,396	10,000	10,000	45,000	6·47	40,000
Bellary and Anantapur	4,19,442	2,000	1,500	35,000	7·79	33,500
Cuddapah	2,79,383	3,000	3,000	18,000	6·44	18,000
Kurnool	1,44,022	2,000	2,000	10,000	6·94	10,000
Presidency	7,165	..	..	1,000	13·95	1,000
Chingleput	8,75,933	15,000	15,000	63,000	6·84	60,000
North Arcot	3,60,668	10,000	6,000	30,000	8·31	25,000
South Arcot	10,65,158	15,000	13,000	80,000	7·97	80,000
Salem	1,83,118	5,000	2,500	15,000	9·11	12,500
Coimbatore	4,87,257	7,000	7,000	40,000	8·20	37,000
Tanjore	1,80,525	2,000	1,000	3,000	7·91	2,200
Negapatam		..	2,000	5,000		5,400
Madura	2,64,598	8,000	7,000	30,000	11·34	32,700
Trichinopoly	4,83,499	4,000	8,000	40,000	8·28	45,000
Tinnevelly	19,33,877	8,000	6,000	70,000	6·77	75,000
Reserve	..	24,000	28,000	25,000	..	30,200
Total ..	69,94,759	1,32,000	1,25,000	5,50,000	7·86	5,50,000
Minor Irrigation Works under the charge of Collectors ..	..	..	..	3,70,000		3,70,000
Grand Total ..	..	..	..	9,20,000	..	9,20,000

DETAIL of Proposed Grants for Agricultural Minor Works and Repairs for 1884-85.

Division.	Minor Works.								Repairs.								Total.	
	River Conservancy.		River Embankments.		Drainages.		Miscellaneous.		River Conservancy.		River Embankments.		Drainages.		Miscellaneous.			
	1884-85.	1883-84.	1884-85.	1883-84.	1884-85.	1883-84.	1884-85.	1883-84.	1884-85.	1883-84.	1884-85.	1883-84.	1884-85.	1883-84.	1884-85.	1883-84.	1884-85.	1883-84.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Ganjam	..	..	..	..	..	..	..	..	..	..	1,000	..	..	..	..	..	1,000	..
Vizagapatam	..	..	..	..	..	..	..	..	..	500	..	..	..	..	..	..	..	500
Godávari Eastern Division	500	..	..	..	..	..	..	..	7,000	5,000	4,500	3,000	..	..	..	..	11,500	8,000
Do. Central do.	..	..	..	..	..	..	..	..	6,000	5,000	2,500	1,000	..	..	..	..	8,500	6,000
Do. Western do.	..	..	..	..	..	..	..	..	7,000	7,000	2,000	1,000	..	..	..	..	9,000	8,000
Kistna Eastern ..	500	500	500	..	1,000	1,000	500	500	2,500	1,000	10,000	10,000	..	..	..	..	12,500	11,000
Do. Western ..	500	500	500	500	..	..	100	100	1,000	500	2,000	4,000	..	..	..	..	3,600	5,000
Nellore	..	..	..	..	..	..	500	500	1,000	500	1,000	1,000	..	..	..	..	1,500	1,500
Cuddapah	..	..	..	..	..	..	500	500	2,000	1,755	500	400	..	..	..	..	2,500	2,155
Coimbatore	1,000	1,000	1,000	1,000	..	..	200	200	8,000	8,000	2,000	2,000	..	..	..	..	10,000	10,000
Salem	..	..	..	..	..	..	300	400	500	400	2,000	..	..	..	..	..	500	400
South Arcot	1,000	..	..	..	..	..	..	..	5,000	8,000	1,500	500	500	500	..	..	7,000	10,000
Chingleput	..	..	..	..	..	..	..	..	16,000	16,000	23,000	22,200	..	..	..	..	39,500	38,700
Tanjore	..	..	..	..	..	..	..	..	6,000	6,000	15,000	15,000	..	..	..	..	21,000	21,500
Negapatam	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Madura	..	..	..	..	..	..	..	..	7,000	7,000	11,000	11,000	500	..	..	..	18,500	18,000
Trichinopoly	..	..	..	..	..	..	..	..	..	..	3,000	3,000	..	..	..	..	3,000	3,000
Tinnevelly	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	2,000	2,000	2,000	1,500	1,000	1,000	1,600	1,700	69,000	67,155	80,000	77,100	1,000	1,000	..	..	1,50,000	1,45,255
Reserve ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4,745
Grand Total ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1,50,000	1,50,000

Division.	Minor Works.								Repairs.								Total.	
	River Conservancy.		River Embankments.		Drainages.		Miscellaneous.		River Conservancy.		River Embankments.		Drainages.		Miscellaneous.			
	1884-85.	1883-84.	1884-85.	1883-84.	1884-85.	1883-84.	1884 85.	1883-84.	1884-85.	1883-84.	1884-85.	1883-84.	1884-85.	1883-84.	1884-85.	1883-84.	1884-85.	1883-84.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Ganjam	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Vizagapatam	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Godávari Eastern Division	500	..	600	..	..	..	400	400	1,400	..	..	..	..	..	400	400	1,400	400
Do. Central do.	..	..	..	..	..	..	200	200	..	..	..	..	..	..	200	200	..	200
Do. Western do.	..	..	..	..	1,000	1,000	500	500	1,600	500	..	..	..	..	500	500	1,600	1,500
Kistna Eastern ..	500	500	500	..	..	..	100	100	1,100	600	..	..	..	..	100	100	1,100	600
Do. Western ..	500	500	500	500	..	..	100	100	2,600	2,500	..	..	..	..	100	100	2,600	2,500
Nellore	..	..	..	..	..	..	500	500	..	..	..	..	..	..	500	500	..	200
Cuddapah	..	..	..	..	..	..	200	200	..	..	..	..	..	..	200	200	..	200
Coimbatore	1,000	1,000	1,000	1,000	..	..	300	400	1,000	400	..	..	..	..	300	400	1,000	400
Salem	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
South Arcot	1,000	..	..	..	..	..	..	..	1,500	..	..	..	..	..	..	..	1,500	..
Chingleput	..	..	200	2,000	1,000	500	100	500	..	..	..	2,000	1,000	500	100	500	..	3,700
Tanjore	..	..	500	1,500	..	..	..	..	..	..	..	1,500	..	300	..	..	..	2,400
Negapatam	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Madura	..	..	..	3,000	1,000	1,000	..	..	6,000	..	..	3,000	1,000	1,000	..	..	6,000	6,000
Trichinopoly	2,000	2,000	..	2,000	..	..	..	..	2,000	2,000	..	2,000	..	..	..	..	2,000	2,000
Tinnevelly	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	5,500	4,700	8,000	10,000	2,500	3,300	2,600	3,200	18,000	6,000	3,100	24,300						
Reserve ..	..	..	..	..	..	..	..	..	..	..	..	..						
Grand Total ..	..	..	..	..	..	..	..	..	..	..	..	..						

Rough Estimate of the Probable Requirements of the Irrigation Works in the Madras Presidency for 1884-85—*cont.*

Division.	Detail of Funds, Systems, Projects, &c.	Amount of Estimate.	Sum Required.	Remarks and References.
	AGRICULTURAL WORKS—*cont.*	RS.	RS.	
	MAJOR ORIGINAL WORKS—*cont.*			
	River Embankments—cont.			
	Vainteyam Godávari right bank—Improving.	9,925	3,000	P.M.G., No. 518 I., of 22nd November 1877.
	Vainteyam Godávari left bank—Improving.	9,675	3,000	
Godávari Western Division.	Godávari right bank from Vizasweram to Polavaram.	1,48,730	5,200	P.M.G., No. 1998, of 4th August 1876.
	Vasista Godávari right bank from anicut to Narsápur lock.	65,200	775	P.M.G., No. 713 I., of 6th December 1876.
Kistna Eastern.	Kistna river left bank below anicut.	55,464	10,000	P.M.G., No. 814 I., of 13th October 1881.
Kistna Western.	Kistna river right bank below anicut.	23,850	10,000	P.M.G., No. 301 I., of 4th April 1883.
Cuddapah ...	Pápaghni right embankment above railway.	14,256	3,000	P.M.G., No. 257 I., of 21st March 1883.
	Cheyér north embankment ...	12,557	5,000	P.M.G., No. 665 I., of 20th August 1883.
South Arcot.	Improving Coleroon embankment.	99,878	15,000	Estimates have been received, but not yet sanctioned.
Tanjore ...	Coleroon bund from Vennár head to Vilangudy.	25,700	5,000	P.M.G., No. 20 I., of 11th January 1883.
Trichinopoly.	Agunda Cauvery left bank from Ambravatti junction to 11¼ mile.	...	5,000	Estimates will be submitted shortly.
	Cauvery left bank from the Upper anicut to Ammamandapam.	...	5,000	
	Coleroon left bank from the Upper anicut to the Coleroon bridge.	...	5,000	
Tinnevelly ...	Támbraparni river right flood bank from Srívaikuntham anicut to sea.	83,598	20,000	P.M.G., No. 351 I., of 26th April 1883.
	Támbraparni river left flood bank below Srívaikuntham anicut from 7½ mile to the sea.	35,712	15,000	
	Total ...	...	1,52,475	
	Minor Works	...	18,000	*Vide* detailed list attached.
	Repairs	...	1,50,000	
	Total, Works and Repairs ...	...	3,20,475	
	Establishment at 23 per cent ...	...	73,710	
	Establishment at 10 per cent. on Rs. 10,000, the estimated revenue to be collected in the Public Works Department.	...	1,000	
	Tools and Plant	...	4,815	
	Total ...	...	4,00,000	
	PROTECTIVE WORKS.			
	IRRIGATION.			
	Capital Account.			
	Rushikulya Project	26,01,386	2,00,000	P.M.G., No. 500 I., of 23rd June 1883.

Rough Estimate of the Probable Requirements of the Irrigation Works in the Madras Presidency for 1884-85—*cont.*

Division.	Detail of Funds, Systems, Projects, &c.	Amount of Estimate.	Sum Required.	Remarks and References.
	PROTECTIVE WORKS—*cont.*	RS.	RS.	
	IRRIGATION—*cont.*			
	Capital Account—cont.			
	Buckingham Canal	...	1,50,000	P.M.G., No. 649 I., of 16th August 1883.
	Project Division	...	4,000	
	Total ...	...	3,54,000	
	Establishment at 23 per cent. ...	...	46,000	
	Establishment of the four Project Divisions.	...	1,12,000	
	Tools and Plant	...	3,000	
	Total ...	...	5,15,000	
	Grand Total ...	...	58,97,000	

(Signed) J. O. HASTED, Colonel, R.E.,
Ag. Chief Engineer for Irrigation.

DETAIL of Proposed Grants for Extensions and Improvements and Maintenance and Repairs.

Division.	System.	Extension and Improvements.		Maintenance and Repairs.	
		Proposed Grant for 1884-85.	Grant for 1883-84.	Proposed Grant for 1884-85.	Grant for 1883-84.
	PRODUCTIVE PUBLIC WORKS.	RS.	RS.	RS.	RS.
	REVENUE ACCOUNT.				
Godávari Eastern ..	Godávari Delta, Eastern Section ..	10,000	5,000	70,000	43,000
Do. Central	Do. Central Section ..	5,000	3,000	30,000	30,000
Do. Western ..	Do. Western do. ..	7,000	7,000	75,000	80,000
Kistna Eastern	Kistna Delta, Eastern Section ..	4,000	4,500	70,000	88,000
Gudivada	Do. do. do. ..	3,000	..	20,000	..
Kistna Western	Do. Western do. ..	4,000	3,500	70,000	63,000
Nellore	Pennér Anicut System	7,000	7,000	16,000	15,000
Kurnool Canal	Kurnool Canal do.	57,000	55,000	1,16,000	1,33,000
Tanjore	Cauvery Delta do.	4,000	6,000	30,000	29,500
Nagapatam	Do. do.	10,000	10,000	30,000	30,000
Tinnevelly	Srívaikuntham Anicut System ..	2,000	2,000	15,000	15,000
	Total ..	1,13,000	1,03,000	5,42,000	5,21,500
	IRRIGATION AND NAVIGATION WORKS FOR WHICH CAPITAL AND REVENUE ACCOUNTS ARE KEPT.				
	REVENUE.				
Chingleput	Chembrambakam Tank	1,000	1,600	3,500	3,500
North Arcot	Pálár Anicut System	4,000	4,000	25,000	20,000
South Arcot	Pelandorai Anicut System	1,000	3,019	8,000	6,000
	Total ..	6,000	8,619	36,500	29,500

Rough Estimate of the Probable Requirements of the Irrigation Works in the Madras Presidency for 1884-85—*cont.*

Division.	Detail of Funds, Systems, Projects, &c.	Amount of Estimate.	Sum Required.	Remarks and References.
	IRRIGATION AND NAVIGATION WORKS FOR WHICH NEITHER CAPITAL NOR REVENUE ACCOUNTS ARE KEPT —*cont.*	RS.	RS.	
	ORIGINAL WORKS—*cont.*			
	Major—cont.			
South Arcot.	Allungal channel head-sluice.	9,250	4,250	P.M.G., No. 175 I., of 23rd February 1883.
	Allungal channel—Two outlets in the 9th and 10th miles and one head-sluice on the Kondamanady branch channel.	7,946	5,000	P.M.G., No. 463 I., of 12th June 1883.
	Chengam tank—Reconstructing anicut across Cheyár river, and improving supply channel and building weir in Chengam tank.	6,531	3,520	P.M.G., No. 278 I., of 30th March 1883.
	Voyalur tank—Constructing a weir and restoring the bund.	5,440	2,440	P.M.G., No. 286 I., of 31st March 1883.
Presidency Division.	Improving the Mylapur tank ...	8,523	3,523	P.M.G., No. 237 I., of 15th March 1883.
Tanjore ...	Lower Coleroon Anicut—Improving under-sluices.	8,720	10,000	P.M.G., No. 70 I., of 25th January 1878. Revised estimates will be submitted shortly.
Negapatam...	Oliacunnam Therku Eri—Improvements to the —.	4,920	1,920	P.M.G., No. 160 I., of 17th February 1883.
Tinnevelly ...	Mannur channel improvements.	22,500	7,085	P.M.G., No. 373 I., of 5th May 1883.
	Pallikattai channel improvements.	5,210	5,210	P.M.G., No. 617 I., of 7th August 1883.
	Valaikulam Periakulam—Improving surplus weir.	4,460	4,460	P.M.G., No. 624 I., of 8th August 1883.
	Total, Major Works ...	...	76,805	
	Minor Original Works RS. 1,30,000			
	Add for old maintenance charges deducted from Works for which Capital and Revenue Accounts are kept ... ... RS. 6,436	...	1,36,436	*Vide* detailed list attached.
	Lump sum provision for tank restoration.	...	2,50,000	
	Repairs ... ... RS. 9,20,000			
	Add for old maintenance charges deducted from Works for which Capital and Revenue Accounts are kept 1,30,766	...	10,50,766	*Vide* detailed list attached.
	Total, Works and Repairs ...	...	15,14,007	

Rough Estimate of the Probable Requirements of the Irrigation Works in the Madras Presidency for 1884-85—*cont.*

Division.	Detail of Funds, Systems, Projects, &c.	Amount of Estimate.	Sum Required.	Remarks and References.
	IRRIGATION AND NAVIGATION WORKS FOR WHICH NEITHER CAPITAL NOR REVENUE ACCOUNTS ARE KEPT —*cont.*	RS.	RS.	
	ORIGINAL WORKS—*cont.*			
	Major—cont.			
	General Establishment at 23 per cent. on Rs. 7,56,805, exclusive of the grant for repairs to Minor Irrigation Works.	...	1,74,065	
	Share of Establishment due to old maintenance charges.	...	34,300	
	General Establishment at 10 per cent. on Rs. 12,000, the estimated revenue collected in the Public Works Department.	...	1,200	
	General Establishment at 6 per cent. on Rs. 25,44,100, the estimated revenue due to old irrigation under Productive Public Works.	...	1,52,646	
	Special Establishment for improving tanks.	...	97,600	
	Tools and Plant at 1½ per cent. ... RS. 11,352			
	Add share for old maintenance charges deducted from Productive Public Works... 3,430			
	Tools and Plant in the Tank Division ... 2,400	...	17,182	
	Total ...	...	19,91,000	
	AGRICULTURAL WORKS.			
	MAJOR ORIGINAL WORKS.			
	River Embankments.			
Godávari Eastern Division.	Gowtami Godávari left bank from Rajahmundry to Yanam.	57,990	11,500	P.M.G., No. 2575 I., of 27th Sept. 1876.
	Gowtami Godávari left bank from Purushottapatam to Rajahmundry.	1,25,110	5,000	P.M.G., No. 708, of 18th March 1876.
	Constructing an outfall sluice to Thariged du vagu.	26,380	10,000	P.M.G., No. 856 I., of 24th October 1882.
Godávari Central Division.	Vasista Godávari left bank to Gunnaram aqueduct.	34,400	5,000	P.M.G., No. 3373, of 12th December 1876.
	Gowtami Godávari, and Vridha GowtamiGodávari right bank to Mokaltippa.	68,670	5,000	P.M.G., No. 346 I., of 25th September 1877.
	Polavaram island embankment.	59,150	3,000	P.M.G., No. 95, of 22nd January 1877.
	Vasista Godávari left bank below Gunnaram aqueduct.	28,535	3,000	P.M.G., No. 349 I., of 27th September 1877.

Rough Estimate of the Probable Requirements of the Irrigation Works in the Madras Presidency for 1884-85.—*cont.*

Division.	Detail of Funds, Systems, Projects, &c.	Amount of Estimate.	Sum Required.	Remarks and References.
	IMPERIAL—*cont.*	Rs.	Rs.	
	PRODUCTIVE PUBLIC WORKS—*cont.*			
	REVENUE ACCOUNT—*cont.*			
	Maintenance and Repairs ... ... Rs. 5,42,000			
	Deduct old maintenance charges ... 1,24,702	...	4,17,298	*Vide* detailed list attached.
	Total, Works and Repairs ...	...	5,48,902	
	General Establishment at 23 per cent. on Rs. 6,77,520 ... Rs. 1,55,830			
	Deduct old maintenance charges ... 32,154	...	1,23,676	
	Establishment at 10 per cent. on Rs. 1,50,000, being the estimated revenue to be collected in the Public Works Department.	...	15,000	
	Establishment at 6 per cent. on Rs. 28,20,000, being the estimated revenue to be collected in the Revenue Department including Kurnool Canal.	...	1,69,200	
	Tools and Plant ... Rs. 53,438			Godávari ... Rs. 29,000 Kistna ... 16,331 Tools and Plant for other works. 8,107 53,438
	Deduct share of old maintenance charges... 3,216	...	50,222	
	Total ...	...	9,07,000	
	IRRIGATION AND NAVIGATION WORKS FOR WHICH CAPITAL AND REVENUE ACCOUNTS ARE KEPT.			
	CAPITAL.			
	Pálár Anicut System.			
	Northern Section.			
North Arcot.	Improvements	3,58,430	30,000	Completion estimates are nearly ready for submission.
	Pelandoraí Anicut System.			
South Arcot.	Storage works	2,93,351	20,000	Revised estimates under preparation.
	Total, Works ...	...	50,000	
	Establishment at 23 per cent. ...	...	11,500	
	Tools and Plant	...	500	
	Total ...	...	62,000	

Rough Estimate of the Probable Requirements of the Irrigation Works in the Madras Presidency for 1884-85—*cont.*

Division.	Detail of Funds, Systems, Projects, &c.	Amount of Estimate.	Sum Required.	Remarks and References.
	IRRIGATION AND NAVIGATION WORKS FOR WHICH CAPITAL AND REVENUE ACCOUNTS ARE KEPT—*cont.*	Rs.	Rs.	
	REVENUE ACCOUNT.			
	Extensions and Improvements ... ... Rs. 6,000			
	Deduct old maintenance charges 2,520	...	3,480	
	Maintenance and Repairs 36,500			*Vide* detailed list attached.
	Deduct old maintenance charges 6,064	...	30,436	
	Total, Works and Repairs ...	...	33,916	
	General Establishment at 23 per cent. on Rs. 42,500 9,775			
	Deduct share for old maintenance charges... 2,146	...	7,629	
	Establishment at 10 per cent. on Rs. 600, being the estimated revenue to be collected in the Public Works Department.	...	60	
	Tools and Plant ... ... Rs. 609			
	Deduct share for old maintenance charges ... 214	...	395	
	Total ...	...	42,000	
	IRRIGATION AND NAVIGATION WORKS FOR WHICH NEITHER CAPITAL NOR REVENUE ACCOUNTS ARE KEPT.			
	ORIGINAL WORKS.			
	Major.			
Nellore ...	Zaladanki tank weir	3,485	2,750	P.M.G., No. 270 I., of 29th March 1883.
	Zammulapolam tank	3,020	1,020	P.M.G., No. 464 I., of 12th June 1883.
	Bogavolu tank	5,654	5,654	P.M.G., No. 605 I., of 2nd August 1883.
	Betragunta tank	2,716	1,716	P.M.G., No. 427 I., of 29th May 1883.
Bellary ...	Bookapatam tank improvements.	18,930	4,930	P.M.G., No. 334 I., of 14th April 1882.
Coimbatore...	Improvements to Chittrachavady channel and tanks supplied by it.	39,533	3,327	P.M.G., No. 460 I., of 12th June 1882.
	Improving the last 8¾ miles of the Pullapolliem channel.	21,300	10,000	P.M.G., No. 285 I., of 31st March 1883.

3 It would appear to me that the great desideratum of supplementing the supply of the Darojee Tank has been almost lost sight of, and that the great conception of compassing millions of acres of irrigable land, is too gigantic a Project for consideration nowadays.

4 The expansion of the Project may be taken into consideration; but it is of primary importance, that the Darojee Tank should, first of all, be supplied with the Toongabundra River water, and thence the Bellary Cantonment and the Bruce Pettah Tank. Whether the latter Tank supply can be supplemented by sounding up the water of the stream which flows into the west end of the Tank, cannot yet be satisfactorily determined on; but will receive my early attention.

I have the honor to be

Sir

Your most obedt. Servant

[signature] Major &c.

Superintending Engineer

3d. Circle

3641/

10869

DW.

For orders.

As matters stand at present, Mr. Tritch & his establt. will probably not be available next year to take up the Tungabudra project?

It will be seen that the question now reported upon by the S.E. came up in connection with an address to H.E. the Governor on his visit to Bellary in July 1882.

C.L.
8.12.83.

364/16

SUPERINTENDING ENGINEER'S OFFICE,

No. 2497 Bellary ~~Chepauk~~, 5th December 1883.

~~MADRAS~~,

From Major S. C. Clarke R.E.
To ~~THE~~ SUPERINTENDING ENGINEER,
3rd ~~1ST~~ CIRCLE,

To
THE Chief Engineer
P.W.D.
Madras

SIR,

Enclosures. With reference to G.O. No. 2437 (Transmitted) of the 24th October and the order thereon No. 3237 of the 14th November 83, I have the honor to inform you that the preliminary investigation of the Tungabudra channel Project will be started early next year and it is proposed to employ Mr. Tritch Executive Engineer to Project Division with his staff of Surveyors on the said important scheme.

2 For many years past this Project has been the source of a considerable correspondance, which unfortunately has led to its being put aside altogether and of much confliction of opinion.

IRRIGATION.
ACCOUNT.

Govt. of {1883} Madras.

PUBLIC WORKS.

Dated December, 10th.

Read. *Encl.*

10th Dec. 1883, No. 1015 I.

DECEMBER.

Schedule of Demands for 1884-85

REPLYING to the orders of the Government of India on the — for Imperial funds for the Irrigation Branch, Madras.

To S. I.

26/12/83

In favour of finding out whether Mr. Inches services will be available next year for investigation of the project reported by S.I. etc.

C. Thomas
15/12/83

No. 3554.

To W.

Letter Public duly and the Govt of I on the subject of abolition of Project Division next year, it has been suggested that at least 2 Divisions should be continued. After Govt of I orders my intention was that one of the Divisions should work in the 3rd Circle and I think it could not be better employed (after the Kyalair Project investigation is completed) than as suggested by the S.E.

3 6414 Jdn 14/12/83.

means of preparing the projects are withheld. I am to add that, so far as investigations have proceeded, only four or five projects promise to be suitable for the employment of famine labor, so that much remains to be done before this Government can feel itself prepared to meet the abnormal demand for employment, which is the earliest symptom of distress resulting from scarcity in an agricultural population.

As the investigation of projects is undertaken to determine—

(1) whether they will serve to protect the country from the effects of famine, and

(2) whether they will afford the means of suitably utilising the superabundant labor thrown upon the State during a season of scarcity,

I am to say that the Right Honorable the Governor in Council is quite unable to accept the suggestion, conveyed in paragraph 2 of your letter under reply, that any portion of the outlay involved in the inquiry should be met from Provincial funds. At the same time, it is recognised that the works actually in process of execution throughout the Empire must cause a drain on the Protective grant, such as to materially curtail the margin for outlay on the investigation of new projects. As, however, the prosecution of such inquiry appears to His Excellency in Council to be of vital importance in this Presidency, I am to invite the attention of the Government of India to the fact that projects, taken up for protective purposes, not unfrequently prove suitable to be classed as Productive, when the cost of investigation is recouped to F—Famine Relief and Insurance, as was recently done in the instance of the Barur tank. There is little doubt that this course will have to be followed in the case of the Periyâr project, and I am therefore to express the hope that the Government of India will be able to sanction the continued employment of, at least, two divisions in the preparation of projects, leaving the cost of investigation to be adjusted against each work according as it is classed when the inquiry is completed.

I have the honor to be,

Sir,

Your most obedient servant,

(Signed) J. O. HASTED, Colonel, R.E.,
Ag. Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

FORT ST. GEORGE,
10th December 1883.

Exd. A. F. Goodall.
Spare Copies

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IRRIGATION.
ACCOUNT.

Govt. of {1883} Madras.

PUBLIC WORKS.

Dated December, 10th.

Recd. *Encl.*

G.O., 10th Dec. 1883, No. 1014 I.

DECEMBER.

Schedule of Demands for 1884-85

Passing orders on the remarks of the Government of India on the — for Imperial funds for the Irrigation Branch, Madras.

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PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

LETTER—from
COLONEL J. O. HASTED, R.E.,
Acting Joint Secretary to the Government of Madras,
Public Works Department,
Irrigation Branch,

To
THE SECRETARY TO THE GOVERNMENT OF INDIA,
PUBLIC WORKS DEPARTMENT
(IRRIGATION).

SIR,

In acknowledging the receipt of your letter, No. 116 A.I., dated 7th November 1883, I am directed to forward herewith copy of Proceedings, Madras Government, No. 1014 I., dated 10th December 1883, and to state that arrangements will be made to expend the balance of the special grant made for tank restoration, which cannot be expended, for the reasons stated, in the tank divisions recently constituted, on works of the same character in other divisions.

2. I am to observe that this Government deprecates the reduction of the grant from Famine Protective Funds for the Buckingham canal, considering that the work is of great importance, and is likely to be of considerable benefit to the country from a protective point of view. The necessity of pushing it on to completion as rapidly as possible has been strongly urged by the mercantile community, as is shown by a memorial which has been addressed to this Government by the Chamber of Commerce, Madras, deprecating the expenditure being restricted to 3 lakhs per annum, and by letters, from merchants using the canal, complaining that, in its present state, they experience great difficulty in bringing produce from the Kistna district to Madras. I am therefore to request that the Government of India may be moved to reconsider the matter, and to increase the grant, if possible, to $1\frac{1}{2}$ lakhs, the amount which has been provided for the work from Provincial funds.

3. With regard to the withdrawal of the grant for establishment employed on the preparation of projects, I am to observe that this establishment is employed not only in the preparation of estimates for works for the purpose of protection from famine, but also in view of having ready to hand works of ascertained permanent utility for the employment of labor, diverted from its usual course during seasons of scarcity. The want of precaution in this direction, when the late famine declared itself, resulted not only in much suffering amongst the unemployed poor, but also in much wasteful expenditure of the funds granted for relief. In connection with the subject, I am to invite the attention of the Government of India to paragraph 128 of the Report of the Famine Commissioners, where the responsibility, of arranging to have a programme of works ready to put in hand without delay on an emergency arising, is distinctly imposed on local Governments, and to observe that His Excellency in Council cannot be expected to accept such responsibility if the necessary

investigation of the projects now in hand is carried out as fast as possible, and will report—

(1) what projects will be left incomplete at the end of February next; and
(2) the cost of establishment required for completing the investigation of those projects.

4. The tanks in the Periyakulam taluk of the Madura district, where the operations of the Tank division are intended to commence, are full of water, and work cannot be begun until the north-east monsoon is over, which will be by the end of December. Owing, moreover, to the unavoidable delay which occurred in appointing the establishment required for the Tank division, the investigation of the requirements of the tanks, and the preparation of the necessary estimates, have not advanced sufficiently to admit of the current year's grant being fully utilized. The Superintending Engineer in charge of the Tank Maintenance Scheme has therefore surrendered Rs. 50,000 from the grant for expenditure on works in the Tank division, and the Examiner of Public Works Accounts has estimated the cost of establishment at Rs. 13,600 less than the budget grant. These amounts are available for reappropriation, leaving Rs. 86,400 for expenditure in the Tank division, as shown below :—

	Rs.
Works	32,000
Establishment	52,000
Tools and Plant	2,400
Total ...	86,400

The Superintending Engineer in charge of the Tank Maintenance Scheme will see that this amount is fully utilized before the close of the current year.

5. The total amount surrendered by the Superintending Engineer, Tank Maintenance Scheme, Rs. 63,600, is available for expenditure on the restorations of tanks in other divisions, and will be appropriated as follows :—

Irrigation and Navigation Works for which neither Capital nor Revenue Accounts are kept.

	Rs.
Repairs	51,084
Establishment	11,750
Tools and Plant	766
Total ...	63,600

6. As reductions of the existing allotments in certain divisions have already been made to meet the demands made from the Nellore, North Arcot, Salem, and Coimbatore districts, Superintending Engineers, who still require additional allotments, will, on receipt of this order, submit applications for such modifications of allotments as may be found necessary, after careful consideration of the reports of progress and expenditure up to the latest date for which information may be available.

7. Ordered that the following letter be sent to the Government of India :—

(Here enter No. 1015 I., dated 10th December 1883.)

(True Extract.)

Under Secy. to Govt., P.W.D.,
Irrigation Branch.

To Superintending Engineers.
To the Chief Engineer for Irrigation.
„ Examiner, Public Works Accounts.
„ Revenue Department.
„ Financial „
Exd. A. F. Goodall.
Spare Copies

3641/12

IRRIGATION.
ACCOUNT.

Govt. of {1883} Madras.

PUBLIC WORKS.

Read. *Encl.*

G.O., 9th Oct. 1883, No. 814 I.

OCTOBER.

Irrigation Branch, Public Works Department

FORWARDING rough estimate of the probable requirements from Imperial Funds in 1884-85 of the —.

364/11

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account

READ—the following letter from Colonel W. S. TREVOR, R.E., Secretary to the Government of India, Public Works Department (Account—Irrigation), to the Secretary to the Government of Madras, Public Works Department, dated Simla, 7th November 1883, No. 116 A.I.:—

I am directed to acknowledge the receipt of your letter, No. 814 I., dated 9th October 1883, forwarding the schedule of demands for Imperial funds for the Irrigation Branch, Madras, for the year 1884-85.

2. With reference to the demand of Rs. 5,15,000 under "F—Famine Relief and Insurance, 34—Protective Works, Irrigation," I am to say that the Government of India is unable, with the limited means at its disposal, to sanction a larger grant under this head than a sum of Rs. 3,50,000, which may be distributed as noted in the margin. If, on the actuals for the current official year being known, there are lapses which will admit of the grant for the Buckingham canal being increased to Rs. 1,50,000, the increase will be made. The demand of Rs. 1,16,000 on account of "Project divisions" has been disallowed by the Government of India, as it is thought more desirable to finish works already sanctioned and commenced than to spend money on surveys of projects which may never be carried out; and, moreover, with the heavy demand that now exists for works outlay from this grant, it is considered that any further outlay on surveys should be met from Provincial Revenues.

	Rs.
Rushikulya project	2,49,000
Buckingham canal	1,01,000
Total ...	3,50,000

3. The demand of Rs. 24,95,000 under "H—Expenditure on Public Works not classed as Productive, 46—Irrigation and Navigation," has been reduced to Rs. 24,45,000; the difference of Rs. 50,000 being the anticipated lapse on the special grant for 1883-84 for tank restoration, which cannot be allowed to be brought forward. Endeavours should be made to utilize the sum during the current year.

4. The demands under "G—Expenditure on Productive Public Works (Revenue Account), 39—Irrigation and Navigation (Working and Maintenance)," and "N—Expenditure on Productive Public Works, Capital Account, 54—Irrigation and Navigation," are sanctioned in full.

ORDER—dated 10th December 1883, No. 1014 I., Public Works.

Communicated to the officers concerned.

2. The Chief Engineer for Irrigation will prepare the Irrigation Budget Estimates for 1884-85, Preliminary Issue, so as to work up to the amounts assigned by the Government of India.

3. As the Government of India have disallowed the amount applied for on account of the Project divisions, the investigation of those projects which have not yet been commenced will not be undertaken. The Chief Engineer for Irrigation will see that the

1884

Govt. of (1883) Madras.

PUBLIC WORKS.

22/12

Dated

Recd. Encl.

G. O. 19th Feb.y 1883, No. 36414.

Tungabudra Channel

Paper.

Proposal of the Secy
Third Circle to employ
Mr Pritchett Engr: on
the —— on the Completion
of his present work
Commd to the Supdt
with Remarks.

44
4

Nov/12

which has been recommended

with reference to ~~Go.~~ Pro: No

1014 I d/ 10th December 1883.

CJ.
19/12

W.
19.12.83

W.
19/12

31/12

To The Financial Dept V

" S.E. Third Circle V

" Chief Engr for Irrigation

8101/19

P.W. No. 10869

From

The Superintending Engineer,

III ~~1st~~ Circle,

To

The Chief Engineer

P.W. Department

Madras

Dated 5th
Recd. 7 } December 1883.

Enclosures.

No. 2497

Tungabudra Channel Project,

Bellary District.

Informing that the re-investigation of the will be started early next year by Mr. Tribsely, Executive Engineer C. Project Division.

for 32370 - 14.11.83 -
1015 } 10-12-83.
1014 }
849 — 9.10.83.

Genl
Estt

No. 3641 W

PUBLIC WORKS DEPARTMENT.

360

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the 19th Decr 83

READ the following

From the SE Third Circle (A.E No 2497 dt Decr 5th 1883)

Communicated to the Financial Department with reference to GO in that Dept No 2437 dt 24th October 1883.

2. The employment of the Executive Engineer and Staff of the C Project Division in the manner suggested by the Supdg. Engineer, is dependent on the Government of India sanctioning the continuance of the Division, a measure